

Kite flying

A collection of descriptions that should make clear how to perform some basic moves, and a lot of tricks....

Credits

This page started out as a partly extraction from Dodd Gross's "DJ Sport Kites" 1994 catalog (with Dodd's permission !) together with a few postings in rec.kites. The list has grown a lot since then, because a lot of people have contributed, most of them via rec.kites and e-mail.

Special thanks should go to

- [Dodd Gross](#), [Andy Wardley](#), [Mike Emery](#), [Chris Matheson](#) and [Rob Stone](#)

for their extensive contributions (order of above list irrelevant...).

Ambidexterity...

A lot of trick descriptions refer to a specific side (left/right) of the wind window explicitly stating which hand to use to do what and which direction the kite will go. Of course, since we all want to be ambidextrous (love that word too...), most descriptions can be mirrored in the center of the wind window.....

Use your imagination here ! In fact use your imagination anywhere, maybe some new tricks will come up.....

Adding difficulty levels

Some people have shown interest in adding difficulty levels to the tricks. Since I'm not an experienced flyer, AND it's nearly impossible to be objective about this, It's probably best to have a lot of people decide. [Rob Stone](#) made a [voting list](#) (which seems to be out of order at the moment) for this. Have a look.

Since a lot of people would like a list of some sort that gives an order in which to learn the tricks, here's one for the basic moves. It's **not** the only way to do it, it's **a** way to do it. A list for the rest of the tricks would be very difficult since people tend to find different things difficult...

- basic launch
- basic landing
- pull turn
- push turn
- combination turn
- stall

- spin stall
- snap stall
- leading edge launch
- fly away
- pancake
- belly launch
- cartwheel
- axel
- 180 flat spin
- wing tip stand
- ...


After you know how to do these consistently, you probably know what makes tricks difficult for you, and you can pick the next ones yourself.

More tricks

Other nice documents to look at are the [STACK compulsory figures](#) page and the [Animated stack kite figures](#).

Availability

There are [french](#) and [german](#) translations of this page.

Also I've made a [zipped](#) version of the complete html file available on request. Note that this file is not completely self contained. You' be missing the  and **NEW** pictures.

If you have additional information on a trick (clearer description, know who invented it) or if you know a trick that is not in this page. or if you have any other remarks or additional info ? mail [me](mailto:pp@win.tue.nl) (pp@win.tue.nl).

Last modification : Thursday Januari 18, 2001.

Alphabetical index

[180 Flat spin](#)

[2 wheel drive](#)

[360](#)

[540 Flat spin](#)

[Allee](#)

[Angle slot](#)

[Archimedes screw](#)

[Axel](#)

[Axel take off](#)

[Backflip](#)

[Backslap](#)

[Backspin](#)

[Backstab](#)

[Barrel roll](#)

[Basic landing](#)

[Basic launch](#)

[Belly landing](#)

[Belly launch](#)

[Belly pop](#)

[Berkeley hop](#)

[Black hole](#)

[Broken yo-yo with half a twist](#)

[Can-can launch](#)

[Cartwheel](#)

[Cascade](#)

[Coin toss](#)

[Combination turn](#)

[Come to daddy](#)

[Continuous Axel](#)

[Corkscrew](#)

[Cuckoo clock](#)

[Dead stop](#)

[Dead stop turtle](#)

[Dead turtle](#)

[Edge fade](#)

[Executioner](#)

[Fade](#)

[Fade-In](#)
[Fade-Out](#)
[Fade up and over](#)
[Fading toe loop](#)
[Flapjack](#)
[Flash](#)
[Flashback](#)
[Flat spin](#)
[Flic-Flac](#)
[Flip over](#)
[Floating backturn](#)
[Fly away](#)
[Fountain](#)
[Fractured Axel](#)
[Fractured Backspin](#)
[French toast](#)
[Full stop](#)
[G-Whizz](#)
[Genie pop](#)
[Grapevine](#)
[Groundroll](#)
[Ground Zero](#)
[Guillotine launch](#)
[Half axel](#)
[Half Sister](#)
[Headspring](#)
[Helicopter](#)
[Horizontal slot](#)
[Inverted backflip](#)
[Jaws](#)
[Jump stall](#)
[Jump start](#)
[Kick start](#)
[Kickturn](#)
[Kill](#)
[Kite walk](#)
[Lateral Roll](#)
[Lazy Susan](#)
[Leading edge launch](#)
[Light wind flying](#)

[Lime Wedge](#)
[Limey Twist](#)
[Magic Carpet](#)
[Moebius](#)
[Mortal Coil](#)
[Multiple Axel](#)
[Ninja turtle](#)
[Nose-in float](#)
[Now you see it, now you don't](#)
[One handed up and over](#)
[Otis](#)
[Pancake](#)
[Poisoned Ivy](#)
[Pop Lateral](#)
[Popturtle](#)
[Pull turn](#)
[Push turn](#)
[Raise the titanic](#)
[Rebound](#)
[Rev 3D Launch](#)
[Rev Axel](#)
[Rev Back flip](#)
[Reverse 3 point spike](#)
[Reverse spike](#)
[Reverse turtle](#)
[Rev Flat spin](#)
[Rev Flic-Flac](#)
[Rising Cascade](#)
[Rising Flic-Flac](#)
[Rixel](#)
[Rogallo axel](#)
[Rotating backflip](#)
[Shark](#)
[Shark frenzy](#)
[Side slide](#)
[Skywalker](#)
[Slamming limey twist](#)
[Slap and tickle](#)
[Sleazy Lou](#)
[Sleeping beauty launch](#)

[Slot machines](#)
[Snap stall](#)
[Snap start](#)
[Spike](#)
[Spike landing](#)
[Spin axel](#)
[Spin double axel](#)
[Spin stab](#)
[Spin stall](#)
[Spiral staircase](#)
[Stairway to heaven](#)
[Stall](#)
[Strobe](#)
[Switch back](#)
[Tail catch](#)
[Tail throw](#)
[Tequila slammer](#)
[Tip drag](#)
[Tip stab](#)
[Toast rack](#)
[Toe loop](#)
[Tornado **NEW**](#)
[Tumble turn](#)
[Turtle](#)
[Turtle release](#)
[Turtle spin](#)
[Twisted Sister](#)
[Up and over](#)
[Up the fountain](#)
[Vertical slot](#)
[Vertical stab](#)
[Water skier](#)
[Wing tip stand](#)
[Yo-yo](#)

Functional index

Buggy tricks

2 wheel tricks

[2 wheel drive](#)

Dual line basics

Flight

[Combination turn](#)

[Pull turn](#)

[Push turn](#)

Landings

[Basic landing](#)

Launches

[Basic launch](#)

Dual line tricks

Axels

[Axel](#)

[Axel take off](#)

[Rogallo axel](#)

[Cascade](#)

[Continuous Axel](#)

[Multiple Axel](#)

[Cuckoo clock](#)

[Edge fade](#)

[Fading toe loop](#)

[Fountain](#)

[Rising Cascade](#)

[Up the fountain](#)

[Genie pop](#)

[Half axel](#)

[Kickturn](#)

[Mortal Coil](#)

[Mortal Coil](#)

[Rixel](#)

[Spin axel](#)

[Spin double axel](#)

[Switch back](#)

[Toe loop](#)

Combinations

[Barrel roll](#)

[Rising Flic-Flac](#)

[Skywalker](#)

[Slap and tickle](#)

Fades

[Fade](#)

[Fade-In](#)

[Fractured Axel](#)

[Inverted backflip](#)

[Flic-Flac](#)

[Grapevine](#)

[Poisoned Ivy](#)

[French toast](#)

[Fade-Out](#)

[Pancake](#)

[Reverse turtle](#)

[Turtle release](#)

[Backflip](#)

[Popturtle](#)

[Turtle](#)

[Yo-yo](#)

Groundwork

[Allee](#)

[Backslap](#)

[Broken yo-yo with half a twist](#)

[Coin toss](#)

[Cartwheel](#)

[Flip over](#)

[Floating backturn](#)

[Otis](#)

[Ground Zero](#)

[Groundroll](#)

[Kite walk](#)

[Now you see it, now you don't](#)

[Rebound](#)

[Shark](#)

[Spike](#)

[Tip drag](#)

[Half Sister](#)

[Twisted Sister](#)

[Wing tip stand](#)

Landings

[Belly landing](#)

[Spike landing](#)

Launches

[Belly launch](#)

[Belly pop](#)

[Flapjack](#)

[Headspring](#)

[Jump start](#)

[Leading edge launch](#)

[Magic Carpet](#)

[Berkeley hop](#)

[Sleeping beauty launch](#)

[Snap start](#)

[Tornado](#) **NEW**

Rolls

[Lateral Roll](#)

[Limey Twist](#)

[Pop Lateral](#)
[Lime Wedge](#)
[Slamming limey twist](#)

Spins

[540 Flat spin](#)
[Backspin](#)
[Moebius](#)
[Corkscrew](#)
[Flash](#)
[Flashback](#)
[180 Flat spin](#)
[Flat spin](#)
[Fractured Backspin](#)
[G-Whizz](#)
[Angle slot](#)
[Horizontal slot](#)
[Slot machines](#)
[Vertical slot](#)
[Lazy Susan](#)
[Rotating backflip](#)
[Turtle spin](#)
[Shark frenzy](#)
[Sleazy Lou](#)
[Spin stab](#)
[Spiral staircase](#)
[Strobe](#)
[Tumble turn](#)

Stabs

[Backstab](#)
[Black hole](#)
[Reverse 3 point spike](#)
[Reverse spike](#)
[Tequila slammer](#)
[Tip stab](#)
[Vertical stab](#)

Stalls

[Dead stop](#)

[Full stop](#)

[Kill](#)

[Helicopter](#)

[Jump stall](#)

[Side slide](#)

[Snap stall](#)

[Spin stall](#)

[Stall](#)

Turtles

[Kick start](#)

[Dead stop turtle](#)

[Dead turtle](#)

[Ninja turtle](#)

[Toast rack](#)

Water

[Jaws](#)

[Raise the titanic](#)

[Water skier](#)

Indoorflying

Dual line Landings

[Tail catch](#)

Dual line landings

[Come to daddy](#)

Dual line launches

[Tail throw](#)

Dual line tricks

[360](#)

[Fly away](#)

[Nose-in float](#)

[Up and over](#)

General

[Fade up and over](#)

[Light wind flying](#)

Quad line launches

[Can-can launch](#)

[Guillotine launch](#)

Spins

[Archimedes screw](#)

[Executioner](#)

Quad line tricks

Axels

[Rev Axel](#)

Flips

[Rev Back flip](#)

[Rev Flic-Flac](#)

Launches

[One handed up and over](#)

[Rev 3D Launch](#)

Spins

[Rev Flat spin](#)

[Stairway to heaven](#)

Buggy tricks

2 wheel tricks

2 wheel drive

make sure you have a long and wide space, sail along with the wind perpendicular to your buggy direction and bring the kite down in a swoop. While the kite is coming down and pulling, steer the buggy into the wind and position your body at approx 45 degrees towards one side and front of the buggy, using your leg to make some down force into the buggy frame. As soon as your wheel is up, due to the pull force of the sail and your "unorthodox" position, start controlling your "lift" by steering the buggy more into the wind if the wheel is going down, or downwind if the buggy dangerously nears the vertical position. Kite pull control will also help in keeping you with just the right amount of lift. You don't need a gale force wind nor high speed to achieve lift, it's a matter of weight and balance.

make sure you wear full armor...

Dual line basics

Flight

Combination turn

Combines the [push turn](#) and the [pull turn](#). This type of turn is very abrupt and angular. Pushing right and pulling left causes the kite to quickly turn left (counterclockwise). Push left, pull right causes the kite to turn right (clockwise). This move is the basis of many advanced maneuvers.

Pull turn

The direction of the kite is determined by pulling one or the other line. Pulling on the left line causes the kite to turn left (counterclockwise). Pulling right causes the kite to turn right (clockwise).

Push turn

Controls the direction of the kite by pushing one or the other line. Push turns tend to be more crisp and

angular. Push left and the kite turns right (clockwise). Push right and the kite turns left (counterclockwise).

Landings

Basic landing

The kite lands on both wing tips simultaneously. Fly the kite close to the ground, left to right. When the kite starts to slow down (at the edge of the wind window) pull slightly on the inner line or 'up' wing to bring the kite around, parallel to the ground. Simultaneously walk toward the kite. This will allow the kite to settle softly on it's wingtips.

Launches

Basic launch

With the kite in front of you balanced on the wing tips, leaning slightly backward, lines taut, simultaneously pull back with both hands, underhand. The kite will rise into the air. Often a short step back will aid in the launch.

Dual line tricks

Axels

Axel

The kite is made to 'float' around one rotation in a stall-type spin. Cause the kite to hover in front of you for an instant by using a [snap stall](#) (rock the kite from side to side by pulling left then right, to get the feel of it). Once the kite is stalled, push your right hand slightly forward and immediately pull your right hand far back and extend your left hand well to your front. This will cause the kite to flip. After you have that part down, combine all of the parts together to for one flowing motion. Some kites need a gentle motion of the pulling hand, others need a snappy pull...experiment ! Here's a [video clip](#) of the axel performed by Dodd Gross. ("avi" format (2.2 Mb) you can also get it [here](#) (U.K.) if that's closer to your habitat).

Another approach to learning the axel is to fly the kite to the edge (say right edge) then initiate a slow push turn by pushing the lower (right in this case) hand gently. As the nose passes 12 o'clock snap the right hand back and extend your left hand forward. Once you've mastered this, try the approach above...

What seems to be essential for learning a nice axel is the setup as present in both ways described above. You need to have the wing you are going to pop to be slightly back from the other wing. Look at it this way: the more the wing you pull is towards you, the more you will pull wing AND spine, and the kite will start moving forward as well as rotate. That's not what you want. Having the pop-wing leaning too

far back results in something similar. A slight leaning back is just what you need.

Axel take off/Rogallo axel

The kite takes off directly into an [axel](#). With the kite set on it's wing tips, give a short tug on one hand followed by a firm tug on the other, much as in a standard axel. The kite should jump up and perform an axel. This move can be done straight into a landing by simply walking forward as soon as the wing tips come parallel to the ground. The latter move (axel take off to landing) is also called a "Miguel Rodriguez Coin Toss" since that is what originally was called a Coin toss. A slightly different axel take off is done if with the kite on it's wing tips you pop both lines shortly to get the kite slightly off the ground and after that perform the normal axel-push/axel-pop motions.

Cascade

A cascade is a series of axel-backs bringing the kite down through the center of the window. An axel back is a pair of [half axels](#), one in each direction, which flow together into a single move. If you start with an axel popped with your left hand, as the kite gets part way through the rotation, pop your right hand to get the kite to axel back in the other direction. It takes a bit of practice to get the timing right, and the timing will vary between kites.

Continuous Axel/Multiple Axel

The kite is [axeled](#) in such a way that it will be set up and in place to execute another axel right away. This is a combination of an axel and a Pop Up move. The easiest way I found to do this one is to [snap stall](#) at the edge of the Wind Window. Axel with the inside hand. Pop (towards you) the outside hand right away. If you do it at the right time, the pop will cause the wing to spin faster lining it up wings parallel and in motion for another axel, just axel again. If you pull to late, you will pull the nose towards you, kite on its back, voila, another trick, the [fade](#).

Cuckoo clock

The Cuckoo clock is a [Fade](#) followed by an [Axel](#). When the kite is half way through the axel start the [Flic-Flac](#) moves: jerk both lines generating an [Inverted backflip](#) (the kite lays on its back with the nose pointing towards you). Now jerk both lines again generating a belly float and again generating an inve..... Keep doing this until the kite lands.

Edge fade

Fly across the the edge of the window and pop the upper wing gently. Allow slack into the lines and the

kite will Axel through 180 degrees, like a [half axel \(Kick Turn\)](#), but also loose height in the process. You can complete to a [wing tip stand](#) with the kite facing back into the window, or simply fly off.

This trick was originally called the "fade" in the UK until Jason Benedict went and called the [fade](#) (the [fractured axel](#)) the fade. Confusing?

Fading toe loop

Start with an [edge fade](#) on the left side of the window. As the kite falls and turns anti-clockwise, the right wing-tip should line up for a [tip stab](#). At this point, execute the [toe loop](#), kicking the kite back up into the air with an [axel](#).

Fountain/Up the fountain/Rising Cascade

This is a series of [half axels](#) like the [cascade](#) but this one does not lose altitude like the cascade, but actually stays stationary and/or rises up! This one is a combination of the 1/2 axel series (cascades) along with a "pop up" move. The easiest way to learn this one is to practice the cascade a lot. You will soon learn that in between 1/2 axels (cascades) you give the rotating wing a slight "pop" with an arm motion that goes from neutral up and out, which helps it along and actually pulls that wing up, similar to the pop up move from a [pancake](#)d position. You will find that timing and adjusting that according to wind speed is very crucial. This "pop up" move is also similar to the one used in the [continuous axel](#).

Genie pop

From a ground pass (say left..right) as the kite passes the center push with lower hand slightly, then pop an [Axle](#) with the lower hand, do it hard. As this is done under power you may well need to pop the upper hand shortly after to get the kite to flip around. A perfect execution gives a VERY flat double [axel](#) and kite flies off in other direction.

This move looks best if you do it near the ground as the kite drifts across the ground as it spins, but of course it can be done somewhat higher up as well. If you get it wrong you will get a [Lazy Susan](#). (so your on a winner no matter what)

Half axel/Kickturn

Flying the kite from right to left past center of the wind window, step forward to temporarily kill most of the kites forward drive. Immediately do a small push with the right hand (top wing) and a very small pull with the left hand (bottom wing). Follow this with an immediate [axel](#) type snap of the right hand. Vary the right hand snap. Under snapping it will cause the kite to loose altitude in the turn. Over snapping it will cause the kite to over hover, or even flip onto it's back and do a [rixel](#). A nice half axel has the kite flying horizontally, then belly's down in a [180 flat spin](#), and then snaps back into flight going in the

opposite direction without losing altitude.

Mortal Coil

Start with the kite out at the left hand edge of the window. Pop a right-handed [Axel take off](#) and then continue to pop a long series of (right-handed) [Multiple Axels](#) so that the kite skates all the way across the window, spinning flat as it goes. Finish with an Axel landing on the right edge of the window. I guess it works the opposite way as well.

Mortal Coil

Start with the kite out at the left hand edge of the window. Pop a right-handed [Axel take off](#) and then continue to pop a long series of (right-handed) [Multiple Axels](#) so that the kite skates all the way across the window, spinning flat as it goes. Finish with an Axel landing on the right edge of the window. I guess it works the opposite way as well.

Rixel

Fly right to left to the edge of the wind window. As the kite is about to [stall](#), push with your right hand, and then snap it back. Use just the top hand and a slightly exaggerated motion. The kite will roll onto its belly and continue over on its back, and then pulling up on its lines will cause the kite to snap back into flight. This move can be done to a landing as well. When the kite is rolling down, just as it turns on its back, pull up the lines to plant it on the ground. In a good landing both wingtips get planted at the same time !. While the kite is rolling over, the lines should be slack. Find out how far down the kite drifts usually before you can pull it up to plant it on the ground, and set your initial horizontal line accordingly. Deep sailed kites have more difficulty doing this trick. The hand movements that start this trick are similar to the movements of the [half axel](#), only the top hand pull is harder for the rixel.

Spin axel

Fly the kite to the edge of the window, about 30 feet above the ground and do a down spin by pulling back the outside hand. As soon as the tips become parallel with the ground, snap pull the inner line and release the outer line. The kite will [axel](#). Pull the kite out of its rotation after 1 turn. This is a very smooth axel, is a 2 part move and is very effective in a 2 beat part of a song.

Spin double axel

This trick starts the same as the [spin axel](#) but you let the kite rotate twice instead of once by keeping your rotating wing hand (outside hand) extended forward, as you move in towards the kite to keep it spinning. Pull the kite out of its rotation after 2 turns.

Switch back

In a [shark](#) you must keep most of the driving tension on the upper wing. Dragging across the ground from right to left, you would have more pressure on the right hand. As you pass the center of the window and approach the left, throw both hands forward to flatten the kite onto its belly and then immediately pull on the left hand to lift the left wing up. The kite should now be pointing back towards the right of the window with the right leading edge touching the ground. You can now continue with a [shark](#) back the other way.

The easiest way to picture the Switchback is to think of a [kick turn](#) (the "[half axel](#)" move as Dodd calls it on FSIII) but executed on the ground, starting and ending in a [shark](#).

Toe loop

This is quite simply an [axel](#) that starts with a driving [tip stab](#). Starting with a [side slide](#), say from left to right, you would keep pressure on the right hand and a little more slack on the left. Increase the pressure on the right until the kite starts turning right into the ground. You should time it such that the right tip is about to stab the ground and then slack and pop the left wing in an exaggerated [axel](#) move. The right wing tip should drive into the ground and then the kite should spring back up into an [axel](#).

Executed well, the kite will spring high into the air with a resounding "thunk". If you're not so lucky, the kite might stay on the ground with a disappointing "crack".

The name for this move, like the [axel](#), comes from ice skating. The toe loop in ice skating is like the [axel](#) but starts with the skater driving the serrated toe of one skate into the ice to get rotational momentum. The similarities with the kite trick suggested the name was appropriate.

Combinations

Barrel roll

Start in a low ground pass. Pop the kite into a [Half axel](#) and then pull early (before the nose is fully away from you) on the other hand as if rising up to a [Fade](#). Pulling on one hand causes the kite to start rotating while it's coming up into the Fade. Ideally the Fade should come in so that the back of the kite is mere inches of the ground. The kite continues to rotate, as if turning around the spine and eventually recovers to continue flying in the original direction.

If it happens quickly and smoothly it looks like an impossibly low trick that has no business not crashing into the ground.

Rising Flic-Flac

Start in a dive, flatten out and then pop into a [Fade](#) (actually, you can start into the Flic-Flac any way you like, but a power dive/kill/fade is my favorite). Hold it for a second and then do a single Flic-Flac back

into a Fade. And repeat....

The clever part is killing the kite out fairly gently so that it doesn't lose any height and then popping it hard into a Fade and letting it rise slightly from the pressure (Elevator). The overall effect is the syncopated beat of Flic-Flac with the held Fade and the kite rising all the way up the window. That's why the power dive works so well to start into it.

Skywalker

Fly right to left. At the edge of the window, pop the upper hand as if starting a [Kickturn/Half Axel](#), but add extra slack to let the nose of the kite flare up so the back of the kite is presented towards you. Pause a second....(for effect).....and then gently, but firmly pull on the left hand to flip the nose of the kite down and then up through the [Fade](#) position while also spinning 180 degrees around its spine. Like a [Flic-Flac](#) but with a 180 twist. The kite starts nose up, back towards you and ends up in the same position but a kite's width or two off to the right. Then do the same with the opposite hand and repeat ad infinitum. Start out at one side of the window and you can continue this move most of the way across the window.

Slap and tickle

Do a [yo-yo](#) close to the ground, that leads to a [wing tip stand](#). While in the tip stand, pull the lines to spin the kite around the tip that is touching the ground.

Fades

Fade/Fade-In/Inverted backflip/Fractured Axel

The fade starts with a [half axel](#) leaving the kite stalled on its belly. After that do the standard Pop turtle movements to flip the kite on its back, nose towards you.

Another way is to [pancake](#) the kite from a dive and pop both lines.

Yet another way is to [snap stall](#) the kite at the edge of the wind window and then pull the outside wing towards you (not an axel pull, just keep going). When the outside wing is pulled far enough the kite will drop, but also starts to roll onto its back, nose towards you.

Flic-Flac/Grapevine/Poisoned Ivy

This trick is also known as "Poisoned-Ivy or Grapevine". With the kite in an inverted backflip position jerk both lines generating a belly float and again generating an inverted backflip and again gener.....

Another description and a way to start the move:

Start with a [half axel](#). When the nose points directly away from you pop both lines sharply but evenly and then let them go slack. your kite is now in a [fade](#) (at least it should be). Once in the fade pop both lines and slacken them out again putting you into a belly float. Repeat this rhythmically until you run out of

space or do something wrong.

French toast

Do a [Belly landing](#). (The nose of the kite points away from you.) Strongly pull both lines. The kite will lift up backwards. Immediately release the lines generating an [Inverted Backflip/Fade](#). Now gently pull one of the lines generating a 180 degrees spin. (The kite will have normal [Backflip](#) position.) Pull both lines to recover from the backflip. Kites known to do this trick are: Total -, Vented - and Eclipse. If you do not succeed in getting into the [Fade](#) position, try this:

Step back smoothly so that the kite lifts from the ground. When the tip is about 2 inches off that is the moment to flick the lines.

Pancake/Fade-Out

Flattening the kite with the nose away from you, on it's belly. Flying the kite downward bring both arms behind you and before the nose-diving kite reaches the ground, throw both hands forward (just like a reverse turtle). The kite will then float on it's belly. This works best in light winds. Some kites like fast arm-throws, others like slightly slower ones.... Another way to try it (if the previous one doesn't work for you) is to fly the kite downwards, first extend both your arms, then pull back both arms hard and release abruptly to kill the kite.

Reverse turtle

Take the kite to the top of the window. Turn the nose toward the ground. Throw both hands forward causing the plane of the sail to come horizontal to the ground, walk forward to allow the kite to flip over on it's back.

By slightly pulling one line the kite will start to rotate and after 180 degrees of rotation, the normal [turtle](#) position will be reached. Perform a [turtle release](#) to get out of it.

Turtle release

Recovering from a [Turtle](#). Walk forward with both arms extended. The nose will tip even further back, but don't allow the kite to flip over! Pull with both lines at the same time and the kite should flip back toward you, coming out of the turtle. Or alternately, let the kite float down on it's back and re-launch. Radical trick kites such as the Stranger or Box of Tricks simply require a gentle tug at any time to recover from a [turtle](#).

Turtle/Backflip/Popturtle

Fly the kite up and pull back (way back !) both arms, then quickly extend both arms to your front. This

will cause the kite to flip on it's back, nose pointing away from you.

Yo-yo

A "Yo-yo" is anything where you roll the kite towards (or away from) you, so that the strings get wrapped around the kite. A pull then unwinds the kite kinda like a yo-yo. The easiest way (that only works with some kites) is to give a sharp tug to pull the kite forward and then release with slack so that the kite continues to roll around the lines. Also there's a "yo-yo take off" where you prepare the kite by wrapping the lines around the tips, put it in a normal launch position and then take off doing a yo-yo.

Another way of doing it goes like this:

Start at the top of the window and fly down toward the ground at a 7 o'clock position. Try not to power the kite up too much. Give a quick and fairly firm [Axel](#)-like slack/pop with the right hand. At the point when you pop, you must introduce slack into the left line and then immediately afterwards into the right line, too. Then walk forwards to give even more slack.

The "pop" pulls the right wing (actually on the left because the kite is flying down) forward to causes the kite to start rotating around its spine. The pop, if left to spin this way, would end up with its back facing you and the nose still pointing more or less towards the ground. However, the pop followed by the super slack in the lines causes the nose to lift, wrapping the kite up around the lines. As the nose pops fully up into "normal" flying position, the lines are wrapped under and behind the kite and should now rest over the leading edge.

Yet another way to get the kite into a Yo-Yo wrap is to get it into a [Flic-Flac](#) and then give an extra hard pop with both hands followed by lots of slack. Less elegant but you can do this pointing in almost any direction. With a little practice, you should be able to get it straight into a wrap with just 1 or 2 "beats" which can be rolled all into a single, swift motion so you can hardly tell there's a Flic-Flac there at all.

Groundwork

Allee

Start with the kite on it's right tip... leaning back slightly, pull lightly on your left line, as the left tip starts to lower to the ground pull sharply on your right line, letting out your left line at the same time. Step forward a couple of steps just as you pull the right line. The desired result is a "reverse [coin toss](#)", the kite should "hop" from it's right tip, go into a clockwise flat spin, then land back on the right tip.

Backslap

From a [wing tip stand](#), lay the top hand back a little. Then just push both hands forward, the kite will lay back on the lines (leading edge laying parallel to the ground, but the tip still in the ground). Then you just pull back in to the tip stand. The laying back of the top hand in the tip stand makes for a very powered up kite. This is quite important as it keep the tip in the ground and puts the nose in the right position to be able to pull it back. There are many ways that put you in a position to get into this. One of them is getting

the [coin toss](#) wrong...

Broken yo-yo with half a twist

If you ever nose plant your kite try this:

Let someone setup the kite by wrapping it up from this position, leaving it wrapped, standing on its tips facing away, with the lines coming out from under the kite, and try to get out of it.

Here's what to do: drop the kite down so it is in the [belly landing](#) position, as it gets to this point give a sharp flick on one line (timing is important for this bit, you have to flick at just the point it reaches the belly down position). Take a step back and the wind should do the rest. In low winds you will need to do more work and in heavy winds you will need to be very fast with your reactions.

Coin toss

A coin toss starts with the kite in a [Wing tip stand](#). Next perform an [axel](#)-pop on the wing that's in the air by gently pushing it back a small way and then popping it towards you. Now extend your arms forward to give slack in the lines and allow the kite to rotate. After the kite has rotated, try and land on the opposite wing tip by walking forward. This move can be done from standing on one wing tip but can be performed out of a [side slide](#) as well. Take care the slide is a little downward. When the kite touches the ground with it's wingtip, immediately do the axel pop on the wing still in the air. Take a look at the [axel take off](#) description as well because the description of the "Miguel Rodrigez coin toss" is there.

Flip over/Cartwheel

The kite is flipped over from a side or nose down position on the ground. From a nose down or side position, tug on the wing that is pointed up in the air. This will rock the kite to the opposite side. Let the wing that is up fall back a little by extending that arm. Now sharply tug that side and release with the other. The kite should flip over onto it's wing tips. Always try to flip toward the center of the window. Be careful, you may break a leading edge rod learning this essential move. The move is very useful getting out of crashes during competition (or avoiding walking down field any time!).

Floating backturn/Otis

Put the kite on its back, nose towards you and lines over the leading edge. Pull gently on the lines and rock the kite forward onto its nose but not far enough to stand up. Then release the lines quickly, the kite falls back and floats up and away, still on its back (but leaning *slightly* backward so the nose is high) and nose towards you. Walk quickly backward to keep the kite flat. It will keep going up as well. When it is far enough up, snap the lines and the kite is back into flight, heading down (gulp !). A quick 180 degree spin and away you go! Tip: start the launch at the center of the window, wind velocity plus 10 mph bring the kite up perpendicular to the ground...nose down and tips parallel to the ground push both hands evenly and firmly to initiate the momentum necessary to rock the kite back, let the wind do the

work...leave a little slack in the lines. Once the kite is 5-10 feet off the ground, tug on either line. Don't use a wind tamer; opt for heavier lines

Ground Zero

Starting with the kite on its belly with the nose away from you, pop both lines hard and then release. This takes the kite into the first stage of the Ground Zero which is a [French Toast](#) - the kite jumps up and the nose swings up into a [Fade](#) position. Immediately pop both lines again, as if starting a [Flic-Flac](#), to get the nose to swing back down so that the kite is once again on its belly with the nose away, but this time a few inches above the ground. The final stage, the "Zero", is a 360 degree [Flat Spin](#). From this you can pop back into a Fade/Flic-Flac, Flic-Flac to land, recover, or whatever takes your fancy. The combination should be done very quickly without any pauses between the elements. You can also do the Ground Zero from a [Headspring](#) launch rather than flat into a [French Toast](#).

Groundroll

Start with a ground pass from the right side, lower the kite into a tip drag and ease the nose down. Relax your hands and let the kite roll over from the left edge to the right edge and immediately launch the kite from this edge. Continue pulling your left line to complete the kite's rotation and finish off with the kite flying to the left.

Kite walk

With the kite in a left [wing tip stand](#), pull gently on the right (up) wing and release the left. The kite should be on the ground with the right wing toward you. Now pull on the left wing and release the right. Now you're walking !

Now you see it, now you don't

Give a sharp flick (not pull) on both lines, push both hands forward. The kite should be nose toward you belly up. Hold for a second and give an other sharp flick, push both hands forward. The kite should be back on the ground. You can do this as many times as you like. In fact this is a [French toast](#) launch/landing done very fast and repeatedly. The kite jumps up in to the air, pauses, then promptly disappears again onto the ground. When you get bored, let the kite rise a bit in the belly up position, flick again, but this time stunt one hand as you push out and [540 flat spin](#) out of it.

Rebound

Fly a ground pass right to left. Perform a [full stop](#) such that the kite has rolled back into a [turtle](#) just above the ground. Now pull back with both hands firmly with emphasis on the right hand. The kite

should slam both wingtips onto the ground simultaneously and immediately take off now pointing towards the right edge of the window.

Beware ! The failure mode for this fast manoeuvre can be expensive.

Shark

Fly across the window in a low pass and lower the kite down until you have contact with the leading edge on the ground. You should have almost all of the leading edge touching the ground, but keep the nose slightly off the ground to avoid it "snagging". Keep most of the pressure on the upper line and fly the kite across the window with the leading edge in constant contact with the ground

An excellent combination move is to start with a very low [540 flat spin](#) at the edge of the window and come directly out into a Leading Edge Drag.

Spike

The kite is forced into a [wing tip stand](#). Fly right to left, very close to the ground. Pull right, push left, then push left even further. This movement is done in a blink of an eye. The first combination turn serves to [stall](#) the kite. The second push drives the tip into the ground. This move works best with higher aspect ratio kites and in higher winds.

Tip drag

Basically a ground pass with one wingtip in contact with the ground. Slightly more tension should be maintained on the upper line throughout the move. try to maintain even kite speed across the window by walking backwards when at the edges and forwards when at the center. Kites with relatively long bridles can be more easily balanced and, naturally, rough and/or abrasive surfaces are less favorable. It does, however, look fabulous across water.

Twisted Sister/Half Sister

Even with a trick line, most kites will get a wing wrap every now and then. The Twisted Sister starts with such a wing wrap but turns a potentially difficult situation into a cool trick. When you've got the hang of it, it becomes fun to intentionally get into a wing wrap just to recover it. Start with a line wrapped under the trailing edge and running around the tip and back over the leading edge. You also need to have the kite balancing on the opposite tip, leaving the wrapped tip in the air. Push the wrapped tip forward, flattening the kite out almost onto its belly (nose away from you). As the kite almost touches the ground, pop the wrapped tip **HARD**, and immediately drop your hands (crouch down, even). The kite [540 Flat Spins](#) and in the process (if you dropped the lines down low enough), unwraps the tip wrap. Very flat and very fast Flat Spins are possible. You can also let the kite lie down flat on the ground (belly down, nose away) before popping the Twisted Sister, but it occasionally leads to ground snags. If you don't get the pop just right, you can still get a [180 Flat spin](#). This is called the "Half Sister" for obvious reasons. This

trick has some resemblance with the [G-Whizz](#).

Wing tip stand

With the kite on the ground, just to the left of the center of the wind window and the right wing about one foot closer to you than the left wing, pull slightly on the right line. When the left wing lifts, stop pulling on the right line and use the left line to balance the kite on the right wing tip.

Landings

Belly landing

A [pancake](#) done just above the ground, followed by a landing is called a belly landing. Of course any landing which puts the kite on it's belly is a belly landing...but if the nose is pointing away from you, you can recover from it.

Spike landing

Both wing tips hit the ground at the same time, usually performed downwind in the center of the power zone. Point the nose straight down, in a "power dive" towards the ground. Just in time to clear the ground, initiate an exaggerated [snap stall](#). In a higher wind you must move forward to induce the landing.

Launches

Belly launch

The kite is launched from a "[pancake](#)" position. The kite is in front of you on it's belly with the nose pointing away. Offset your hands, pulling back more on the downwind hand. Now step/run backwards without changing the position of your hands. As the kite picks up and starts to turn around pull your hands together and the kite will take off. Best accomplished in lighter winds.

Belly pop

Fly the kite to the left side of the wind window and do a [Belly landing](#). The kite is now on it's belly, nose pointing away from you, on the very edge of the window. Pull very gently on the left line to position the kite with it's nose pointing slightly inward. Now flick the right line which will cause wind to enter the right wing and in turn causes the kite to actually lift and "pop" back into the wind window. Done indoors, or in light wind it can be turned into a 360. Just take a step towards the kite right after the flick.

Flapjack

Launch and turtle kill the kite. Pop one hand to get the kite rotating on its back, drop the kite back down to land on wing-tips. This move is a [Lazy Susan](#) performed straight out of a launch position back into launch position.

Headspring

This is the all-time impressive launch. Start with the kite balancing on its nose (something that may require a little practice in itself) Start with a hard pull on both lines to flatten the kite down into a belly down position, then immediately release and execute a [French Toast](#) to launch the kite. The overall sequence of moves is hard-pull, release, quick-pull, release.

With practice, the move can be done very fluently and the kite appears to simply bounce off its nose into flight.

Jump start

Do a [Belly landing](#). (The nose of the kite points away from you.) Yank both lines really hard with a slight emphasis on one. The kite should shoot up in the air and perform a 180 degree rotation, The kite is still belly down, but with the nose facing you. Either yank the lines to resume normal flight upwards or throw your arms forward to roll the kite into a [yo-yo](#).

Leading edge launch

The kite is launched from its side. Fly the kite near the edge of the window, close to the ground, left to right. Pull right and gently crash to the ground. The kite should now be on its right side. (be careful the kite does not tip over). Pull left (the 'up') wing slowly until it begins to fall toward you. Tug the left line and almost at the same time with the right. The kite should lift off on its side. Stepping backward during this maneuver also helps.

Magic Carpet

A spectacular but difficult way to launch your kite when you've made a [Belly landing](#). The kite will hover upwards and fly away.

Give both lines a short tug. The kite will pop up a few feet and hover horizontally on its belly until the wind catches it, after which it will flip into flight position, heading straight down (gulp!). To prevent the kite from crashing, move one hand a little further back than the other (after the pop) so the kite will turn. This is a light wind trick.

Sleeping beauty launch/Berkeley hop

This move looks very impressive, when done correctly, the kite will spin around and almost fall flat on its belly nose toward you (this is the failure mode if it does not work). And just at the last second turn up and take off. It works best in a good wind and with a flat sailed kite. Deeper billowed kites are better [Cartwheeled](#). Lay the kite flat on its back, about 30 feet in from the right edge of the wind window, with the nose pointing into the wind. (like a fade...) Next, Pull on the left line causing the kite to rotate the left tip into the wind. (The kite should stay flat on the ground) As the kite rotates around the wind will go under the left leading edge and flip the kite over onto its face. (bridle side down) The trick is to pull on the right line as the left tip is passing through 12 o'clock high. It is important that the wind be the force that raised the left leading edge off the ground and not the fact that you are pulling on the left line. When done properly the wind will catch under the face of the kite before it gets to the ground and lift it into the sky.

Snap start

With the kite in the normal launch position (on its back nose away) stand so lines are straight and lie over the bottom spreaders. With a really sharp hard jerk on both lines together the kite will jump up and hover a couple of feet off the ground, nose up ready to fly. It sort of bounces up into the air. The name comes from the failure mode which involves replacing the broken bottom spreader(s).

Tornado **NEW**

Lay the kite flat on its back, with the nose pointing into the wind. Next, Pull hard on one line causing the kite to rotate. Try to keep the kite as flat as possible. You can get the kite to do one or more complete rotations on its back. Just keep popping away with the same hand as it comes round. With some kites, this action will actually cause the kite to rise off the ground while doing [Backspins](#).

Rolls

Lateral Roll

Start in a [fade](#), push one hand, pop the other, kite rolls (more or less) around the spine.

Limey Twist

A sequence of one or more Lateral rolls while flying down. Fly the kite up and throw hands forward at 75 % to kill the kite onto its back. Now give a fast sharp tug on both lines, followed by a little slack, to recover the kite up and pull the nose towards you and down until pointing towards the ground. The back of the kite should be facing you with the lines running down and coming under the leading edge. At the point when the nose drops down and makes contact with the lines across the leading edge, give a

firm and fairly steady pull on one line. The force of the nose traveling down when contacting a now tight line on which pressure is being applied, causes the free wing to continue to travel away from you, inducing the kite to twist laterally and roll around the spine. The kite should continue to fly downwards during the twist and further rolls can be introduced by coaxing the lines alternately in sync with the kites rotation.

Pop Lateral

Fly down, kill the kite out, pop into a [fade](#) with both hands then continue to pull on one and slack the other. Kite goes straight up into a fade and then rotates around the spine.

Slamming limey twist/Lime Wedge

This is a [Limey twist](#) performed close to the ground so that the nose of the kite makes contact with the ground while twisting. The kite continues to roll around the spine while in contact with the ground, until it has spun around to land on it's tips.

Spins

540 Flat spin

The 540 flat spin starts off with a vertical dive. Bring your arms behind you to prepare for a [dead stop](#). Stop the kite by throwing both arms forward. This should flatten out the kite with the nose pointing away from you ([Pancake](#) position) . Some kites like a very fast kill (Stranger, Box of Tricks) other prefer a slightly slower kill (Phantom Elite, MEFM). The trick is to kill the kite slightly unevenly. If you're going to "pop" it with your right hand, then let your left hand lead slightly when throwing your arms forward. This will kill the kite with the nose pointing slightly to the left. After that a firm "pop" with the right hand immediately followed by lots of slack on both hands should initiate a flat spin. As long as you want the kite to spin you have to leave a lot of slack in your lines. Allow the kite to rotate one and a half times (540 degrees...). The last 1/4 turn is the tricky part. The kite can catch the wind and not want to turn up. You can help it along by a short gentle tug of the left hand. This extra tug takes a lot of practice to get right, but eventually will allow you to give it an extra revolution or two (and even reverse direction).

The next description was taken from 2 postings from rec.kites and must be the clearest one possible...

In case anyone's not sure, the 540 Flat Spin goes like this

- The kite starts flying directly downwards towards the ground.
- At some point before the kite hits the ground (and the lower you go the more impressive it is, but also more risky), you throw both arms forwards so that the kite flattens out, with the nose pointing away from you and the front of the kite now facing the ground.
- A gentle tug (I tend to use the word "pop") on one line should start the kite rotating flat as if it was impaled on an imaginary pole sticking up from the ground.

- After 540 degrees (1 and 1/2 rotations), the kite should still be flat facing the ground (or nearly flat) but with the nose now pointing towards you.
- A gentle pull on both line makes the kite sit up and fly off upwards.

As simple as that? Well actually, no. There are a few subtle things that you have to get right to perform the 540 Flat Spin and unless you know what you're looking for, they can be difficult to get right.

The Fast Kill

The first thing is that you have to kill the kite effectively. The "kill" is that step when you throw your hands forwards to flatten the kite out. As the kite is diving down, pull your hands right back behind your back and then thrown them forwards fast. If you need to, take a step forward (considering the speed you have to do this, it's more of a "lunge") to get a fast a positive kill.

Practice killing the kite out like this, holding it for a second and then recovering from this position. To do this, either walk forwards and let the kite drop the the ground, or to recover in flight, take up the slack on the lines, pulling more on one line than the other, to get a half-twist-come-turn back out of the killed position.

Not all kites like to be killed fast (some prefer a more gentle approach) so you may need to experiment until you find what works. These kites **will** do a Flat Spin, but generally they need a little more accuracy from the part of the flier. Dedicated trick kites tend to kill and spin faster with more tolerance for user error.

The Uneven Kill

The second, and by far the most important point, is that the kill should be uneven. By this, I mean that one hand should be thrown forwards before, and going further, than the other one. If your strongest hand is your right hand, you'll use this to execute the "pop". In this case, it should be the **left** hand that you throw forwards first.

The reason is this: when you pop with the right hand, that wing should be slightly nearer to you than the other. When this is the case, the kite is already a little way into the rotation and will continue into the Flat Spin much easier. To get the right wing nearer, you push the left wing out further and faster. Just to confuse matters, the kite is upside down and the right wing is actually on the left as you look at it...

Waay-haaaay! It's Crap ASCII-Art time!

Looking down from above in a bird's eye view, the kite flier on the left has killed the kite evenly. The flier on the right has thrown his left arm further forward which has made the kite rotate a little in an anti-clockwise direction. The kite is now set up for the pop.

```
Nose   --->      *           *
          |           \
```


right-handed poppers and vice-versa.

The "Eezy Peezy" 540 Flat Spin Technique

Still haven't got it?

OK, let's try something different.

Instead of flying directly down to the ground, try flying out from the top center of the window, down towards the bottom left hand corner of the window. You should aim to reach the point where the kite slows down and almost stops by itself (ideally without hitting the ground). The nose of the kite should be pointing towards 7 or 8 o'clock on an imaginary clock.

Now execute the same 540 Flat Spin maneuver as described above *but* doing everything a bit slower because the wind should be holding the kite almost stationary - "parked" at the edge of the window. A nice gentle kill (push that left hand forward!) followed by a smooth right hand pop should be enough to start the kite spinning smoothly around. Remember that it needs slack in the lines once it's started to get all the way around.

If you prefer to "pop" your left hand, then fly out to the right side of the window, push your right hand forward and then "pop" with your left.

You'll probably notice that the kite slides back in towards the center of the window while it's spinning and it probably won't spin totally flat to the ground. In fact, the trick you've just done is a 540 Flat Spin variation that has a name of its own: The Flashback. Because it happens more slowly out at the edge of the window, it's a little easier to learn than the straight 540 Flat Spin.

When you've mastered the Flashback you can try coming in a little from the edge of the window, speeding up the dive, and heading more downwards than out. Eventually you should be doing straight 540 Flat Spins without thinking about it.

The footwork

The idea behind the footwork is to get your whole body into the right position to make doing the 540 real easy.

Let's say that you're going to pop the 540 with your right hand. This is how I would do it.

As you bring the kite down towards the ground, power up the kite by pulling your hands behind your back. Time this so that you are just at the end of the back stroke when the kite is ready to be thrown out. At this point your weight should be on your back foot (left foot). So there you are arms down behind your back, weight on your back foot (left foot) and the kite about 6' off the ground.

Now, all in one movement transfer your weight through your right foot and onto your left in one step, making your left your front foot. Also throw both hands forwards while doing this. This sudden movement forwards will transfer all the forwards speed that you built up by pulling back into an away from you direction. (If you make a note of how far back your hands are at the start of this and then check

where they are at the end, you'll see that you've managed to move forwards by at least 6' (just like that...)

You should stunt (hold back) one hand as you throw them forwards, in this case it would be your right hand. Let it come to just in front of your waist, 6" max. As the kite hits the end of the line give a small flick of the right wrist, like cracking a whip.

Why?

Because having your left foot forwards will turn your whole body around to the right, making your left shoulder relatively further forward than your right. Try this simple test, put your left foot forwards and try to look to your left. You should need to look over your shoulder to see, now look right.

As you get the 540 down, you'll find that you need less movement to perform it. At this point you can get away with just transferring your weight from your back foot (left) to your front (right) without the step.

Backspin/Moebius

Fly up to somewhere approaching the top of the window and start a downward turn by pulling the left hand. As the kite turns left and the nose passes the 9 o'clock position, pop the right wing with a gentle axel-like motion. This causes the right wing to be pulled towards you and the nose of the kite to lift up so that it is spinning flat on its back in an anti-clockwise direction (looking from above).

If you think how a normal [Axel](#) forces the nose down into a flattened spin, this inverted Axel, the Backspin, forces the nose up into an inverted spin.

As the nose of the kite approaches the point directly away from you (the kite is still on it's back, but now has the trailing edge towards you), pull gently on the left line to spin the kite around on its back another time. Pop again at the same point to force another rotation, and so one.

Done correctly, the move should be very smooth.

Corkscrew

The Corkscrew describes a series of [Backspins](#), or [Multiple Axels](#), starting at the top of the window and spiraling down. In all but the lightest wind, you will need to walk forwards to keep enough pressure off the kite to ensure you can maintain a series of [Axels](#) or [Backspins](#).

Flash

Fly the kite out to the right edge of the window and turn down towards the ground. At the same time, throw both arms forward to kill the kite and pop a [540 Flat Spin](#) with the right hand. The sideways momentum of turning the kite inwards while doing the Flat Spin causes the kite to slide across the window back into the wind.

Flashback

The flash starts out the same as a [540 flat spin](#), except that the initial dive is not vertical, but down and out towards the left side of the window at about 45 degrees. [Pancake](#) the kite when the kite is at about a foot off the ground. The kite should remain "tilted" 45 degrees. Now popping the right hand will initiate a rotation of the kite AND a movement towards the center of the wind window. Pull the kite out of it's rotation after 1 1/2 turn. Instead of popping the kite you can also pop while pancaking by stopping your popping arm earlier than the other one and extending the other one. It might be easier to keep the kite rotating when walking forward keeping the rotating wing hand extended.

Flat spin/180 Flat spin

A basic flat spin is similar to a [540 flat spin](#), but only completing half a revolution (180 degrees). This is easier to achieve as the kite requires less precision in the setup. The kite should be "popped" back after half a turn, much as it would coming out of an [axel](#). This move looks very effective if it completes to a landing, by taking a few steps forward as the wing tips become parallel to the ground.

Fractured Backspin

The Fractured Backspin starts like the [Backspin](#) with a left turn at the top of the window followed by a gentle right-handed pop to initiate the spin. Instead of popping gently with the left hand, pop hard with the left and then immediately with the right. Instead of spinning once more on it's back the kite kill flip over onto it's front with the first (left) pop (belly down, nose still away from you) and then flip under itself (like the [Fade](#), aka [Fractured Axel](#)) with the second (right pop) so that the kite is on it's back with the nose towards you.

Constant tension on one line at this point will spin the kite around back into normal flight.

G-Whizz

Start with a [wing tip stand](#). For example you pull your left wing up and the nose starts rotating in a clockwise direction. Let the nose go right until the leading edge is almost about to touch the ground and then push your left hand forward to [pancake](#) the kite, nose away from you. Before the belly of the kite hits the ground, pop with your right hand to initiate the [540 flat spin](#). The kite spins in an anti-clockwise direction (looking from above).

This trick can be started from a [coin toss](#) as well, to get the kite into a [pancaked](#) position. The [Twisted Sister](#) is a similar trick.

Horizontal slot/Vertical slot/Angle slot/Slot machines

Very versatile trick, easy to do, (after learning) and can be done in different parts of the window with different effects.

Horizontal Slot - Fly across the window, execute a [half axel](#) move with your inside hand (up wing) As

soon as the belly flattens out (that is before the half axel move is completed!), pull your inside hand again sharply and push forward the outside hand causing the kite to spin a [540 flat spin](#). Do this at the edge close to the ground, the kite 540s back into the window for a landing.

Vertical Slot - fly nose down (with power) on the edge of the window and slightly point the nose to the outside. Execute [half axel](#) movement with the inside hand and pull again when belly of kite flattens out. The kite will [540 flat spin](#).

Angle slot - Fly the kite nose down at a 45 degree angle. Execute a [half axel](#) with the up/inside hand and as soon as the kite belly is flat, pop that same hand again causing kite to float around in a [540 flat spin](#). This is the same as the vertical slot but can be done anywhere quickly.

Lazy Susan/Rotating backflip/Turtle spin

Flip the kite into a [turtle](#) and do a very gentle pull on one of the lines to generate a rotation. This will start a rotation while the kite is on it's back. Pull the kite out of the turtle position after one rotation. You should take care that while rotating the kite doesn't pick up the lines with it's wing tips. The way to do it is to immediately release both lines after the gentle pull which enables the lines to lay in the cheeks of the kite. Of course you can keep rotating the kite by pulling the correct line after each half rotation. Kites that float easily will love this trick. There's a [video clip](#) from this one too (from Dodd Gross's Flight School IV).. Also see [Sleazy Lou](#) and [Flapjack](#).

Shark frenzy

Starting in a [shark](#) from right to left, push both hands forwards to flatten the kite out (as per the [switchback](#)), but before the kite flattens out totally, pop with the right hand to execute a [540 flat spin](#) off the ground. Looking down from above, the kite Flat Spins anti-clockwise. Pop again to get Leading Edge 900's, 1260's etc., etc.

A totally, totally excellent combination move is to start with a very low [540 flat spin](#) at one edge of the window, come directly out into a [shark](#), drag all the way across the window, [switchback](#), [shark](#) all the way back to where you started and then pop a leading edge 540 flat spin back into flight.

Sleazy Lou

Fly out to the edge of the window, turn up and then [turtle](#) kill the kite, pop the inside hand to get the kite spinning on it's back ([Lazy Susan](#)) while sliding back into the window.

Spin stab

Fly the kite right to the edge of the window such that it hovers close to the ground. Pull back hard and fast with the inside hand to whip the kite through 270 degrees (nose points down) then push this hand back to the neutral point progressively. Step forward to drop the kite lightly into a [wing tip stand](#),

pointing towards the edge of the window, as it continues to rotate.
This works better with kites that turn and accelerate quickly.

Spiral staircase

Like the [Fountain \(Rising Cascade\)](#) and the [Toast Rack \(Rising Flic-Flac\)](#) before it, I wanted to get the [Corkscrew](#) going upwards. The result is the Spiral Staircase. Fly down into a [540 Flat Spin](#) near the ground and as the kite completes, briefly take up the slack in the lines and fly the kite up ever so slightly. The movement should be quick enough to get a little lift in the kite, but not so aggressive that the rotation stops. Hopefully, the kite should continue to spin around so that you can pop another [Flat Spin](#) or [Axel](#) to continue the cycle.

It's tough to perfect the technique to get a smooth spiral upwards, at first it's more of a "Spin, Jerk Up, Spin, Jerk Up, Spin" kind of motion.

Strobe

The strobe starts out the same as the [Flash](#) or a [Flashback](#), and you continue to "pop" the kite to make it perform multiple [Flat spins](#) as it slides back into the window.

Tumble turn

Fly the kite down and out towards the wind's edge at an angle of 30 degrees. Accelerate the kite by pulling back hard on both lines simultaneously and then throw both hands far forward as the kite gets near to the ground. This move should roll the kite back by more than 90 degrees so that the back of the kite shows to the flyer and the kite is still tilted at an angle. Perform an Axel pop with the outside hand, ensuring that there is plenty of slack in the lines after the pop. Let the kite flip around to face you and then nod forward, face down and again showing the back of the kite slightly but still at an angle. Pull smoothly with both lines to recover and send the kite back up the way it came.

The whole manouvre should take place within the kite's wingspan and just above the ground for maximum effect.

Kites proven to perform this move: Box of Tricks, Xntrik, Phantom Elite UL.

Stabs

Backstab

Fly the kite right to left at approximately one wingspan above the ground. Push with both lines to stop the kite, giving emphasis to the right hand. Do not stop the kite so hard that it rolls back on the lines. [Axel](#) with the right hand. The right wingtip should hit the ground with the nose pointing away from the

flyer. Hold the kite in this position with even, light tension. Snap the kite back into a regular [wing tip stand](#) position with an even pull on both lines.

An alternative entry into the move is to [side slide](#) the kite but allow the kite to rotate as it slides then pop the [axel](#) as it points its nose towards the edge of the wind.

Black hole

The mother of all [tip stabs](#) is the "Black Hole". The black hole is initiated by doing a snap spin right on a downward path so the kites nose is pointing left. This should be done at about 10 feet above the ground. Before pushing out your right hand to complete the 90 degree turn, pull aggressively with your left hand to pull the kite out and start the downward drop. Immediately following the pull, push out your right hand. It is important that you do not permit the top line to become tensioned during the drop. Walk forward during the move. Another way to do it is to initiate the right turn by a push of the left hand and after the rotation of 90 degrees pull the left hand and simultaneously push out the right hand. This trick seems to cause wear and tear on your kite. Be warned ! Not all kites like this trick, the Cal Wasp, Buena Vista XTC, and Skyburner Pro Dancer are examples of kites that do these stunts well.

Reverse spike/Reverse 3 point spike

Fly the kite, nose down near the side but with power. About 8-10 feet above the ground pull hard with the inside hand while pushing slightly the outside hand. This causes the kite to 1/4 spin almost a [half axel](#) towards the center of the window, forcing the inside tip to spike into the ground. A variation is the reverse 3 point spike which is the same as above but after your execution and right before the kite hits the ground, use a "pop up" move with the outside hand pulling the left wing to the outside causing the kite to land aggressively on both tips.

Tequila slammer

Dive the kite fast to the ground and then (dependent on wind speed) about 2 kite heights above the ground, push one wing back and immediately pop a hard [axel](#) type move with the same hand. Throwing loads of slack into both lines after the pop. The kite rolls back around the lines into a [yo-yo](#) like position which you leave for a split second (not too long, because the ground is approaching fast) before pulling on both lines to unwrap the kite and slam both tips hard into the ground. Everything in that last bit happens in a split second flash and with a resounding <> the kite suddenly appears on the ground on its tips. Very dramatic when it works, but it does need some fairly accurate timing.

Tip stab/Vertical stab

Flying a very close ground pass, the move is initiated somewhere before or after the center of the window while the kite still has power and pressure in the sail area. On most kites, the first action is to start an up turn by pulling the "up wing", while at the same time, dumping some air from the "up" wing.

The second part actually pulls the "bottom wing" toward you, by pulling the "bottom wing" thus spilling air from that wing and forcing that wing towards you. To speed up this action, the final move is a push with the "up wing" hand again. This is the basic 3 step move for a stab, which is basically a variation of a [snap stall](#). This is done very quickly! This sequence of hand movements does vary from kite to kite ie. high aspect, low aspect etc., but try this much first, and you will be on your way. I suggest trying on this on your own kite, first slow, and above the ground until you see the exact combination that you and your kites needs to achieve this, then bring it down close to the ground and STAB! It is easier to do the [black hole](#) as mentioned below, but I suggest to learn it, start at the top 5 degrees to the right of the center of the window and end up 5 degrees to the left center, executing it the exact way I described above, but the first initial pull will be harder to pull the wing around further.

Another way to do it is by simply driving hard at the ground in a dive and then (dependent on wind speed) about 2 kite heights above the ground, push one wing back and immediately pop a hard [axel](#) type move with the same hand.

Stalls

Dead stop/Full stop/Kill

Nothing more than a horizontal [pancake](#) and equally each kite has a preference for the speed at which the move is made. Some more stable kites need a setup move of a hard, even pull to accelerate the kite before pushing.

Flying the kite in a low ground pass push quickly and evenly far forward. The kite will roll backwards on the lines and stop. If you immediately pull back on both lines the kite will "reverse" back into flight and continue with the ground pass. If you delay the recovery you can allow the kite to rotate back into a [turtle](#)d position to effect a reversed 90 degree upwards turn. From a low altitude this also makes for a fast and sudden landing. In fact a kill can be done in any direction. It's just a way of stopping the kites forward movement abruptly.

Helicopter

The kite stall spins overhead. Fly the kite to the top of the window overhead. Pull both hands to bring it past that point. This will stall the kite. Immediately extend your left hand to initiate a left rotation float. You will have to move forward so that the lines stay under the kite as it floats. This is a very graceful move. To end it, point the nose down and pull the kite back into the window.

Jump stall

Start with the kite just off center of the wind, in a [wing tip stand](#). Next, [axel](#) the kite into the wind (start of a [coin toss](#)) like you were going to land it onto it's opposite tip. When the kite is flat on it's belly during the rotation (nose away), you quickly pop both hands towards you, causing the kite to pop open facing down. Now lightly let one line out so the kite can rotate around pointing the nose up. Now hold

the kite in a [stall](#), and slide it out to one side. This trick is ideal for light wind flying, and requires a kite with a deep sail. The move is also very quick in action delay, so fast hands are a must. Kites known to do this are the Thunderbird, MYSL, Prism Total, Tracer, etc.

Side slide

The kite [stalls](#) across the wind window sideways. Fly the kite to the right side of the window. Pull right like a spin, but release early, when the wing tips are parallel to the ground. This will cause the kite to slide. Some kites slide more easily than others. A heavier bridle adjustment also helps.

Snap stall

Air is forced out of the sail very quickly, as in a the spin. Fly the kite left to right parallel to the ground. Pull left to initiate a left turn, then punch right to counteract that motion, then return both hands to neutral position. This is done very quickly, in a split second. The kite should [stall](#) with the nose up, wing tips parallel to the ground.

Spin stall

Air is forced or 'dumped' out of the kite's sail for a brief moment. Fly the kite from left to right, roughly parallel to the ground. Just before reaching the edge, pull the left line quickly for one complete turn and release just as the wings become parallel to the ground. To land, simply walk forward.

Stall

Technically speaking: when the kites drag and lift come into equilibrium. Or in plain English: the kite is made to hover or sit still. Fly the kite to the edge or overhead until it stops. After you stall your kite, you may find it hard to hold it stalled. Or you may find that it does not stay nose pointed up. Here is some advice to help you learn to work with a stalled kite. First when you stall a kite, the controls will sort of reverse. To raise a dropping wingtip, gently pull on the side that is dropping. This is counter intuitive since you pull on the opposite line than you would to turn the kite up. To help maintain a stall you need to keep tension off the lines. Walk slowly toward the kite to do this. If the kite starts to drop, then apply a very small amount of tension to the lines to bring it back up. You can also shake one or both hands, this works to keep the air behind the kite from flowing smoothly over the back and accelerating the kite.

Turtles

Kick start

This launch starts out like the [French Toast](#) but has a different exit. From the [Pancaked](#) position give both

lines a hard and even pull, followed very quickly by a big release, probably involving stepping forward. The kite will pop up nose down, roll onto its back nose towards the flyer (like a [Flic-Flac](#)) but the extra release will allow the nose to rise, showing the back of the kite slightly. Now pull the left line slightly back and hold it. The kite will pop horizontally into the wind, nose to the left and with the back of the sail towards the flyer. Pull quickly on both lines to reverse this (nose to the right, sail right way around) and fly off. This launch needs very fast hands and is best performed with kites that perform [turtle-Flic-Flac](#) type moves well.

Ninja turtle/Dead turtle/Dead stop turtle

Dive the kite vertically, make a hard and fast pull-pull turn of 180 degrees then push evenly and quickly forward to both stop the rotation and put the kite onto its back. To resume flight do a [Turtle release](#). This also makes a very impressive landing but very close attention must be paid to the height at which the move is initiated.

Toast rack

The [French Toast](#) starts with the kite on its belly with the nose away from you. A quick jerk on both lines following by a release causes the kite to jump up and invert so that the nose is towards you and the kite is on its back. The lines are resting over the top of the kite. Pull and release both lines again to flip the nose down, away from you, up over itself and then back towards you as the kite resumes the same position, but instead with the lines running down over the trailing edge and under the kite towards you. Keep pulling and releasing to repeat this motion.

This repeated move is generally called a [Flic-Flac](#) (or [Poisoned Ivy](#) or [Cuckoo Clock](#)). By accentuating the "down" beat (that is, when the lines start under the kite) and going easy on the "up" beat (when the lines start on top of the kite), you can create lift. Start with a [French Toast](#) and continue with a [rising flic-flac](#) and you have a Toast Rack.

Water

Jaws

Stall the kite in a straight downwind landing. Once it's resting on the water, by releasing tension on both lines, you can let the kite sink into the water. Keep both lines even, so the kite sinks straight down, nose up. If the kite is fully submerged, start whistling the jaws theme and pull both lines equally, so the kite comes straight out of the water. Don't pull too hard, let steady pull and wind do the lifting.

Raise the titanic

You need water deep enough to turn the kite under water. A bit of current running away from you helps,

but do not try in a strong current, you will lose your kite !

Usually a kite will try to head nose-down to the bottom. Don't panic! You can still feel your kite with your lines. Pull more on 1 line so the kite starts to turn up. If you see a wingtip pointing up, you're getting there. Let the wind and your pulling lift the wing upwards. You cannot fly out with one wing in the water easily, so you have to little by little, turn the kite around by pulling one line. As you get one wing out of the water, you have to switch sides that you're pulling, let the upper wing drop back towards the water, while pulling the lower wing up. Once you get the nose pointing straight up, an even, steady pull on both lines will raise the kite into the air.

Water skier

Do a horizontal pass with wingtip grazing the water, kicking up a rooster tail. Easier to learn on slower kites with flexible frames. The difficulty with fast, stiff kites is that if you hit the water too hard, the kite will flip into the water.

Indoorflying

Dual line Landings

Tail catch

This move requires a very well neutral balanced ultra-light kite. Land your kite on its tips, in front of you. Pull gently on the lines so that your kite falls slowly on its belly ; now, just before the nose touches the ground, pull evenly and quite strongly on both lines. The kite should pop in the air : at this moment, release the lines and step forward (one step is enough). Your kite will "reverse" and go down flat on its back, belly up and nose away from you. Just take both handles in your left hand : the kite will go down quietly towards you, and you should be able to catch its tail with your right hand. Nice, impressive, efficient, and quite easy :-)

Dual line landings

Come to daddy

Pull the kite up but don't do the over-bit and when it has reached its highest point start a spin and the kite spirals down ... to daddy (what's in a name). Catch the kite by the nose or (even better) lie down and let it cover you.

Dual line launches

Tail throw

Tie your finger-straps around the last two fingers of each hand, so that your hands are relatively free. Hold your kite belly down, nose towards you. The lines should lie on the floor in front of you, so that you won't get into a tangle when you launch. Put your right hand on the kite's nose, and your left hand on the central cross under the kite (reverse if left-handed ;-)) Lift the kite over your head and push the kite in front of you : step back quickly, the lines should be tight before the kite touches the ground, so that you can start flying.

Dual line tricks

360

This is done to gain ground on your field, or to fly in no wind. While always keeping slack out of the lines, run in a large circle (360 degrees). The kite will follow you around the circle. Try learning this in both directions. This maneuver is easier on short lines.

Fly away

Used to gain ground indoors or in low wind. Fly the kite vertically downwards and walk (or run, dependent on wind speed) forwards so that the kite starts to flatten out with the nose away from you. The kite will "glide" down. Just be careful not to move forward too quickly. If you do, you will do a [Reverse turtle](#).

Nose-in float

This move requires very little or no wind. The kite should be very well neutral balanced. Flying left to right - at the very right edge of the window, snap turn down - at about the middle of the right edge of the window, pull turn left (this will pull the kite just outside the wind window) - as the wingtips just become parallel to the ground, push out with both hands, lead with the right hand following with the left. The kite will lay on its' belly with the nose pointing in towards the pilot. Recovery is simply a little tug on both lines while taking a step backwards.

Up and over

This is where you fly the kite up over your head, to the top of the window. Pull both lines evenly to push the kite past that point. Then turn into the wind and pull the kite down at the opposite side of the window by walking downwind. Finish with a 180 to return the kite to its starting point.

A variation on this trick is done like this: as you get the kite into the position where you start the up and

over, turn your back on the kite and pull the lines over your shoulder (going clockwise it would be your left shoulder) take one step away from the kite. As the kite goes past 12 start to pull your hands down and back and also take one step away from the kite (the opposite way to last time). Done this way you hardly lose ground and the kite has a lot of power.

General

Fade up and over

Start in the belly down nose away position and do a pop up into a fade. Move back fast enough to get the kite to rise in the fade position. When the it gets as high as you can get it (hopefully over your head) give it a slight pop to make it glide the rest of the way over in the fade position. At this point you turn and the kite gliding away from you in a backflip position with the lines coming off the nose and under the kite. Tension the lines before it gets to close to the ground, and the kite will flip over into regular flight. The key to the glide is not to pop the lines too much. If you pop it too much, the kite will will glide and then dive into the ground.

Light wind flying

Indoor and light wind flying require a practiced hand, ultra light equipment, line and kite, as well as patience and stamina. Before trying light wind flying, check your condition. If you plan to fly light, you will be walking briskly, running, running backward, and consequently, panting. The best advice is to get the best ultra light kite you can afford, use 50 lb. to 80 lb. spectra lines. Length depends on your needs. Indoor lengths depend upon the height of the ceiling in the room you will be flying in. For outdoor zero wind flying, short lines are recommended; 15'-30'. This makes it easier to do 360's and up and overs. For competition, use short lines of 60' or so. Exception: If you are in an area surrounded by objects which obstruct the wind, using long lines will help you find the wind.

Quad line launches

Can-can launch

The Revolution flat down/face up, leading edge away from you. pull softly, catch with toe and kick up and overhead to launch behind you inverted and fly behind you. the slower the better, keeping in mind it's all how you turn your toes!

Guillotine launch

The Revolution flat down/face down, with the leading edge towards you. Pull handles up to head level and step backward, flying the kite smoothly behind you in one swoop. Don't cringe, don't duck. Just slice the air.

Spins

Archimedes screw

Start with the kite flat on the ground (belly down), grab a tip and, very gently at first, spin the kite, nose first, around your body, trying to keep the kite as flat as possible. As you turn, the kite should lift. Let it do its own thing as much as possible as any pressure on the tip might snap it clean off. Keeping spinning around until the kite reaches head height and then give it a final flick so that it [Flat Spins](#) around itself, just above your head, while you walk back and take up the slack.

Executioner

Fly the kite down, flatten out and pop a hard [Flat Spin](#) that brings the kite towards you. Catch the kite or simply duck and let it pass right over your head (the lower the better) until it's right out the other side. Take up the slack and fly out. This is also great to do outside in light wind when you can fly the kite hard *into* the wind and then use that wind to really get it whipping back towards you.

Quad line tricks

Axels

Rev Axel

The Rev axel is a similar move as the dual-line [axel](#). Let some slack into one hand (say, the right) and in particular, push back the bottom. Then, in a single movement, flick the right hand, putting the emphasis on the bottom line and let slack out with the left hand. If you pull on the upper line, the kite tends to do an upright axel, more like a cartwheel. With the correct "flick", the kite should flatten out and spin flat.

And here's an alternative description:

With the kite moving across the window, throw out the hand that is connected to the bottom of the kite. This will let the kite flatten out. With the kite gliding flat through the wind, simply give a quick pull on the same hand that you threw out. Be sure to keep your wrist bent so that you are pulling the kite from the bottom line. The kite will spin around and as you put your hands back to neutral, your Rev will pop back into the wind. The kite can go around more than once in this spin (although it is easier in light wind).

And another one:

with the rev horizontal, leading edge up, put both handles in one hand. Quickly reach out and grab one of the top fly lines with your free hand and give a sharp tug. This one works with the rev on the ground as well.

Flips

Rev Back flip

Fly to the top of the window, place both handles in one hand, reach up and grab both bottom lines with your free hand. Now give them a small smooth tug. The bottom wingtips will pop forward and up, leaving the kite facing leading edge down. Before the kite falls down, pull both bottom lines again to recover.

Rev Flic-Flac

For starters, it's best if you fit a trick line. Run a length of line from the end of the top spar, down to the bottom of the upright, across to the other upright and back up to the other end of the leading edge. This line stops the flying lines from digging right up into the bottom of the sail.

The easiest way to do the trick was to take both handles in your left hand and grab the bottom lines with your right hand. Pull both bottom lines sharply and then release. The flaps of the Rev get should get pulled towards you and then released quickly enough so that they spin right back and over the leading edge. The kite should now be wrapped around its lines. Pull sharply on both handles (in your left hand) to unwrap it. Then pull the bottom lines again to wrap, pull to unwrap, etc., etc....

Get the timing right and you get the characteristic "Flic-Flac" motion as the kite wrap, unwraps, wraps, unwraps, etc. Looks pretty cool.

A slightly different method - hold one handle in each and jab your hands down sharply (to pull mainly on the bottom lines) and then release. It seems to require more precision and control, but had the benefit of not slicing his fingers up on the lines :-)

Launches

One handed up and over

With the kite on the floor in the launch ready position, place both handles in one hand. Doesn't matter which one, but let's assume you use the right hand. With that hand extended out to your right side as far as it will go, tilt the top of the handles back and gently launch by using a sweeping motion to your left side. As the kite goes over the top, you may want to do one of two things in order to keep pressure in the sail. One would be to start bringing your arm in toward your body. The other method is to move your body away from the direction of the kite. Both will work, as well as a combination of the two.

Experiment to see which you like best.

Once you have mastered the one handed up and over, try doing a reverse up and over one handed. It's the same motions, but for some reason, for most people reversing the kite is more difficult.

Rev 3D Launch

If you land the kite face down with the leading edge towards you, it's not always easy to get it up straight away. Simply put both handles in your left hand and grab the bottom line of the right handle in your right hand. Now give this line a sharp tug and the kite flies up towards you in a flat spin. Looks way cool. Be careful of the lines though - they can cut. Wrap a piece of insulation tape around the upper part of your first finger to protect yourself when 3D'ing.

Spins

Rev Flat spin

Fly the kite right out to the right of the window with the leading edge facing out towards the right. Push your right hand forwards to let the right hand side of the kite (nearest the ground) fall way back away from you. Then, with a quick flick of the left wrist across your body and down to the left, the kite should flatten out and flat spin (strobe?) across towards the left of the window.

Stairway to heaven

Start by hovering upside down near the ground, center of the window. Sharply pull bottom line in left hand. The kite does a "semi-flat" spin counterclockwise. Catch the kite when it is again inverted. Now do the same with the right hand. Catch it when inverted again etc... The end result is that the kite does a "fountain" type move up the wind window, as each "catch" would end up a little higher in the window than the last. It looks like the kite is going up stairs...

[Receive email when this page changes](#)

* Powered by Netmind *

[Click Here](#)

[\[Alpha trick index\]](#) [\[Functional trick index\]](#)

Buggy tricks - 2 wheel tricks

2 wheel drive

make sure you have a long and wide space, sail along with the wind perpendicular to your buggy direction and bring the kite down in a swoop. While the kite is coming down and pulling, steer the buggy into the wind and position your body at approx 45 degrees towards one side and front of the buggy, using your leg to make some down force into the buggy frame. As soon as your wheel is up, due to the pull force of the sail and your "unorthodox" position, start controlling your "lift" by steering the buggy more into the wind if the wheel is going down, or downwind if the buggy dangerously nears the vertical position. Kite pull control will also help in keeping you with just the right amount of lift. You don't need a gale force wind nor high speed to achieve lift, it's a matter of weight and balance.

make sure you wear full armor...

Remarks, additional info ? mail [Peter Peters](mailto:pp@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

[\[Alpha trick index\]](#) [\[Functional trick index\]](#)

Dual line basics - Flight

Combination turn

Combines the [push turn](#) and the [pull turn](#). This type of turn is very abrupt and angular. Pushing right and pulling left causes the kite to quickly turn left (counterclockwise). Push left, pull right causes the kite to turn right (clockwise). This move is the basis of many advanced maneuvers.

Pull turn

The direction of the kite is determined by pulling one or the other line. Pulling on the left line causes the kite to turn left (counterclockwise). Pulling right causes the kite to turn right (clockwise).

Push turn

Controls the direction of the kite by pushing one or the other line. Push turns tend to be more crisp and angular. Push left and the kite turns right (clockwise). Push right and the kite turns left (counterclockwise).

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

[\[Alpha trick index\]](#) [\[Functional trick index\]](#)

Dual line basics - Landings

Basic landing

The kite lands on both wing tips simultaneously. Fly the kite close to the ground, left to right. When the kite starts to slow down (at the edge of the wind window) pull slightly on the inner line or 'up' wing to bring the kite around, parallel to the ground. Simultaneously walk toward the kite. This will allow the kite to settle softly on it's wingtips.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

[\[Alpha trick index\]](#) [\[Functional trick index\]](#)

Dual line basics - Launches

Basic launch

With the kite in front of you balanced on the wing tips, leaning slightly backward, lines taut, simultaneously pull back with both hands, underhand. The kite will rise into the air. Often a short step back will aid in the launch.

Remarks, additional info ? mail [Peter Peters](mailto:pp@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Dual line tricks - Axels

Axel

The kite is made to 'float' around one rotation in a stall-type spin. Cause the kite to hover in front of you for an instant by using a [snap stall](#) (rock the kite from side to side by pulling left then right, to get the feel of it). Once the kite is stalled, push your right hand slightly forward and immediately pull your right hand far back and extend your left hand well to your front. This will cause the kite to flip. After you have that part down, combine all of the parts together to for one flowing motion. Some kites need a gentle motion of the pulling hand, others need a snappy pull...experiment ! Here's a [video clip](#) of the axel performed by Dodd Gross. ("avi" format (2.2 Mb) you can also get it [here](#) (U.K.) if that's closer to your habitat).

Another approach to learning the axel is to fly the kite to the edge (say right edge) then initiate a slow push turn by pushing the lower (right in this case) hand gently. As the nose passes 12 o'clock snap the right hand back and extend your left hand forward. Once you've mastered this, try the approach above...

What seems to be essential for learning a nice axel is the setup as present in both ways described above. You need to have the wing you are going to pop to be slightly back from the other wing. Look at it this way: the more the wing you pull is towards you, the more you will pull wing AND spine, and the kite will start moving forward as well as rotate. That's not what you want. Having the pop-wing leaning too far back results in something similar. A slight leaning back is just what you need.

Axel take off/Rogallo axel

The kite takes off directly into an [axel](#). With the kite set on it's wing tips, give a short tug on one hand followed by a firm tug on the other, much as in a standard axel. The kite should jump up and perform an axel. This move can be done straight into a landing by simply walking forward as soon as the wing tips come parallel to the ground. The latter move (axel take off to landing) is also called a "Miguel Rodriguez Coin Toss" since that is what originally was called a Coin toss. A slightly different axel take off is done if with the kite on it's wing tips you pop both lines shortly to get the kite slightly off the ground and after that perform the normal axel-push/axel-pop motions.

Cascade

A cascade is a series of axel-backs bringing the kite down through the center of the window. An axel back is a pair of [half axels](#), one in each direction, which flow together into a single move. If you start with an axel popped with your left hand, as the kite gets part way through the rotation, pop your right hand to get the kite to axel back in the other direction. It takes a bit of practice to get the timing right, and the timing will vary between kites.

Continuous Axel/Multiple Axel

The kite is [axeled](#) in such a way that it will be set up and in place to execute another axel right away. This is a combination of an axel and a Pop Up move. The easiest way I found to do this one is to [snap stall](#) at the edge of the Wind Window. Axel with the inside hand. Pop (towards you) the outside hand right away. If you do it at the right time, the pop will cause the wing to spin faster lining it up wings parallel and in motion for another axel, just axel again. If you pull to late, you will pull the nose towards you, kite on its back, voila, another trick, the [fade](#).

Cuckoo clock

The Cuckoo clock is a [Fade](#) followed by an [Axel](#). When the kite is half way through the axel start the [Flic-Flac](#) moves: jerk both lines generating an [Inverted backflip](#) (the kite lays on its back with the nose pointing towards you). Now jerk both lines again generating a belly float and again generating an inve..... Keep doing this until the kite lands.

Edge fade

Fly across the the edge of the window and pop the upper wing gently. Allow slack into the lines and the kite will Axel through 180 degrees, like a [half axel](#) ([Kick Turn](#)), but also loose height in the process. You can complete to a [wing tip stand](#) with the kite facing back into the window, or simply fly off. This trick was originally called the "fade" in the UK until Jason Benedict went and called the [fade](#) (the [fractured axel](#)) the fade. Confusing?

Fading toe loop

Start with an [edge fade](#) on the left side of the window. As the kite falls and turns anti-clockwise, the right wing-tip should line up for a [tip stab](#). At this point, execute the [toe loop](#), kicking the kite back up into the air with an [axel](#).

Fountain/Up the fountain/Rising Cascade

This is a series of [half axels](#) like the [cascade](#) but this one does not lose altitude like the cascade, but actually stays stationary and/or rises up! This one is a combination of the 1/2 axel series (cascades) along with a "pop up" move. The easiest way to learn this one is to practice the cascade a lot. You will soon learn that in between 1/2 axels (cascades) you give the rotating wing a slight "pop" with an arm motion that goes from neutral up and out, which helps it along and actually pulls that wing up, similar to the pop up move from a [pancaked](#) position. You will find that timing and adjusting that according to wind speed is very crucial. This "pop up" move is also similar to the one used in the [continuous axel](#).

Genie pop

From a ground pass (say left..right) as the kite passes the center push with lower hand slightly, then pop an [Axle](#) with the lower hand, do it hard. As this is done under power you may well need to pop the upper hand shortly after to get the kite to flip around. A perfect execution gives a VERY flat double [axel](#) and kite flies off in other direction.

This move looks best if you do it near the ground as the kite drifts across the ground as it spins, but of course it can be done somewhat higher up as well. If you get it wrong you will get a [Lazy Susan](#). (so your on a winner no matter what)

Half axel/Kickturn

Flying the kite from right to left past center of the wind window, step forward to temporarily kill most of the kites forward drive. Immediately do a small push with the right hand (top wing) and a very small pull with the left hand (bottom wing). Follow this with an immediate [axel](#) type snap of the right hand. Vary the right hand snap. Under snapping it will cause the kite to loose altitude in the turn. Over snapping it will cause the kite to over hover, or even flip onto it's back and do a [rixel](#). A nice half axel has the kite flying horizontally, then belly's down in a [180 flat spin](#), and then snaps back into flight going in the opposite direction without loosing altitude.

Mortal Coil

Start with the kite out at the left hand edge of the window. Pop a right-handed [Axel take off](#) and then continue to pop a long series of (right-handed) [Multiple Axels](#) so that the kite skates all the way across the window, spinning flat as it goes. Finish with an Axel landing on the right edge of the window. I guess it works the opposite way as well.

Mortal Coil

Start with the kite out at the left hand edge of the window. Pop a right-handed [Axel take off](#) and then continue to pop a long series of (right-handed) [Multiple Axels](#) so that the kite skates all the way across the window, spinning flat as it goes. Finish with an Axel landing on the right edge of the window. I guess it works the opposite way as well.

Rixel

Fly right to left to the edge of the wind window. As the kite is about to [stall](#), push with your right hand, and then snap it back. Use just the top hand and a slightly exaggerated motion. The kite will roll onto it's belly and continue over on it's back, and then pulling up on it's lines will cause the kite to snap back into

flight. This move can be done to a landing as well. When the kite is rolling down, just as it turns on it's back, pull up the lines to plant it on the ground. In a good landing both wingtips get planted at the same time !. While the kite is rolling over, the lines should be slack. Find out how far down the kite drifts usually before you can pull it up to plant it on the ground, and set your initial horizontal line accordingly. Deep sailed kites have more difficulty doing this trick. The hand movements that start this trick are similar to the movements of the [half axel](#), only the top hand pull is harder for the rixel.

Spin axel

Fly the kite to the edge of the window, about 30 feet above the ground and do a down spin by pulling back the outside hand. As soon as the tips become parallel with the ground, snap pull the inner line and release the outer line. The kite will [axel](#). Pull the kite out of it's rotation after 1 turn. This is a very smooth axel, is a 2 part move and is very effective in a 2 beat part of a song.

Spin double axel

This trick starts the same as the [spin axel](#) but you let the kite rotate twice instead of once by keeping your rotating wing hand (outside hand) extended forward, as you move in towards the kite to keep it spinning. Pull the kite out of it's rotation after 2 turns.

Switch back

In a [shark](#) you must keep most of the driving tension on the upper wing. Dragging across the ground from right to left, you would have more pressure on the right hand. As you pass the center of the window and approach the left, throw both hands forward to flatten the kite onto it's belly and then immediately pull on the left hand to lift the left wing up. The kite should now be pointing back towards the right of the window with the right leading edge touching the ground. You can now continue with a [shark](#) back the other way.

The easiest way to picture the Switchback is to think of a [kick turn](#) (the "[half axel](#)" move as Dodd calls it on FSIII) but executed on the ground, starting and ending in a [shark](#).

Toe loop

This is quite simply an [axel](#) that starts with a driving [tip stab](#). Starting with a [side slide](#), say from left to right, you would keep pressure on the right hand and a little more slack on the left. Increase the pressure on the right until the kite starts turning right into the ground. You should time it such that the right tip is about to stab the ground and then slack and pop the left wing in an exaggerated [axel](#) move. The right wing tip should drive into the ground and then kite should spring back up into an [axel](#).

Executed well, the kite will spring high into the air with a resounding "thunk". If you're not so lucky, the kite might stay on the ground with a disappointing "crack".

The name for this move, like the [axel](#), comes from ice skating. The toe loop in ice skating is like the [axel](#) but starts with the skater driving the serrated toe of one skate into the ice to get rotational momentum. The similarities with the kite trick suggested the name was appropriate.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Dual line tricks - Combinations

Barrel roll

Start in a low ground pass. Pop the kite into a [Half axel](#) and then pull early (before the nose is fully away from you) on the other hand as if rising up to a [Fade](#). Pulling on one hand causes the kite to start rotating while it's coming up into the Fade. Ideally the Fade should come in so that the back of the kite is mere inches of the ground. The kite continues to rotate, as if turning around the spine and eventually recovers to continue flying in the original direction.

If it happens quickly and smoothly it looks like an impossibly low trick that has no business not crashing into the ground.

Rising Flic-Flac

Start in a dive, flatten out and then pop into a [Fade](#) (actually, you can start into the Flic-Flac any way you like, but a power dive/kill/fade is my favorite). Hold it for a second and then do a single Flic-Flac back into a Fade. And repeat....

The clever part is killing the kite out fairly gently so that it doesn't lose any height and then popping it hard into a Fade and letting it rise slightly from the pressure (Elevator). The overall effect is the syncopated beat of Flic-Flac with the held Fade and the kite rising all the way up the window. That's why the power dive works so well to start into it.

Skywalker

Fly right to left. At the edge of the window, pop the upper hand as if starting a [Kickturn/Half Axel](#), but add extra slack to let the nose of the kite flare up so the back of the kite is presented towards you. Pause a second....(for effect)....and then gently, but firmly pull on the left hand to flip the nose of the kite down and then up through the [Fade](#) position while also spinning 180 degrees around its spine. Like a [Flic-Flac](#) but with a 180 twist. The kite starts nose up, back towards you and ends up in the same position but a kite's width or two off to the right. Then do the same with the opposite hand and repeat ad infinitum. Start out at one side of the window and you can continue this move most of the way across the window.

Slap and tickle

Do a [yo-yo](#) close to the ground, that leads to a [wing tip stand](#). While in the tip stand, pull the lines to spin the kite around the tip that is touching the ground.

Dual line tricks - Fades

Fade/Fade-In/Inverted backflip/Fractured Axel

The fade starts with a [half axel](#) leaving the kite stalled on it's belly. After that do the standard Pop turtle movements to flip the kite on it's back, nose towards you.

Another way is to [pancake](#) the kite from a dive and pop both lines.

Yet another way is to [snap stall](#) the kite at the edge of the wind window and then pull the outside wing towards you (not an axel pull, just keep going). When the outside wing is pulled far enough the kite will drop, but also starts to roll onto it's back, nose towards you.

Flic-Flac/Grapevine/Poisoned Ivy

This trick is also known as "Poisoned-Ivy or Grapevine". With the kite in an inverted backflip position jerk both lines generating a belly float and again generating an inverted backflip and again gener.....

Another description and a way to start the move:

Start with a [half axel](#). When the nose points directly away from you pop both lines sharply but evenly and then let them go slack. your kite is now in a [fade](#) (at least it should be). Once in the fade pop both lines and slacken them out again putting you into a belly float. Repeat this rythmicly until you run out of space or do something wrong.

French toast

Do a [Belly landing](#). (The nose of the kite points away from you.) Strongly pull both lines. The kite will lift up backwards. Immediately release the lines generating an [Inverted Backflip/Fade](#). Now gently pull one of the lines generating a 180 degrees spin. (The kite will have normal [Backflip](#) position.) Pull both lines to recover from the backflip. Kites known to do this trick are: Total -, Vented - and Eclipse. If you do not succeed in getting into the [Fade](#) position, try this:

Step back smoothly so that the kite lifts from the ground. When the tip is about 2 inches off that is the moment to flick the lines.

Pancake/Fade-Out

Flattening the kite with the nose away from you, on it's belly. Flying the kite downward bring both arms behind you and before the nose-diving kite reaches the ground, throw both hands forward (just like a reverse turtle). The kite will then float on it's belly. This works best in light winds. Some kites like fast arm-throws, others like slightly slower ones.... Another way to try it (if the previous one doesn't work for you) is to fly the kite downwards, first extend both your arms, then pull back both arms hard and release abruptly to kill the kite.

Reverse turtle

Take the kite to the top of the window. Turn the nose toward the ground. Throw both hands forward causing the plane of the sail to come horizontal to the ground, walk forward to allow the kite to flip over on it's back.

By slightly pulling one line the kite will start to rotate and after 180 degrees of rotation, the normal [turtle](#) position will be reached. Perform a [turtle release](#) to get out of it.

Turtle release

Recovering from a [Turtle](#). Walk forward with both arms extended. The nose will tip even further back, but don't allow the kite to flip over! Pull with both lines at the same time and the kite should flip back toward you, coming out of the turtle. Or alternately, let the kite float down on it's back and re-launch. Radical trick kites such as the Stranger or Box of Tricks simply require a gentle tug at any time to recover from a [turtle](#).

Turtle/Backflip/Popturtle

Fly the kite up and pull back (way back !) both arms, then quickly extend both arms to your front. This will cause the kite to flip on it's back, nose pointing away from you.

Yo-yo

A "Yo-yo" is anything where you roll the kite towards (or away from) you, so that the strings get wrapped around the kite. A pull then unwinds the kite kinda like a yo-yo. The easiest way (that only works with some kites) is to give a sharp tug to pull the kite forward and then release with slack so that the kite continues to roll around the lines. Also there's a "yo-yo take off" where you prepare the kite by wrapping the lines around the tips, put it in a normal launch position and then take off doing a yo-yo.

Another way of doing it goes like this:

Start at the top of the window and fly down toward the ground at a 7 o'clock position. Try not to power the kite up too much. Give a quick and fairly firm [Axel](#)-like slack/pop with the right hand. At the point when you pop, you must introduce slack into the left line and then immediately afterwards into the right line, too. Then walk forwards to give even more slack.

The "pop" pulls the right wing (actually on the left because the kite is flying down) forward to causes the kite to start rotating around its spine. The pop, if left to spin this way, would end up with its back facing you and the nose still pointing more or less towards the ground. However, the pop followed by the super slack in the lines causes the nose to lift, wrapping the kite up around the lines. As the nose pops fully up into "normal" flying position, the lines are wrapped under and behind the kite and should now rest over the leading edge.

Yet another way to get the kite into a Yo-Yo wrap is to get it into a [Flic-Flac](#) and then give an extra hard pop with both hands followed by lots of slack. Less elegant but you can do this pointing in almost any direction. With a little practice, you should be able to get it straight into a wrap with just 1 or 2 "beats" which can be rolled all into a single, swift motion so you can hardly tell there's a Flic-Flac there at all.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Dual line tricks - Groundwork

Allee

Start with the kite on it's right tip... leaning back slightly, pull lightly on your left line, as the left tip starts to lower to the ground pull sharply on your right line, letting out your left line at the same time. Step forward a couple of steps just as you pull the right line. The desired result is a "reverse [coin toss](#)", the kite should "hop" from it's right tip, go into a clockwise flat spin, then land back on the right tip.

Backslap

From a [wing tip stand](#), lay the top hand back a little. Then just push both hands forward, the kite will lay back on the lines (leading edge laying parallel to the ground, but the tip still in the ground). Then you just pull back in to the tip stand. The laying back of the top hand in the tip stand makes for a very powered up kite. This is quite important as it keep the tip in the ground and puts the nose in the right position to be able to pull it back. There are many ways that put you in a position to get into this. One of them is getting the [coin toss](#) wrong...

Broken yo-yo with half a twist

If you ever nose plant your kite try this:

Let someone setup the kite by wrapping it up from this position, leaving it wrapped, standing on its tips facing away, with the lines coming out from under the kite, and try to get out of it.

Here's what to do: drop the kite down so it is in the [belly landing](#) position, as it gets to this point give a sharp flick on one line (timing is important for this bit, you have to flick at just the point it reaches the belly down position). Take a step back and the wind should do the rest. In low winds you will need to do more work and in heavy winds you will need to be very fast with your reactions.

Coin toss

A coin toss starts with the kite in a [Wing tip stand](#). Next perform an [axel](#)-pop on the wing that's in the air by gently pushing it back a small way and then popping it towards you. Now extend your arms forward to give slack in the lines and allow the kite to rotate. After the kite has rotated, try and land on the opposite wing tip by walking forward. This move can be done from standing on one wing tip but can be performed out of a [side slide](#) as well. Take care the slide is a little downward. When the kite touches the ground with it's wingtip, immediately do the axel pop on the wing still in the air. Take a look at the [axel take off](#) description as well because the description of the "Miguel Rodrigez coin toss" is there.

Flip over/Cartwheel

The kite is flipped over from a side or nose down position on the ground. From a nose down or side position, tug on the wing that is pointed up in the air. This will rock the kite to the opposite side. Let the wing that is up fall back a little by extending that arm. Now sharply tug that side and release with the other. The kite should flip over onto its wing tips. Always try to flip toward the center of the window. Be careful, you may break a leading edge rod learning this essential move. The move is very useful getting out of crashes during competition (or avoiding walking down field any time!).

Floating backturn/Otis

Put the kite on its back, nose towards you and lines over the leading edge. Pull gently on the lines and rock the kite forward onto its nose but not far enough to stand up. Then release the lines quickly, the kite falls back and floats up and away, still on its back (but leaning *slightly* backward so the nose is high) and nose towards you. Walk quickly backward to keep the kite flat. It will keep going up as well. When it is far enough up, snap the lines and the kite is back into flight, heading down (gulp !). A quick 180 degree spin and away you go! Tip: start the launch at the center of the window, wind velocity plus 10 mph bring the kite up perpendicular to the ground...nose down and tips parallel to the ground push both hands evenly and firmly to initiate the momentum necessary to rock the kite back, let the wind do the work...leave a little slack in the lines. Once the kite is 5-10 feet off the ground, tug on either line. Don't use a wind tamer; opt for heavier lines

Ground Zero

Starting with the kite on its belly with the nose away from you, pop both lines hard and then release. This takes the kite into the first stage of the Ground Zero which is a [French Toast](#) - the kite jumps up and the nose swings up into a [Fade](#) position. Immediately pop both lines again, as if starting a [Flic-Flac](#), to get the nose to swing back down so that the kite is once again on its belly with the nose away, but this time a few inches above the ground. The final stage, the "Zero", is a 360 degree [Flat Spin](#). From this you can pop back into a Fade/Flic-Flac, Flic-Flac to land, recover, or whatever takes your fancy. The combination should be done very quickly without any pauses between the elements. You can also do the Ground Zero from a [Headspring](#) launch rather than flat into a [French Toast](#).

Groundroll

Start with a ground pass from the right side, lower the kite into a tip drag and ease the nose down. Relax your hands and let the kite roll over from the left edge to the right edge and immediately launch the kite from this edge. Continue pulling your left line to complete the kite's rotation and finish off with the kite flying to the left.

Kite walk

With the kite in a left [wing tip stand](#), pull gently on the right (up) wing and release the left. The kite should be on the ground with the right wing toward you. Now pull on the left wing and release the right. Now you're walking !

Now you see it, now you don't

Give a sharp flick (not pull) on both lines, push both hands forward. The kite should be nose toward you belly up. Hold for a second and give an other sharp flick, push both hands forward. The kite should be back on the ground. You can do this as many times as you like. In fact this is a [French toast](#) launch/landing done very fast and repeatedly. The kite jumps up in to the air, pauses, then promptly disappears again onto the ground. When you get bored, let the kite rise a bit in the belly up position, flick again, but this time stunt one hand as you push out and [540 flat spin](#) out of it.

Rebound

Fly a ground pass right to left. Perform a [full stop](#) such that the kite has rolled back into a [turtle](#) just above the ground. Now pull back with both hands firmly with emphasis on the right hand. The kite should slam both wingtips onto the ground simultaneously and immediately take off now pointing towards the right edge of the window.

Beware ! The failure mode for this fast manoeuvre can be expensive.

Shark

Fly across the window in a low pass and lower the kite down until you have contact with the leading edge on the ground. You should have almost all of the leading edge touching the ground, but keep the nose slightly off the ground to avoid it "snagging". Keep most of the pressure on the upper line and fly the kite across the window with the leading edge in constant contact with the ground

An excellent combination move is to start with a very low [540 flat spin](#) at the edge of the window and come directly out into a Leading Edge Drag.

Spike

The kite is forced into a [wing tip stand](#). Fly right to left, very close to the ground. Pull right, push left, then push left even further. This movement is done in a blink of an eye. The first combination turn serves to [stall](#) the kite. The second push drives the tip into the ground. This move works best with higher aspect ratio kites and in higher winds.

Tip drag

Basically a ground pass with one wingtip in contact with the ground. Slightly more tension should be maintained on the upper line throughout the move. try to maintain even kite speed across the window by walking backwards when at the edges and forwards when at the center. Kites with relatively long bridles can be more easily balanced and, naturally, rough and/or abrasive surfaces are less favorable. It does, however, look fabulous across water.

Twisted Sister/Half Sister

Even with a trick line, most kites will get a wing wrap every now and then. The Twisted Sister starts with such a wing wrap but turns a potentially difficult situation into a cool trick. When you've got the hang of it, it becomes fun to intentionally get into a wing wrap just to recover it. Start with a line wrapped under the trailing edge and running around the tip and back over the leading edge. You also need to have the kite balancing on the opposite tip, leaving the wrapped tip in the air. Push the wrapped tip forward, flattening the kite out almost onto its belly (nose away from you). As the kite almost touches the ground, pop the wrapped tip HARD, and immediately drop your hands (crouch down, even). The kite [540 Flat Spins](#) and in the process (if you dropped the lines down low enough), unwraps the tip wrap. Very flat and very fast Flat Spins are possible. You can also let the kite lie down flat on the ground (belly down, nose away) before popping the Twisted Sister, but it occasionally leads to ground snags. If you don't get the pop just right, you can still get a [180 Flat spin](#). This is called the "Half Sister" for obvious reasons. This trick has some resemblance with the [G-Whizz](#).

Wing tip stand

With the kite on the ground, just to the left of the center of the wind window and the right wing about one foot closer to you than the left wing, pull slightly on the right line. When the left wing lifts, stop pulling on the right line and use the left line to balance the kite on the right wing tip.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

[\[Alpha trick index\]](#) [\[Functional trick index\]](#)

Dual line tricks - Landings

Belly landing

A [pancake](#) done just above the ground, followed by a landing is called a belly landing. Of course any landing which puts the kite on it's belly is a belly landing...but if the nose is pointing away from you, you can recover from it.

Spike landing

Both wing tips hit the ground at the same time, usually performed downwind in the center of the power zone. Point the nose straight down, in a "power dive" towards the ground. Just in time to clear the ground, initiate an exaggerated [snap stall](#). In a higher wind you must move forward to induce the landing.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Dual line tricks - Launches

Belly launch

The kite is launched from a "[pancake](#)" position. The kite is in front of you on it's belly with the nose pointing away. Offset your hands, pulling back more on the downwind hand. Now step/run backwards without changing the position of your hands. As the kite picks up and starts to turn around pull your hands together and the kite will take off. Best accomplished in lighter winds.

Belly pop

Fly the kite to the left side of the wind window and do a [Belly landing](#). The kite is now on it's belly, nose pointing away from you, on the very edge of the window. Pull very gently on the left line to position the kite with it's nose pointing slightly inward. Now flick the right line which will cause wind to enter the right wing and in turn causes the kite to actually lift and "pop" back into the wind window. Done indoors, or in light wind it can be turned into a 360. Just take a step towards the kite right after the flick.

Flapjack

Launch and turtle kill the kite. Pop one hand to get the kite rotating on it's back, drop the kite back down to land on wing-tips. This move is a [Lazy Susan](#) performed straight out of a launch position back into launch position.

Headspring

This is the all-time impressive launch. Start with the kite balancing on its nose (something that may require a little practice in itself) Start with a hard pull on both lines to flatten the kite down into a belly down position, then immediately release and execute a [French Toast](#) to launch the kite. The overall sequence of moves is hard-pull, release, quick-pull, release.

With practice, the move can be done very fluently and the kite appears to simply bounce off its nose into flight.

Jump start

Do a [Belly landing](#). (The nose of the kite points away from you.) Yank both lines really hard with a slight emphasis on one. The kite should shoot up in the air and perform a 180 degree rotation, The kite is still belly down, but with the nose facing you. Either yank the lines to resume normal flight upwards or throw

your arms forward to roll the kite into a [yo-yo](#).

Leading edge launch

The kite is launched from it's side. Fly the kite near the edge of the window, close to the ground, left to right. Pull right and gently crash to the ground. The kite should now be on it's right side. (be careful the kite does not tip over). Pull left (the 'up') wing slowly until it begins to fall toward you. Tug the left line and almost at the same time with the right. The kite should lift off on it's side. Stepping backward during this maneuver also helps.

Magic Carpet

A spectaculair but difficult way to launch your kite when you've made a [Belly landing](#). The kite will hover upwards and fly away.

Give both lines a short tug. The kite will pop up a few feet and hover horizontally on its belly until the wind catches it, after which it will flip into flight position, heading straight down (gulp!). To prehend the kite from crashing, move one hand a little further back than the other (after the pop) so the kite will turn. This is a light wind trick.

Sleeping beauty launch/Berkeley hop

This move looks very impressive, when done correctly, the kite will spin around and almost fall flat on it's belly nose toward you (this is the failure mode if it does not work). And just at the last second turn up and take off. It works best in a good wind and with a flat sailed kite. Deeper billowed kites are better [Cartwheel](#)ed. Lay the kite flat on its back, about 30 feet in from the right edge of the wind window, with the nose pointing into the wind. (like a fade...) Next, Pull on the left line causing the kite to rotate the left tip into the wind. (The kite should stay flat on the ground) As the kite rotates around the wind will go under the left leading edge and flip the kite over onto its face. (bridle side down) The trick is to pull on the right line as the left tip is passing through 12 o'clock high. It is important that the wind be the force that raised the left leading edge off the ground and not the fact that you are pulling on the left line. When done properly the wind will catch under the face of the kite before it gets to the ground and lift it into the sky.

Snap start

With the kite in the normal launch position (on its back nose away) stand so lines are straight and lie over the bottom spreaders. With a really sharp hard jerk on both lines together the kite will jump up and hover a couple of feet off the ground, nose up ready to fly. It sort of bounces up into the air.

The name comes from the failure mode which involves replacing the broken bottom spreader(s).

Tornado **NEW**

Lay the kite flat on its back, with the nose pointing into the wind. Next, Pull hard on one line causing the kite to rotate. Try to keep the kite as flat as possible. You can get the kite to do one or more complete rotations on its back. Just keep popping away with the same hand as it comes round. With some kites, this action will actually cause the kite to rise off the ground while doing [Backspins](#).

Remarks, additional info ? mail [Peter Peters](mailto:pp@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Dual line tricks - Rolls

Lateral Roll

Start in a [fade](#), push one hand, pop the other, kite rolls (more or less) around the spine.

Limey Twist

A sequence of one or more Lateral rolls while flying down. Fly the kite up and throw hands forward at 75 % to kill the kite onto it's back. Now give a fast sharp tug on both lines, followed by a little slack, to recover the kite up and pull the nose towards you and down until pointing towards the ground. The back of the kite should be facing you with the lines running down and coming under the leading edge.

At the point when the nose drops down and makes contact with the lines across the leading edge, give a firm and fairly steady pull on one line. The force of the nose traveling down when contacting a now tight line on which pressure is being applied, causes the free wing to continue to travel away from you, inducing the kite to twist laterally and roll around the spine. The kite should continue to fly downwards during the twist and further rolls can be introduced by coaxing the lines alternately in sync with the kites rotation.

Pop Lateral

Fly down, kill the kite out, pop into a [fade](#) with both hands then continue to pull on one and slack the other. Kite goes straight up into a fade and then rotates around the spine.

Slamming limey twist/Lime Wedge

This is a [Limey twist](#) performed close to the ground so that the nose of the kite makes contact with the ground while twisting. The kite continues to roll around the spine while in contact with the ground, until it has spun around to land on it's tips.

Remarks, additional info ? mail [Peter Peters](mailto:Peter Peters (<pp@win.tue.nl>) (pp@win.tue.nl).

Dual line tricks - Spins

540 Flat spin

The 540 flat spin starts off with a vertical dive. Bring your arms behind you to prepare for a [dead stop](#). Stop the kite by throwing both arms forward. This should flatten out the kite with the nose pointing away from you ([Pancake](#) position) . Some kites like a very fast kill (Stranger, Box of Tricks) other prefer a slightly slower kill (Phantom Elite, MEFM). The trick is to kill the kite slightly unevenly. If you're going to "pop" it with your right hand, then let your left hand lead slightly when throwing your arms forward. This will kill the kite with the nose pointing slightly to the left. After that a firm "pop" with the right hand immediately followed by lots of slack on both hands should initiate a flat spin. As long as you want the kite to spin you have to leave a lot of slack in your lines. Allow the kite to rotate one and a half times (540 degrees...). The last 1/4 turn is the tricky part. The kite can catch the wind and not want to turn up. You can help it along by a short gentle tug of the left hand. This extra tug takes a lot of practice to get right, but eventually will allow you to give it an extra revolution or two (and even reverse direction).

The next description was taken from 2 postings from rec.kites and must be the clearest one possible...

In case anyone's not sure, the 540 Flat Spin goes like this

- The kite starts flying directly downwards towards the ground.
- At some point before the kite hits the ground (and the lower you go the more impressive it is, but also more risky), you throw both arms forwards so that the kite flattens out, with the nose pointing away from you and the front of the kite now facing the ground.
- A gentle tug (I tend to use the word "pop") on one line should start the kite rotating flat as if it was impaled on an imaginary pole sticking up from the ground.
- After 540 degrees (1 and 1/2 rotations), the kite should still be flat facing the ground (or nearly flat) but with the nose now pointing towards you.
- A gentle pull on both line makes the kite sit up and fly off upwards.

As simple as that? Well actually, no. There are a few subtle things that you have to get right to perform the 540 Flat Spin and unless you know what you're looking for, they can be difficult to get right.

The Fast Kill

The first thing is that you have to kill the kite effectively. The "kill" is that step when you throw your hands forwards to flatten the kite out. As the kite is diving down, pull your hands right back behind your back and then thrown them forwards fast. If you need to, take a step forward (considering the speed you have to do this, it's more of a "lunge") to get a fast a positive kill.

Practice killing the kite out like this, holding it for a second and then recovering from this position. To do this, either walk forwards and let the kite drop the the ground, or to recover in flight, take up the slack on the lines, pulling more on one line than the other, to get a half-twist-come-turn back out of the killed

position.

Not all kites like to be killed fast (some prefer a more gentle approach) so you may need to experiment until you find what works. These kites *will* do a Flat Spin, but generally they need a little more accuracy from the part of the flier. Dedicated trick kites tend to kill and spin faster with more tolerance for user error.

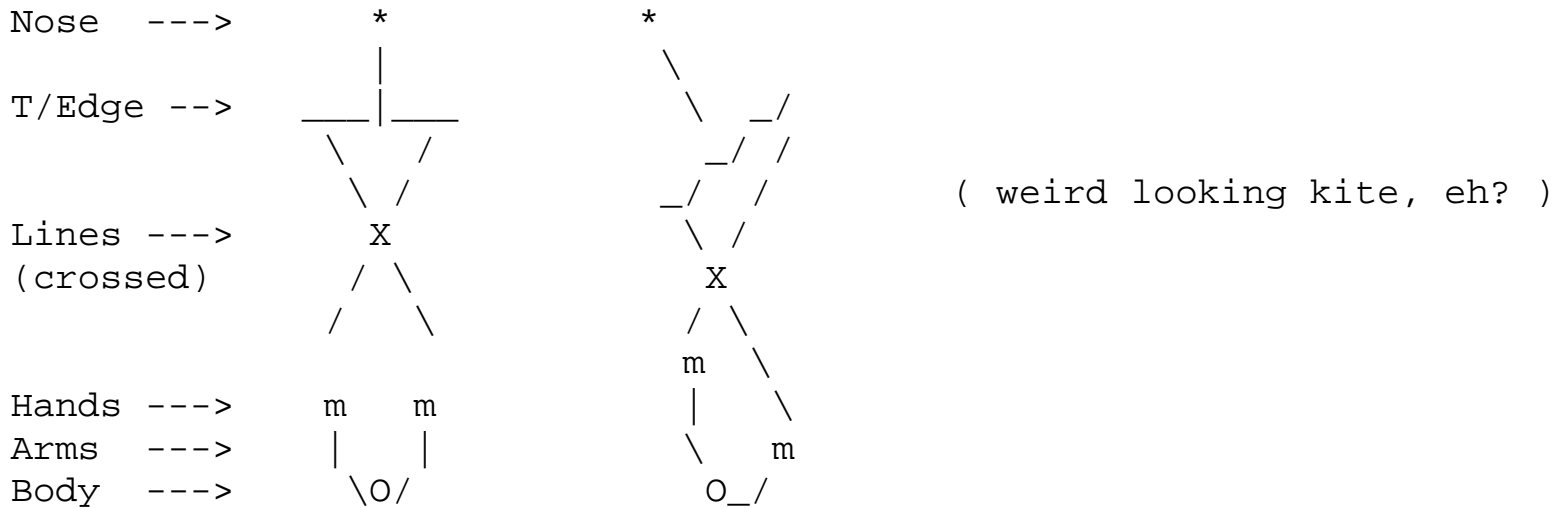
The Uneven Kill

The second, and by far the most important point, is that the kill should be uneven. By this, I mean that one hand should be thrown forwards before, and going further, than the other one. If your strongest hand is your right hand, you'll use this to execute the "pop". In this case, it should be the *left* hand that you throw forwards first.

The reason is this: when you pop with the right hand, that wing should be slightly nearer to you than the other. When this is the case, the kite is already a little way into the rotation and will continue into the Flat Spin much easier. To get the right wing nearer, you push the left wing out further and faster. Just to confuse matters, the kite is upside down and the right wing is actually on the left as you look at it...

Waay-haaaay! It's Crap ASCII-Art time!

Looking down from above in a bird's eye view, the kite flier on the left has killed the kite evenly. The flier on the right has thrown his left arm further forward which has made the kite rotate a little in an anti-clockwise direction. The kite is now set up for the pop.



The "Pop"

You've killed the kite and there's only one place to go: The "Pop". Consult the Crap ASCII Art diagram above (the stick flier on the right) and check your position. Don't worry if your hands don't look like the little "m" characters, though. The important thing is that you've thrown you hands forward such that your left arm is fully extended and your right hand is down by your waist, or perhaps a little further forwards.

Now give a small but firm tug with your right hand and *immediately* let lots of slack into both lines. Another step forwards at this point is often a good idea to achieve this.

Watch the kite. If the pop makes the kite "jump up" into the air instead of rotating then you either pulled too hard or the kite wasn't set up properly - perhaps you killed the kite too evenly? If the kite starts to turn but then tensions the lines and stops, then you need more slack in the lines. Try taking that step forwards.

If everything goes according to plan, the kite will rotate one and a half times and then recover. Most trick kites will usually recover themselves as they complete the final part of the rotation - the wind catches them and off they go. Try and gauge the slack in the line so that you can re-tension at exactly this point to get a clean and controlled exit from the trick. Some kites might need a little tension as the final rotation completes to help them recover.

Where in the Window?

The center of the window is most impressive, especially in a ballistic wind. Imagine the kite screaming down towards the ground in a mad suicidal dash, only to stop at the very last minute, perform a clean 540 inches of the ground and then scream back off into the wind.

The center of the window is most dangerous, especially in a ballistic wind. Imagine the kite screaming down towards the ground in a mad suicidal dash, only to stop at the very last minute with a loud crunch as the frame splinters, tearing through the sail and embedding the spine firmly in the ground.

The moral: practice in lighter winds, off to one side of the center of the window. If you go too far out, you can find the kite sliding sideways as it spins. This is the basis of an advanced Flat Spin trick - the Flash, but for beginners it can be a little off-putting. The left(ish) side of the window is slightly easier for right-handed poppers and vice-versa.

The "Eezy Peezy" 540 Flat Spin Technique

Still haven't got it?

OK, let's try something different.

Instead of flying directly down to the ground, try flying out from the top center of the window, down towards the bottom left hand corner of the window. You should aim to reach the point where the kite slows down and almost stops by itself (ideally without hitting the ground). The nose of the kite should be pointing towards 7 or 8 o'clock on an imaginary clock.

Now execute the same 540 Flat Spin maneuver as described above *but* doing everything a bit slower because the wind should be holding the kite almost stationary - "parked" at the edge of the window. A nice gentle kill (push that left hand forward!) followed by a smooth right hand pop should be enough to start the kite spinning smoothly around. Remember that it needs slack in the lines once it's started to get all the way around.

If you prefer to "pop" your left hand, then fly out to the right side of the window, push your right hand forward and then "pop" with your left.

You'll probably notice that the kite slides back in towards the center of the window while it's spinning and it probably won't spin totally flat to the ground. In fact, the trick you've just done is a 540 Flat Spin variation that has a name of its own: The Flashback. Because it happens more slowly out at the edge of the window, it's a little easier to learn than the straight 540 Flat Spin.

When you've mastered the Flashback you can try coming in a little from the edge of the window, speeding up the dive, and heading more downwards than out. Eventually you should be doing straight 540 Flat Spins without thinking about it.

The footwork

The idea behind the footwork is to get your whole body into the right position to make doing the 540 real easy.

Let's say that you're going to pop the 540 with your right hand. This is how I would do it.

As you bring the kite down towards the ground, power up the kite by pulling your hands behind your back. Time this so that you are just at the end of the back stroke when the kite is ready to be thrown out. At this point your weight should be on your back foot (left foot). So there you are arms down behind your back, weight on your back foot (left foot) and the kite about 6' off the ground.

Now, all in one movement transfer your weight through your right foot and onto your left in one step, making your left your front foot. Also throw both hands forwards while doing this. This sudden movement forwards will transfer all the forwards speed that you built up by pulling back into an away from you direction. (If you make a note of how far back your hands are at the start of this and then check where they are at the end, you'll see that you've managed to move forwards by at least 6' (just like that..))

You should stunt (hold back) one hand as you throw them forwards, in this case it would be your right hand. Let it come to just in front of your waist, 6" max. As the kite hits the end of the line give a small flick of the right wrist, like cracking a whip.

Why?

Because having your left foot forwards will turn your whole body around to the right, making your left shoulder relatively further forward than your right. Try this simple test, put your left foot forwards and try to look to your left. You should need to look over your shoulder to see, now look right.

As you get the 540 down, you'll find that you need less movement to perform it. At this point you can get away with just transferring your weight from your back foot (left) to your front (right) without the step.

Backspin/Moebius

Fly up to somewhere approaching the top of the window and start a downward turn by pulling the left hand. As the kite turns left and the nose passes the 9 o'clock position, pop the right wing with a gentle

axel-like motion. This causes the right wing to be pulled towards you and the nose of the kite to lift up so that it is spinning flat on its back in an anti-clockwise direction (looking from above).

If you think how a normal [Axel](#) forces the nose down into a flattened spin, this inverted Axel, the Backspin, forces the nose up into an inverted spin.

As the nose of the kite approaches the point directly away from you (the kite is still on its back, but now has the trailing edge towards you), pull gently on the left line to spin the kite around on its back another time. Pop again at the same point to force another rotation, and so on.

Done correctly, the move should be very smooth.

Corkscrew

The Corkscrew describes a series of [Backspins](#), or [Multiple Axels](#), starting at the top of the window and spiraling down. In all but the lightest wind, you will need to walk forwards to keep enough pressure off the kite to ensure you can maintain a series of [Axels](#) or [Backspins](#).

Flash

Fly the kite out to the right edge of the window and turn down towards the ground. At the same time, throw both arms forward to kill the kite and pop a [540 Flat Spin](#) with the right hand. The sideways momentum of turning the kite inwards while doing the Flat Spin causes the kite to slide across the window back into the wind.

Flashback

The flash starts out the same as a [540 flat spin](#), except that the initial dive is not vertical, but down and out towards the left side of the window at about 45 degrees. [Pancake](#) the kite when the kite is at about a foot off the ground. The kite should remain "tilted" 45 degrees. Now popping the right hand will initiate a rotation of the kite AND a movement towards the center of the wind window. Pull the kite out of its rotation after 1 1/2 turn. Instead of popping the kite you can also pop while pancaking by stopping your popping arm earlier than the other one and extending the other one. It might be easier to keep the kite rotating when walking forward keeping the rotating wing hand extended.

Flat spin/180 Flat spin

A basic flat spin is similar to a [540 flat spin](#), but only completing half a revolution (180 degrees). This is easier to achieve as the kite requires less precision in the setup. The kite should be "popped" back after half a turn, much as it would coming out of an [axel](#). This move looks very effective if it completes to a landing, by taking a few steps forward as the wing tips become parallel to the ground.

Fractured Backspin

The Fractured Backspin starts like the [Backspin](#) with a left turn at the top of the window followed by a gentle right-handed pop to initiate the spin. Instead of popping gently with the left hand, pop hard with the left and then immediately with the right. Instead of spinning once more on it's back the kite kill flip over onto it's front with the first (left) pop (belly down, nose still away from you) and then flip under itself (like the [Fade](#), aka [Fractured Axel](#)) with the second (right pop) so that the kite is on it's back with the nose towards you.

Constant tension on one line at this point will spin the kite around back into normal flight.

G-Whizz

Start with a [wing tip stand](#). For example you pull your left wing up and the nose starts rotating in a clockwise direction. Let the nose go right until the leading edge is almost about to touch the ground and then push your left hand forward to [pancake](#) the kite, nose away from you. Before the belly of the kite hits the ground, pop with your right hand to initiate the [540 flat spin](#). The kite spins in an anti-clockwise direction (looking from above).

This trick can be started from a [coin toss](#) as well, to get the kite into a [pancaked](#) position. The [Twisted Sister](#) is a similar trick.

Horizontal slot/Vertical slot/Angle slot/Slot machines

Very versatile trick, easy to do, (after learning) and can be done in different parts of the window with different effects.

Horizontal Slot - Fly across the window, execute a [half axel](#) move with your inside hand (up wing) As soon as the belly flattens out (that is before the half axel move is completed!), pull your inside hand again sharply and push forward the outside hand causing the kite to spin a [540 flat spin](#). Do this at the edge close to the ground, the kite 540s back into the window for a landing.

Vertical Slot - fly nose down (with power) on the edge of the window and slightly point the nose to the outside. Execute [half axel](#) movement with the inside hand and pull again when belly of kite flattens out. The kite will [540 flat spin](#).

Angle slot - Fly the kite nose down at a 45 degree angle. Execute a [half axel](#) with the up/inside hand and as soon as the kite belly is flat, pop that same hand again causing kite to float around in a [540 flat spin](#). This is the same as the vertical slot but can be done anywhere quickly.

Lazy Susan/Rotating backflip/Turtle spin

Flip the kite into a [turtle](#) and do a very gentle pull on one of the lines to generate a rotation. This will start a rotation while the kite is on it's back. Pull the kite out of the turtle position after one rotation. You should take care that while rotating the kite doesn't pick up the lines with it's wing tips. The way to do it is to immediately release both lines after the gentle pull which enables the lines to lay in the cheeks of the

kite. Of course you can keep rotating the kite by pulling the correct line after each half rotation. Kites that float easily will love this trick. There's a [video clip](#) from this one too (from Dodd Gross's Flight School IV).. Also see [Sleazy Lou](#) and [Flapjack](#).

Shark frenzy

Starting in a [shark](#) from right to left, push both hands forwards to flatten the kite out (as per the [switchback](#)), but before the kite flattens out totally, pop with the right hand to execute a [540 flat spin](#) off the ground. Looking down from above, the kite Flat Spins anti-clockwise. Pop again to get Leading Edge 900's, 1260's etc., etc.

A totally, totally excellent combination move is to start with a very low [540 flat spin](#) at one edge of the window, come directly out into a [shark](#), drag all the way across the window, [switchback](#), [shark](#) all the way back to where you started and then pop a leading edge 540 flat spin back into flight.

Sleazy Lou

Fly out to the edge of the window, turn up and then [turtle](#) kill the kite, pop the inside hand to get the kite spinning on it's back ([Lazy Susan](#)) while sliding back into the window.

Spin stab

Fly the kite right to the edge of the window such that it hovers close to the ground. Pull back hard and fast with the inside hand to whip the kite through 270 degrees (nose points down) then push this hand back to the neutral point progressively. Step forward to drop the kite lightly into a [wing tip stand](#), pointing towards the edge of the window, as it continues to rotate. This works better with kites that turn and accelerate quickly.

Spiral staircase

Like the [Fountain](#) ([Rising Cascade](#)) and the [Toast Rack](#) ([Rising Flic-Flac](#)) before it, I wanted to get the [Corkscrew](#) going upwards. The result is the Spiral Staircase. Fly down into a [540 Flat Spin](#) near the ground and as the kite completes, briefly take up the slack in the lines and fly the kite up ever so slightly. The movement should be quick enough to get a little lift in the kite, but not so aggressive that the rotation stops. Hopefully, the kite should continue to spin around so that you can pop another [Flat Spin](#) or [Axel](#) to continue the cycle.

It's tough to perfect the technique to get a smooth spiral upwards, at first it's more of a "Spin, Jerk Up, Spin, Jerk Up, Spin" kind of motion.

Strobe

The strobe starts out the same as the [Flash](#) or a [Flashback](#), and you continue to "pop" the kite to make it perform multiple [Flat spins](#) as it slides back into the window.

Tumble turn

Fly the kite down and out towards the wind's edge at an angle of 30 degrees. Accelerate the kite by pulling back hard on both lines simultaneously and then throw both hands far forward as the kite gets near to the ground. This move should roll the kite back by more than 90 degrees so that the back of the kite shows to the flyer and the kite is still tilted at an angle. Perform an Axel pop with the outside hand, ensuring that there is plenty of slack in the lines after the pop. Let the kite flip around to face you and then nod forward, face down and again showing the back of the kite slightly but still at an angle. Pull smoothly with both lines to recover and send the kite back up the way it came.

The whole manouvre should take place within the kite's wingspan and just above the ground for maximum effect.

Kites proven to perform this move: Box of Tricks, Xntrik, Phantom Elite UL.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Dual line tricks - Stabs

Backstab

Fly the kite right to left at approximately one wingspan above the ground. Push with both lines to stop the kite, giving emphasis to the right hand. Do not stop the kite so hard that it rolls back on the lines. [Axel](#) with the right hand. The right wingtip should hit the ground with the nose pointing away from the flyer. Hold the kite in this position with even, light tension. Snap the kite back into a regular [wing tip stand](#) position with an even pull on both lines.

An alternative entry into the move is to [side slide](#) the kite but allow the kite to rotate as it slides then pop the [axel](#) as it points its nose towards the edge of the wind.

Black hole

The mother of all [tip stabs](#) is the "Black Hole". The black hole is initiated by doing a snap spin right on a downward path so the kites nose is pointing left. This should be done at about 10 feet above the ground. Before pushing out your right hand to complete the 90 degree turn, pull aggressively with your left hand to pull the kite out and start the downward drop. Immediately following the pull, push out your right hand. It is important that you do not permit the top line to become tensioned during the drop. Walk forward during the move. Another way to do it is to initiate the right turn by a push of the left hand and after the rotation of 90 degrees pull the left hand and simultaneously push out the right hand. This trick seems to cause wear and tear on your kite. Be warned ! Not all kites like this trick, the Cal Wasp, Buena Vista XTC, and Skyburner Pro Dancer are examples of kites that do these stunts well.

Reverse spike/Reverse 3 point spike

Fly the kite, nose down near the side but with power. About 8-10 feet above the ground pull hard with the inside hand while pushing slightly the outside hand. This causes the kite to 1/4 spin almost a [half axel](#) towards the center of the window, forcing the inside tip to spike into the ground. A variation is the reverse 3 point spike which is the same as above but after your execution and right before the kite hits the ground, use a "pop up" move with the outside hand pulling the left wing to the outside causing the kite to land aggressively on both tips.

Tequila slammer

Dive the kite fast to the ground and then (dependent on wind speed) about 2 kite heights above the ground, push one wing back and immediately pop a hard [axel](#) type move with the same hand. Throwing loads of slack into both lines after the pop. The kite rolls back around the lines into a [yo-yo](#) like position which you leave for a split second (not too long, because the ground is approaching fast) before pulling

on both lines to unwrap the kite and slam both tips hard into the ground. Everything in that last bit happens in a split second flash and with a resounding <> the kite suddenly appears on the ground on its tips. Very dramatic when it works, but it does need some fairly accurate timing.

Tip stab/Vertical stab

Flying a very close ground pass, the move is initiated somewhere before or after the center of the window while the kite still has power and pressure in the sail area. On most kites, the first action is to start an up turn by pulling the "up wing", while at the same time, dumping some air from the "up" wing. The second part actually pulls the "bottom wing" toward you, by pulling the "bottom wing" thus spilling air from that wing and forcing that wing towards you. To speed up this action, the final move is a push with the "up wing" hand again. This is the basic 3 step move for a stab, which is basically a variation of a [snap stall](#). This is done very quickly! This sequence of hand movements does vary from kite to kite ie. high aspect, low aspect etc., but try this much first, and you will be on your way. I suggest trying on this on your own kite, first slow, and above the ground until you see the exact combination that you and your kites needs to achieve this, then bring it down close to the ground and STAB! It is easier to do the [black hole](#) as mentioned below, but I suggest to learn it, start at the top 5 degrees to the right of the center of the window and end up 5 degrees to the left center, executing it the exact way I described above, but the first initial pull will be harder to pull the wing around further.

Another way to do it is by simply driving hard at the ground in a dive and then (dependent on wind speed) about 2 kite heights above the ground, push one wing back and immediately pop a hard [axel](#) type move with the same hand.

Remarks, additional info ? mail [Peter Peters](mailto:Peter Peters (<pp@win.tue.nl>) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Dual line tricks - Stalls

Dead stop/Full stop/Kill

Nothing more than a horizontal [pancake](#) and equally each kite has a preference for the speed at which the move is made. Some more stable kites need a setup move of a hard, even pull to accelerate the kite before pushing.

Flying the kite in a low ground pass push quickly and evenly far forward. The kite will roll backwards on the lines and stop. If you immediately pull back on both lines the kite will "reverse" back into flight and continue with the ground pass. If you delay the recovery you can allow the kite to rotate back into a [turtle](#) position to effect a reversed 90 degree upwards turn. From a low altitude this also makes for a fast and sudden landing. In fact a kill can be done in any direction. It's just a way of stopping the kites forward movement abruptly.

Helicopter

The kite stall spins overhead. Fly the kite to the top of the window overhead. Pull both hands to bring it past that point. This will stall the kite. Immediately extend your left hand to initiate a left rotation float. You will have to move forward so that the lines stay under the kite as it floats. This is a very graceful move. To end it, point the nose down and pull the kite back into the window.

Jump stall

Start with the kite just off center of the wind, in a [wing tip stand](#). Next, [axel](#) the kite into the wind (start of a [coin toss](#)) like you were going to land it onto it's opposite tip. When the kite is flat on it's belly during the rotation (nose away), you quickly pop both hands towards you, causing the kite to pop open facing down. Now lightly let one line out so the kite can rotate around pointing the nose up. Now hold the kite in a [stall](#), and slide it out to one side. This trick is ideal for light wind flying, and requires a kite with a deep sail. The move is also very quick in action delay, so fast hands are a must. Kites known to do this are the Thunderbird, MYSL, Prism Total, Tracer, etc.

Side slide

The kite [stalls](#) across the wind window sideways. Fly the kite to the right side of the window. Pull right like a spin, but release early, when the wing tips are parallel to the ground. This will cause the kite to slide. Some kites slide more easily than others. A heavier bridle adjustment also helps.

Snap stall

Air is forced out of the sail very quickly, as in a the spin. Fly the kite left to right parallel to the ground. Pull left to initiate a left turn, then punch right to counteract that motion, then return both hands to neutral position. This is done very quickly, in a split second. The kite should [stall](#) with the nose up, wing tips parallel to the ground.

Spin stall

Air is forced or 'dumped' out of the kite's sail for a brief moment. Fly the kite from left to right, roughly parallel to the ground. Just before reaching the edge, pull the left line quickly for one complete turn and release just as the wings become parallel to the ground. To land, simply walk forward.

Stall

Technically speaking: when the kites drag and lift come into equilibrium. Or in plain English: the kite is made to hover or sit still. Fly the kite to the edge or overhead until it stops. After you stall your kite, you may find it hard to hold it stalled. Or you may find that it does not stay nose pointed up. Here is some advice to help you learn to work with a stalled kite. First when you stall a kite, the controls will sort of reverse. To raise a dropping wingtip, gently pull on the side that is dropping. This is counter intuitive since you pull on the opposite line than you would to turn the kite up. To help maintain a stall you need to keep tension off the lines. Walk slowly toward the kite to do this. If the kite starts to drop, then apply a very small amount of tension to the lines to bring it back up. You can also shake one or both hands, this works to keep the air behind the kite from flowing smoothly over the back and accelerating the kite.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Dual line tricks - Turtles

Kick start

This launch starts out like the [French Toast](#) but has a different exit. From the [Pancaked](#) position give both lines a hard and even pull, followed very quickly by a big release, probably involving stepping forward. The kite will pop up nose down, roll onto its back nose towards the flyer (like a [Flic-Flac](#)) but the extra release will allow the nose to rise, showing the back of the kite slightly. Now pull the left line slightly back and hold it. The kite will pop horizontally into the wind, nose to the left and with the back of the sail towards the flyer. Pull quickly on both lines to reverse this (nose to the right, sail right way around) and fly off. This launch needs very fast hands and is best performed with kites that perform [turtle-Flic-Flac](#) type moves well.

Ninja turtle/Dead turtle/Dead stop turtle

Dive the kite vertically, make a hard and fast pull-pull turn of 180 degrees then push evenly and quickly forward to both stop the rotation and put the kite onto its back. To resume flight do a [Turtle release](#). This also makes a very impressive landing but very close attention must be paid to the height at which the move is initiated.

Toast rack

The [French Toast](#) starts with the kite on its belly with the nose away from you. A quick jerk on both lines following by a release causes the kite to jump up and invert so that the nose is towards you and the kite is on its back. The lines are resting over the top of the kite. Pull and release both lines again to flip the nose down, away from you, up over itself and then back towards you as the kite resumes the same position, but instead with the lines running down over the trailing edge and under the kite towards you. Keep pulling and releasing to repeat this motion.

This repeated move is generally called a [Flic-Flac](#) (or [Poisoned Ivy](#) or [Cuckoo Clock](#)). By accentuating the "down" beat (that is, when the lines start under the kite) and going easy on the "up" beat (when the lines start on top of the kite), you can create lift. Start with a [French Toast](#) and continue with a [rising flic-flac](#) and you have a Toast Rack.

Remarks, additional info ? mail [Peter Peters](mailto:pp@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Dual line tricks - Water

Jaws

Stall the kite in a straight downwind landing. Once it's resting on the water, by releasing tension on both lines, you can let the kite sink into the water. Keep both lines even, so the kite sinks straight down, nose up. If the kite is fully submerged, start whistling the jaws theme and pull both lines equally, so the kite comes straight out of the water. Don't pull too hard, let steady pull and wind do the lifting.

Raise the titanic

You need water deep enough to turn the kite under water. A bit of current running away from you helps, but do not try in a strong current, you will lose your kite !

Usually a kite will try to head nose-down to the bottom. Don't panic! You can still feel your kite with your lines. Pull more on 1 line so the kite starts to turn up. If you see a wingtip pointing up, you're getting there. Let the wind and your pulling lift the wing upwards. You cannot fly out with one wing in the water easily, so you have to little by little, turn the kite around by pulling one line. As you get one wing out of the water, you have to switch sides that you're pulling, let the upper wing drop back towards the water, while pulling the lower wing up. Once you get the nose pointing straight up, an even, steady pull on both lines will raise the kite into the air.

Water skier

Do a horizontal pass with wingtip grazing the water, kicking up a rooster tail. Easier to learn on slower kites with flexible frames. The difficulty with fast, stiff kites is that if you hit the water too hard, the kite will flip into the water.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

[\[Alpha trick index\]](#) [\[Functional trick index\]](#)

Indoorflying - Dual line Landings

Tail catch

This move requires a very well neutral balanced ultra-light kite. Land your kite on its tips, in front of you. Pull gently on the lines so that your kite falls slowly on its belly ; now, just before the nose touches the ground, pull evenly and quite strongly on both lines. The kite should pop in the air : at this moment, release the lines and step forward (one step is enough). Your kite will "reverse" and go down flat on its back, belly up and nose away from you. Just take both handles in your left hand : the kite will go down quietly towards you, and you should be able to catch its tail with your right hand. Nice, impressive, efficient, and quite easy :-)

Remarks, additional info ? mail [Peter Peters](mailto:pp@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

[\[Alpha trick index\]](#) [\[Functional trick index\]](#)

Indoorflying - Dual line launches

Tail throw

Tie your finger-straps around the last two fingers of each hand, so that your hands are relatively free. Hold your kite belly down, nose towards you. The lines should lie on the floor in front of you, so that you won't get into a tangle when you launch. Put your right hand on the kite's nose, and your left hand on the central cross under the kite (reverse if left-handed ;-)) Lift the kite over your head and push the kite in front of you : step back quickly, the lines should be tight before the kite touches the ground, so that you can start flying.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Indoorflying - Dual line tricks

360

This is done to gain ground on your field, or to fly in no wind. While always keeping slack out of the lines, run in a large circle (360 degrees). The kite will follow you around the circle. Try learning this in both directions. This maneuver is easier on short lines.

Fly away

Used to gain ground indoors or in low wind. Fly the kite vertically downwards and walk (or run, dependent on wind speed) forwards so that the kite starts to flatten out with the nose away from you. The kite will "glide" down. Just be careful not to move forward too quickly. If you do, you will do a [Reverse turtle](#).

Nose-in float

This move requires very little or no wind. The kite should be very well neutral balanced. Flying left to right - at the very right edge of the window, snap turn down - at about the middle of the right edge of the window, pull turn left (this will pull the kite just outside the wind window) - as the wingtips just become parallel to the ground, push out with both hands, lead with the right hand following with the left. The kite will lay on its' belly with the nose pointing in towards the pilot. Recovery is simply a little tug on both lines while taking a step backwards.

Up and over

This is where you fly the kite up over your head, to the top of the window. Pull both lines evenly to push the kite past that point. Then turn into the wind and pull the kite down at the opposite side of the window by walking downwind. Finish with a 180 to return the kite to its starting point.

A variation on this trick is done like this: as you get the kite into the position where you start the up and over, turn your back on the kite and pull the lines over your shoulder (going clockwise it would be your left shoulder) take one step away from the kite. As the kite goes past 12 start to pull your hands down and back and also take one step away from the kite (the opposite way to last time). Done this way you hardly lose ground and the kite has a lot of power.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Indoorflying - General

Fade up and over

Start in the belly down nose away position and do a pop up into a fade. Move back fast enough to get the kite to rise in the fade position. When the it gets as high as you can get it (hopefully over your head) give it a slight pop to make it glide the rest of the way over in the fade position. At this point you turn and the kite gliding away from you in a backflip position with the lines coming off the nose and under the kite. Tension the lines before it gets to close to the ground, and the kite will flip over into regular flight. The key to the glide is not to pop the lines too much. If you pop it too much, the kite will will glide and then dive into the ground.

Light wind flying

Indoor and light wind flying require a practiced hand, ultra light equipment, line and kite, as well as patience and stamina. Before trying light wind flying, check your condition. If you plan to fly light, you will be walking briskly, running, running backward, and consequently, panting. The best advice is to get the best ultra light kite you can afford, use 50 lb. to 80 lb. spectra lines. Length depends on your needs. Indoor lengths depend upon the height of the ceiling in the room you will be flying in. For outdoor zero wind flying, short lines are recommended; 15'-30'. This makes it easier to do 360's and up and overs. For competition, use short lines of 60' or so. Exception: If you are in an area surrounded by objects which obstruct the wind, using long lines will help you find the wind.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

[\[Alpha trick index\]](#) [\[Functional trick index\]](#)

Indoorflying - Quad line launches

Can-can launch

The Revolution flat down/face up, leading edge away from you. pull softly, catch with toe and kick up and overhead to launch behind you inverted and fly behind you. the slower the better, keeping in mind it's all how you turn your toes!

Guillotine launch

The Revolution flat down/face down, with the leading edge towards you. Pull handles up to head level and step backward, flying the kite smoothly behind you in one swoop. Don't cringe, don't duck. Just slice the air.

Remarks, additional info ? mail [Peter Peters](mailto:pp@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Indoorflying - Spins

Archimedes screw

Start with the kite flat on the ground (belly down), grab a tip and, very gently at first, spin the kite, nose first, around your body, trying to keep the kite as flat as possible. As you turn, the kite should lift. Let it do it's own thing as much as possible as any pressure on the tip might snap it clean off. Keeping spinning around until the kite reaches head height and then give it a final flick so that it [Flat Spins](#) around itself, just above your head, while you walk back and take up the slack.

Executioner

Fly the kite down, flatten out and pop a hard [Flat Spin](#) that brings the kite towards you. Catch the kite or simply duck and let it pass right over your head (the lower the better) until it's right out the other side. Take up the slack and fly out. This is also great to do outside in light wind when you can fly the kite hard **into** the wind and then use that wind to really get it whipping back towards you.

Remarks, additional info ? mail Peter Peters (<pp@win.tue.nl>).

Quad line tricks - Axels

Rev Axel

The Rev axel is a similar move as the dual-line [axel](#). Let some slack into one hand (say, the right) and in particular, push back the bottom. Then, in a single movement, flick the right hand, putting the emphasis on the bottom line and let slack out with the left hand. If you pull on the upper line, the kite tends to do an upright axel, more like a cartwheel. With the correct "flick", the kite should flatten out and spin flat.

And here's an alternative description:

With the kite moving across the window, throw out the hand that is connected to the bottom of the kite. This will let the kite flatten out. With the kite gliding flat through the wind, simply give a quick pull on the same hand that you threw out. Be sure to keep your wrist bent so that you are pulling the kite from the bottom line. The kite will spin around and as you put you hands back to neutral, your Rev will pop back into the wind. The kite can go around more than once in this spin (although it is easier in light wind).

And another one:

with the rev horizontal, leading edge up, put both handles in one hand. Quickly reach out and grab one of the top fly lines with your free hand and give a sharp tug. This one works with the rev on the ground as well.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Quad line tricks - Flips

Rev Back flip

Fly to the top of the window, place both handles in one hand, reach up and grab both bottom lines with your free hand. Now give them a small smooth tug. The bottom wingtips will pop forward and up, leaving the kite facing leading edge down. Before the kite falls down, pull both bottom lines again to recover.

Rev Flic-Flac

For starters, it's best if you fit a trick line. Run a length of line from the end of the top spar, down to the bottom of the upright, across to the other upright and back up to the other end of the leading edge. This line stops the flying lines from digging right up into the bottom of the sail.

The easiest way to do the trick was to take both handles in your left hand and grab the bottom lines with your right hand. Pull both bottom lines sharply and then release. The flaps of the Rev get should get pulled towards you and then released quickly enough so that they spin right back and over the leading edge. The kite should now be wrapped around its lines. Pull sharply on both handles (in your left hand) to unwrap it. Then pull the bottom lines again to wrap, pull to unwrap, etc., etc....

Get the timing right and you get the characteristic "Flic-Flac" motion as the kite wrap, unwraps, wraps, unwraps, etc. Looks pretty cool.

A slightly different method - hold one handle in each and jab your hands down sharply (to pull mainly on the bottom lines) and then release. It seems to require more precision and control, but had the benefit of not slicing his fingers up on the lines :-)

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Quad line tricks - Launches

One handed up and over

With the kite on the floor in the launch ready position, place both handles in one hand. Doesn't matter which one, but let's assume you use the right hand. With that hand extended out to your right side as far as it will go, tilt the top of the handles back and gently launch by using a sweeping motion to your left side. As the kite goes over the top, you may want to do one of two things in order to keep pressure in the sail. One would be to start bringing your arm in toward your body. The other method is to move your body away from the direction of the kite. Both will work, as well as a combination of the two.

Experiment to see which you like best.

Once you have mastered the one handed up and over, try doing a reverse up and over one handed. It's the same motions, but for some reason, for most people reversing the kite is more difficult.

Rev 3D Launch

If you land the kite face down with the leading edge towards you, it's not always easy to get it up straight away. Simply put both handles in your left hand and grab the bottom line of the right handle in your right hand. Now give this line a sharp tug and the kite flies up towards you in a flat spin. Looks way cool. Be careful of the lines though - they can cut. Wrap a piece of insulation tape around the upper part of your first finger to protect yourself when 3D'ing.

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).

Quad line tricks - Spins

Rev Flat spin

Fly the kite right out to the right of the window with the leading edge facing out towards the right. Push your right hand forwards to let the right hand side of the kite (nearest the ground) fall way back away from you. Then, with a quick flick of the left wrist across your body and down to the left, the kite should flatten out and flat spin (strobe?) across towards the left of the window.

Stairway to heaven

Start by hovering upside down near the ground, center of the window. Sharply pull bottom line in left hand. The kite does a "semi-flat" spin counterclockwise. Catch the kite when it is again inverted. Now do the same with the right hand. Catch it when inverted again etc... The end result is that the kite does a "fountain" type move up the wind window, as each "catch" would end up a little higher in the window than the last. It looks like the kite is going up stairs...

Remarks, additional info ? mail [Peter Peters](mailto:Peter.Peters@win.tue.nl) ([<pp@win.tue.nl>](mailto:pp@win.tue.nl)).