

THE LONG AND WINDING PATH

<starting with a basic orbiter, shape set to Box, BPM = 1,color set>

Welcome back!

It's time for a look at Animator Tilt, and Spin, followed by quick dip into the same settings at the level of the individual shape, rather than the entire Animator.

First: Dealing with the entire Orbiter Path:

The Animator Tilt is here.

<mouse over Animator Tilt>

<Click on Constant>

A constant tilt can be adjusted around any axis, and is measured in degrees.

If you set it to 360, you'll see no change, because you've tilted it one full rotation.

If you tilt it around the axis it is set to orbit around... you will also see no difference.

Since my orbiter is rotating around the Y axis, let's look at the other two.

30 degrees around the X axis looks like this. <set X=30>

And... around the Z axis, like this. <set Z=30, X=0>

<show drop down>

If you assign the orbiter tilt to a circle path and give the size a 30 degree tilt on the X axis., then set the Cycles per minute to 15...

<set X=30, set CPM=15>

... this is the result.

Again, there are a variety of paths, and a variety of parameters for each of the paths, that will adjust how the orbiter tilt responds.

Be Brave and mess with 'em!

<Fade>

<Reset Tilt to constant, and 0, close>

<opening Spin>

Let's take a peek at spin.

< set spin to X=30>

Spin is set in Revolutions per Minute.

I am setting the orbiter to spin around the X axis at 30 RPM.

Like Tilt... if you set it to spin around the same axis it is orbiting around... you will see no change.

And... you can set it to spin around any or all the axes, as well as choosing different path

shapes.

I'm just messing with a couple of them here... to show you a bit of the variety.

<while messing with drop down and settings... try parabola: scale, etc set to low #s>

As always, the best way to learn what you can do with it is to GO PLAY WITH IT YOURSELF!

<Fade>

<Reset All to basic orbiter, Box, rainbow cycle = 1per min>

<pointing out Animator Shape property and opening it>

OK, it's time to see how things move when we start playing with paths at the level of the Shape itself.

Here, is the Animator Shape fly out menu.

If you watched earlier tutorials, you'll recognize this – it's where we can choose the shape and set color of the our animator.

For now, I'm staying with the “box”, because I think it shows how tilt and spin affect the action better than the others. If you're like me... you've already checked out every shape in there, with color and twisters going like mad, to see how they all look!

On to Tilt!

For starters, lets set the tilt to 60 degrees on the X axis.

<set tilt to X=60>

There we are, the shape itself is tilted. You can tilt it on the other axis, or set the tilt to a different path.

Let's try... a Spirograph, and set the scale to 10.

<choose Spirograph; set Size:Scale=10>

Presto-change-O. You get the general idea.

<Fade>

<Reset tilt to basics>

<start with Animator Shape fly-out menu open>

Now for Spin.

Just like for the Animator: Shape Spin is set in Revolutions per Minute, and you set it for each axis.

<set constant spin X=25>

This is with an X value of 240 Revolutions Per Minute.

<choose Rosetta>

And... you can chose any number of paths for it to conform to, and customize the paths as you like.

Finally... let's take a closer look at how the Animator connects to the music.

<Fade>

<reopen with music in and an orbiter with color, no spin, no tilt>

<start chaotic>

When I start the music you will notice that the Animator is NOT automatically doing anything in relation to the music. I have to tell it what puppet strings I want it dancing to!

<choose 3D Music Power for Animator Tilt>

<while setting Scale to 0.25 & Animator Tilt to X=20>

I'll set the Animator tilt path to music Power, reduce the scale a bit, and tell it to tilt by 20 degrees on the X axis.

AND...

<choose 3D Music Power for Shape Spin>

<While setting Shape Spin to Z=30>

When I set the Shape to Spin 30 times per minute on the Z axis, as well...

It starts to look like I'm becoming a puppet master!

Now we've seen some of what Paths can do when you attach an Orbiter's center-point, tilt or spin to them, and the effects of tilt and spin on an individual shape... Imagine attaching size... or color... and with all the available paths and the individual adjustments of those paths - the possibilities are boggling!

And while one object is cool... it is boring! Don't forget the twisters... (and if you haven't already, go watch the All About Twisters Tutorial!) ...they are what gives you something worth building on!

<step through twisters – 2D & 3D grids, Twist x1, Twist x2 – change Twist 2 to “2D Grid”>