

PropBoy's Axworthy Flying Ghost

This is the flying ghost that made urban legend! It is a difficult project IMHO others claim it is not so. This prop is temperamental and subject to regular catastrophic failures during design as well as run time.

With all that said here is my attempt at a tutorial, it's still in progress.

The ghost fly's on the principle of a ski hill chair lift wheel system. The drive line goes around a wheel driven by a belt and motor and is pulled around a track. In my case 4 trees.

Here is a video of the ghost in action

[VIDEO](#)

Brackets:

I use a simple "L" bracket that I strap to my trees. The wheels are just bicycle rims that I scrounged for free. These seem to work very well and come in a variety of diameters to fit your layout. Another advantage is that they have ball bearings that allow for very smooth rotation. My wheel brackets are constructed from Uni-Strut which is a steel that comes with fasteners to lock pieces together. You can do 90 degree angles with just bolts and the Uni-Strut has pre cut slots in them so this is a plus for adding/reducing tension on the drive line. You simply have to move your wheel to another slot to get the tension that you desire. I use ratcheting straps to secure my pulley's to the trees. No damage to the trees and easy to use. **TIP** try to keep the pulley's at the same level this will help reduce/eliminate problems later down the road.

Here is a picture of the wheel assembly that happens to hold the motor drive train as well. The spring is to keep a constant tension on the motor to keep the drive belt tight and not slip.



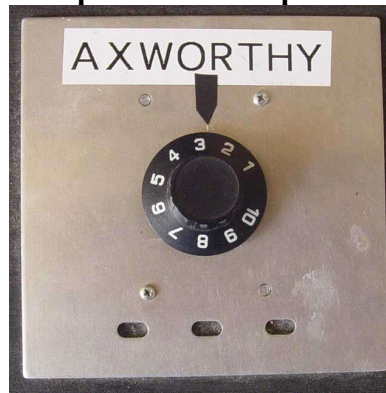
Here is a top view of the same pulley you can see the channel in the Uni-Strut



Motor & Speed Control:

The motor that I prefer is a simple sewing machine motor that comes with a plug in cord and pulley and only costs \$20! Pictures of the motor assembly are above. But, you will need a way to control the motor as it will run at top speed if you don't. I use a sewing machine speed control from Dayton available at Grainger. Sorry I don't have the item # at this time but it is around \$35.

Here is a picture of the speed control.



In addition to controlling the speed of the ghost you will need a way to make the motor turn the wheel. I do this with an easy to obtain, inexpensive, serpentine belt from cars. I just cut out one of the ribs of the belt and place it over the wheel and around the pulley of the motor and walaaa. Instant drive system.



Drive Line & Ghost Hook:

I use Cortland Braided Musky 45lb test fishing line as my line to go around my flight path. It comes in black is very strong and thin. This year I also tried poly nylon braided cord. It is thick and also worked quite well. I used to just hang my ghost right on to the drive line. Yes the one line says 18lb I used that as I ran out of the 45lb test. But the 2nd line is the thicker line and it worked quit well.

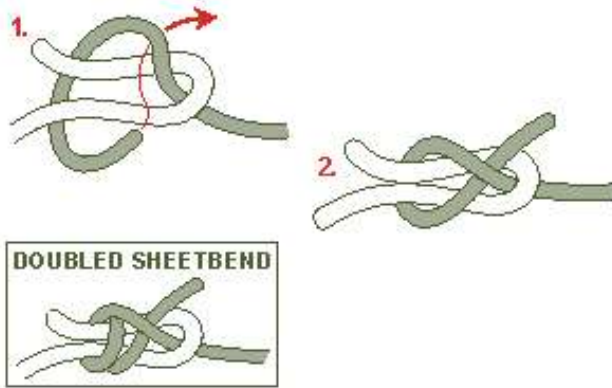


Here is how to secure the 2 lines together



SHEET BEND

Make a loop with the heavier line. Pass second line up through loop, around both heavy lines then back under itself.



This year I experimented with "J" hooks that connect my drive line to the ghost itself. Here is a photo of the "J" hook I used this year.



Here are 2 other "J" hook configurations that I experimented with. The previous one is the one that worked best for me but you might consider one of these 2 hooks.



Ghost:

My ghost was very simple just a styro foam ball wrapped in a clear garbage bag with a cloak. Try to keep the weight of your ghost as light as possible as this will effect your performance of the Axworthy ghost effect. To heavy and the ghost could pull the drive line off the wheels.



Well, I hope that this helps in your quest to have a Axworthy/WidowMaker Ghost Feel free to contact me with any questions I'd be glad to help. This page will be updated and enhanced. I just whipped up a quick how-to so check back in the upcoming months for improvements and more detailed instructions.

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**Another site for good Axworthy information:
[Axworthy Information](#)**

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