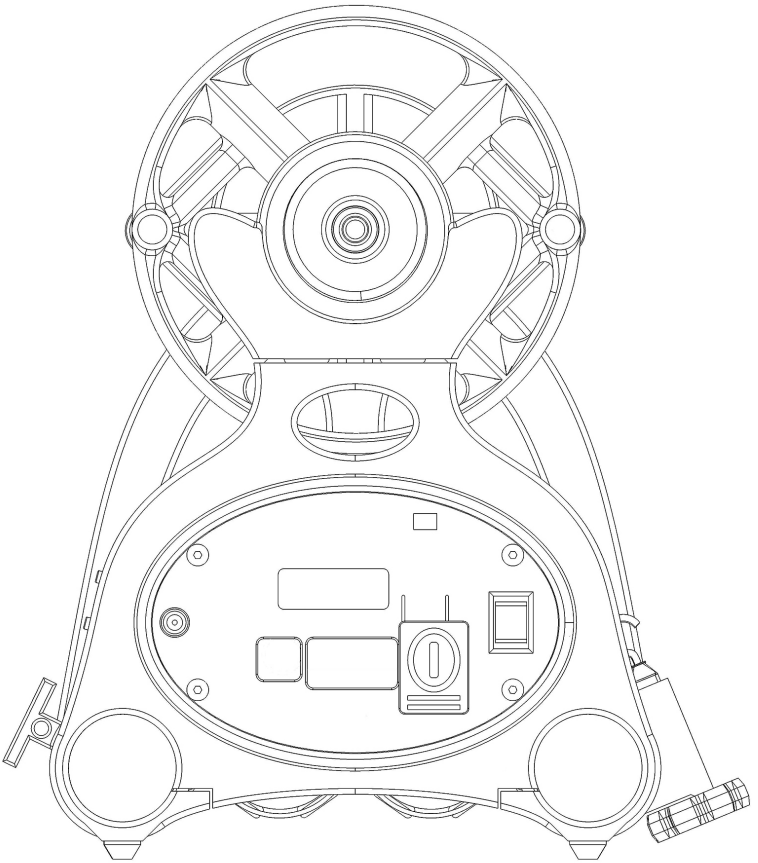
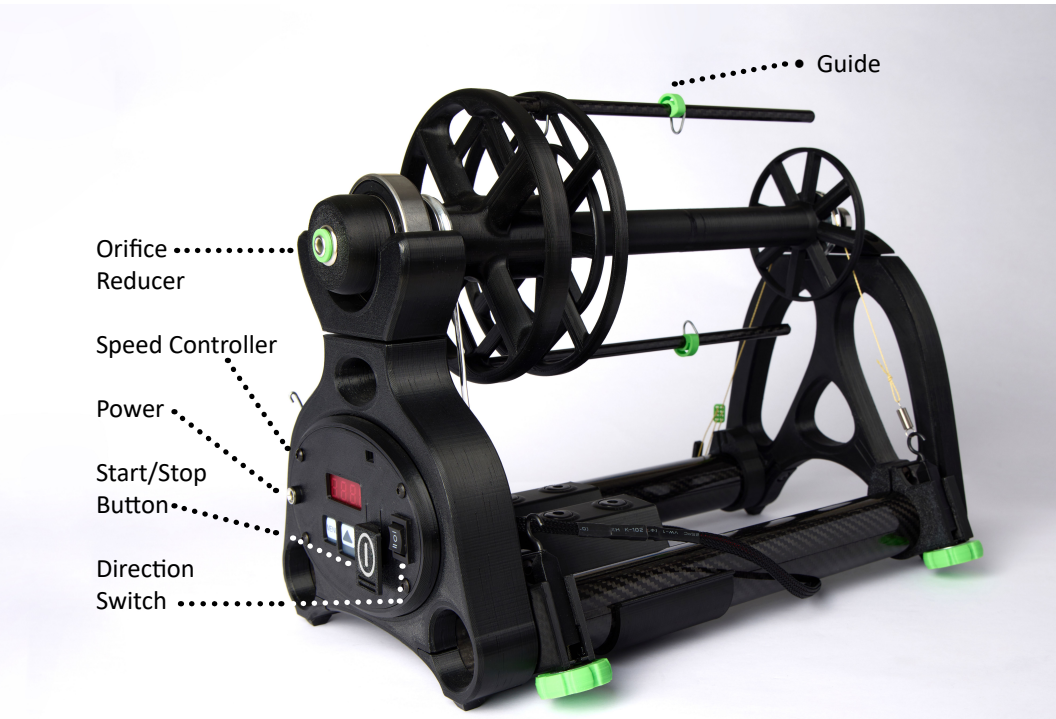
DAEDALUS

SPINNING WHEELS



MAGPIE V2


Standard Flyer, Art Flyer, Motor Mount, Pinions, Face, Maiden Cup, Rear, Rear Bearing
Maggie
Right Side with Tension Knobs
Left Side with Tension Anchors
Orifice Hooks, 3mm Allen Wrench
Drive and Tension Belts, Speed Controller, Extension Cable, Foot Pedal Attachment


Guide
Orifice Reducer
Speed Controller
Power
Start/Stop Button
Direction Switch

WELCOME TO THE FLOCK!

Thank you for purchasing the most powerful and flexible Daedalus electric spinning wheel to date! It was designed to be quiet, long-lived, and to require little to no maintenance during its lifetime. Should you need any assistance with your wheel, please do not hesitate to contact us at support@daedalusspinningwheels.com

GETTING STARTED

To watch a video on how to assemble your wheel, please scan the QR code below. When setting up your wheel after assembling from flat-pack, you'll want to make sure that everything is properly aligned for optimal spinning. (This is also a wise procedure after traveling with your Daedalus wheel.)

The motor mount is designed to be easily removed and reinstalled facing the opposite direction, in order to change tensioning systems from Scotch to Irish. In Scotch tension, the motors drive the flyer and the tension belt provides resistance to the bobbin, allowing yarn to wind on. In Irish tension, it's the opposite: the bobbin is led by the motors. Because of this feature, you will need to make sure the motors and the pinion pulleys are properly aligned, directly underneath the appropriate whorl before spinning.

To do so, check the pinion pulleys (the grooves that hold your drive band) on the front of the motors. They should be located directly below the belt groove on the flyer above. Verify that the drive belt is parallel to the front frame by observing it from the side. Use your thumbs to adjust the position of the motor mount as necessary. If the motor mount feels too tight to move, push one side downward until it pops off the carbon tube.

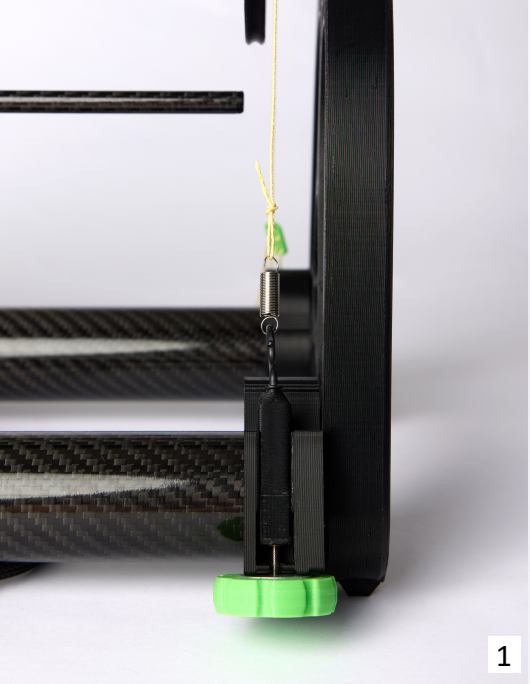
If necessary, this wheel can be flat-packed to aid in portability. To disassemble, you'll need to use the 3mm Allen wrench included in your spares tool kit. Simply remove the flyer, pop off the motor mount, and loosen 4 screws to separate the front and rear pieces from the body tubes.

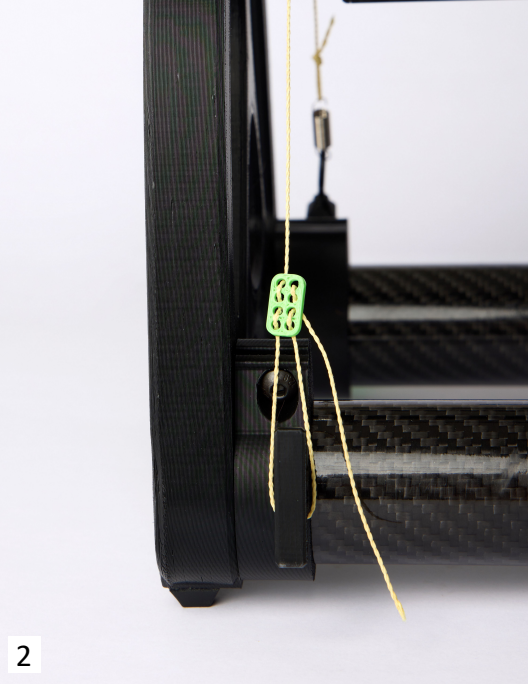
To see all of our videos on how to use your wheel, check out the following YouTube videos by scanning this QR Code with your mobile device:

SCOTCH TENSION BASICS

When using your Magpie in Scotch tension, the motor will be facing forward and the pinion pulley(s) will have just enough space between it and the front frame to slip the rubber drive belt in front of it. Viewing from the side will verify that the drive belt is parallel to the adjacent front frame.

Now let's get our tension adjusted. The goal is to adjust the tension knob/stalk (1) to the middle of its adjustment range prior to beginning a spin. If needed, take slack in or out at the cinch plate (2) until the tension belt has none but the spring is still collapsed. This way, there





1 2

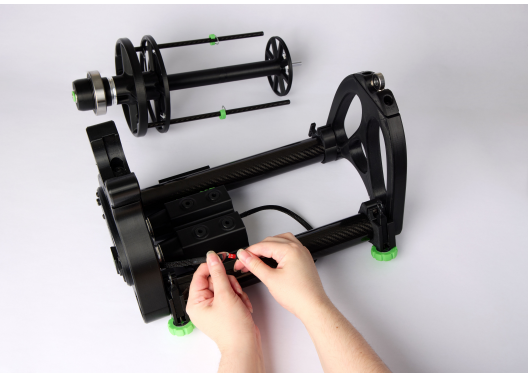
Increase Tension

Decrease Tension

is a usable range at the knob/ stalk where takeup can still be increased or decreased as needed while your Magpie is in use.

After traveling, another small adjustment may need to be made at the cinch. The Standard Head uses a spring. You can look at it to see how much tension is being applied. The usable range goes from spring collapsed to extended at almost double its length. If you still need more takeup, consider using your e-spinner in Irish tension.

SETTING UP FOR IRISH TENSION



Irish tension provides more takeup, or pulling in of the yarn, than Scotch tension. Changing to Irish tension is as easy as removing the flyer, tension belt, and motor drive belt.

First, detach the motor and its mount by pushing down on one edge with both thumbs. The other side now comes free easily.

Turn the motor so that it now faces the rear, and snap it back onto the carbon tubes. Place the motor drive belt over the rear frame and re-install the flyer.

Install the motor drive belt over the bobbin's small whorl. Verify the alignment of the clear motor drive belt (it being parallel to the rear frame) or gently slide the motor until it aligns directly under the small whorl of the bobbin.

Install the tension belt at the front, over the flyer groove. Please note that your direction switch will be opposite in Irish tension as compared to Scotch (meaning that I is now S and II is now Z).

IRISH TENSION

You will need to slide the motor mount in a rocking motion until it aligns under the large (low speed) or small (high speed) whorl at the rear of the bobbin and the other end of the chassis. Verify this visually from the side to ensure the drive belt is parallel with the rear frame. Additionally, when using the large whorl, swing the flyer by hand and observe that there is a small bit of clearance (just a few mm) between the flyer arm tips and the drive belt as the flyer rotates.

In Irish tension, your drive band goes on the bobbin and its built-in whorls, which allows you to have two different speed modes: a High Speed (small drum) and a Low Speed (large drum). Each flyer has two different drive bands. The larger drive band goes over the large bobbin drum and the small one goes over the flyer, or the small bobbin drum.

START IT UP!

Before you get started, always make sure the direction switch on the Speed Controller is in the middle (neutral) position, or else the wheel will attempt to start when you're not ready. Please read the directions for using the Speed Controller for more in-depth information.

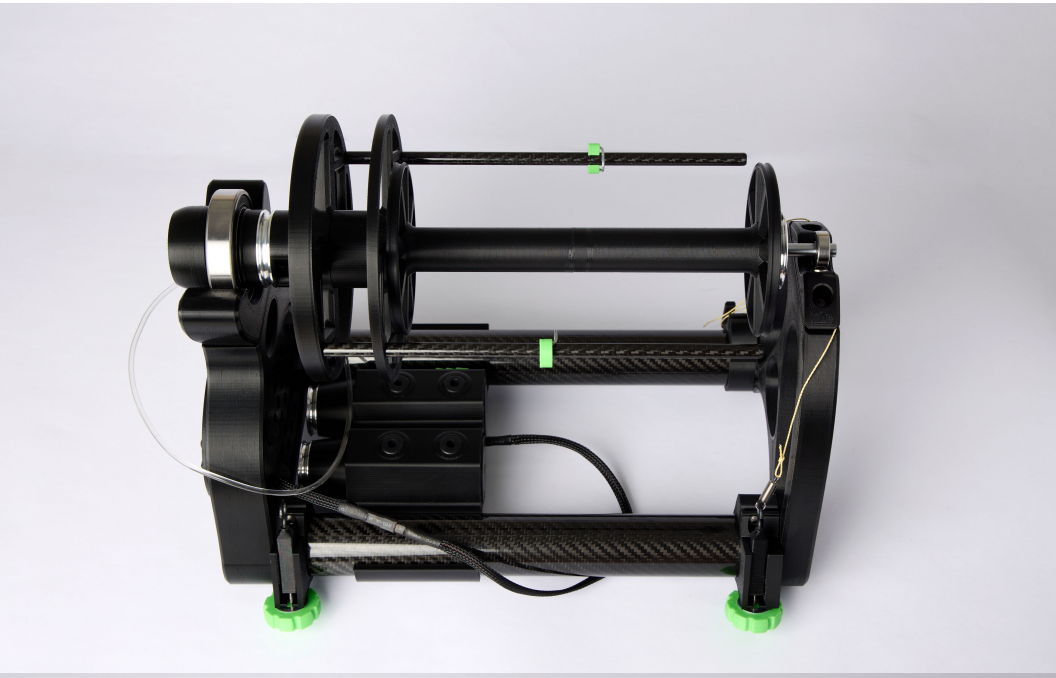
Direction Switch

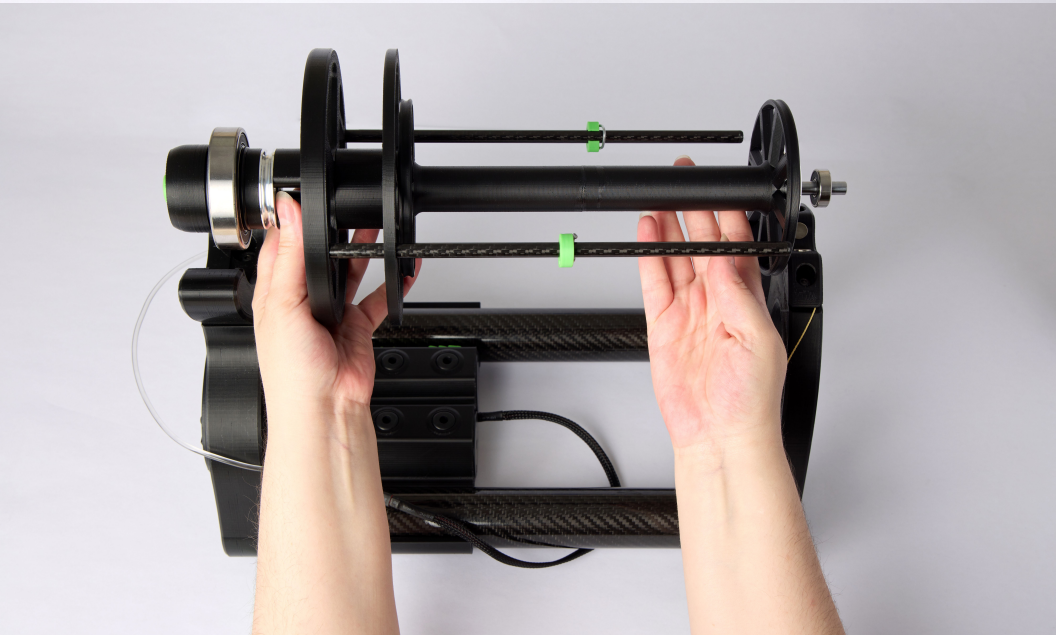
I - Clockwise Z twist (commonly chosen for spinning singles)
0 - Neutral
II - Counterclockwise S twist (commonly used for plying)
(Note: this is for Scotch tension; Irish tension is the reverse)

- Tie a leader (a long loop of fingering weight yarn or your personal preference) onto the bobbin. Use the provided orifice hook to route the leader through the yarn guide, then through the shoulder of the flyer, and then through the orifice.
- Plug your 15V 5 amp wall power supply (or your 15V battery) into the Speed Controller.
- The module should light up and show the current set speed. Adjust this as necessary using the Up/Down arrows, and then press the Start/Stop on the Speed Controller. The display will show "- - -", which is stopped.
- Attach your fiber to the leader loop. Verify the display still says "---", which means it is stopped. Flip the direction switch to the desired direction (I is Z twist, II is S twist in Scotch tension and reversed in Irish tension).
- When ready, press Start/Stop. The wheel will slowly accelerate for 3 seconds to your set speed %. You can fine-tune your speed while spinning by using the Up/Down arrows. When it's time to advance your yarn guide, press the front of the Start/Stop and the wheel will slowly decelerate for 3 seconds and come to a full stop.
- Increase or decrease your speed using the Up and Down arrows. Pay attention to the takeup and adjust the tension knob accordingly. Fine-tune your speed as you get comfortable. You will need to slightly adjust the tension as you change your speed and as the bobbin fills with yarn.

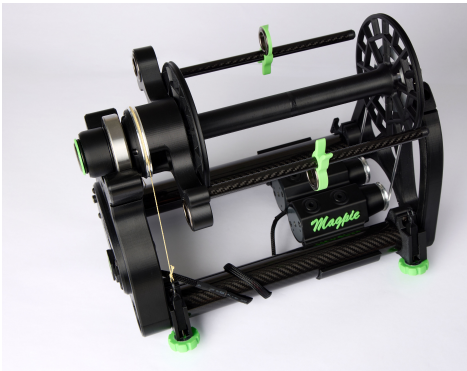
CHANGING THE BOBBIN

When it's time to change your bobbin, slip off the drive belt and lay it over the frame. Then remove the tension belt. The way the tension belt is removed varies a bit depending on which flyer you are using and which tension method you are using (Scotch or Irish).





Scotch
Slip off the tension and drive belts, then lift out the flyer and bobbin assembly. Remove the rear axle bearing. Keep track of it by placing it back onto the rear magnets. With the new bobbin on the flyer shaft, replace the rear bearing onto the end of the axle and place the assembly back onto the chassis, making sure the small rear bearing clicks back onto the magnets. Replace the tension and drive belts, and you are ready to spin again!



Irish
Here tension is on the flyer, so the tension band can't be rolled off and will instead need to be unattached from one side. The spring in the Standard Flyer tension system makes for easy tension band removal from this side. Since the Art Flyer doesn't use a spring, you will need to loosen the tension and then slip the entire knob/stalk assembly out of its track. Once the drive and tension belts are out of the way, lift out the flyer and bobbin assembly. Remove the rear axle bearing and keep track of it by placing it back onto the rear magnets. With the new bobbin on the flyer shaft, replace the rear bearing onto the end of the axle and place the assembly back onto the chassis, making sure the small rear bearing clicks back onto the magnets. Replace the tension and drive belts, and you are ready to spin again!

SPEED CONTROL MODULE

The Speed Controller can be used to the side of the Magpie or even used as a foot pedal. (We have included a small plastic pedal extension for this purpose.) To remove the Module/Speed Controller, gently push it out from the back of the Magpie's face. Keep an eye on the cord that attaches the motor to the back of the Speed Controller. To completely free the Speed Controller from the wheel, you'll need to disconnect the Motor Cable. Once disconnected, you can free up the Motor Cable so it can reach the Speed Controller. The Magpie comes with an Extension Cable that will allow you to use the Speed Controller on the floor or even to the side of the table or surface where you are spinning. When using the controller as a foot pedal, you'll need to use the Foot Pedal attachment, also included in the package. This attachment inserts into the small hole above the Start/Stop button and overlays the Start/Stop button as an extension.

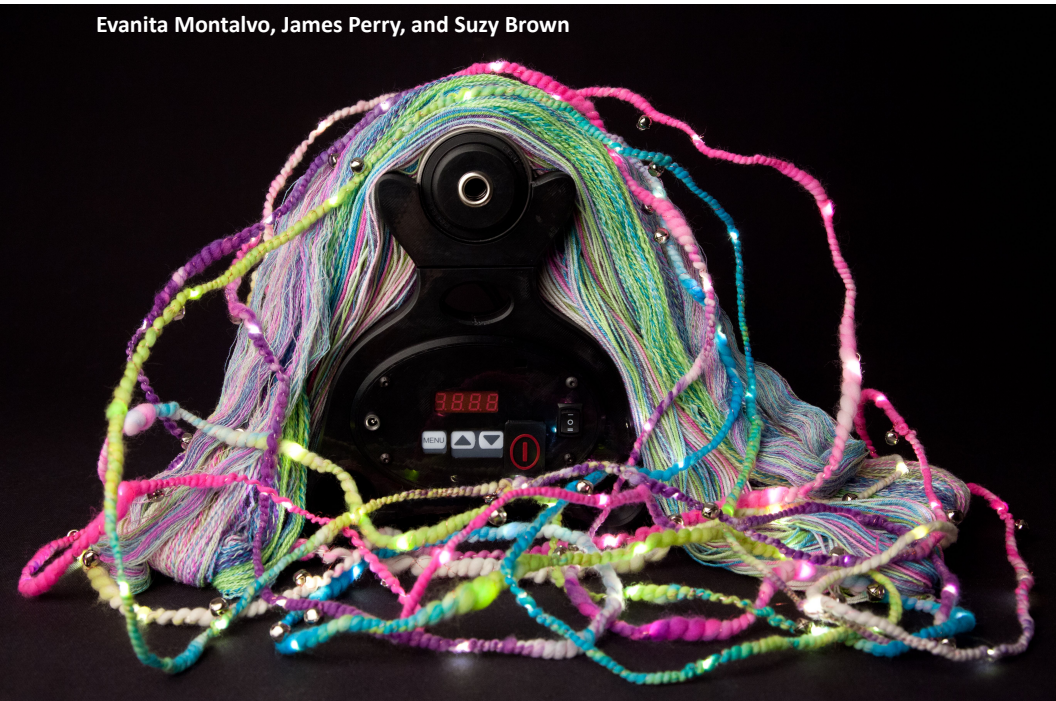
SPEED CONTROLLER MENU

To access the Speed Controller menu, put the direction switch in the neutral (middle) position. Press the Start/Stop button and make sure it shows a speed percentage number. Press Menu to see option No.1, and press Menu again to reach the next option. There are five total options. Adjust each menu option by using the Up/Down arrows. Press the Start/Stop button to save changes and exit the menu at any time. Here are the five menu selections:

1) 030 Start time delay, in tenths of a second. This shows a 3-second delay, though the full range is 0-10 seconds. (Keep the start delay low to get the wheel up to speed quickly, or increase it for a slower start. If you feel the yarn is being yanked from your hand when the wheel starts, increase this value.)

2) 030 Stop time delay, in tenths of a second. This shows a 3-second delay. Again, the actual range is 0-10 seconds. A setting of 2.060 would be a longer, 6-second delay. (5-7 seconds seems right for high-speed plying on a laden bobbin, though your mileage may vary.) If you're getting backlashing, where the yarn feeds back off the bobbin during a stop, increase this value just until the backlashing stops.

Evanita Montalvo, James Perry, and Suzy Brown



3) 001 Minimum speed setting, as a percentage of RPM. This shows a setting of 1%, the lowest speed selection possible while spinning. This setting is not commonly changed from 1%. (If you never use speeds under 30%, you could change this setting 3.030 and your Speed Controller won't go slower than 30%)

4) 100 Maximum speed setting as a percentage of RPM. This shows a setting of 100%, meaning that you could go full throttle and spin at max speed, provided you feel comfortable doing so. This setting represents the maximum speed you'd like your Speed Controller to allow for. A new user may want to make sure they never accidentally go too fast and might limit their top speed this way. (For instance, changing this setting to 4.070 would keep the controller from going above 70% speed.)

5) 001 Speed increment adjustment size. This shows 1% increments, meaning that every time you press Up/Down, the speed will change in steps of 1%, 2%, 5%, etc., depending on the setting you've selected. A setting of 5.005 means every press of the Up/Down buttons will increase or decrease your speed by the initial 5% (e.g., 5, 10, 15, 20% instead of 1, 2, 3, 4%). It would be very uncommon to change this setting from the default value of 1% increments.

Evanita Montalvo


MENU

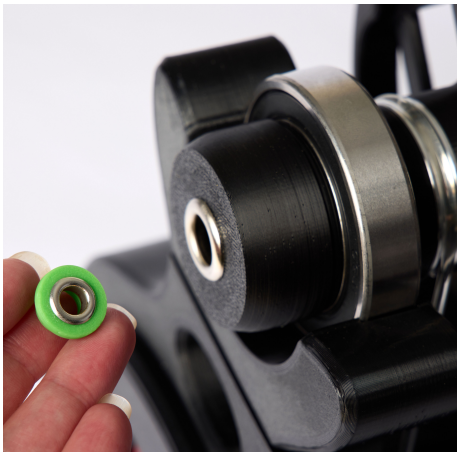
STANDARD FLYER

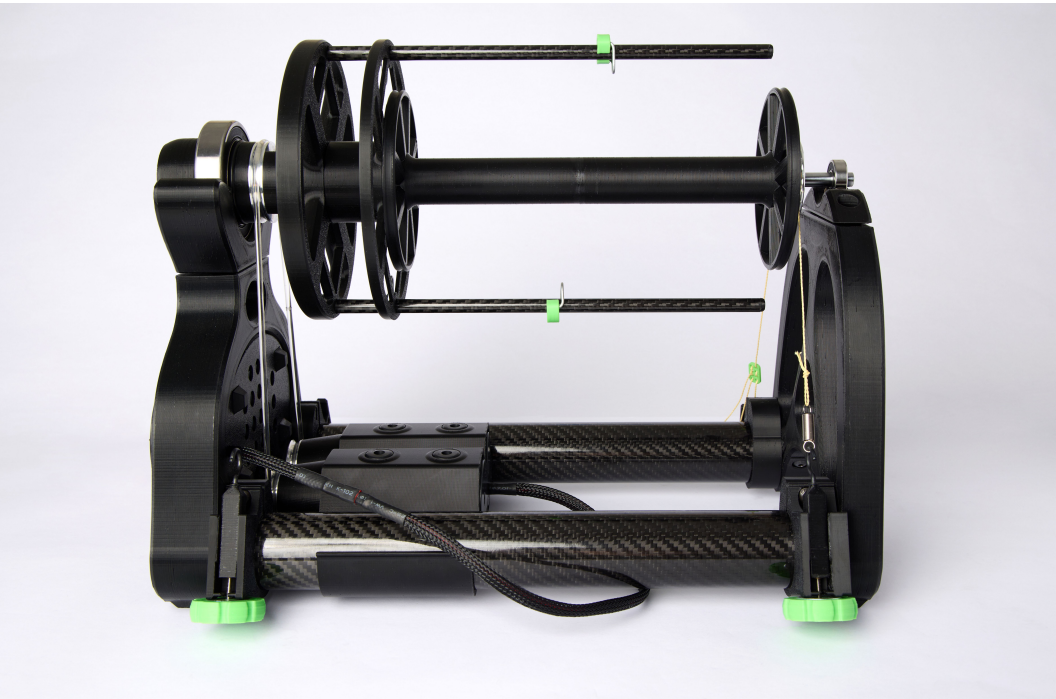
The Standard Flyer can be set up in Scotch or Irish tension. Please note that you cannot switch tension methods once you get started spinning or plying, as the bobbin winds on in different directions, so test your setup before beginning your project.

The Standard Flyer comes with a 12mm orifice with a 6mm removable reducer.

Scotch Tension
For the lightest takeup possible, Scotch tension is the way to go. Here, the tension belt goes over the aluminum drum.

Max Speed: 2,550 RPM





Irish Tension

Irish tension provides a stronger takeup, or pull-in, so if you want the most takeup possible, perhaps for a plying project, textured yarns, or flawless singles, you may want to use this option. With Irish tension, your drive band goes on the bobbin, which allows for two speed modes: a High Speed (using the small drum) and a Low Speed (the large drum). While most people will only use High Speed, the Low Speed provides much more torque for heavy work. This is useful in high take-up projects or heavy plying.

Max Speeds

High Speed: 2,550 RPM
Low Speed: 1,400 RPM

The following RPM (rotation per minute) stats were recorded from a typical Magpie V2 after a short break-in period. Actual performance figures vary among wheels due to slight variations in components and build. Please use this as a general guideline.

Speed %	Scotch/ Irish High RPM	Irish Low RPM
100	2550	1400
90	2360	1260
80	2100	1120
70	1850	970
60	1600	830
50	1330	670
40	1040	520
30	750	380
20	440	230
15	290	160

ART FLYER

The Art Flyer can also be set up in Scotch or Irish tension. Again, your type of tension cannot be swapped mid-project since the bobbin winds on in different directions, so test your setup before you start your project.

The Art Flyer comes with a 32mm orifice with a 20mm removable reducer.

Scotch Tension
For the lightest takeup possible, Scotch tension is the way to go. Tension can be placed on the small drum of the bobbin (providing the lightest takeup) or the large drum (for more take up). Most people only use the small drum.

Max Speed: 1,550 RPM

Irish Tension

Irish tension provides a stronger uptake, so if you want the most takeup possible you may prefer this option. With Irish tension, your drive band goes on the bobbin, which allows for two speed modes: a High Speed (small drum) and a Low Speed (large drum). We find that most art yarn spinners prefer to spin in Irish tension, where low speed provides the absolute maximum torque possible. This makes the heaviest art yarns a breeze.

Max Speeds

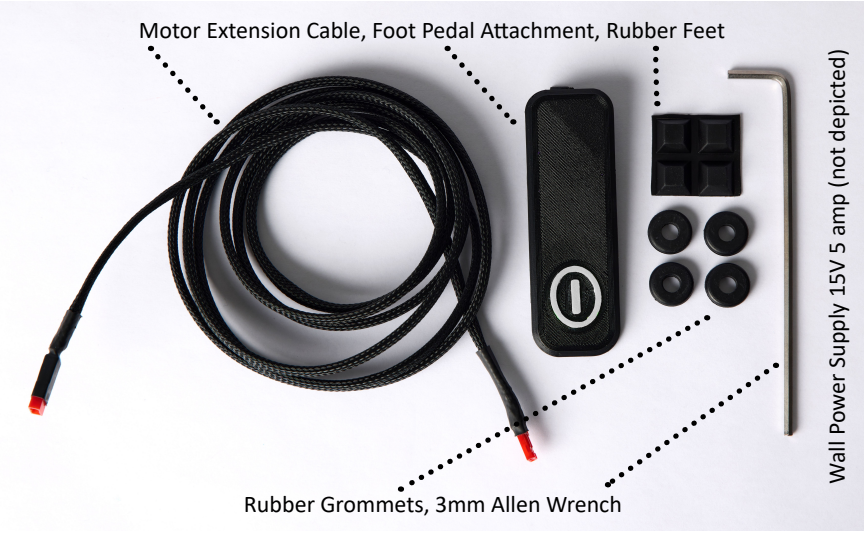
High Speed: 1,550 RPM
Low Speed: 990 RPM

The following RPM (rotation per minute) stats were recorded from a typical Magpie V2 after a short break-in period. Actual performance figures vary among wheels due to slight variations in components and build. Please use this as a general guideline.

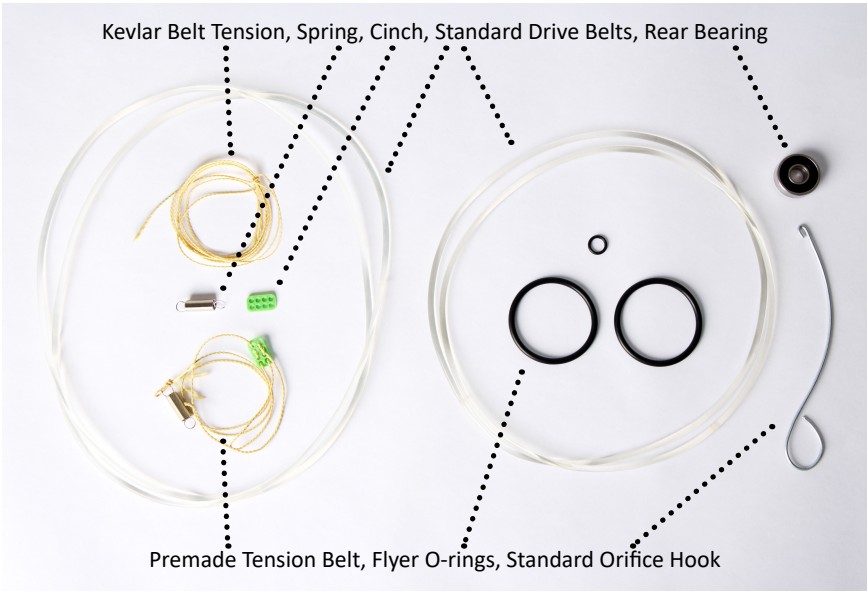
Speed %	Scotch/ Irish High RPM	Irish Low RPM
100	1550	990
90	1400	880
80	1260	780
70	1120	680
60	950	580
50	800	480
40	630	370
30	460	270
20	270	160
15	190	110

SPARES KIT & ACCESSORIES

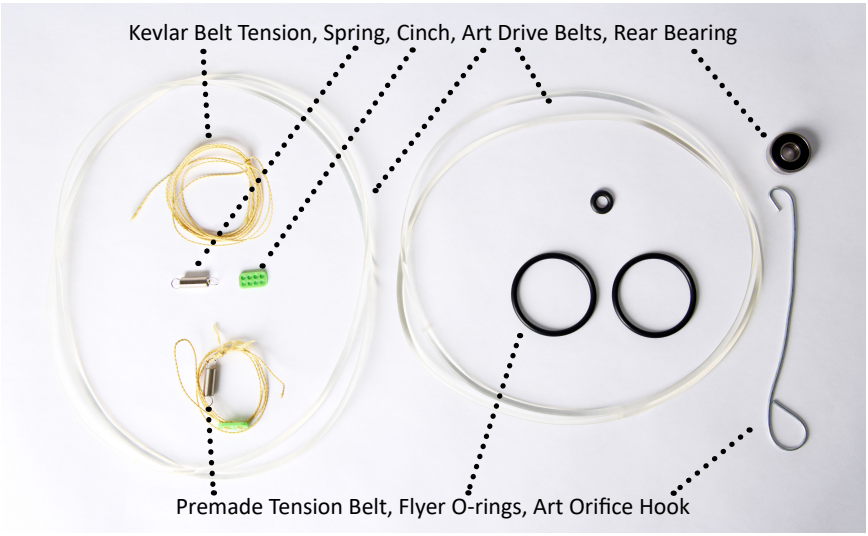
MAGPIE BODY



STANDARD FLYER KIT



ART FLYER KIT



DRIVE BAND COMPARISON

Hannah Yim

MAINTENANCE

Our wheels are designed with high grade, sealed roller bearings that are greased from the factory and will never require oil or any other attention. No parts of our wheels require oil or grease of any kind.

If you notice your achievable tension being less than before, the Kevlar tension belt may need to be cleaned of aluminum oxide buildup. Inspect the area of the belt that contacts the aluminum drum. If there is a large buildup of dark powder, you can freshen it by gently brushing the belt with your thumb to remove most of the alumina. The contact area of the Kevlar may show some “seasoning,” in the form of being a little fuzzy. This is to be expected and should not change the tension profile. The provided belt material is 1.5 mm Kevlar (yellow). You may experiment with other Kevlar braids from 1.0 to 3 mm for a softer or firmer tension profile. You are welcome to try other materials like cotton, nylon, or silk.

To clean your e-spinner, please use a lint-free cloth. If needed, dampen the cloth with water only. Please do not use detergents or cleaners. Canned air is recommended for keeping crevices clean of fiber and yarn debris, but be certain to keep the can upright while spraying to avoid damaging the surface.
If you live in a high humidity area, you may notice some slight tarnishing on the maiden bearing. This can be cleaned with a jewelry polishing cloth.

Please inspect your rubber o-rings for any cracks, as dry rot can happen in extremely dry climates. They can be protected with any oil and are easily replaceable with the spares provided in your kit.

If you need any assisance with your wheel, please do not hesitate to reach out to support@daedalusspinningwheels.com

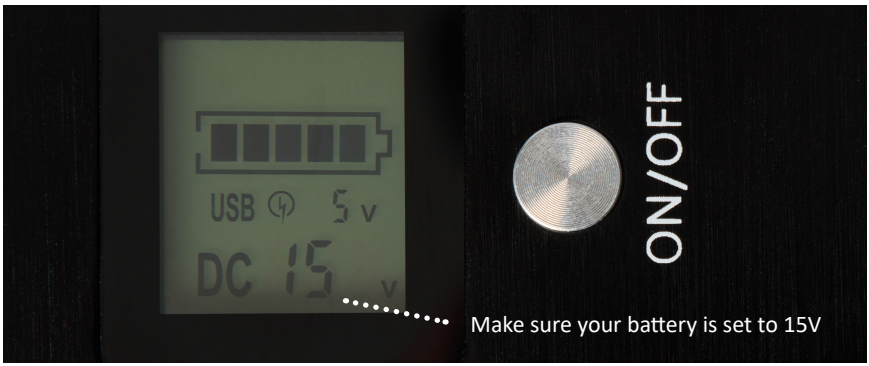
DAEDALUS BATTERY

All of our Daedalus e-spinners require 15V power. Our official Daedalus Battery can change voltage simply by pressing the power button until 15V appears. The Daedalus Battery uses an 18v 3amp power supply. *Do not swap this power supply with your wheel's power supply for any reason.*

Input (long side of battery) - for charging your battery
Output (short side of battery) - for powering your wheel

Best Practices

- Do not attempt to charge the battery and operate the wheel at the same time.
- Do not use your wheel's power supply to charge the battery. Conversely, do not use the battery's power supply to power your wheel. Label your cords to avoid a mixup.
- If your e-spinner is going slower/faster than you remember it spinning at your usual settings, check the battery setting to ensure that it is still set to 15V.
- The battery will power off if the e-spinner is not drawing enough power from it. This happens with the Sparrow if the speed is set too low, and sometimes with the Starling. To compensate for this, you can use a USB-powered light while your battery is in use or simply charge your phone using the USB port.
- To ensure the longest possible life for your Daedalus Battery, please do not store it fully charged for extended periods of time. The proper storage charge is between 50% and 75%.



JOIN THE FLOCK ONLINE

Facebook Group
https://www.facebook.com/groups/239274393420200

Discord Group
https://discord.gg/Y2uUfDsZhQ

Youtube & Instagram - @DaedalusSpinningWheels

Hashtags
#DaedalusSpinningWheels #DaedalusMagpie #MagpieV2 #DaedalusStarling #StarlingV3 #DaedalusSparrow #DaedalusFalcon #SpinWithDaedalus #MadeWithDaedalus #TeamDaedalus

CONTACT DAEDALUS

Website - https://www.daedalusspinningwheels.com/
FAQ - https://www.daedalusspinningwheels.com/faq
Shop - https://shop.daedalusspinningwheels.com/
Email - Support@DaedalusSpinningWheels.com

SAFETY NOTES & DISCLAIMER

Magpie is capable of high energy speeds. Please be mindful of your children and pets by keeping your wheel in neutral and unplugged from power when you are away from it. This ensures maximum safety when you step away from your wheel.

All Daedalus Spinning Wheels use 15V power supplies. Using anything other than 15V can be harmful to your wheel and void your warranty. When using a battery, please ensure it is set to 15V.

Daedalus Spinning Wheels LLC and Spotted Ewe Fibers LLC will not be held liable for any damages incurred to persons or property due to the use of non-approved third-party manufactured components on our products. Doing so will void your warranty. Please email us with any questions regarding modifications or third-party equipment.

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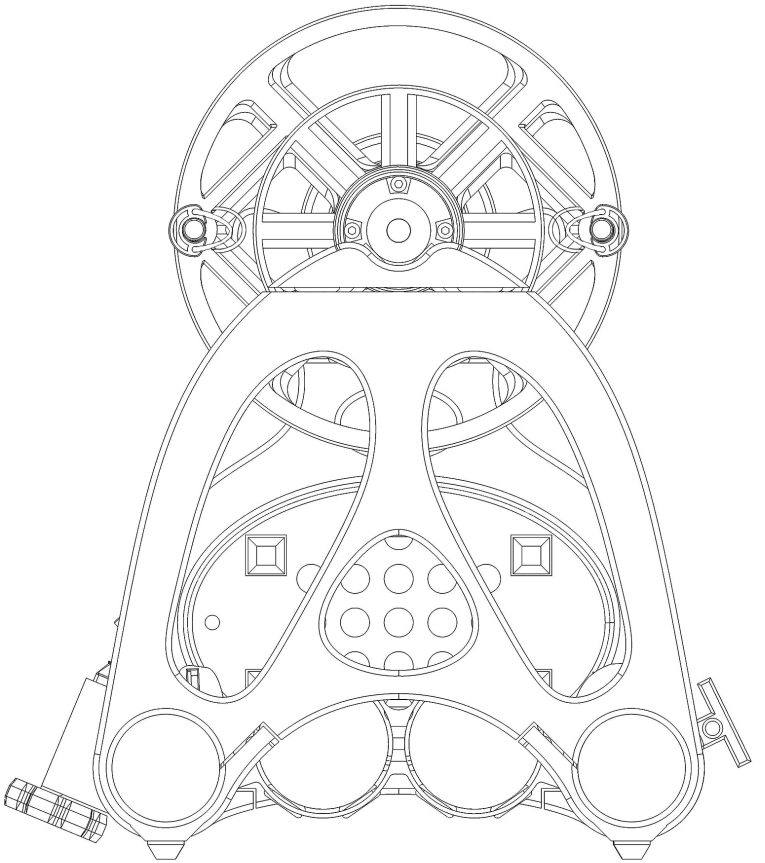

MAGPIE V2