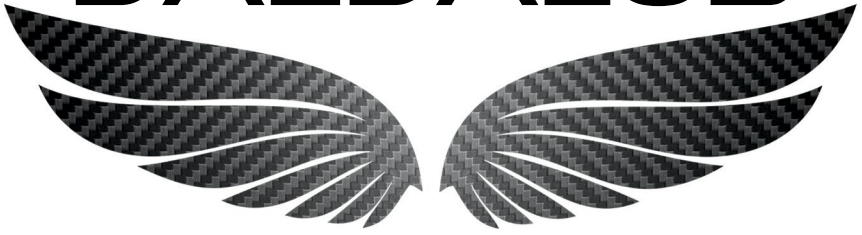
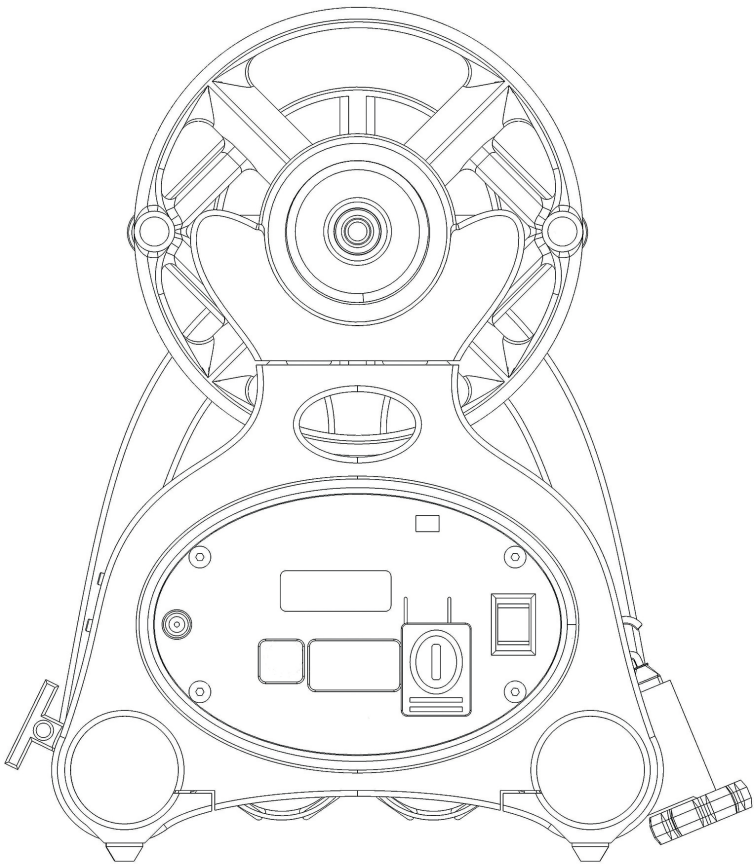


DAEDALUS



SPINNING WHEELS



MAGPIE V2

V2 Standard Flyer, V2 Pro Art Flyer, Motor Mount, Pinions, Maiden Cup, Face, Rear



Standard Drive Belts
Standard Orifice Hook

Art Drive Belts
Art Orifice Hook

Motor Extension
Cable

Pedal Attachment
Speed Controller

3mm Allen
Wrench

Standard Guide Wires face in toward the bobbin

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 see all of our videos on how to assemble and use your wheel, please scan the QR code below with your mobile device or visit the YouTube link. 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.)

<https://www.youtube.com/@daedalusspinningwheels>



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**, dual 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, move the motor mount, and then pop it back into place.

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. After tighten screws to secure them in place.

CREATING A STANDARD TENSION BELT

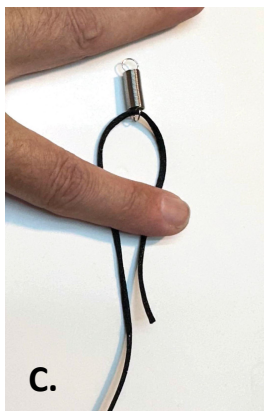
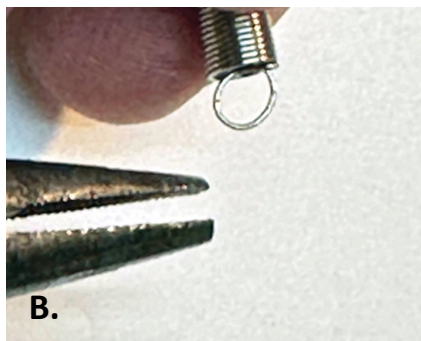
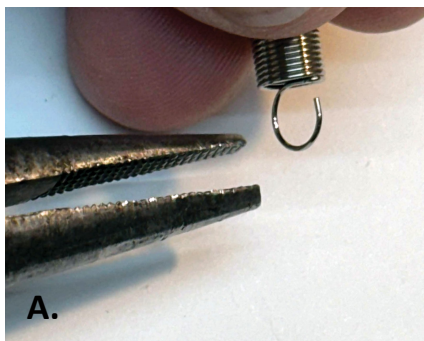
In your spares kit bag, you will find all the materials you need to create a tension belt. The Tension Belt is made of Kevlar, so please make sure you have a pair of sharp scissors to cut it to length.

Tension Belt Materials

- Kevlar 1.5mm
- Spring
- Cinch
- Super Glue

1. Using pliers, take a spring and close up the "open" loop side of the spring. This will prevent anything from slipping off later. Now both ends of the spring should be closed loops. **(A&B)**
2. Using 4-5 inches of spare Kevlar or any other non-elastic cording, tie an approximately 2-inch loop on one end of the spring. This loop allows you to use the spring side on the left when spinning clockwise and on the right when spinning counterclockwise, and also helps keep the spring silent. **(C&D)**
3. With sharp scissors, cut the excess off the loop. Hold excess taut across the blade of the scissors to aid with cutting. **(E)**
4. Tie spare Kevlar onto the other closed loop end of the spring. Use sharp scissors to cut the excess and discard. **(F-H)**

5. Measure from the start of 2-inch loop and cut the tension belt so the overall length is 24 inches (600mm) and cut with sharp scissors.
6. Apply a small amount of super glue (or Beeswax) to this cut end to prevent fraying. When applying super glue, do so in between bits of paper towel to blot excess glue and lessen the chances of getting glue on your fingers. Then quickly roll the end firmly between your fingers to form the end into more of a point. Consider wearing rubber gloves to keep your fingers 100% glue-free. **(I&J)**
7. Install Cinch, as shown, approximately 13 inches (325mm) from the top of the loop. You will need to fine-tune this length for your wheel so that there is minimal spring extension when in use.
8. Install the loop end of the tension belt onto the right side tension hook on the wheel. Drape up and over the bobbin's aluminum brake drum and then down and around the anchor cleat on the left side of the wheel.
9. Remove any slack as you thread the tension belt back through the other side of the Cinch. **(K&L)**



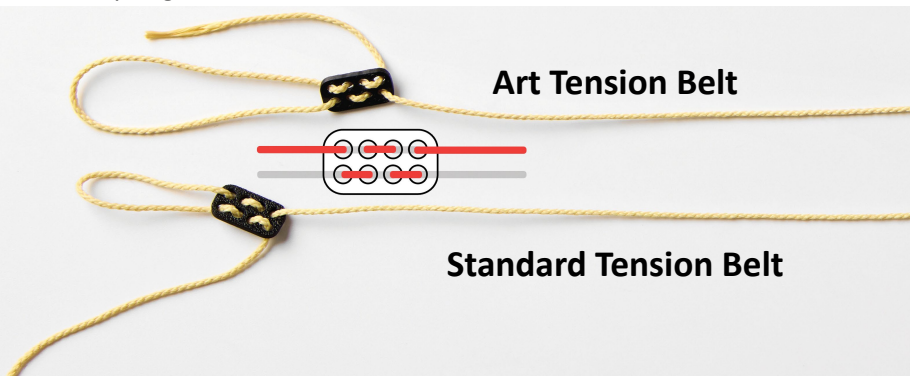
CREATING AN ART TENSION BELT

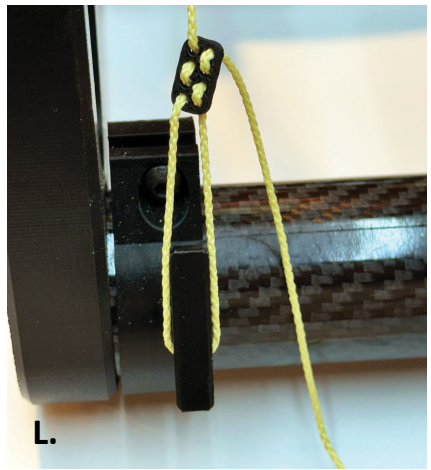
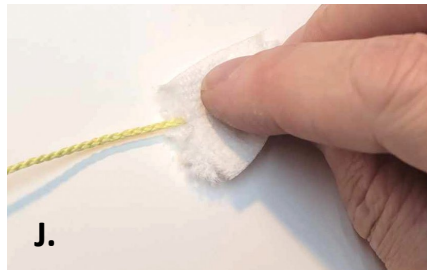
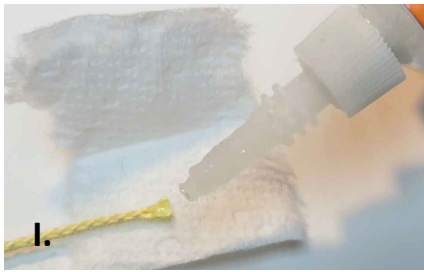
In your spares kit bag, you will find all the materials you need to create a tension belt. The Tension Belt is made of Kevlar, so please make sure you have a pair of sharp scissors to cut it to length.

Tension Belt Materials

- Kevlar 1.5mm
- Spring (optional)
- Cinch
- Super Glue

1. Tie the spare Kevlar to form an approximately 2-inch diameter loop at one end.
2. With sharp scissors, cut the excess off the belt. Hold excess taut across the blade of the scissors to aid with cutting.
3. Measure from the start of the loop and cut the tension belt so the overall length is 24 inches (600mm).
4. Apply a small amount of super glue (or Beeswax) to this cut end to prevent fraying. When applying super glue, do so in between bits of paper towel to blot excess glue and lessen the chances of getting glue on your fingers. Then quickly roll the end firmly between your fingers to form the end into more of a point. Consider wearing rubber gloves to keep your fingers 100% glue-free. **(I&J)**
5. Install Cinch as shown, approximately 15 inches (375mm) from the top of the loop. You will need to fine-tune this length for your wheel so that there is minimal spring extension when in use.
6. Install the loop end of the tension belt onto the right side tension hook on the wheel. Drape up and over the bobbin's aluminum brake drum and then down and around the anchor cleat on the left side of the wheel.
7. Remove any slack as you thread the tension belt back through the other side of the Cinch. **(K&L)**
8. If you would like a lighter tension, you can create a tension belt with a spring, in the same fashion as the Standard tension belt.





SCOTCH TENSION BASICS

When using your Magpie in Scotch tension, the motor will be facing forward, and the pinion pulleys 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.

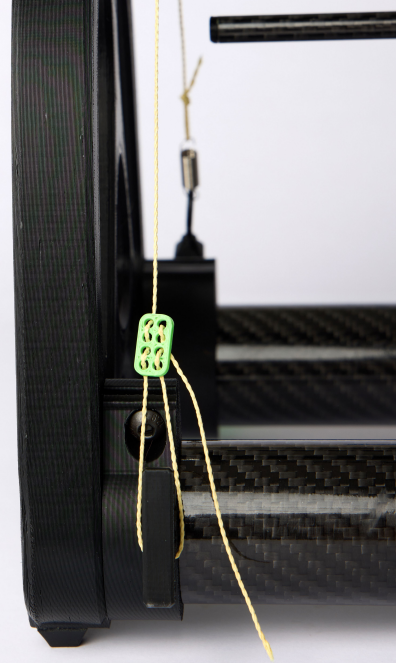
Install your flyer, bobbin, motor drive belt, and tension belt. Place the tension belt so that the **spring** (only applies to Standard Flyer as Art flyer does not need a spring) is on the **LEFT side when spinning singles (clockwise - Z)**, but swap the tension belt with **spring** on the **RIGHT side for plying (counter clockwise - S)**. This way the spring can actually do its job on the “taut” side of the tension belt. The goal is to have the **Right Tension Dial (1)** adjusted into the middle of its adjustment range with no slack in the tension belt and very little expansion of the spring. This is a good starting point and ensures there is a usable range on the dial so takeup can be increased or decreased.

If needed, take slack in or out at the **cinch plate (2)** until the tension





1 2



Increase Tension



belt has no slack but the spring is still collapsed. This way, there is a usable range at the knob/stalk where takeup can still be increased or decreased, as needed, while your Magpie is in use.

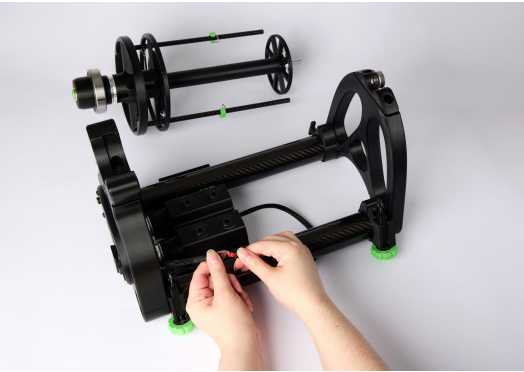
Decrease Tension



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 take-up, 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 motor drive belt (it should be parallel to the rear frame). If needed, 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.

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.

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).



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)

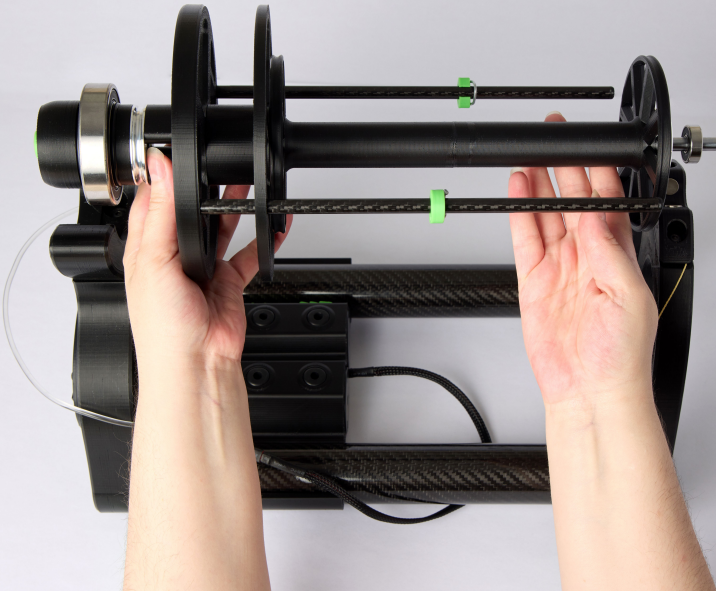
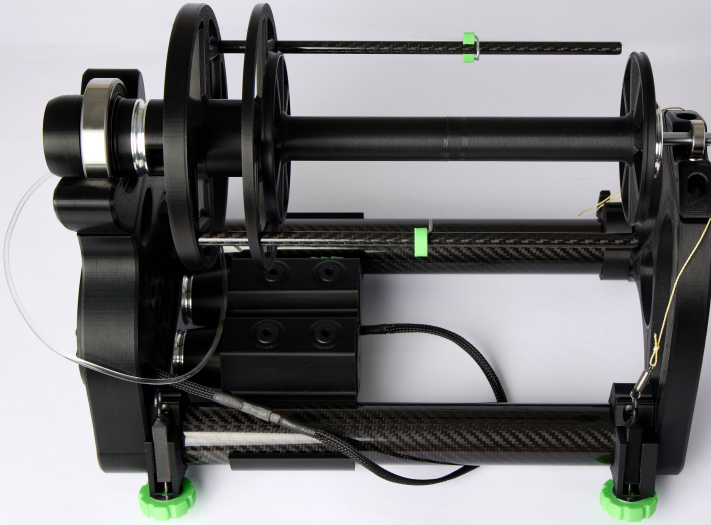
(Note: this is for Scotch tension; Irish tension is the reverse)

- Affix a leader (a long loop of lace weight yarn or your personal preference) onto the bobbin - place the loop around the bobbin core and pull one end of the loop through the other. Then take your leader and create second loop to pull it through to secure your leader. 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. In Scotch tension, I is Z twist, and II is S twist. This is reversed in Irish tension.
- When ready, press Start/Stop, and 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.

Please review our **Daedalus Speed Controller Manual** for more in-depth information.

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).

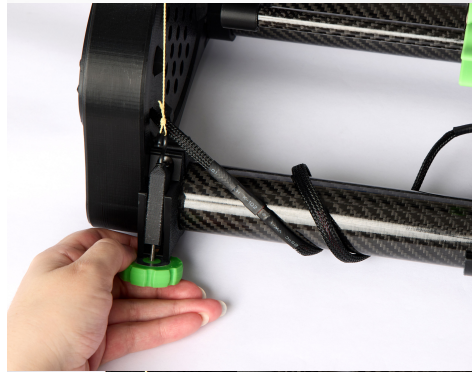


Scotch

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

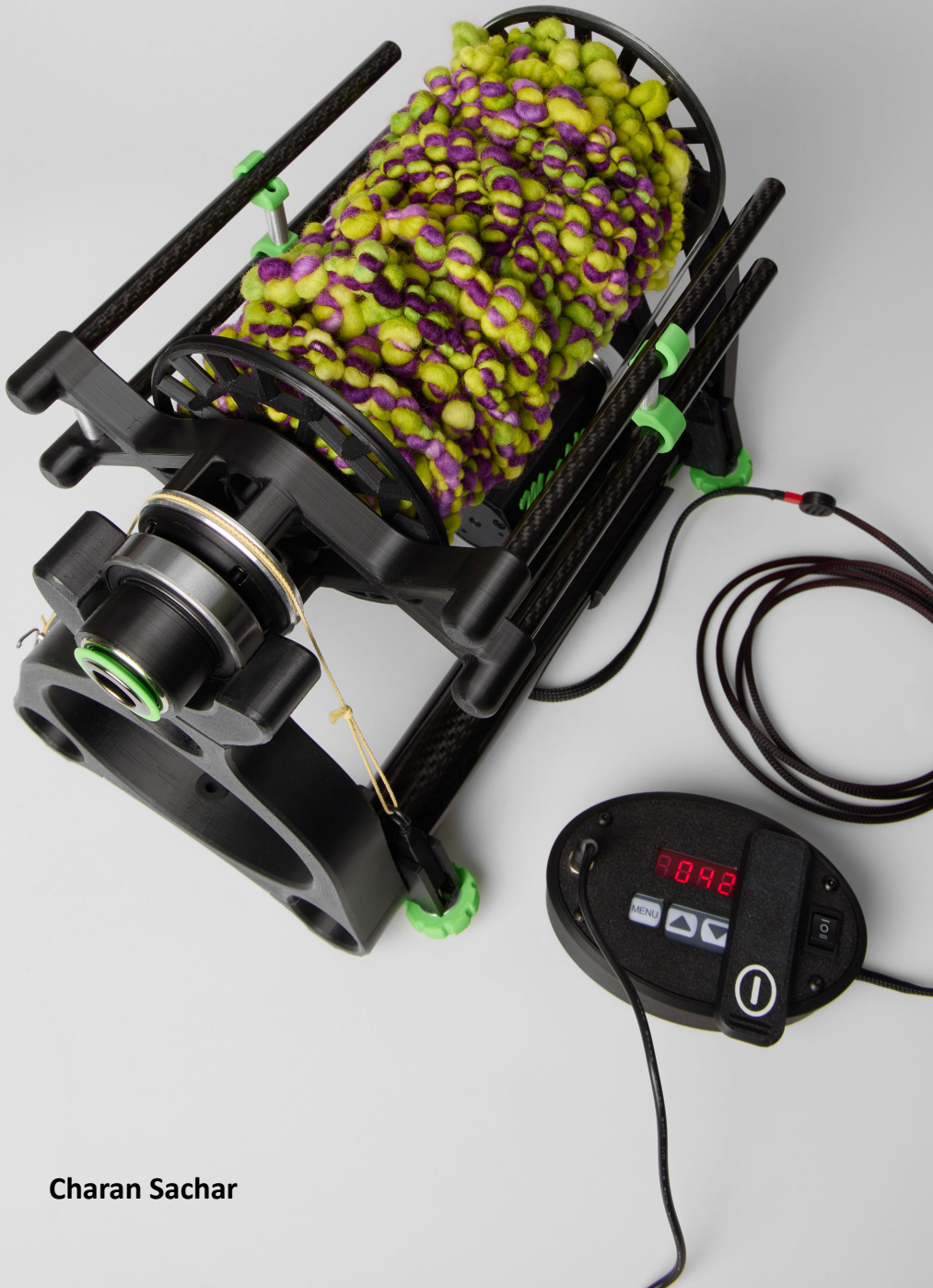
Here tension is on the flyer, so the tension band can't be rolled off and will instead need to be unattached from one side. The spring in the Standard Flyer tension system makes for easy tension band removal from this side. Since the Art Flyer doesn't use a spring, you will need to loosen the tension 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.





Charan Sachar



Evanita Montalvo



Apple

V2 STANDARD FLYER

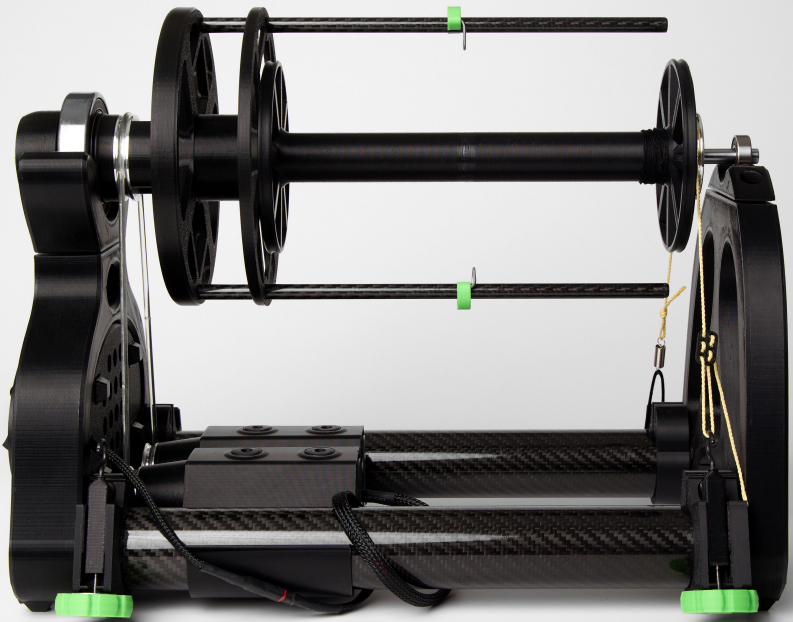
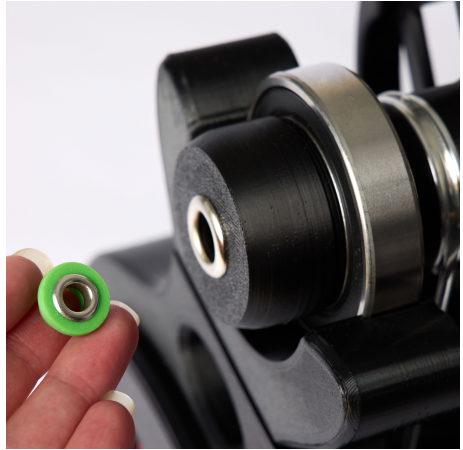
The Standard Flyer can be set up in Scotch or Irish tension. Please note that you cannot switch tension methods once you get started spinning or plying, as the bobbin winds on in different directions, so test your setup before beginning your project.

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 High Speed: 2,550 RPM

Max Low Speed: 1,400 RPM

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

The 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.



V2 PRO ART FLYER

The V2 Pro 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.

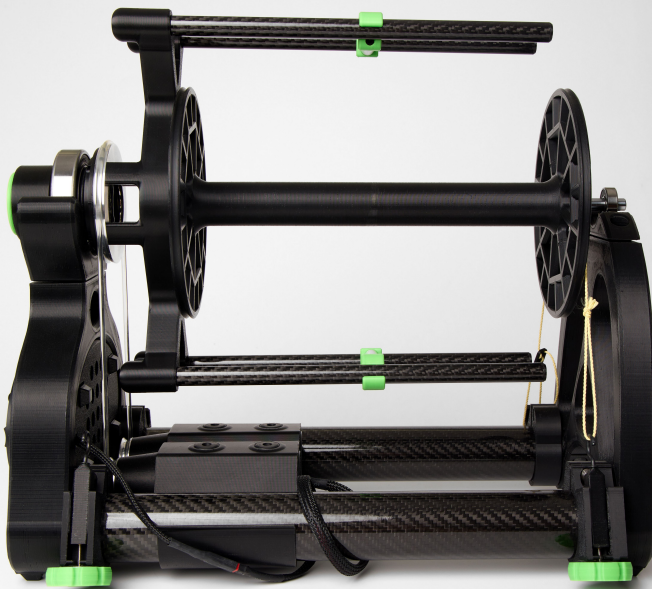
The V2 Pro Art Flyer comes with a 32mm orifice with a 20mm removable reducer.

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 takeup). Most people only use the small drum.



Max Speed: 1,550 RPM



Irish Tension

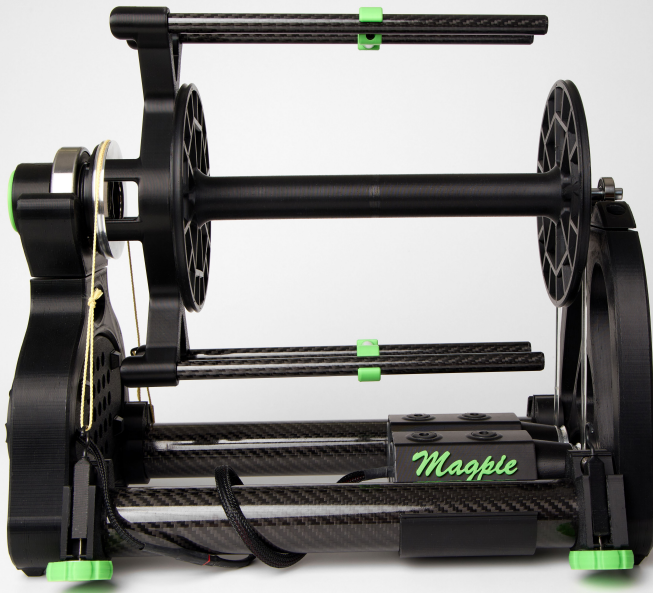
Irish tension provides a stronger uptake, so if you want the most takeup possible, you may prefer this option. With Irish tension, your drive band goes on the bobbin, which allows for two speed modes: a High Speed (small drum) and a Low Speed (large drum). We find that most art yarn spinners prefer to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

Max High Speed: 1,550 RPM

Max Low Speed: 990 RPM

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

The 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.

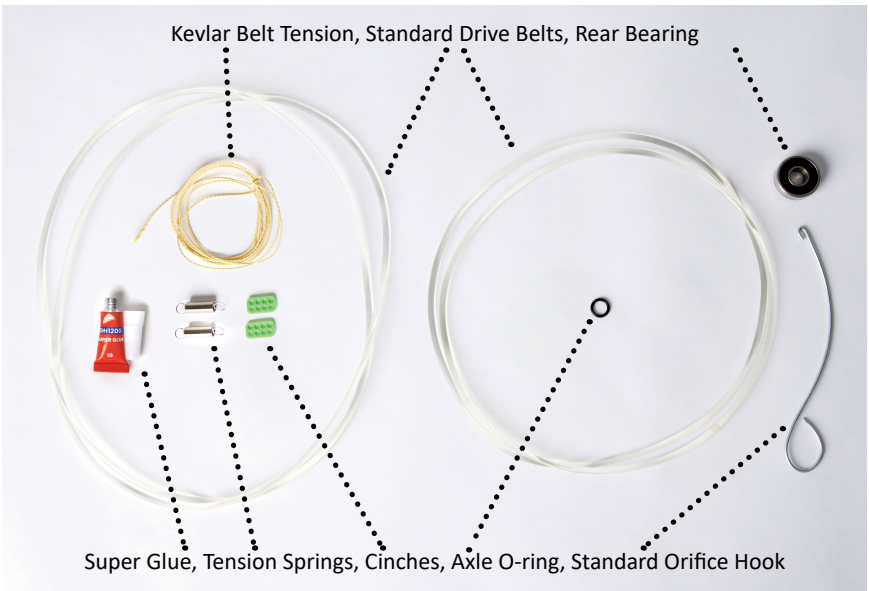


SPARES KIT & ACCESSORIES

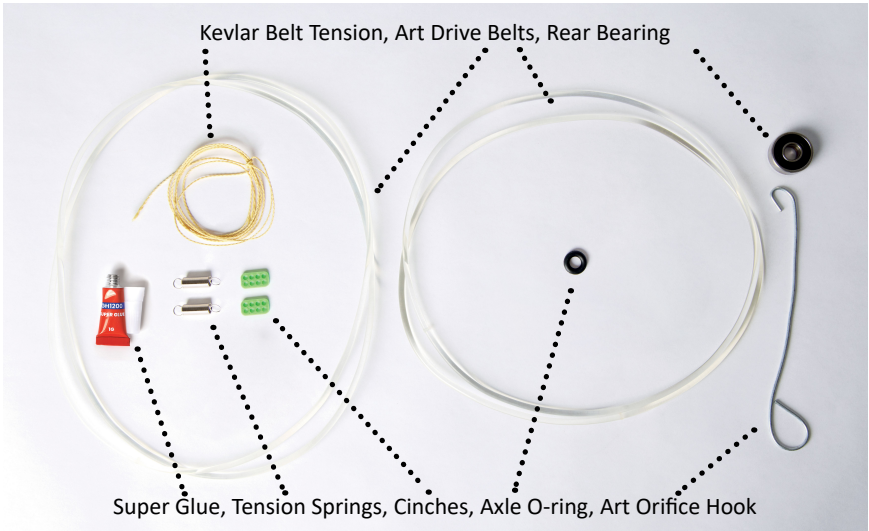
MAGPIE V2 BODY



V2 STANDARD FLYER KIT



V2 PRO ART FLYER KIT



DRIVE BAND COMPARISON



TROUBLESHOOTING

If there is something wrong with your wheel, please review the following information. Should you need further assistance, please contact support@daedalusspinningwheels.com. Including photos and/or videos can be extremely beneficial for assisting you.

Wheel is making an unusual noise

Check the alignment of your tension anchors and drive belt/motor. Both the tension and drive belts should be vertically aligned (parallel with the rear/face). Make sure that neither belt is caught or rubbing on anything. Adjust Motor Mount and Tension Anchors, as needed.

Make sure the following are clear of, and not interfering with, the movement of the flyer/bobbin:

- Orifice Hook
- Guides (not hitting the bobbin whorls)
- Tension belt (not rubbing and excess tail out of the way)

If the noise persists, please check that the Rear Bearing is seated properly on top of the magnets. Then, if needed:

- Run the wheel without tension on the bobbin
- Run the wheel without the bobbin
- Switch out Rear Bearing (using a replacement from your kit)
- Remove the drive belt and let the motor run without it

If you still require assistance with a noise-related issue, please contact support ***after you've tested the above*** and let us know your findings, which will help us to diagnose the problem.

Wheel is heavily vibrating/walking

Ensure that your wheel's four feet are firmly in place on a level surface—you can gently tweak your wheel to get all four feet flat. If spinning at really high speeds, make sure your guides are in sync and even with each other along both flyer arms. Sometimes high speed in combination with uneven yarn packing densities can cause bobbin imbalance. Test with an empty bobbin to rule out this as a possible cause for the vibration. If this does not help, please contact Daedalus Support.

Yarn is snagging on something

Check that your Standard guides have the wire loop facing inward toward the bobbin. Also, ensure the wire loop is not rubbing on the bobbin end. If the yarn is still snagging, view the yarn from the side as it winds onto the bobbin to see where it appears to be catching. Also, try stopping the wheel when a snag happens, and investigate for snags along the yarn path.

Guides are too difficult to move

Guides may be difficult to move at first with a new wheel. However, the more you use your wheel, the better they will move over time. If the problem persists, you can remove the guides and roll up some sandpaper around 200 grit to enlarge and smooth the inside of the hole on the guides.

Rear magnet came loose

Check to see if the magnet is attached to either the Rear Bearing or the other Rear Magnet. To keep it from loosening in the future, use a small amount of gel super glue in the pocket to secure it back into place. (Making sure the magnet's orientation is opposing the other magnet will help hold it in place while the glue cures.)

The face cup has become dislodged from the face

This part is designed to pop off should a fall occur to ensure minimal damage to your wheel. To fix this, you'll need a 3mm allen key to remove the bolt. If the rubber grommet is not damaged, you can place the rubber grommet back into the face cup. If it is damaged, replace it with the spare in your spares kit and then screw the bolt back in from the top of the face cup. Avoid over-tightening in order to allow the face cup to pivot smoothly and easily.

Do not intentionally remove the Face Cup unless instructed to do so by Daedalus Support.

The seal of the bobbin bearing is missing

Check the base of the flyer shaft to see if the missing seal is there. If there, you can simply push the seal back into place. In the worst cases where it continues to pop out, you can add a light smear of super glue around the outer edge of the seal after it has been reinstalled. Wipe away excess glue with a bit of paper towel.

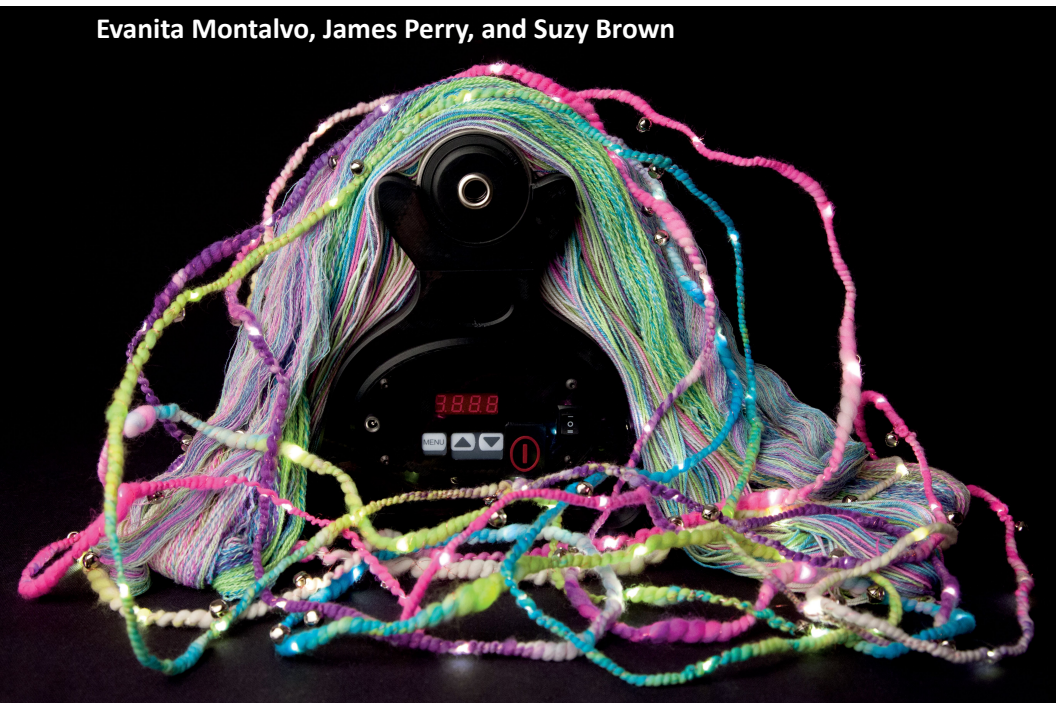


Charan Sachar

Guides are too loose

Remove the guide and inspect the inside that goes around the flyer arm. Looseness can be caused by a hairline crack. Should this occur, place a small amount of gel super glue into the crack and hold the guide firmly while the glue cures (a rubber band is useful here to hold everything tight while curing). If there is no crack, apply a very thin layer of gel super glue across the inner surface. Do not place it back onto the flyer until the glue has fully cured for at least 24 hours.

Evanita Montalvo, James Perry, and Suzy Brown





Charan Sachar

CARE & MAINTENANCE

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

Does my wheel need to be oiled or greased?

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.

Tension belt care

If you notice your achievable tension decreasing over time, 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.

Cleaning your wheel

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.

Noticed tarnishing on maiden bearing

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.

Noticed cracks developing on O-rings

Please email Daedalus Support with information and photos of the wheel’s condition for repair.

JOIN THE FLOCK ONLINE

Facebook Group

<https://www.facebook.com/groups/239274393420200>

Discord Group

<https://discord.gg/Y2uUfDsZhQ>

YouTube & Instagram - @DaedalusSpinningWheels

Hashtags

#DaedalusSpinningWheels #DaedalusMagpie #DaedalusStarling
#StarlingV3 #DaedalusSparrow #DaedalusFalcon #DaedalusMartin
#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

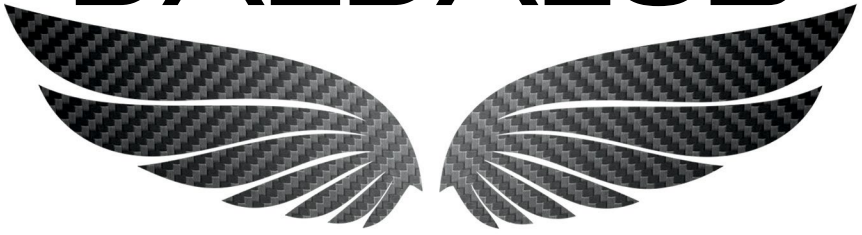
SAFETY NOTES & DISCLAIMER

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.

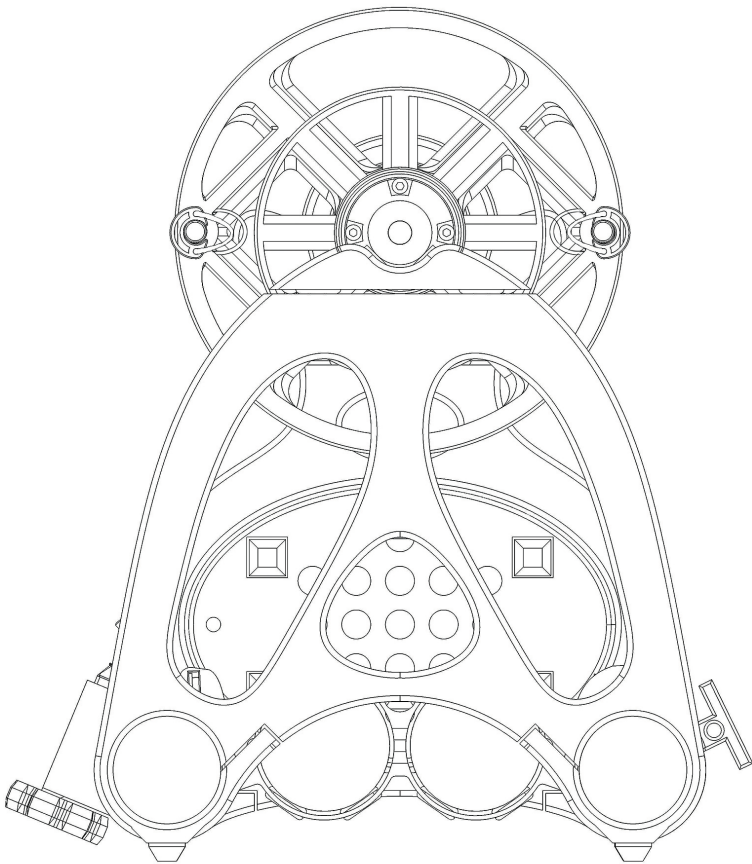
All Daedalus Spinning Wheels use 15V power supplies. Using anything other than 15V can be harmful to your wheel and void your warranty. When using a battery, please ensure it is set to 15V.

Daedalus Spinning Wheels LLC 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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SPINNING WHEELS



MAGPIE V2