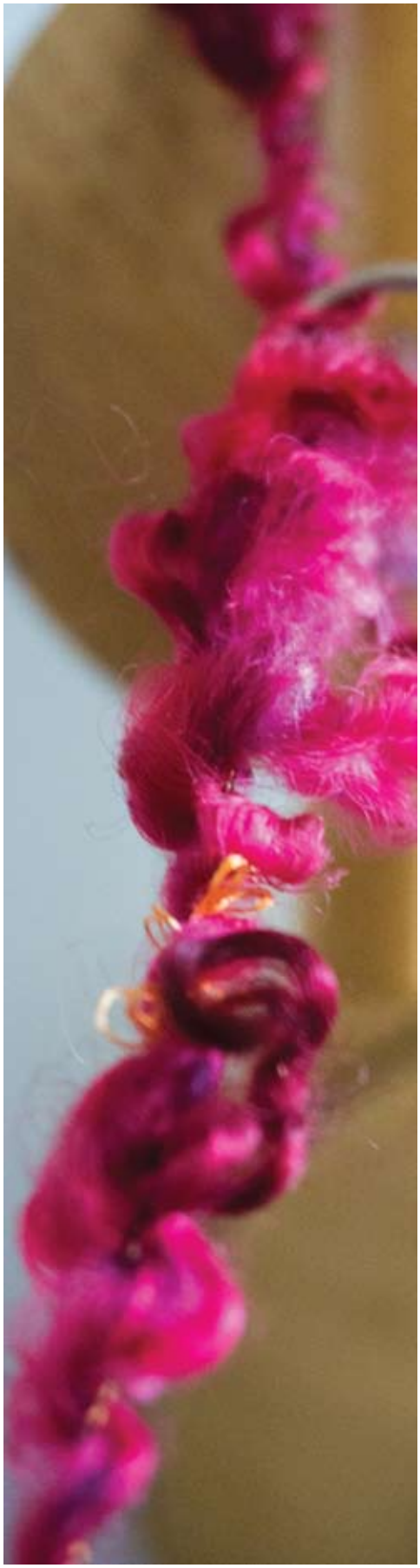
Your new

Aura

spinning wheel



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all you need to spin your dreams...

Welcome to the Majacraft family

Congratulations on purchasing a new Majacraft Aura.

We are very proud of this wheel and hope that it allows you to express your creativity in new and exciting ways. It has been developed in collaboration with Pluckyfluff (Lexi Boeger) and is a unique variant on a double drive. Take time to read through the instructions before assembly, it really is worth it.

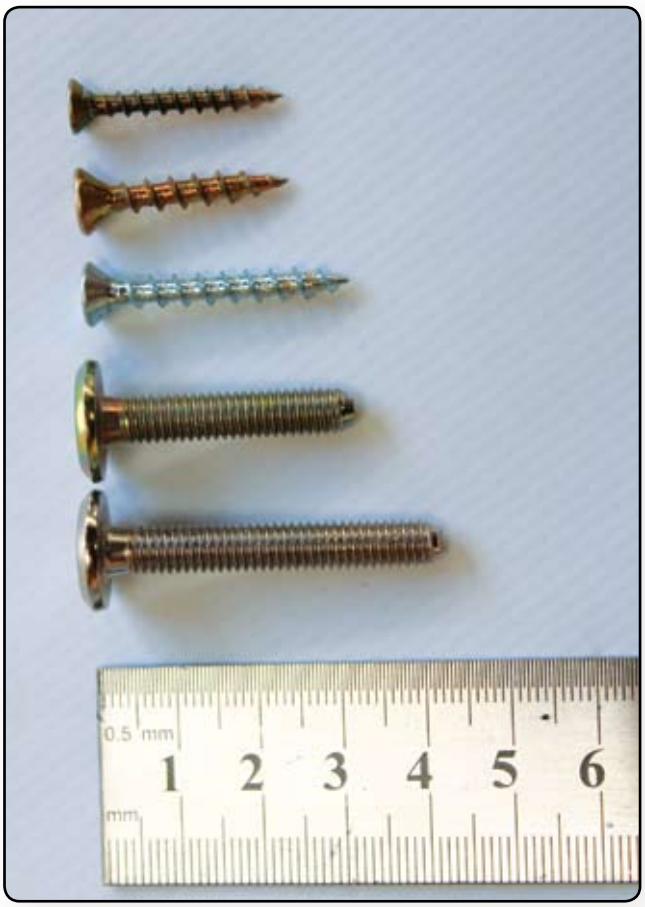
One of our goals is to make our wheels as easy and simple to use as possible, so they become almost invisible as you express your creativity through fibre.

If you were not already aware, we have designed all of our craft tools and accessories to be compatible with each other. If you have an interest in a specific technique, we are likely to have specialist accessories that will fit straight on to this wheel or tools to make creating easy. Talk to your dealer, visit our web site or email us directly and we will do what we can to help.

Thank you for choosing Majacraft, it is your belief in us that drive our innovation and creativity in building captivating tools for you.

From the team at Majacraft, Good spinning!

Fastener Details



Hinge screws - 25mm (1”)
To attach the pedal hinges to the base assembly

Joiner screws - 25mm (1”)
To attach the rubber joiners on the conrods to the pedals

Crank screws - 32mm (1 1/4”)
To attach the crank assembly to the drive wheel

Base bolt - JCB 30mm (1 1/8”)
To hold the base and stem assembly together.

Head bolt - JCB 45mm (1 3/4”)
Secures the head to the handle

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Assembling a Majacraft Aura

These instructions demonstrate how to assemble your Majacraft Aura spinning wheel

1. Prepare the components

We recommend that you find a clear work area where you can lay out all the components for working on them.
The following tools are provided by Majacraft
- 4mm allen T wrench
- 2mm allen key

You will also need the following tools:
- Posidrive (Philips) screwdriver

Your wheel has been assembled at our workshop; it has been tested; it has been spun on; all screws have been pre-fitted and some have been removed for partial disassembly.

Please unpack with care and retain the packaging. In the box will be:

1 Base assembly
1 Stem/Handle assembly
1 Drive wheel with drive axle
2 Pedals
3 Wooden Bobbins
1 Spinning Head
1 Flyer
1 Crank and Conrod assembly
1 Hardware Bag (screws, etc) spare screws are included

2. Attach stem to base assembly

Required:
3 - M6 30mm JCB (1”) bolt *(in the hardware bag)*
4mm allen T wrench *(in the hardware bag)*
Stem/Handle assembly
Base assembly

2a

2b

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Position the Base assembly on the flat surface. Now slide the Stem/Handle assembly into the Base assembly and carefully align the stem holes with the base side plate holes and the brace hole with the hole underneath the base assembly.

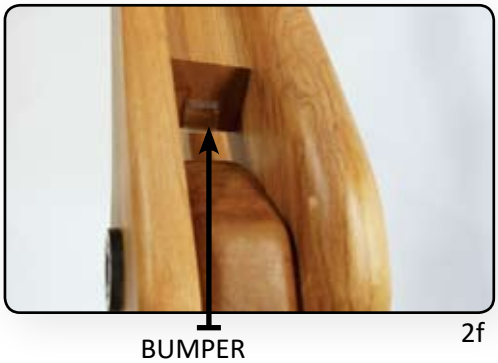
2c

2d

Insert the JCB bolts through the holes and into the stem assembly. Turn the base over and insert the JCB bolt in the hole underneath. Partially tighten the bolts, checking that they are threaded in correctly before finally tightening all bolts.

2e

Once the Stem/Handle assembly is in place, it is good to tilt the handle over onto the stop. The handle can fold in both directions but should only fold to the rest position to the LEFT when you are sitting in front of the wheel. The handle stop has a bumper that protects the stem from being dented when folding however there is no bumper when folding to the right.



2f

2g

3. Fit the Pedals to the Base

Required:
12 - Silver 25mm (1”) screws *(in the hardware bag)*
Posidrive screwdriver

3a

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3b

Fit the pedals using the twelve gold 25mm screws provided. Match the holes in the hinges with the holes at the front of the base. The long side of each pedal goes nearest to the central base.

3c

We recommend you insert the two screws in the hinge holes closest to the outside edge of pedal. This keeps the pedal still and aligned while you put in the remaining screws.

4. Drive Wheel

Required:
Drive Wheel assembly
1 - Star Washer *(in the hardware bag)*
1 - Wooden Nut *(wrapped separately)*

4a

4b

Make sure the wooden nut has been removed from the drive axle. Check that the star washer is on the drive axle - if not, then slide the star washer on. The black bushes must be in place on the front and back of the Stem/Handle assembly

Fit the drive wheel to the base assembly. Slide the drive shaft through the black bushes in the Stem/Handle assembly from the back to the front. Screw the wooden nut on to the drive axle and tighten it firmly.

4c

4d

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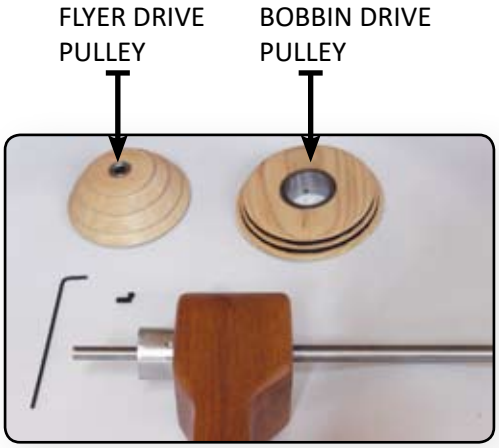
4e

5. Pulleys

Required:
1 - Bobbin drive pulley
1 - Flyer drive pulley
1 - 2mm Allen key *(in the hardware bag)*

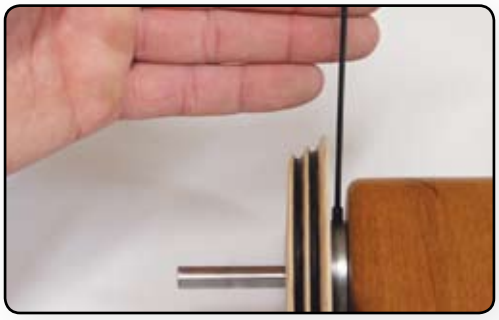


5a

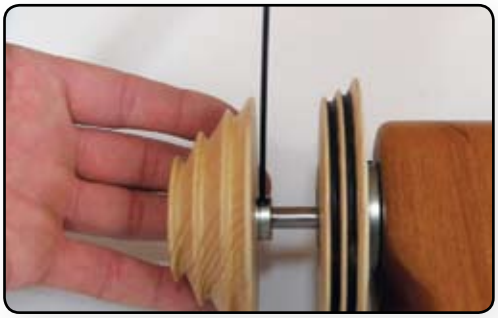
Start with the bobbin drive pulley, it is the large thin pulley with two black grooves. On the head find the 4mm hole in the aluminium bearing housing and turn it until it is 'upward'. Find the threaded hole on the bobbin drive pulley and make sure the grub screw is removed.

Now slide the bobbin drive pulley carefully onto the head and align the threaded hole DIRECTLY over the hole in the bearing housing. Good lighting will make this task easier. When aligned, screw the long 10mm grub screw into the threaded hole with your 2mm allen key and secure the pulley to the head. The screw will go in easily, if it does not, pause immmediately, remove it and recheck your alignment. Screw it down firmly and when finished, it will be flush with the top of the threaded hole.

5b



5c



5d

Now you need to put on the flyer drive pulley which is smaller and thicker with three drive band grooves. Find the flat ground into the 8mm (~5/16") flyer shaft and turn the shaft until the flat is 'upward'. There is a threaded hole on the flyer drive pulley too and you now need to locate this, checking the grub screw is removed.

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Slide the flyer drive pulley onto the flyer shaft and align the threaded hole over the flat ground on the shaft. Screw the short grub screw into the threaded hole with your 2mm allen key and secure the pulley to the head. Tighten the grub screw firmly. Failing to line the grub screw up with the flat on the shaft will cause the pulley to slip on the shaft producing issues with take up of the yarn when spinning.

5e

5f

6. Spinning Head

Required:
1 M6 45mm (1 3/4”) Silver countersink bolt *(in the hardware bag)*
4mm allen T wrench *(in the hardware bag)*
1 Large SIlver aluminium handle washer *(in the hardware bag)*
Spinning Head
1 M6 Wooden Adjuster Screw *(in the hardware bag)*

6a

6b

Place the spinning head behind the upright with the flyer shaft facing to the front and the white nylon guides on the head located inside the handle slot. Slide the coujntersink bolt and washer through the slot in the handle and tighten it carefully. You can read the additional instructions at the end of this document for information on setting the bobbin drive band tension.

6c

The spinning head can be raised or lowered to suit the tensioning of the drive belts and the height you wish to spin at. The recommended approximate position is the silver bolt positioned half way up the slot.

6d

The 6mm wooden adjuster screw can be screwed into the end of the hinged adjuster block now.

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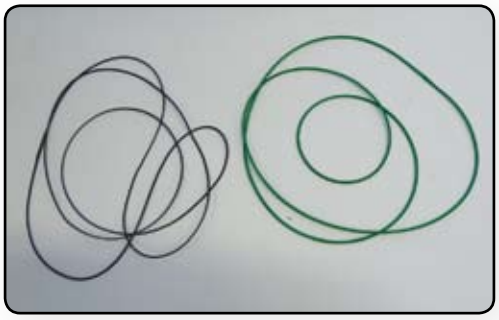
7. Drive Bands

Required:
1 - Green Flyer Drive band *(in the hardware bag)*
1 - Black Bobbin Drive band *(in the hardware bag)*



7a

7b

The black Bobbin Drive non-stretch band goes round the black groove on the drive wheel, the small idler pulley on the tension adjust and then over one of the black grooves on the bobbin drive whorl.

The green drive band goes on the lacquered grooves on the drive wheel and then through one of the grooves on the flyer whorl.

There are detailed instructions at the end of this document for setting the bobbin drive band tension.

7c

7d

8. Crank Assembly

Required:
3 - Silver 32mm (1 1/4") screws *(in the hardware bag)*
Posidrive screwdriver

8a

8b

The drive wheel has been predrilled with the holes for the aluminium crank assembly. You will need a posi-drive screwdriver and the three 32mm silver screws. Make sure the drive belts are on.

8c

Align the holes on the drive wheel with the holes in the crank assembly and screw it into place using the silver 32mm screws. It is recommended that you insert the centre screw first.

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9. Conrods to Pedals

Required:
2 - Gold 25mm (1”) screws *(in the pedals)*
Posidrive screwdriver

Fit the green joiners in the wooden footmen to the pedals. We leave a mark on one conrod (a #1 on the bottom end) and the right pedal (#1 by the screw hole) to ensure that each conrod is attached to the correct pedal.

Starting with the right pedal (it will be on your left if you are facing the drive wheel), remove the gold 25mm screw from the side of the pedal. Choose the conrod with the #1 stamped on the bottom and push the green joiner through the hole in the pedal. It should protrude through the bottom of the pedal about 1mm-2mm. Check the alignment of the outer rod end in the crank assembly. When the rod end is aligned correctly, screw the 25mm screw back into place. The screw should only be tightened until the head just touches the side of the pedal. DO NOT OVERTIGHTEN!

Now the left pedal (it will be on your right if you are facing the drive wheel), remove the gold 25mm screw from the side of the pedal. Choose the remaining conrod and push the green joiner through the hole in the pedal. It should protrude through the bottom of the pedal about 1mm-2mm. Check the alignment of the rod end in the crank assembly as shown below. When the rod end is aligned correctly, screw the 25mm screw back into place. The screw should only be tightened until the head just touches the side of the pedal. DO NOT OVERTIGHTEN!

CORRECT 9a

INCORRECT 9b


9c


9d


9e

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EXTRA

If you are not certain of the connection arrangement, here is a full description.Place the wheel directly in front of you so you are looking at the crank assembly attached to the drive wheel. The rubber joiner that is on the conrod/footman that is closest to you goes into the hole in the pedal on your left. The joiner on the conrod that is furthest from you goes into the hole in the pedal that is on your right.

9f

10. Bobbin and Flyer

Required:
1 - Wooden Bobbin
1 - Aura flyer

10a

10b

If you look at the Aura bobbin end that has the blackened tension groove, you will notice two small holes near the flyer shaft hole. These holes are to locate on the drive pins embedded in the Aura drive system on the head. This end of the bobbin must go on the flyer shaft first and the holes align with the pins in the drive system.

10c

10d

If you have some petroleum jelly or vaseline, rub a small smear onto the flyer shaft. This has already been done at the factory so is not essential. Now slide the bobbin on.

10e

At this point screw the flyer on to the flyer shaft. It may help to hold the whorl with your left hand and tighten the flyer with your right (assuming you are right handed). It may also be treadled on by holding the flyer in one hand and treadling the wheel in an anticlockwise direction.

10. Polish

At this point, we recommend that you polish your Aura using Majacraft Lavender Polish or alternatively a standard wood polish. While not essential, it will help keep your Aura looking excellent into the future.

10a

Your Majacraft Aura is now assembled and you are ready to start on a new spinning adventure! From the team at Majacraft, we wish you great spinning in the future.

Note

The images contained in this instruction manual are a guide only. There may be slight differences between these and your Aura.

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Majacraft Aura Mechanics

Description of Aura Tensioning

How to use the tensioning system on your new Majacraft Aura.

Because this wheel uses a modified double drive system, you will find that it may be somewhat different from other wheels you have spun on.

There are however, still only two things you need to worry about when spinning, on ANY wheel:

1. Tension and Take up
2. Amount of Twist

These two things, and the relation between them, determine your yarn.

You can adjust for them in several ways; Altering your treadling speed, your drafting speed, or the easiest way, by adjusting your wheel.

The Aura Tension: Take up

Adjustments to the black band (Bobbin drive) results in changes to the strength with which the yarn is taken up onto the bobbin

•When the black band is loose it allows for slippage and reduces the uptake. Ideal for finer yarns.
•Loosen it by:
- winding the adjuster knob out so there is no gap
- lowering the entire spinning head

•When the black band is tight, there is less/no slippage on the bobbin drive and the uptake will be stronger and faster (for the given groove the black band is in). You can tighten it by:
•Adjusting the tension knob to increase the gap between the adjuster block and the wheel
•Raising the spinning head

For general spinning tension, you shouldn't need to raise or lower the spin head frequently, but you do need to have it at a suitable height to allow the range of adjustment you want with the adjuster knob. Various combinations of spin head height together with the use of the tension adjuster should give you all the variables you need to spin anything from lace to super bulky. In practice you can probably leave your spinning head in one position and get all the adjustment you need with the adjuster knob and pulley groove choice, only moving the head up or down for the more extreme yarn variations.

Adjusting the Amount of Twist

The Aura has a number of grooves in the pulleys, these give you adjustment options for controlling the amount of twist that is going into your yarn.

Twist is controlled by how long you allow it to build up in the yarn before feeding it onto the bobbin.

Use your green drive band (Flyer drive) to easily alter the amount of twist being added into your yarn by altering the speed at which the flyer rotates around the bobbin.

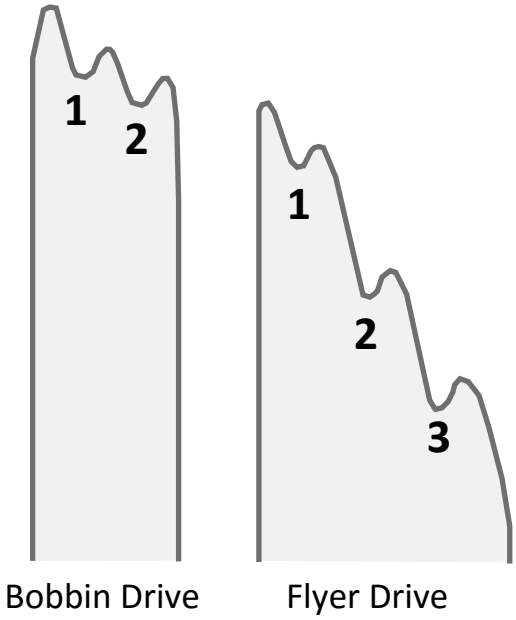
If your yarn is getting overtwisted (when it kinks up too much) then you need to increase the speed it is going onto your bobbin. If it is falling apart with not enough twist, or being pulled out of your hands and breaking, then you need to increase the time it stays in your hand by reducing the take up and speed of the wheel.

Use the following as a guide only, the best way to learn your wheel is to experiment, find the settings that match your own personal spinning style by trying different combinations of pulleys and tension.

Mix and Match!

The best way to open the creative doorways with this wheel is to experiment. Try a strong-pull with a slow speed, for example, and be amazed at the super chunky shaggy yarns that it will make with ease! Want a super thin silk yarn with beads? Try a high twist with medium-soft strength. The possibilities are endless! All it takes is a little bit of experimenting to find the proper combination to suit your specific fibres and ideas.

Drive Band Key



Examples

Sport weight yarn

Strength=MEDIUM (50% tension on Tension Adjust)
Speed=SLOW (Bobbin Drive groove 1, Flyer Drive groove 1)
The yarn will draw in fairly slowly with a medium pull. The spinning is slow, not too strong and very relaxing.

Lace weight yarn

Strength=WEAK (25% tension on Tension Adjust)
Speed=FAST (Bobbin Drive groove 1, Flyer Drive groove 2)
The yarn will draw in quickly but because of WEAK pull, lots of twist can be added and the pull is gentle.

Bulky yarn

Strength=STRONG (100% tension on Tension Adjust)
Speed=SLOW (Bobbin Drive groove 2, Flyer Drive groove 1)
The yarn will draw in very slowly. The pull is strong and even so the bulky yarn will be drawn in easily and a very even twist will be put in the yarn.

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How to Adjust Aura Bobbin Drive band

Remove the green Flyer Drive belt if it is on. It is assumed that the Bobbin Drive band is on

Turn the tension adjust knob at the side of the spinning head Adjust Block until it is at the mid-point of its movement. The extremes being the adjuster screw right in (Adjust Block fully open) and the Adjust Block sitting hard against the spinning head (fully closed)

Slightly loosen the JCB bolt that secures the head to the handle using your 4mm allen T wrench.

Now slide the head (up or down until the Bobbin Drive band is firm but not too tight. When the head is tightened, it will straighten up and put more tension on the Bobbin Drive band. This is why it is not necessary to make the bobbin drive super tight.

Now tighten the JCB bolt holding the head on.

The Bobbin drive band should be quite tight now. You can screw the tension adjust knob out a bit to release the tension. When set like this, when the Adjust Block is fully closed, the Bobbin Drive belt should be very loose which equates to lots of slip on the Bobbin Drive (0% drive). When the adjuster screw is tightened to about half way through its movement, the Bobbin Drive belt should be quite tight which equates to 100% drive on the bobbin

Replace the green Flyer Drive belt on to the groove that is most suitable for your purpose.

Now you can turn the tension adjust knob inward or outward to create the strength of pull that you require.

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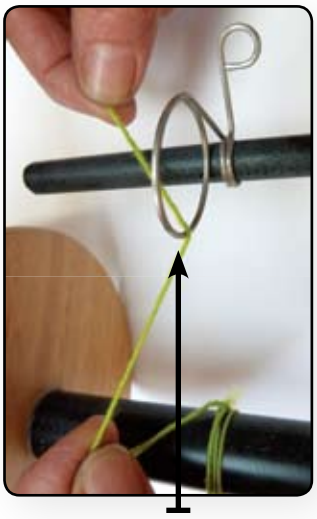
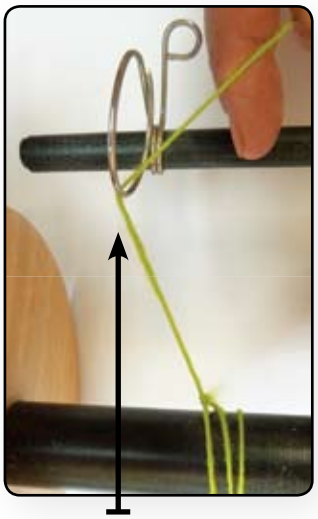
How to Thread the Aura Flyer

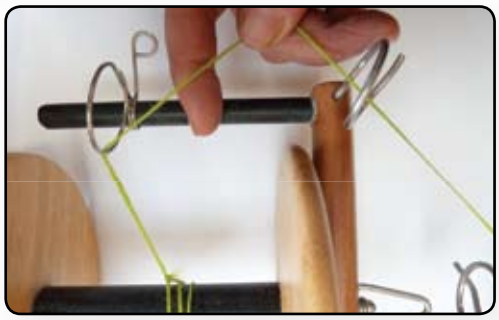


INCORRECT



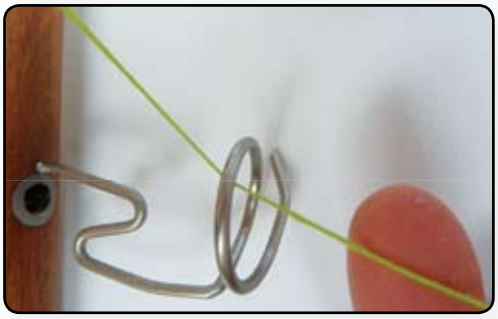
CORRECT

Pass the yarn through the large flyer hook on the flyer arm. The yarn goes in the ring from the flyer head side and out toward the orifice end of the flyer.



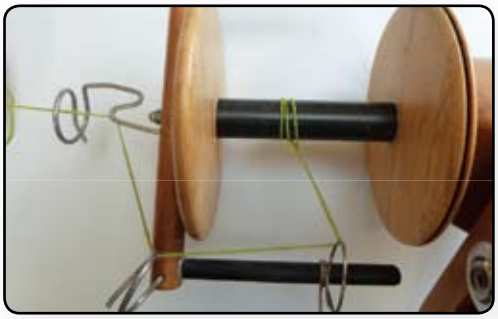
Thread the yarn through the ring on the end of the flyer bar. You can either push it straight through the ring or alternatively slip it through the pigtail.

If you are spinning fine yarn then take the yarn over the orifice close to the flyer bar, so it sits in the 'V' (delta) shaped angle, underneath, up between the 'V'. The delta is designed to hold the yarn still when spinning finer yarns.



If you are spinning a very large yarn then bypass the delta and go straight through the halo.

Now you can thread the yarn through the large halo ring.



And now the Aura flyer has been threaded.

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Notes