



SpinPerfect **ABE**

An American Invented & Manufactured Spinning Wheel

Assembly Guide for all SpinPerfect flyer sizes. Photos show the 33 oz size.

For an assembly video, replacement parts, and customer service, please visit

www.spinperfect.com

**allen
wrench
set**



base screws



base washers



**treadle cover
screws**



lazy kate rods

**base
bolt
covers**



**accelerator
(4 oz only)**



**base
bolts**



**flyer rod with
bearings and
tension fan
whorl**

**accelerator
tension
fan bolt and
hardware**



**accelerator and
tension fan bands**



**lower
tension
fan**



**tension kit
(block, spring, nut)**



**treadle
covers**



Tools Required (*not included*):

- Phillips head screwdriver
- 7/16 socket wrench
- 7/16 crescent wrench
- Finishing supplies

Open & unpack the kit

- 8 small #2 screws (for step 2)
- 6 large #8 screws (for step 0)
- 2 Bolts (for step 0)
- 2 Washers (for step 0)
- Allen wrench set
- Two black plastic caps
- One large bolt with 3 nuts and 2 washers

Open the box and the tool bags to confirm you have the following in your hardware kit.

Note: parts can get stuck on magnets or in the corners of the bags.

If you are missing a part, email manufacturing@spinolution.com or refer to the part size in the kit checklist to purchase a replacement

- Whorl on the flyer shaft.
- Tension Fan
- 2 Flyer Arms with 4 screws
- Orifice Bar
- Accelerator
- Tension Kit: block, spring, and tri wing nut

Finishing:

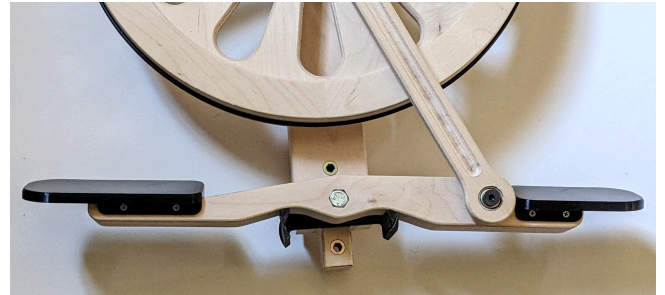
If you want to stain or seal your spinning wheel base, you can do so before assembly. The base is made from sustainably grown, Baltic birch plywood. There are many ideas to consider when finishing your wheel. Here are a few to inspire you. **Use the hashtag #spinperfected and #spinningintheUSA to share your customized ABE wheel on social media!**

Wheel Assembly

Yay now you're going to learn how everything goes together so you can feel confident dis-assembling your wheel for flatpack travel! You will also learn how to maintain the bearings in your flyer by knowing where they are so you can keep them clean from wooly buildup. You'll also learn how to align your flyer and drive wheel. *A socket with wrench must be used to tighten the base, legs, and bracket.*

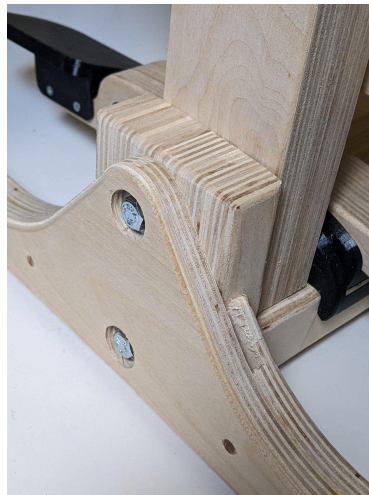
Attach the treadle covers

- Place the larger treadle cover on the left treadle and the smaller treadle cover on the right treadle.
- Align the holes in the treadle covers with the holes on the wooden treadles.
- Using the 8 (#2) screws attach the foot pads on the treadles.



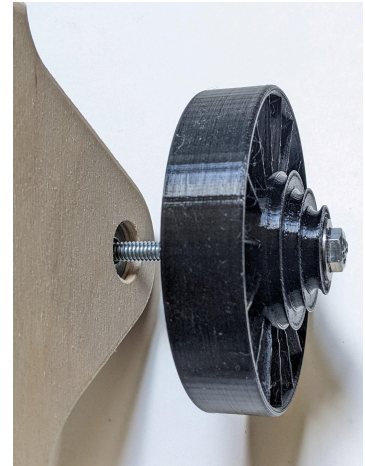
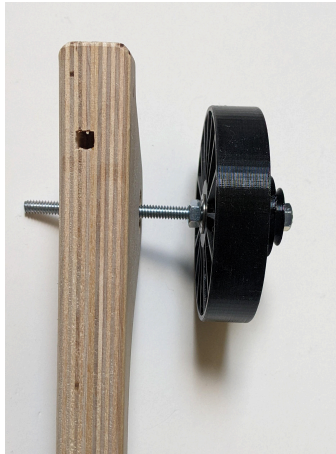
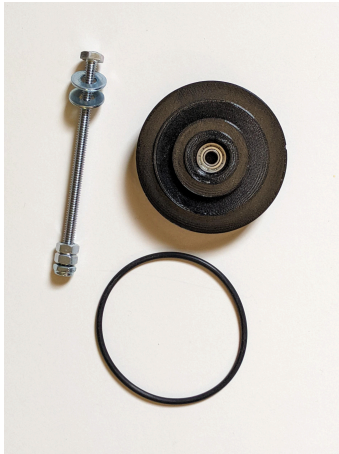
Assemble the wooden base

- Using the 6 large (#8) screws, attach the heel rest to the L-bracket (underside).
- Turn the heel rest upright and place the ABE Wheel base into square hole in the L-bracket.
- Place the back legs in alignment against the back of the L-bracket.
- Using the two washers and two bolts, screw the feet into the assembled base, washers against the wood.
- Install the two black bolt caps over the bolts. To maintain, wipe with a dry cloth as needed.



How to Assemble the Tension Fan **Will arrive pre-installed**

- Remove the 3 nuts and 2 washers from the bolt. Note the one lock nut and set it aside.
- Place the bolt thru the whorl-side of the tension fan and place a hex nut on the bolt and Loose. *Do not overtighten*. Make sure that the fan spins freely on the bolt. *Over tightening the tension fan can result in damage to the tension fan. Replacement tension fan parts are available online.*



Assemble the Kate Arm & Accelerator

- Place a washer in the recessed hole of the kate arm.
- Place the bolt into the kate arm thru the washer.
- Place the bolt into the hole in the back of the wheel and align the kate arm so it is snug against the back.
- Place a washer on the bolt sticking out of the front of the wheel.
- Use 7/16 Wrench and 7/16 socket wrench (keep the bolt from turning) tighten a hex nut onto the bolt. Make sure that the fan spins freely on the bolt.
- Take the accelerator and put it on the bolt with the F-side against the hex nut. The accelerator will conceal the hex nut when it is on the bolt.
- Take the lock nut and place it on the bolt. tighten. Some lateral (front to back) movement is okay.
- Make sure the accelerator and tension fan spin freely.

FAQ: If your Kate arm is loose, remove the lock nut and accelerator and tighten the hex nut until it feels secure. The tension fan should spin freely after the kate is secure. Place the accelerator over the bolt and hand-tighten the lock nut in the front of the accelerator. Do not let the front bolt turn when tightening the fan and kate. If the bolt turns this will lock the fan.



Assemble the Flyer

A ¼" flyer shaft is used for the 4 oz and 12 oz flyers.

A ⅜" flyer shaft is used for the 8 oz, 16 oz, and 33 oz flyers.

- With the two silver screws in your kit, screw the back of the flyer arms into the flyer (keep it loose)
- With the two black screws in your kit, screw the inside of the flyer arms into the back of the flyer using the pre-drilled holes. These screws should be set in flush with the plastic.
- Take the orifice bar and place it on the flyer arms for proper alignment.
- Now, tighten the screws on the back of the flyer so that the arms are secured with proper alignment.



Assemble the Bobbin

All bobbin sizes can be assembled using these same instructions.

4 oz and 12 oz bobbins fit on the ¼" flyer shaft, and 8 oz, 16 oz, and 33 oz bobbins fit on the ⅜" flyer shaft.

- Locate the back piece of the bobbin: a circle with the larger hole recess inset with a silver washer.
- The shaft goes behind the backside of the bobbin and drops into the center of the bobbin for assembly.
- Rotate carefully by hand to tighten without damaging the threading. Bobbins are covered under SpinPerfect's limited parts warranty. If you break a bobbin outside of warranty you can order at www.spinperfect.com.
- Place the frontside of the bobbin (a circle with a smaller hole and no silver washer) onto the smaller side of the bobbin shaft and screw in carefully to tighten. Note how the fluted shaft of the bobbin aligns before trying to secure. *Do not overtighten.*



Install the Accelerator Drive Band

FOR SPINNING AND PLYING
KNITTING WEIGHT TO
EXTRA FINE it is recommended to
use the accelerator.

Place the accelerator band on the flyer
rod and continue assembly (as
pictured).

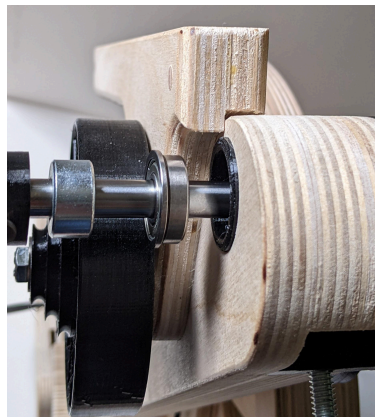


FOR SPINNING AND PLYING
KNITTING WEIGHT TO
EXTRA BULKY it is **not**
recommended to use the
accelerator.

If you do not plan on spinning fine in
the near future, store the accelerator
band away from sunlight. *If your
band breaks or gets lost, a
replacement can be ordered at*
www.spinperfect.com

Installing the Flyer on the Wheel

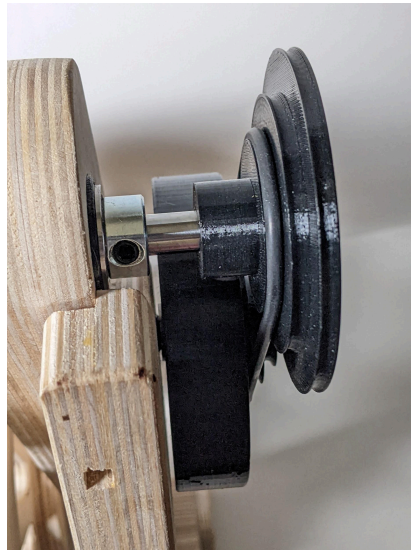
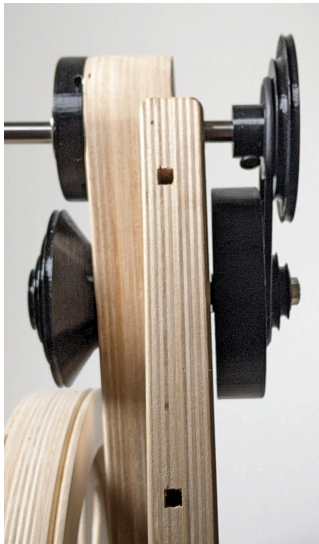
- Loosen the set screw in the frontmost hex collar (with magnet) on the flyer shaft with the included 5/64 (smallest) allen wrench. *The magnet does not need to be separated from the hex collar.*
- Slide the two bearings down the flyer shaft to bump the two black o-rings forward and remove the o-rings from the shaft and remove the frontmost bearing from the flyer shaft.
- Place the flyer shaft into the back hole of the head of the wheel and place the second bearing onto the flyer with the wide rim on the spinner side so the bearing is set into the hole.
- Place one black rubber o-ring onto the flyer shaft, and slide it up against the bearing.
- Place the assembled flyer (from step 7) onto the flyer shaft, up against the rubber o-ring.
- Place the second black rubber o-ring onto the flyer shaft and slide it up against the back of the flyer.
- Place the hex collar with magnet (magnet facing the front) onto the flyer shaft and slide it to the back of the flyer shaft. (use a Penney to space the back collar to the back bearing)



Align the Flyer Whorls

Place the orifice bar onto the flyer. If the flyer rod does not go into the orifice bar (if it looks too short) you will need to align the flyer rod.

- Unscrew the black screw in the whorl above the tension fan to loosen for alignment. Do not remove.
- Unlock the hex nut behind the flyer with an allen wrench to loosen for alignment.
- Slide the flyer shaft forward until it goes into the orifice bar.
- Align the whorl above the tension fan with the tension fan whorls so that each whorl is above another whorl (the 3 top whorls should be aligned above the 3 bottom whorls on the fan)
- Lock in the whorl by tightening the black screw on the tension whorl.
- Lock in the alignment behind the flyer by tightening the set screw on the hex nut behind the flyer.
- Lock in the alignment of the flyer by tightening the set screw behind the magnet in the flyer.



Place the bobbin and orifice bar on the Flyer

- Place the bobbin on the flyer rod with the metal washer against the magnet.
TROUBLESHOOTING: In order for the tension to function properly, the bobbin must always be locked into the magnet. Nearly all beginner tension difficulties are a result of a loose bobbin or missing magnet. If your magnet is missing, look in the back of your bobbin.
- Place the orifice bar on the flyer. Proper orifice bar installation has the hook facing downward and the flyer pegs facing upward. The flyer bars are key cut (flat on top) to fit into the orifice bar.

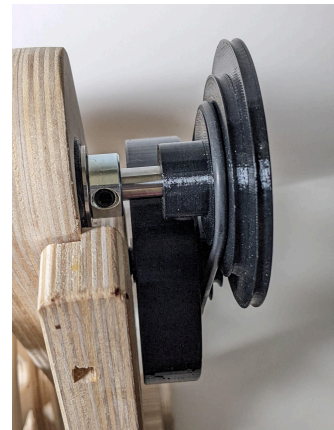


Place the Drive Wheel to Flyer band

- Take the drive band and loop it over and behind the flyer.
- Stretch the band to wrap around the drive wheel.
- After the band is on the drive wheel, stretch it onto the middle whorl of your spinning wheel.
- Always start spinning on the middle whorl, then adjust to a faster or slower speed after you start spinning.

Place the Tension Fan to Back Whorl band

- Take the small tension band and loop it over the whorl behind the wheel head.
- Stretch the band to wrap around the tension fan.
- Adjust the band so it is in the center whorls behind the wheel head.
- Always start spinning on the middle whorl of the tension fan, then adjust to more (larger upper whorl) or less (smaller upper whorl) tension after you start spinning.



Install the tension block

- Place the tension block into the wheel head.
- Place the plastic bushing and spring onto the screw, with the bushing against the block.
- Place the black tri wing nut on the screw, and screw down so it gently presses on the spring. Make sure the flyer can still spin freely after tightening.

TROUBLESHOOTING: The tension fan device provides a very broad “sweet spot” of tension. Before adjusting the tension block, first adjust the tension fan by moving the band onto the larger upper whorl. If you still need more tension, tighten the tension block all the way down until the flyer does not freely spin. Then slowly release the tension by rotating the knob until the flyer spins freely. The bulkier your yarn, the more tension you will require. The more tension you add, the more effort it will take to treadle. It is normal to hand-wind exceedingly bulky yarn or tailspun yarn onto the flyer.



Happy Spinning!

Congratulations on building your ABE Spinning wheel! If this is your first time spinning, spend some time treadling the wheel before adding fiber. Practice treadling clockwise, stopping, and treadling counter-clockwise until you can confidently stop and start the wheel in a clockwise direction. Then it is time to begin spinning.

Don't forget to add a leader thread! There are hooks on both ends of the bobbin that you can secure the leader thread under. Tie the loop of your leader thread in a knot and slide the knotted end under the hook of the bobbin.

Pencil roving is a great choice for beginner spinners because it requires minimal drafting. Plying is also a great start for beginner spinners, as it is great for learning wheel mechanics without struggling to learn drafting fiber at the same time. If you are struggling to spin your fiber, take any two yarns and ply them in a counter-clockwise direction to build muscle memory. After plying a bobbin (or a few!) come back to spinning.

Visit www.howtospinyarn.com for classrooms on how to spin, ply, and corespin yarns.

SO WHY THE PENNY? To remove the bearings from your wheel, use the penny or your fingers to pop the bearings out when switching from a $\frac{1}{4}$ " shaft to a $\frac{3}{8}$ " shaft. The penny can be stored under the tension block for disassembly when switching out flyer sizes.

