## **Direct Drive Pen Jig**

#### **Kit Contents:**

1 x Pre-Assembled Direct Drive Rotary

1 x 1 Metre Stepper Motor Extension Cable

1 x 280mm Axle

9 x Pulleys – 10, 12, 14, 16, 18, 20, 22, 24 and 26mm



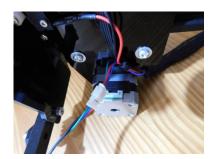
2 x Quick Release Pen bushings – for mounting pens and other open ended items.

1 x Drive band

## Connecting the jig to your engraver

Applies to the Neje and the Ortur.

- Ensure the engraver is powered off and remove the plug from the 'Y' axis (lower) stepper motor.
- Insert the removed plug into the female end of the supplied extension cable.



• Plug the male end of the supplied cable into the stepper motor on the jig.



### Powering up the engraver

This process differs slightly for the Ortur and the Neje as the 'Home' positions are different.

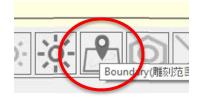
#### Neje

- Power up the engraver (don't start the Neje software)
- Now is a good time to align and focus the laser with the centre of your workpiece as the laser will be powered up with low power.
- Start the Neje software and allow it to connect. When
  the laser starts its homing process you will need to gently
  push the carriage away from you to trip the homing
  switch (direction indicated by the arrow in the picture).
  Alternatively press the switch with a finger.
- You can then move the laser back down so it's aligned with your workpiece.



#### **Ortur**

- Power up the engraver
- Start LaserGRBL and click 'Connect'
- When the laser starts its homing process you will need to gently pull the
  carriage towards you to trip the homing switch (indicated by the arrow in
  the picture). Alternatively press the switch with a finger.
- Use the 'Boundary' feature of LaserGRBL to indicate your engraving area and align the jig to the laser.



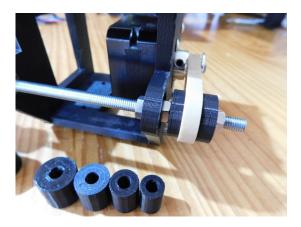


### **Mounting your work**

Fit the pulley that is closest to the diameter of your workpiece to the right hand side of the axle.

Loosen the nut holding the pulley in place and tighten after installing the correct pulley.

Don't forget to replace the band<sup>©</sup>



Mount your workpiece as shown below. Make sure the cone of the quick release bush is inserted centrally in your pen tube or whatever open ended item you are engraving. The bolts only need to be hand tightened to hold the workpiece in place.



#### Hints:

The axle can be moved over to the right hand side a little to balance the jig better. You could even cut 5-6cm off the end if you don't plan on engraving anything longer than around 10cm.

There are two screw holes in the base of the jig if you want to fasten it down to a board.

# And finally...

I sincerely hope you have as much fun using this jig as I've had designing and making it.

Any issues, suggestions or problems please do get in touch: james@jafweb.co.uk or take a look at

the facebook group. https://www.facebook.com/groups/2150167618622948/

Available Here: <a href="https://www.jafweb.co.uk/index.php/product/direct-drive-pen-rotary-jig/">https://www.jafweb.co.uk/index.php/product/direct-drive-pen-rotary-jig/</a>