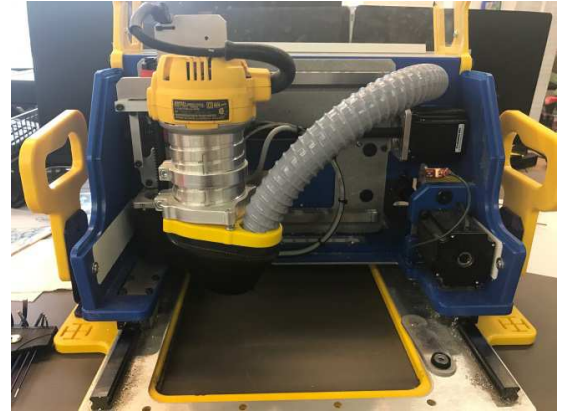


Replacing Z Plate

1

This document will describe the process for replacing the Z plate on the Handibot Adventure Edition CNC tool.



2

Remove the dust foot from the router. Twist the hose clockwise to remove it from the frame. Set the dust foot aside.



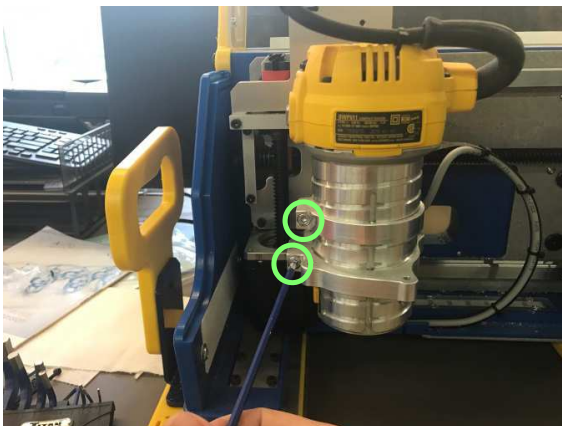
3

Unplug the router cable at the top of the Z plate



4

Loosen the two screws on the router bracket.

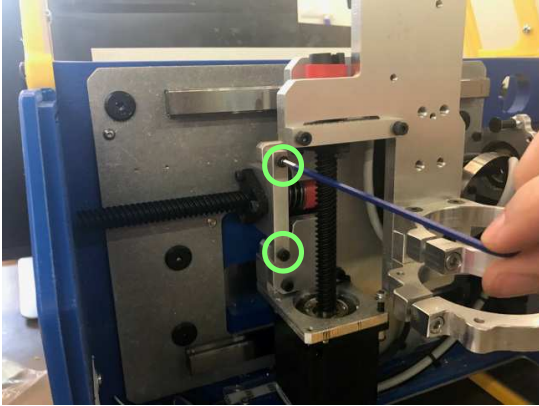


5

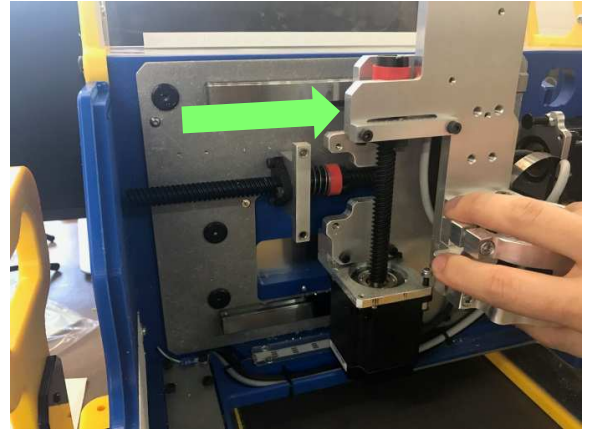
Remove the router and set it aside.



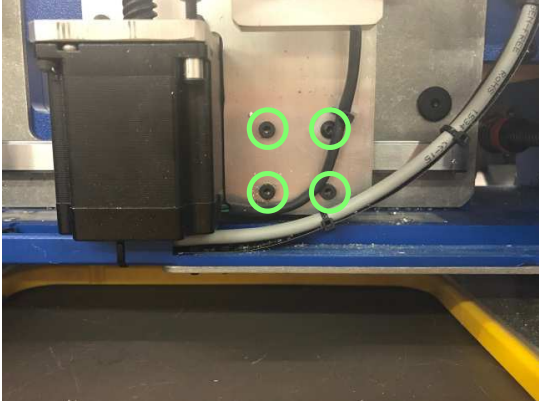
- 6 Remove the two screws holding the X Nut Bracket in place. You may need to slide the Z axis up or down to gain access to these screws



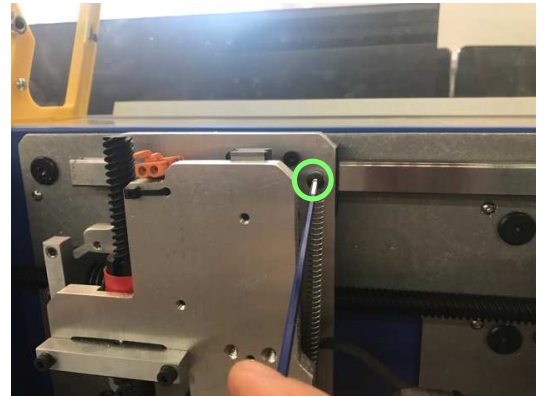
- 7 Slide the Z plate and Z motor assembly off of the X Axis Nut Bracket. It should slide easily now.



- 8 With the Z axis all the way up, remove the four screws that attach the lower X bearing. The top right screw fits a 2.5mm allen wrench, while the other three fit a 3mm allen wrench.



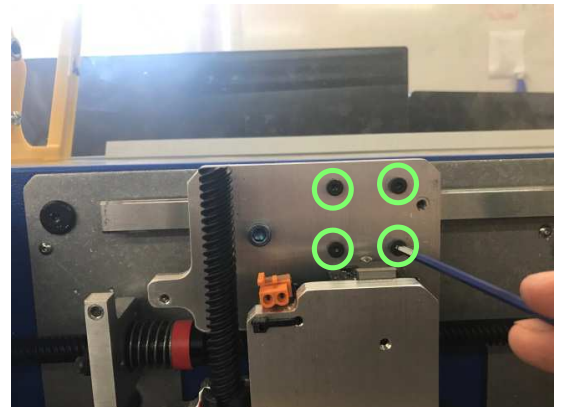
- 9 Use the 2.5mm allen wrench to remove the screw that holds the Z axis retaining spring. Hold onto the spring so that it doesn't send your hardware flying when it is released!



- 10 Once removed, make sure not to lose the small spacer that sits under the spring and screw.



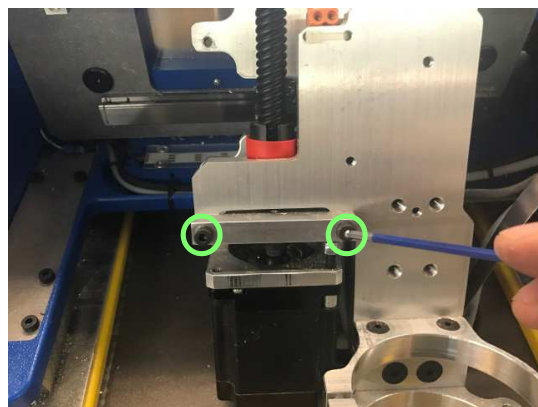
- 11 Now slide the Z axis all the way to the bottom of its travel to gain access to the four screws that hold the top X bearing in place. Remove these screws to release the Z assembly.



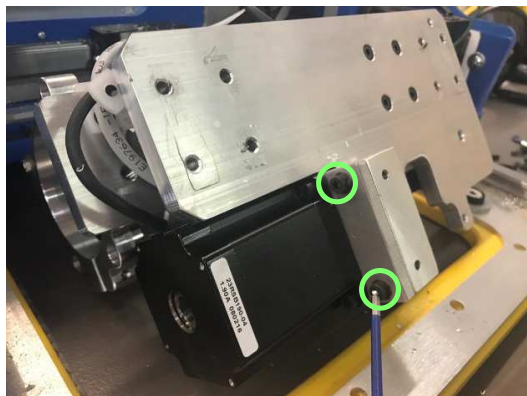
- 12** Pull the Z assembly away from the tool, being careful not to twist the cables that run from the base to the Z plate.



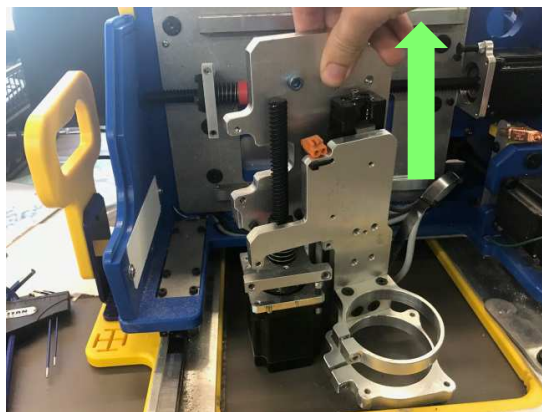
- 13** Remove the two screws holding the Z Nut Bracket in place.



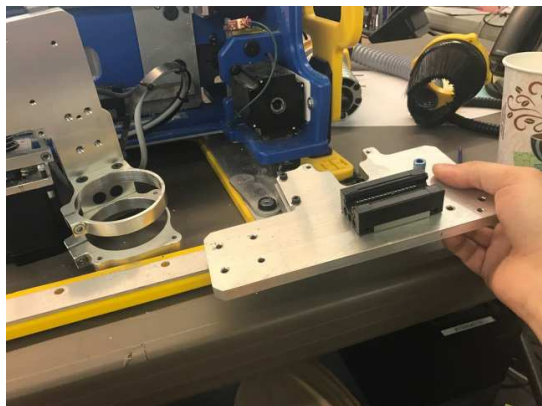
- 14** Flip the Z assembly over and remove the two screws holding the Z motor in place.



- 15** This will allow you to pull the XZ Plate up and remove it from the Z Plate.



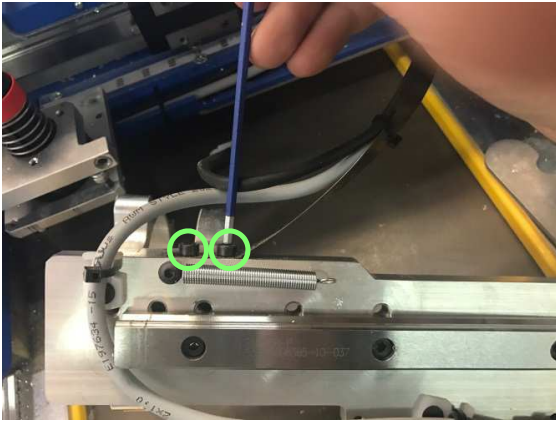
- 16** Set the XZ Plate aside, being careful not to let sawdust or other debris get into the Z Bearing Block.



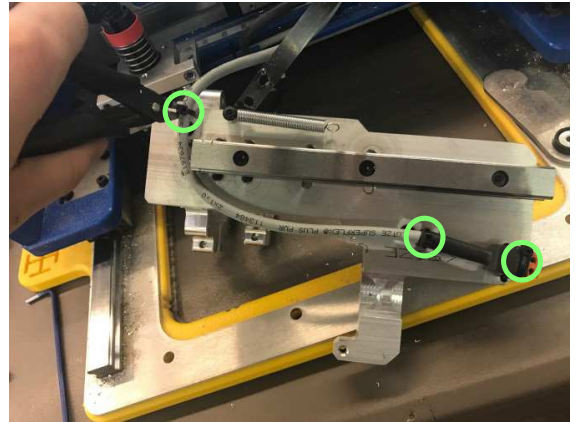
- 17** Flip the Z Plate over so that you can see the rail and router cable.



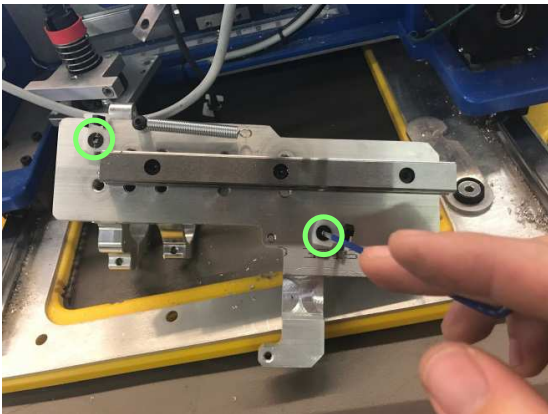
- 18** Remove the two screws on the side of the Z Plate that hold the cable carrier in place.



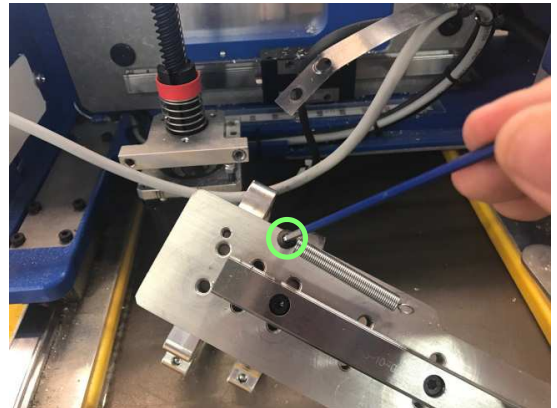
- 19** Snip the three zip ties that hold the router cable in place.



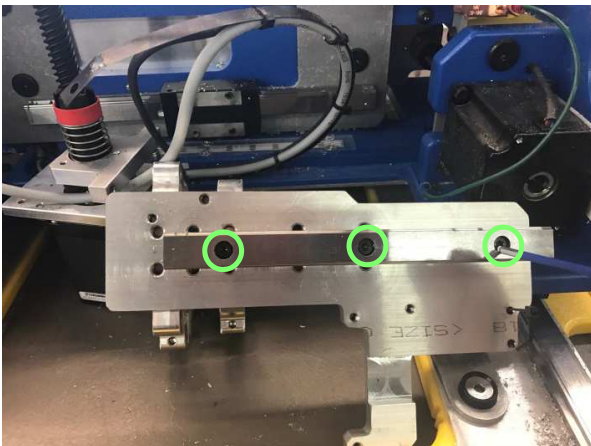
- 20** Use the 2.5mm allen wrench to remove the two zip tie anchors from the Z Plate.



- 21** Use the 2.5mm allen wrench to remove the screw and spacer holding the Z retaining spring in place.

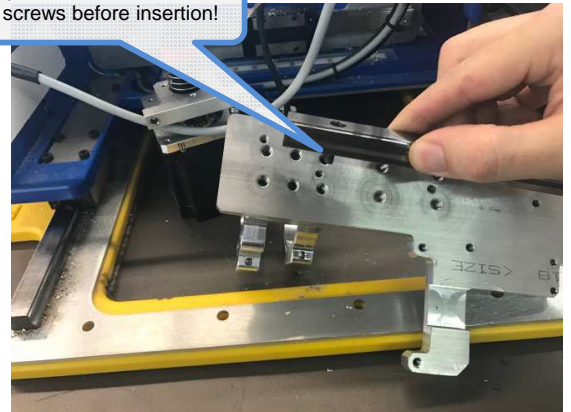


- 22** Remove the three screws that hold the Z rail in place.

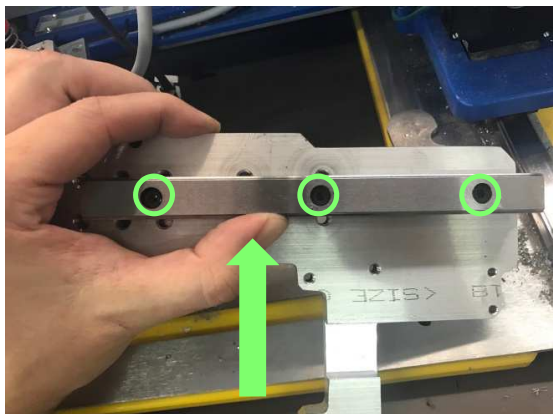


- 23** Grab your new Z Plate and position the Z rail in alignment with the three mounting holes.

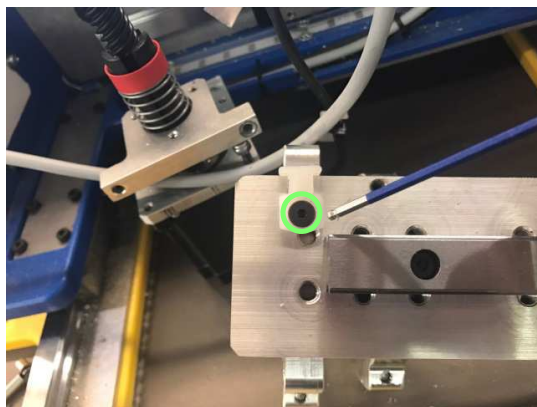
Apply fresh thread-locker to screws before insertion!



- 24** Press the rail up, away from the slotted flange. Then tighten the three screws.



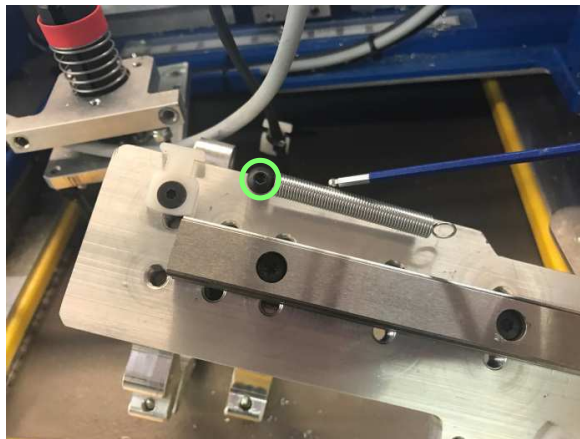
- 25** Replace the first zip tie anchor, aligning the tab as shown in the photo below.



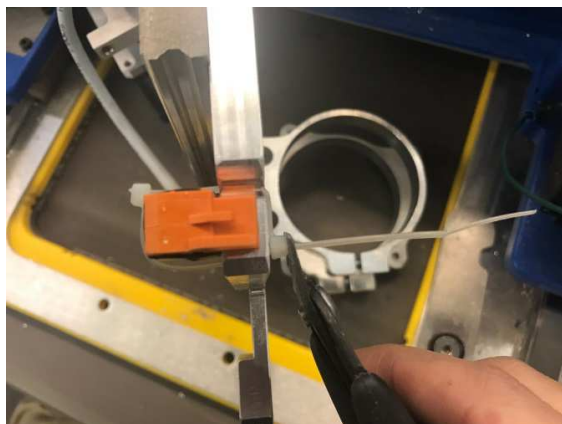
- 26** Replace the second zip tie anchor, aligning it as shown in the photo below.



- 27** Replace the spring as shown, making sure to place the spacer under the spring, to space it off from the Z Plate.



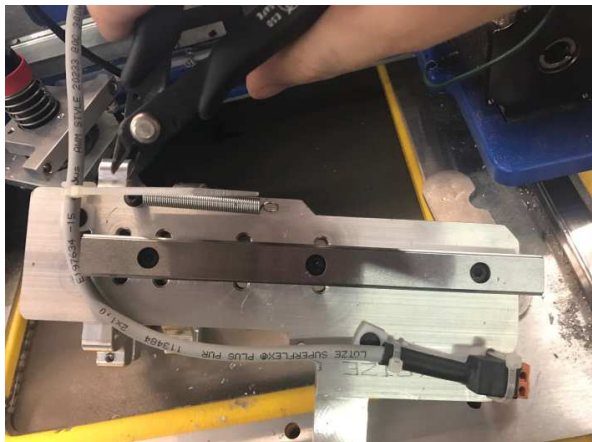
- 28** Reattach the router connector as shown using zip ties, with the connector facing opposite the side of the Z Plate where the rail is attached.



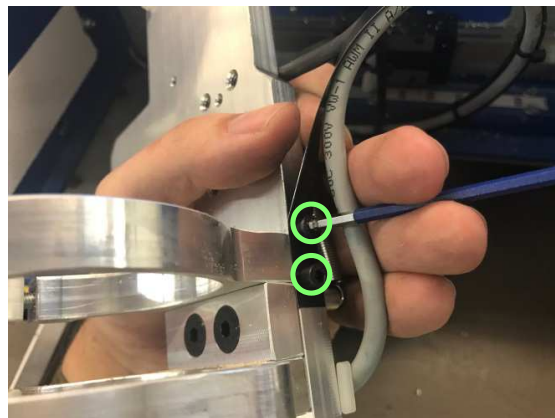
- 29** Secure the router cable to the first zip tie anchor as shown. Trim the zip tie.



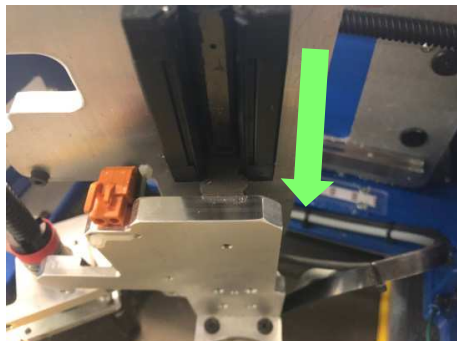
- 30** Secure the router cable to the second zip tie anchor as shown. Trim the zip tie.



- 31** Reattach the cable carrier, using the 2 short screws that were removed earlier.



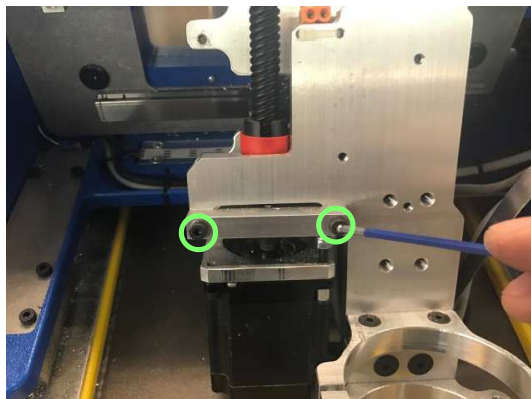
- 32** Carefully slide the XZ Plate bearing back onto the Z rail. It will take a bit of force to get the rail past the rubber seal on the bearing, but it should slide easily after that. Don't force it or you risk knocking ball bearings out of the block.



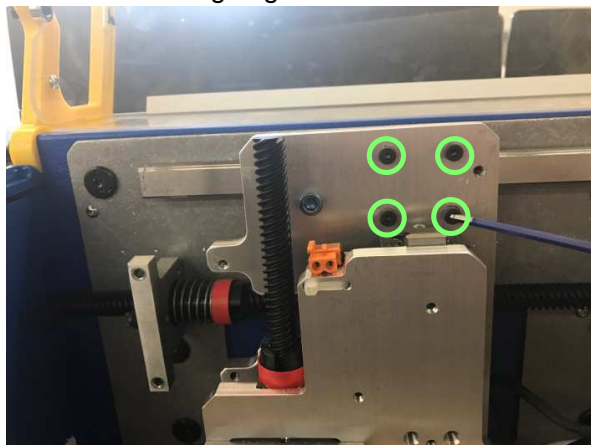
- 33** Reattach the Z motor to the XZ Plate.



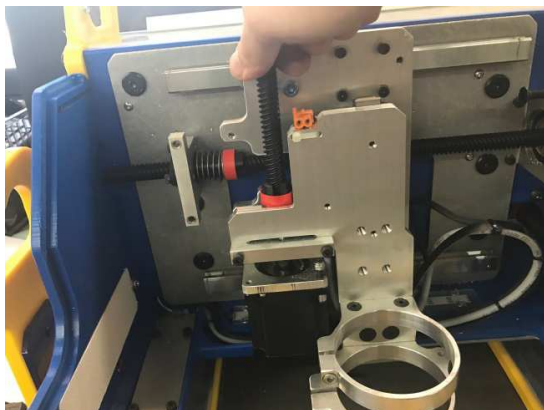
- 34** Reattach the Z Nut Bracket. Test the motion of the Z axis by spinning the motor shaft and checking that the Z Plate moves up and down without requiring too much force.



- 35** Insert the four screws that hold the top X bearing, but leave them loose. We'll tighten them after aligning the X axis.



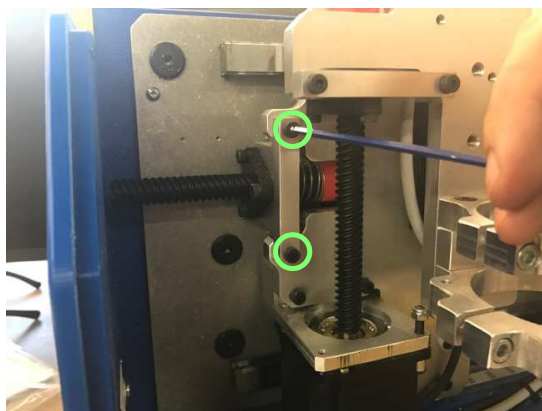
- 36** Twist the Z Motor shaft to move the Z Plate up to gain access to the screws on the lower bearing.



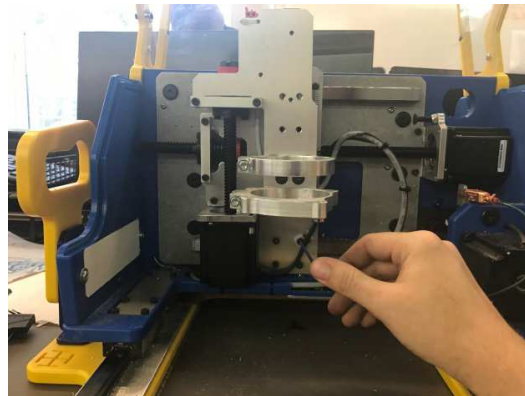
- 37** Insert the four screws that hold the lower X Bearing. You may have to slide the bearing back and forth to align with the holes in your plate. Recall that the screw with the zip tie anchor goes in the top right position as shown.



- 38** Slide the Z assembly back onto the X Nut Bracket and reattach the bracket.



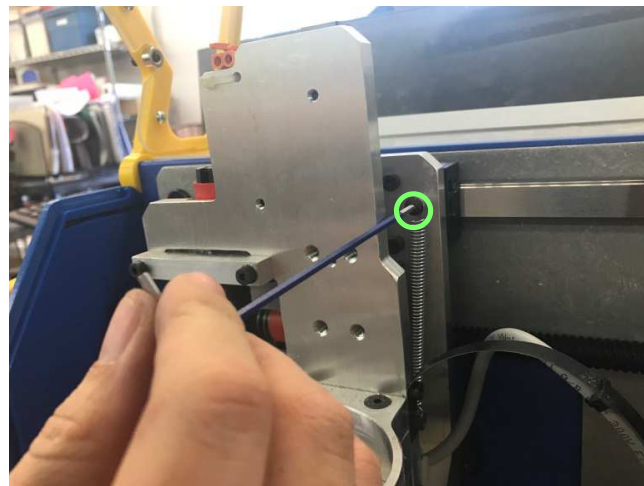
- 39** Spin the X Motor shaft to move the Z assembly back and forth. Move the assembly close to the X motor body and then tighten the eight screws holding the two X bearings.



- 40** With the Z axis moved all the way up, grab the retaining spring and insert the screw and spacer.



- 41** Attach the retaining spring to the XZ Plate.



42

Replace the router and dust foot, and you should be ready to go!

