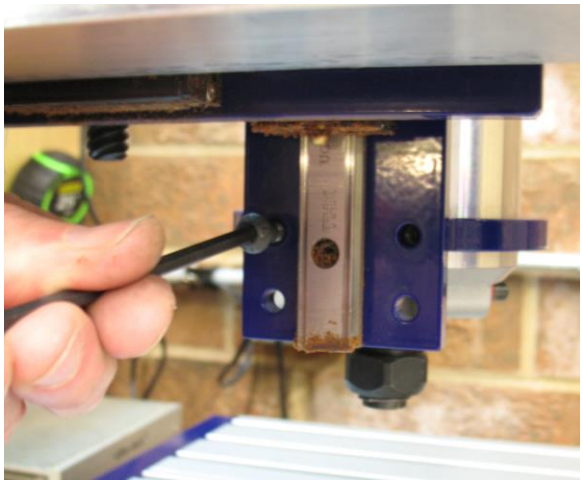
Upgrading from a router to spindle: for Desktop Tools

Removing the router brackets

Before you begin, open the e-chain so that you can remove the router cord. One side of the e-chain has bars that hinge open, and the other side has bars that are fixed. If you are not able to pry the bars open, move the YZ car to the other side of the gantry. This will give you access to the back side of the chain. As you remove the router cord, you will have to cut several zip ties that secure the cord along the way. Be careful not to cut any of the cables while you do this!

Remove the router brackets from the Z-plate. There are two bolts for each bracket, as shown in the photo. When you remove the second bracket, make sure to support the router with one hand so it doesn't drop onto the table.

Opening the e-chain for cable access

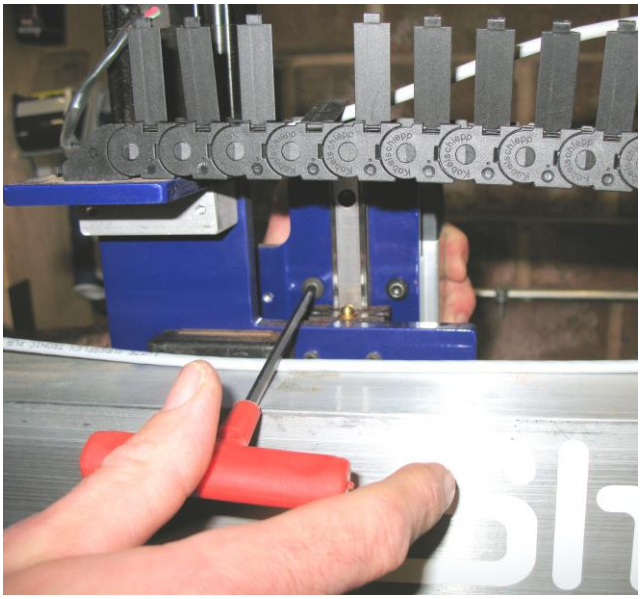


Removing the router brackets

Mounting the spindle

The spindle mounts directly onto the Z-axis using the (4) M6 x 20mm bolts (included). Align the holes in the Z plate to the holes in the back of the spindle. You will need to move the z-axis up and down in order to access all the bolt holes. Tighten the bolts just enough so that the spindle is held securely to the plate. You want to leave them just loose enough so that you can adjust the spindle for square.

Now set your square on the table so that the long edge is running up the side of the spindle body. If necessary, adjust the spindle for square, and then tighten each bolt.



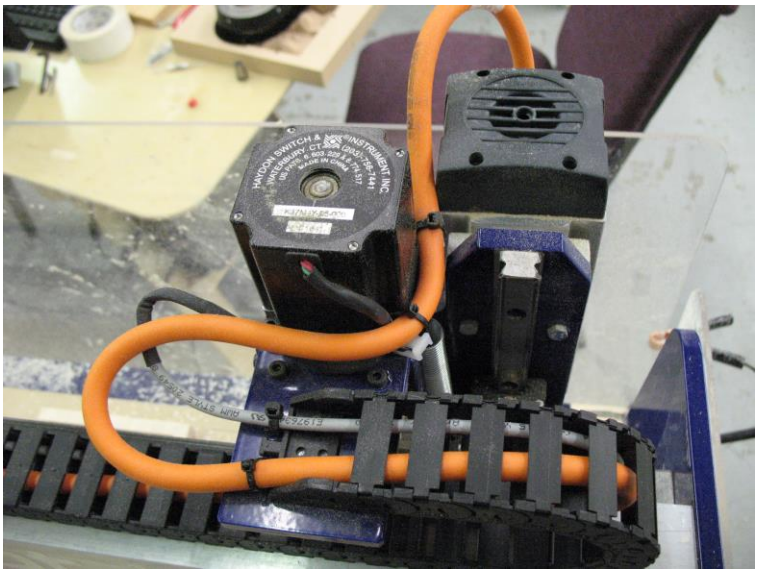
Bolting the spindle to the Z-axis

Checking the spindle for square

Running the spindle cable

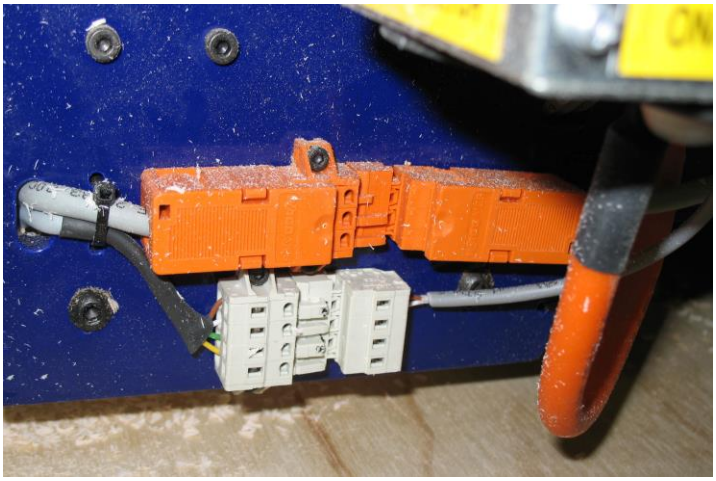
Route the orange spindle cable from the VFD into the e-chain as shown below. Try to keep the spindle cable separate from the others to avoid electrical interference. Close the e-chain links as you go, this will help keep things organized. When you get out to the end of the e-chain, zip-tie the cable to the plastic anchor points on the Z-axis motor (if you have them). If not, just wrap a tie around the Z motor housing and secure the cable that way.

Connect the end of the cable into the plug on the spindle, then close the steel latch to lock it in place.



Mounting the VFD

The VFD mounts to the left side of the gantry with four bolts. The bottom two mounting holes on the VFD are slotted, allowing you to slide the unit down onto the bolts. Then screw in the top bolts, and tighten all four down.



The two loose plugs coming from the bottom of the VFD need to be plugged in at this point. Connect each one to its matching plug on the gantry. Make sure that these connections are tight. Complete the installation by securing the spindle cable to gantry with a couple of zip ties (you may have to cut the old ones out first- just be careful not to cut any of the cables).