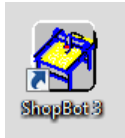# Using the ShopBot CNC Router

1. Export your toolpaths as an .SBP file from V-Carve Pro or Partworks 3D and transfer it to the computer connected to the ShopBot CNC Router.

2. Open **ShopBot 3**

3. When the application opens, a dialogue window may appear warning that "The Remote Stop Button connected to Input #4 appears to be ON and needs to be checked…." If this occurs, press the blue reset button on the ShopBot control box, then click OK on the dialogue window.
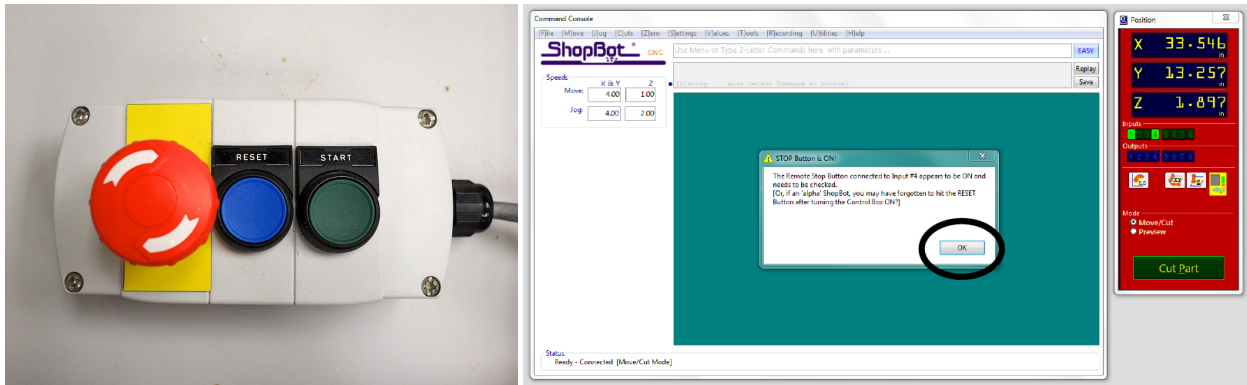
4. Open the **KeyPad** control window by pressing the yellow icon in the **Position** window.


5. Once the **KeyPad** window is open you can move the spindle in the X, Y and Z axis using the blue arrow icons. You can also use the arrow keys along with the page up/down keys on the keyboard.

6. Move the spindle to a location that allows you to safely load your material, and then to a location where you can easily reach the spindle to install the collet and bit.


7. Gather the spanner and wrench for the spindle, along with the correct size collet and router bit for your cut. Insert the collet into the nosepiece by inserting it at an angle and pressing until it clicks. Screw the collet and nosepiece onto the spindle, and tighten loosely. Insert the router bit into the collet, and using the wrench and spanner firmly tighten.
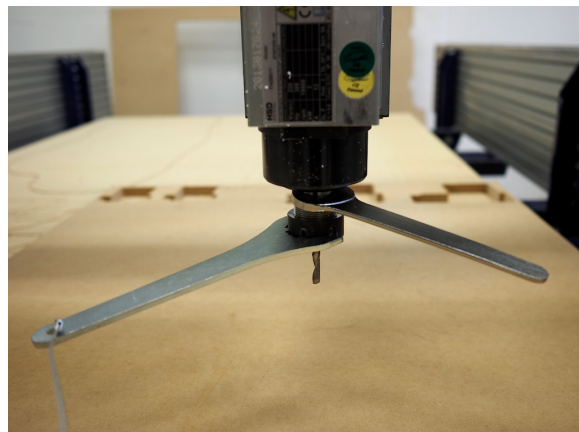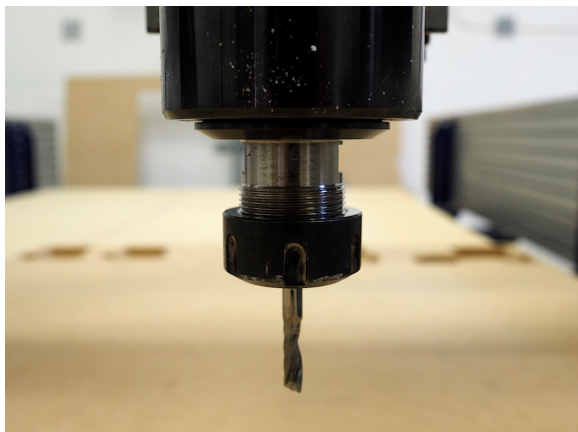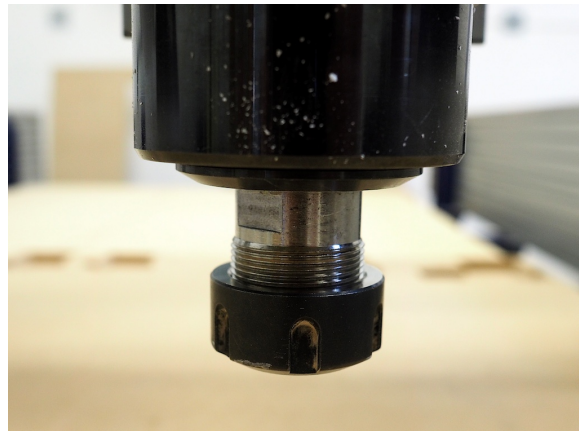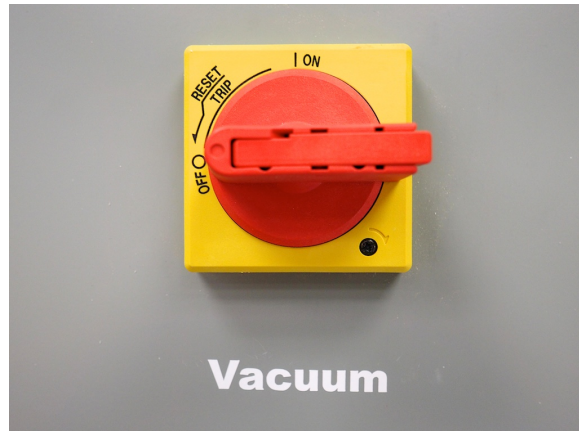
8. Using the **KeyPad** controls, move the spindle to the X Y zero location that corresponds to your toolpath file. This is generally the bottom right hand corner of your material.
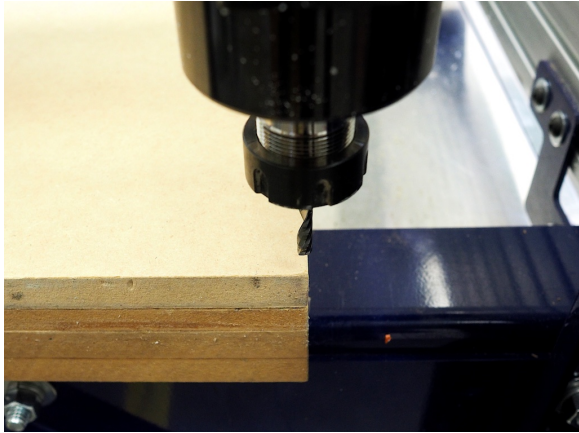

9. Once the spindle is in the proper X Y location, click the blue **Zero Axes** button on the **KeyPad** control window. A pop-up window will appear asking which axes you would like to zero. Select the X and Y boxes and click **Zero**.
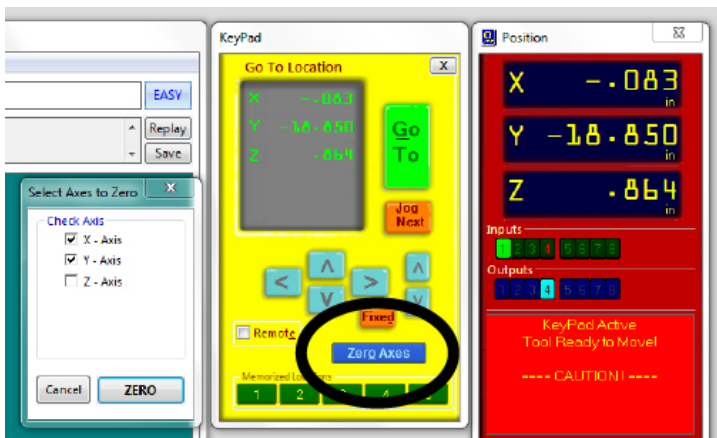

10. You are now ready to zero the Z axis. If you are using the vacuum hold down, open and/or close the appropriate valves and turn the vacuum on using the switch to the left of the computer.

11. Using the **KeyPad** controls move the spindle to the middle of your material. Position the Z Zero Plate under the spindle and attach the alligator clip to the body of the spindle.
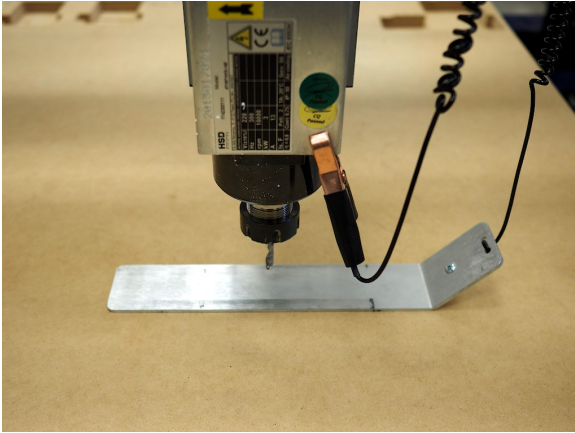

12. Close the **KeyPad** window and click the "Zero Z axis with Zero Plate" button.
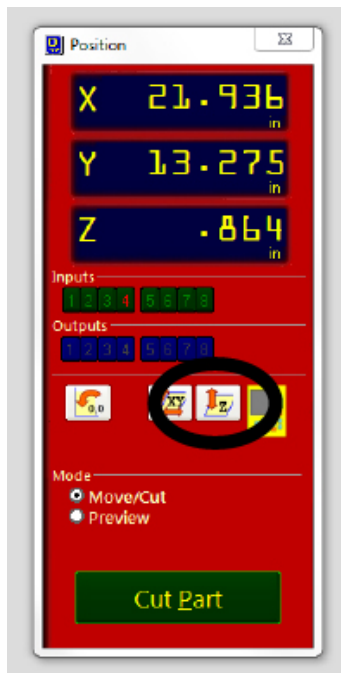
13. Click "OK" when the spindle is above the plate, and allow the machine to zero the Z axis. Once the machine is zeroed, put away the Z Zero Plate and alligator clip and click "OK" in the dialogue window that appear on screen.
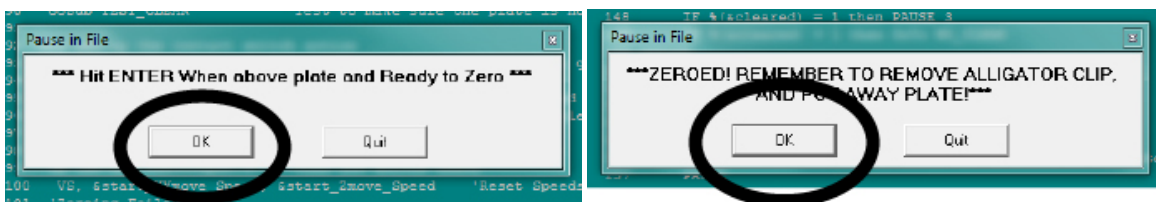
14. Position the dust skirt so that the bottom of the skirt alligns with the bottom of the bit you have installed. Tighten the dust skirt using the wing nut on the back of the spindle. (If you are cutting foam, remove the dust skirt completely.)
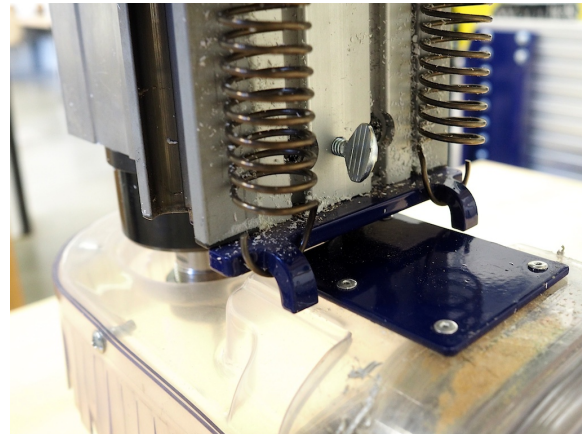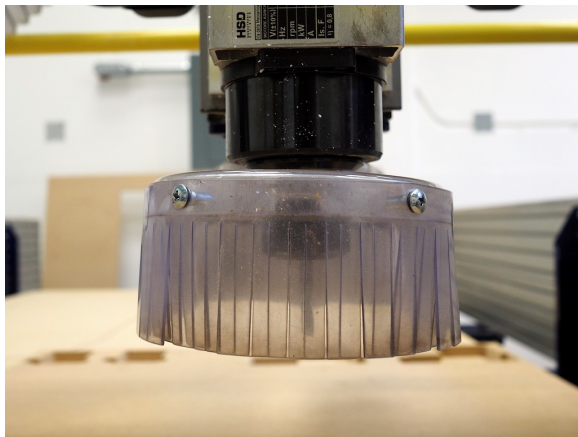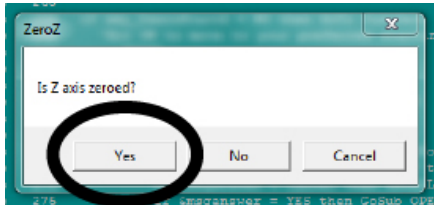

15. Click the "Cut Part" button in the **Position** window and navigate to your .SPB file.
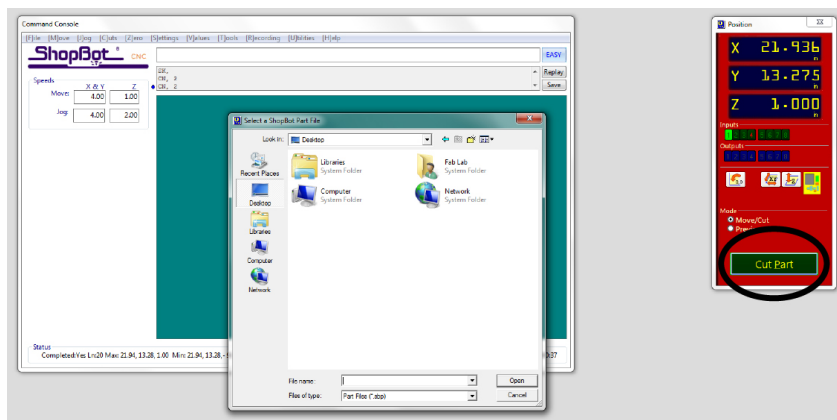
16. A Part File Load window will appear and the "Cut Part" button will change to a "Start' button. If you are ready to cut, click "Start"
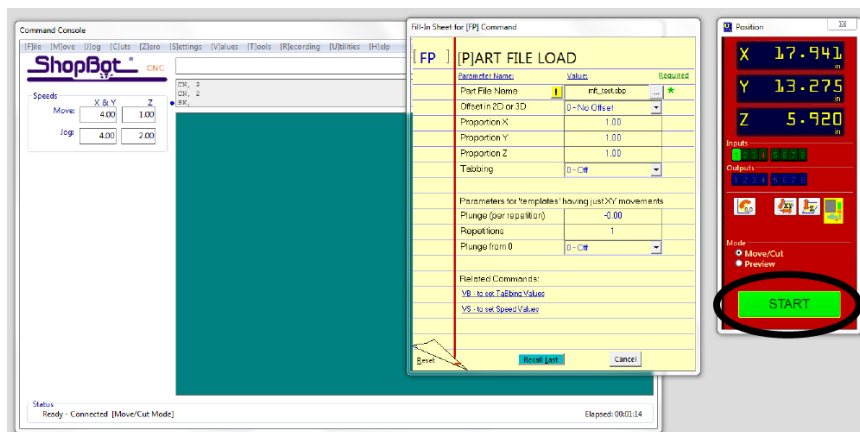
17. The program will ask if the Z axis is zeroed. Click "Yes" if you have zeroed the axis. If you have not, go back to step 11 and zero the Z axis using the Z Zero Plate.

18. The program will ask you to start the Router / Spindle. To start the spindle press the green start button on the ShopBot control box. This is also a good time to turn on the dust collector using the green start button to the left of the computer.

Once you have started the spindle, click "OK" in the pop-up window. When you click "OK" the ShopBot will begin cutting your job.