

CNC (Computer Numerical Control)

SCF Wood Shop has the Carbide 3D model Shapeoko 4

1. Go to the Carbide 3D website: [Carbide 3D](#)
2. Scroll down to the Carbide Create CAD/CAM Software. Click on the box See Carbide Create. Click on the box Get Carbide Create for free and download the software for your computer. Open it up and install the software on your computer.
3. Download the Carbide Create User Manual from this link: [carbide-create-v5.pdf \(carbide3d.com\)](#)
4. Go to the Carbide 3D learning videos on the link: <https://my.carbide3d.com> **Note** you may need to create a login to use the different learning videos. There are 3 boxes on this website which you will need to open and go through. Become familiar with the Shapeoko 4 machine and software.
5. You will also need to understand how the software Carbide Motion connects to the Shapeoko machine. The wood shop has a computer which will be the only computer to interface with the Shapeoko. Personal projects and files will be loaded from personal thumb drives. Please review the information about Carbide Motion from this link: [Carbide Motion User Guide - Carbide 3D](#)
6. NOTES: Carbide Create is the design software, Carbide Motion is the software that interfaces with the machine. You will need to create your design, save it in Carbide Create AND save it in the format *.c2D for Carbide Motion on your own thumb drive. This will become clearer as you go through the tutorials on your own.

SAMPLE PROJECT-Create a Star with Circle and Pocket with Text

1. Open Carbide Create and setup a new design with 8"x 8" 3/4" thick wood board
2. Select the Circle and place it to fill the workspace not too close to the edge.
3. From the Library, select a Star. It will need to be resized and moved to the center of the workspace.
4. Select the Circle and place another circle inside Star.
5. Select Text, and put a capital S in the middle circle that is inside the star. It may need to be resized to be larger.
6. Go to Toolpaths and select only the outside circle. Select Contour with No Offset the outside circle using a 1/8" end mill. Use a Start Depth of 0 and a Max Depth of 0.1 inch. Save Toothpath.
7. Go to Toolpaths and select only the Star. Select Contour with an offset of Outside/Right the Star using a 1/8" ball mill. Use a Start Depth of 0 and a Max Depth of 0.1 inch. Save Toothpath.
8. Go to Toolpaths and select only the inside circle. Select Pocket the outside circle using a 1/4" end mill. Use a Start Depth of 0 and a Max Depth of 0.1 inch. Save Toothpath.
9. Go to Toolpaths and select only the S text. Select VCarve using a Vee (60 degrees). Use a Start Depth of 0.1 inch and a Max Depth of 0.2 inch. Save Toothpath.
10. Show simulation and review.
11. Save the file in Carbide Create AND save the file for Carbide Motion *filename.c2d*
12. Transfer these files to a thumb drive so that they can be reviewed on another computer at the Wood Shop

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THERE ARE MANY MORE TUTORIALS AND INFORMATION ON THE WEB