

## **Toolpath Menu** Version 8.26

This article describes the Vectric Cut2D toolpath menu, and highlights the settings relating to Plasma cutting. After you're done drawing your object, you need to specify where to place the cutpaths. The Vectric Toolpath menu is the place to do this.

Press F12 to open the toolpath menu on the right side of the screen.

The first section under the Toolpaths menu is 'Material Setup'. Pressing the blue 'Set...' button opens the Material Setup options. Most of the details don't pertain to plasma cutting. In order to simplify the Toolpath menu, under the XY Datum section, uncheck the 'Show detailed summary on toolpath tab' box. Click the 'OK' button to save the changes.

Under 'Toolpath Operations', click on the 'Profile Toolpath' button on the top left. This opens the '2D Profile Toolpath' options menu.

Under 'Cutting Depths', make sure 0.0 is set as the start depth, and 0.1 as the cut depth. Although we don't need Vectric to pass any heights to our controller, the goal is to make sure the program only calculates a single pass, hence the reason to set a shallow cut depth. Next, check the box labeled 'Show advanced toolpath options'.

In the 'Tool' section, click the 'Select...' button. Under the 'Tool List' chart, choose the smallest End Mill available. If needed, click on the '+' boxes to expand the list of tools. Note that none of the tool parameters are passed to our controller, so the values don't matter for plasma cutting. However, if we want to use the cut path preview option, we need to choose the thinnest end mill. Once you've selected the smallest End Mill, click the 'OK' button to save it. Make sure the 'Passes:' value equals 1.

Under 'Machine Vectors', select the 'On' radio button, and 'Climb' as the direction.

Click the 'Leads' tab, then check the 'Add leads' box. Select the 'Circular Lead' radio button, and enter appropriate 'Radius' and 'Lead Length' values. Check the 'Do lead out' radio button, but leave the 'Overcut Distance' as 0.0.

Click the 'Calculate' button. This calculates a toolpath, and defaults to the 'Preview Toolpaths' menu in a 3D view. To preview the calculated toolpath, click the triangular 'Play' button midway down the right 'Preview Toolpaths' menu (typically, it helps to lower the speed slider all the way to the left). Click the 'Close' button to close the 'Preview Toolpaths' menu.

Next, we need to save, or output, the toolpath. Make sure the 'Toolpaths' box is checked, then click the 'Save Toolpath' icon (it looks like an old floppy disk) at the bottom right of the Toolpaths menu, under the Toolpath Operations section. Under the Post Processor drop down menu, select the appropriate ArcStar post processor, then click the 'Save Toolpath(s)...' button. Navigate to your USB stick, type a filename, then click the 'Save' button. Finish by clicking the 'Close' button. If desired, press F2 to switch back to the '2D View' window.

Conveniently, most of the values we've specified will be retained for subsequent sessions. Remember, this is just a quick overview of the Toolpath Menu. There are many other advanced options we didn't explore, such as nesting, job sheets, tiling, and specifying cut path order to name just a few. As always, if you have any questions regarding the design process, we're always here to help.

