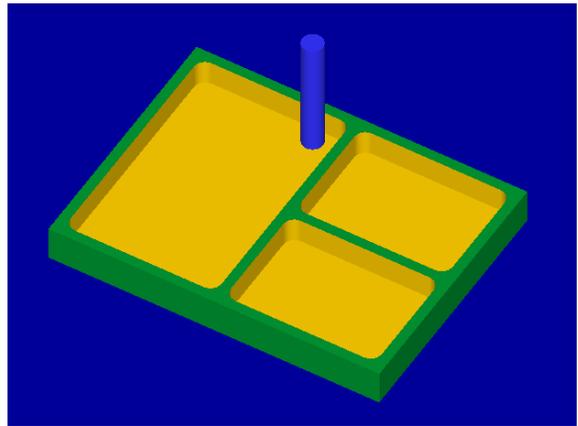
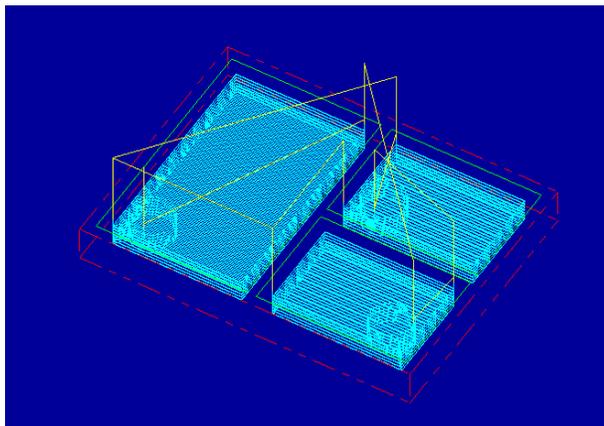
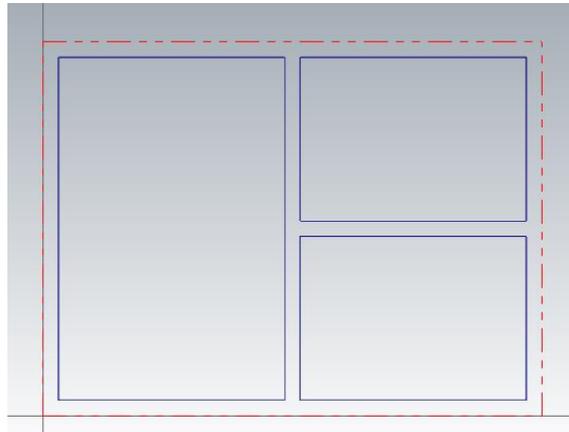
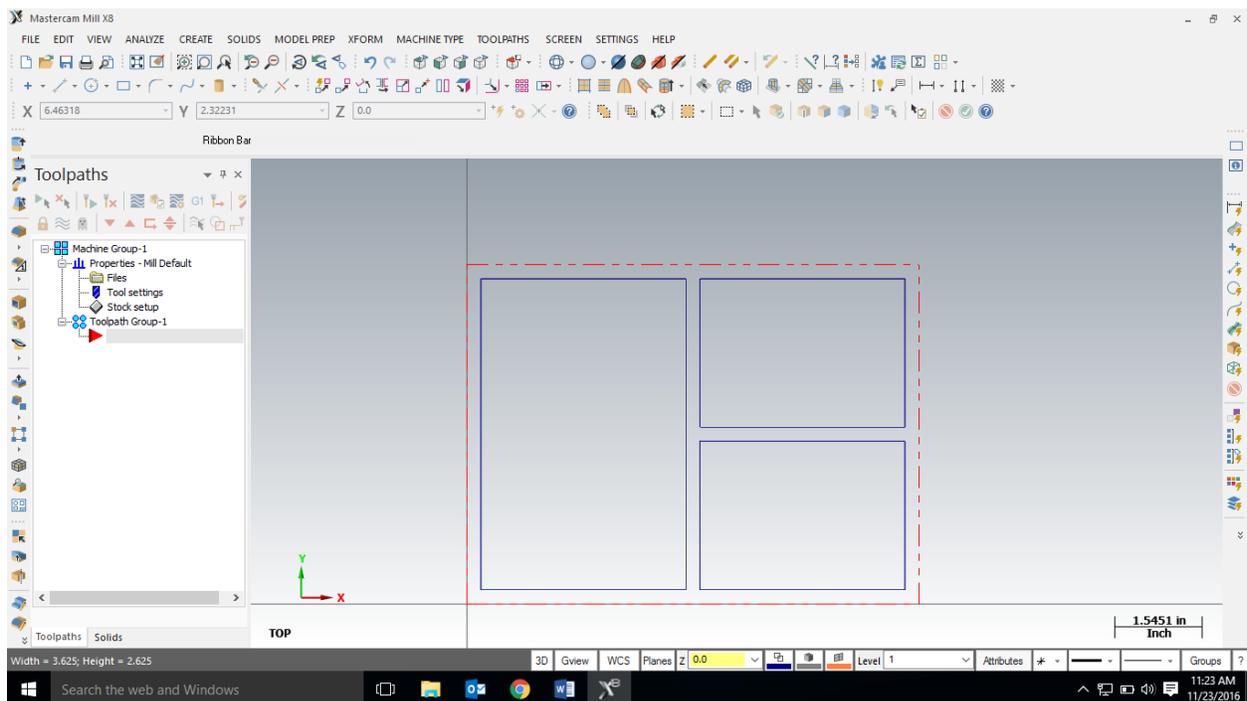


# Box Tray Geometry Toolpaths in MasterCAM

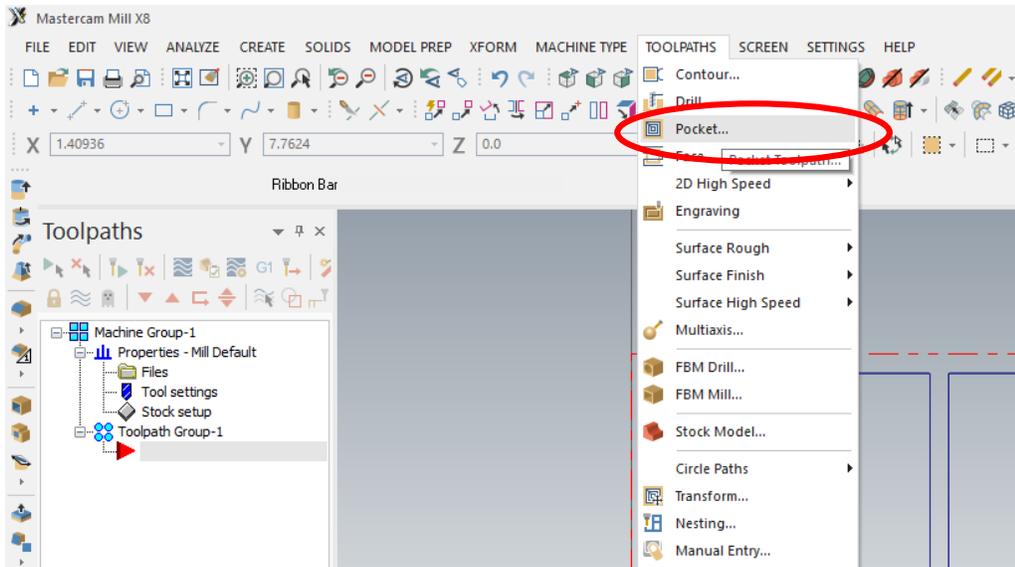


Open the MasterCAM application and open your “TRAY” geometry file.

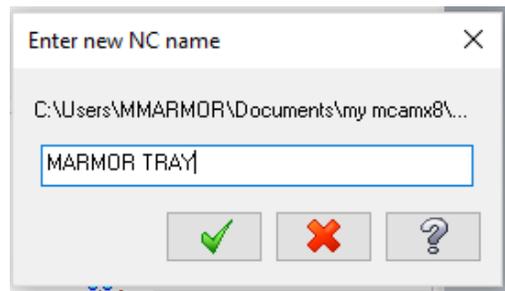


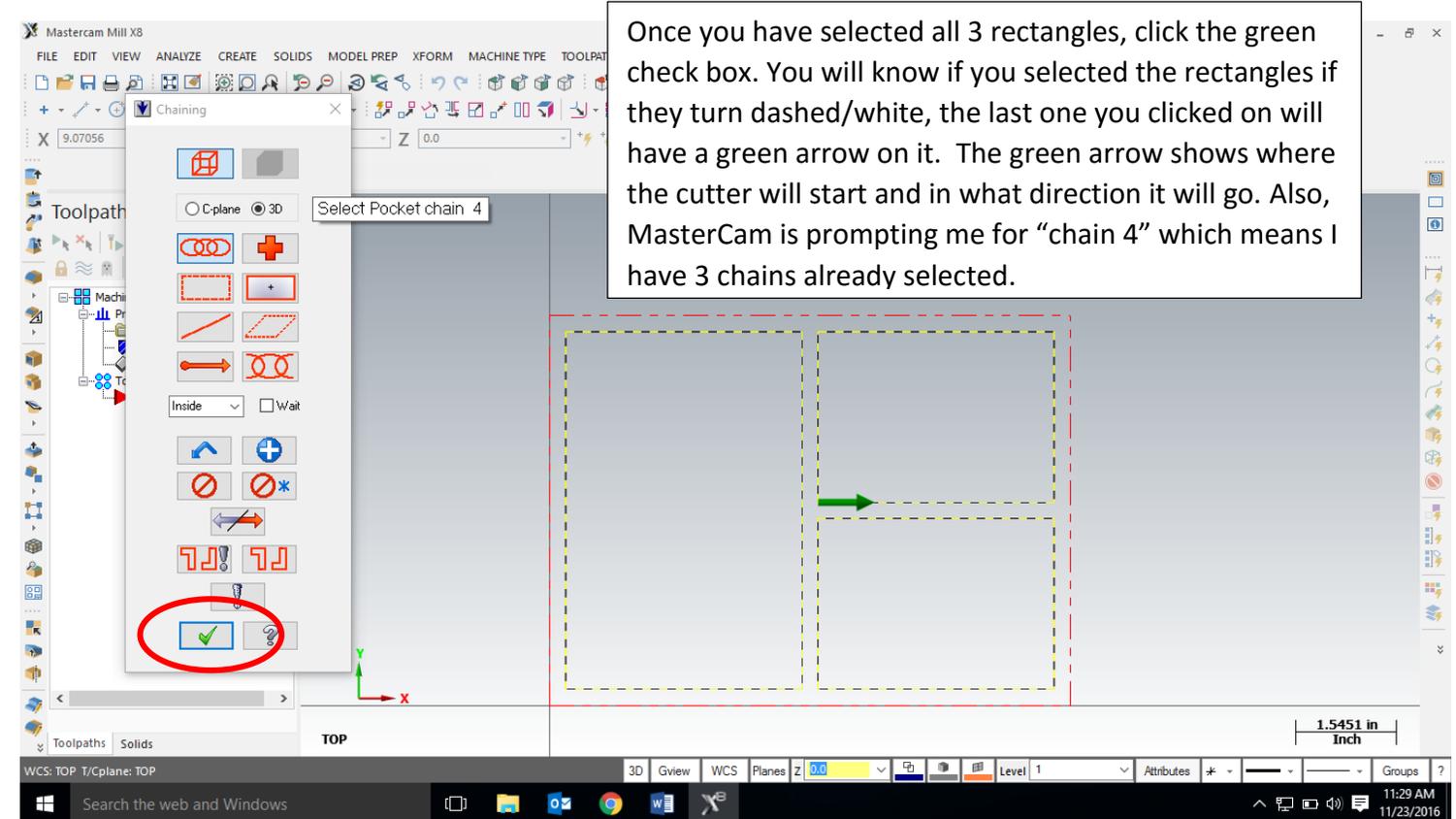
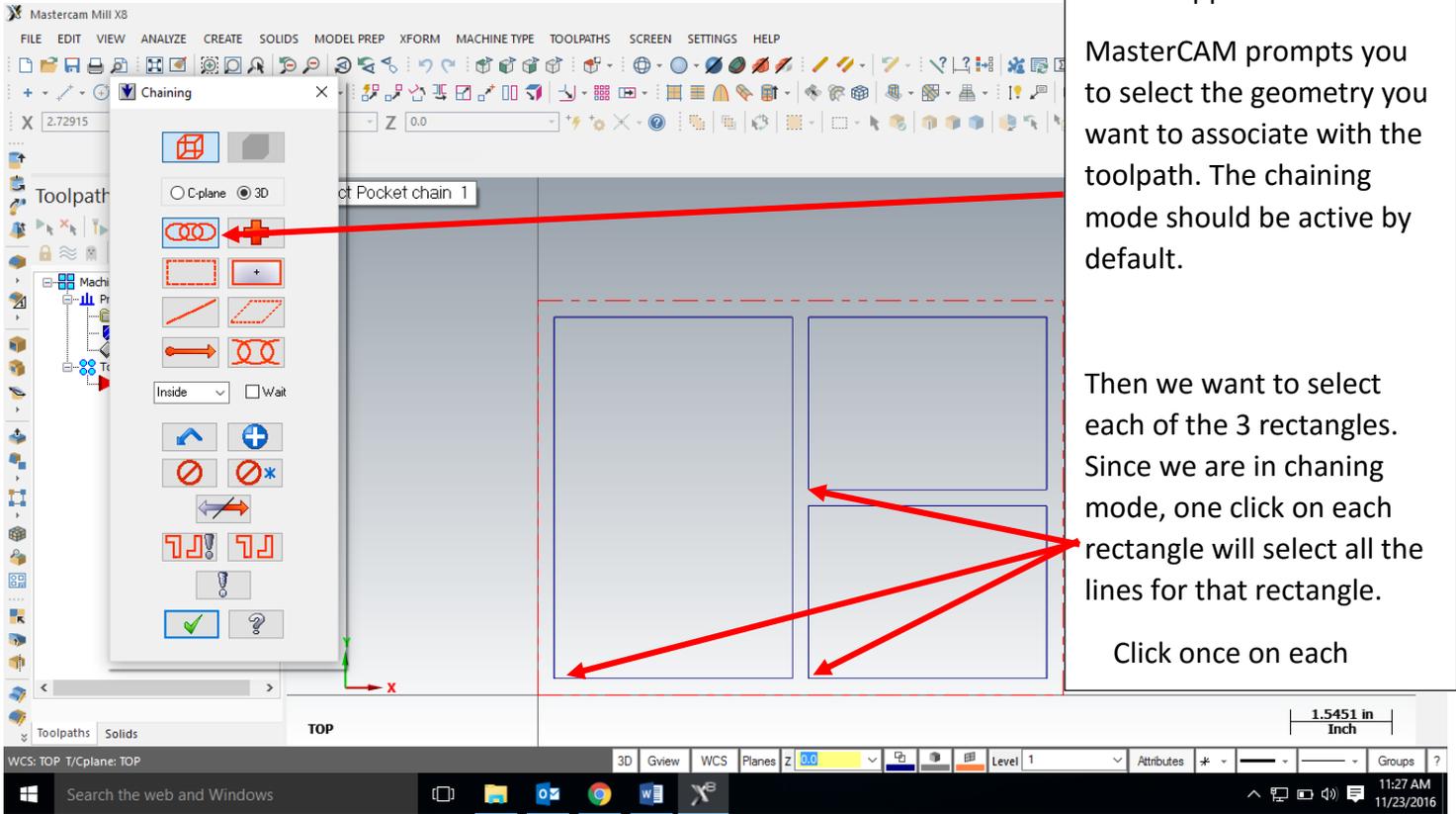
For 2D geometry such as we have, there are 2 main types of tool paths. The first one is a contour. In a contour toolpath the tool bit will follow a path. This is mainly used to cut the outside shape of parts. The other type of toolpath is a pocket. A pocket toolpath will make a cavity within the selected geometry. We are going to complete pocket toolpaths so the machine mills out the material inside our tray. We probably can just use one toolpath to machine all 3 of the pockets in the example. If you want different depth of the pockets, then you must use different toolpaths. You could also put different toolpaths on each rectangle if that makes more sense to you, but you just have to enter all the information 3 times instead of one. Each rectangle in our geometry file is really 4 lines, so to select the geometry for the toolpath, please use the chain feature when you select geometry. Then it will select all 4 lines of the rectangle with one click.

To start the toolpaths, go to Toolpaths/Pocket

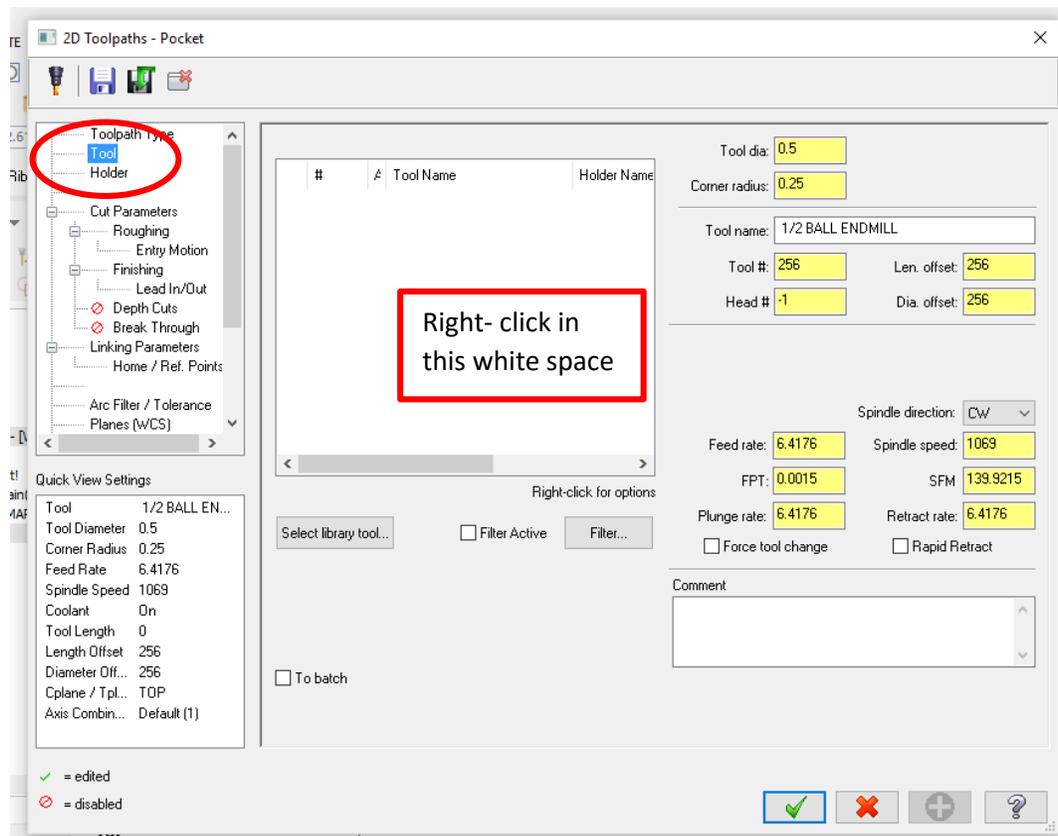
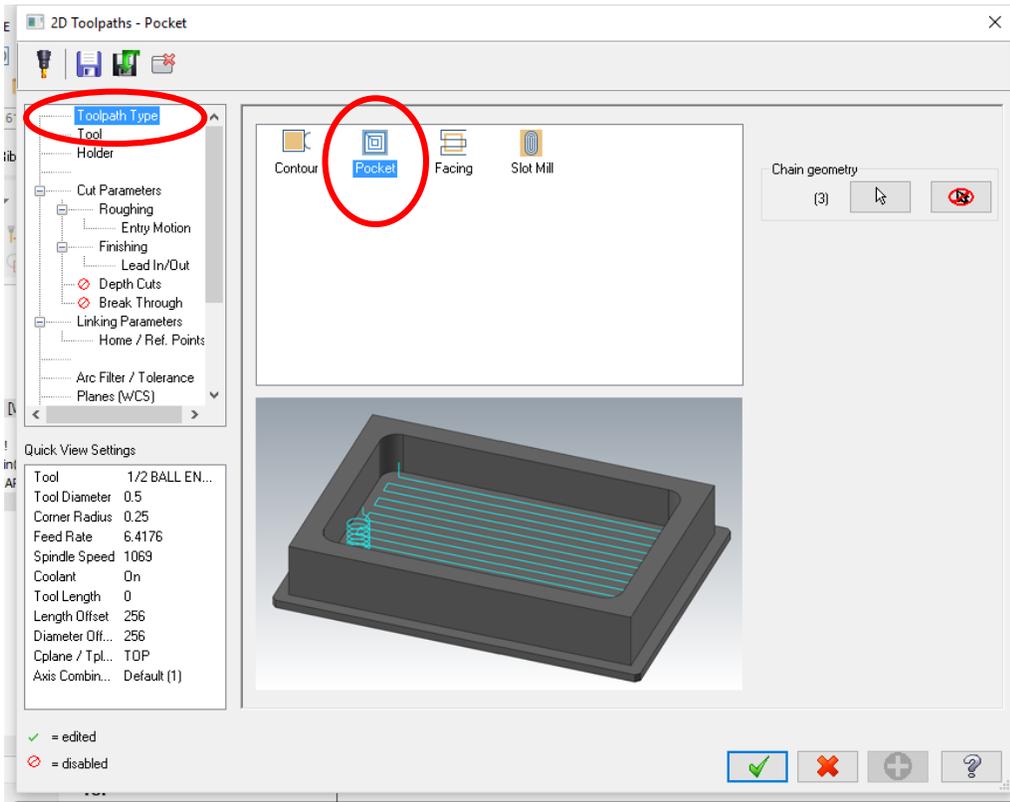


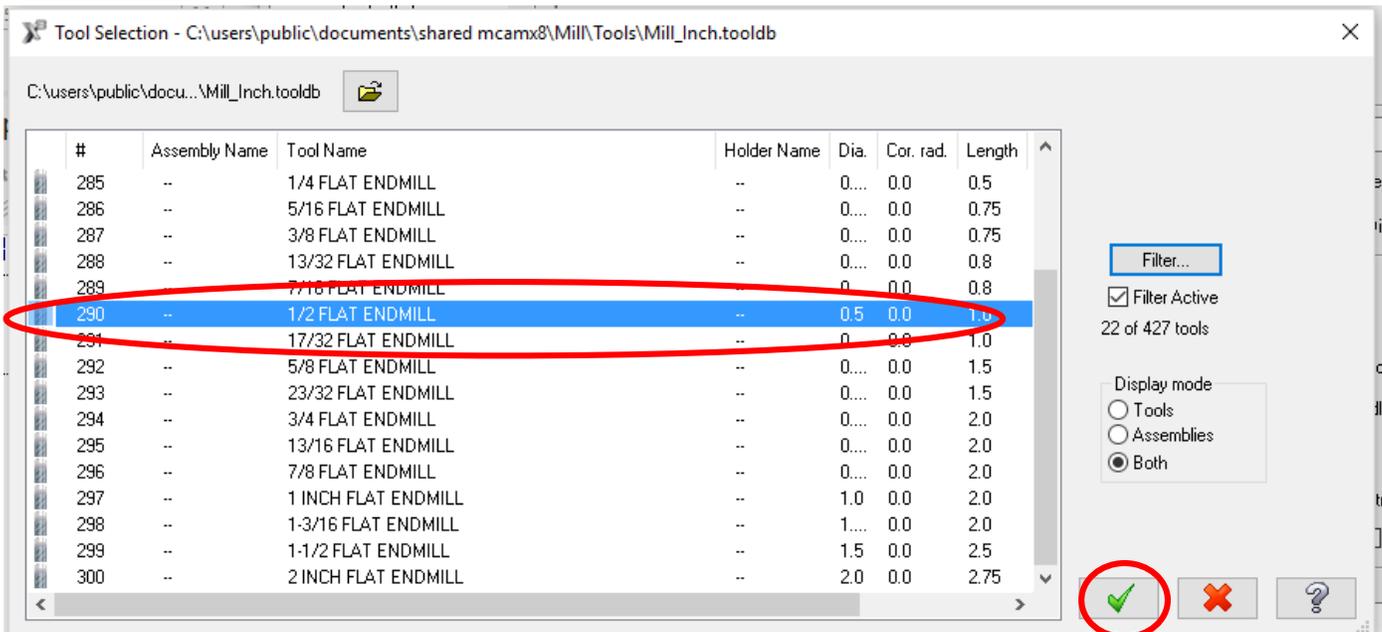
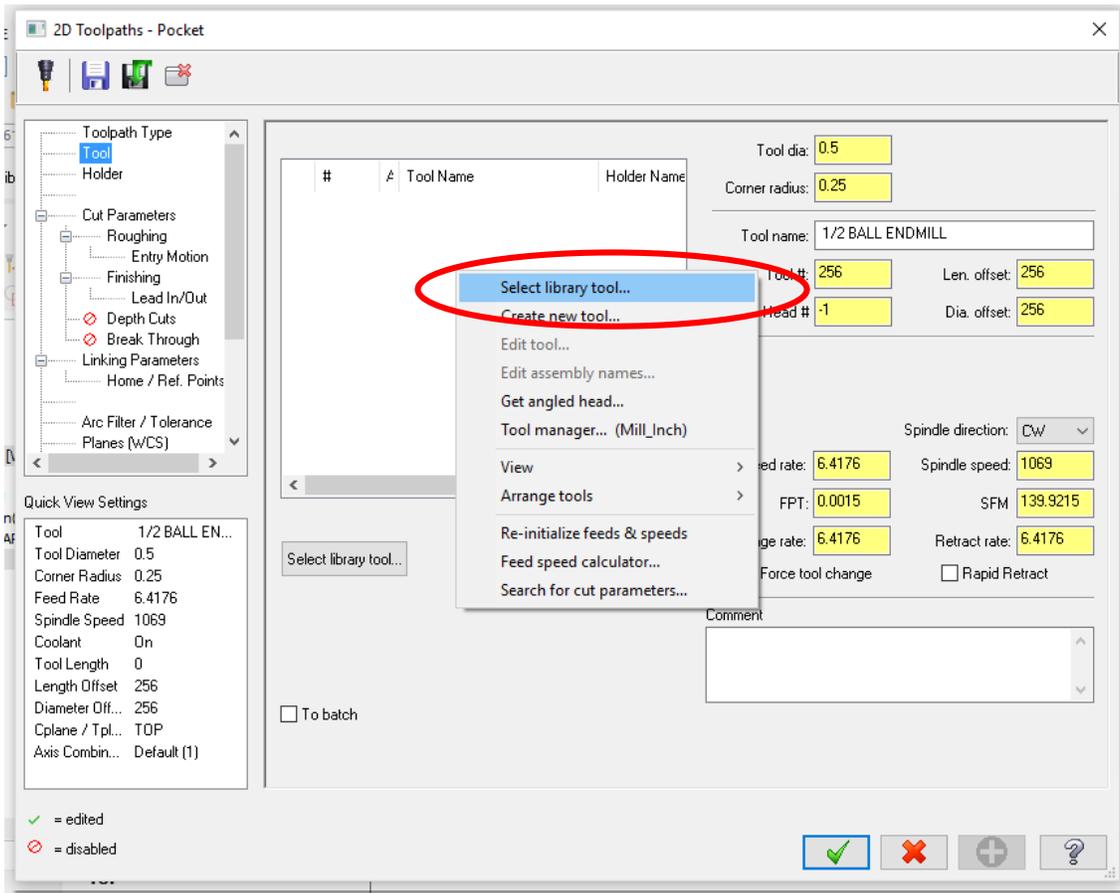
When the new NC dialog box comes up, type in a good file name such as your name. Click the green check.

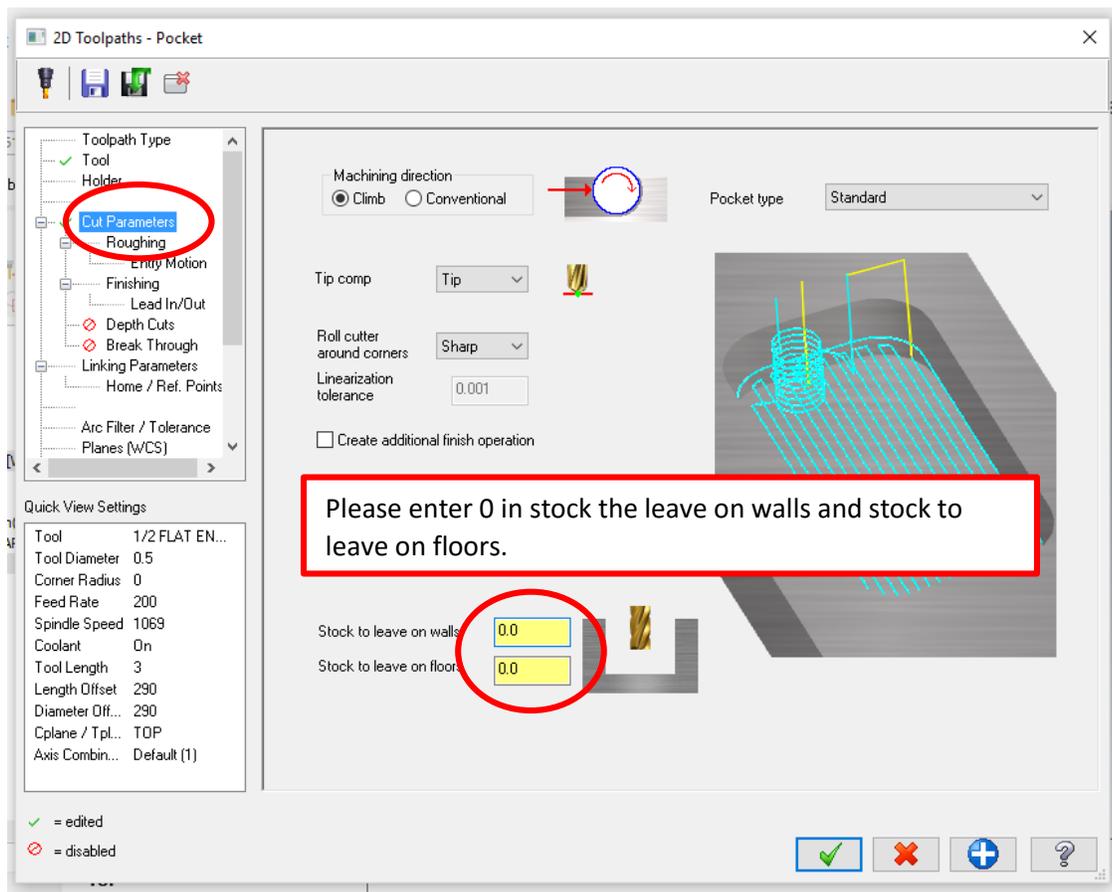
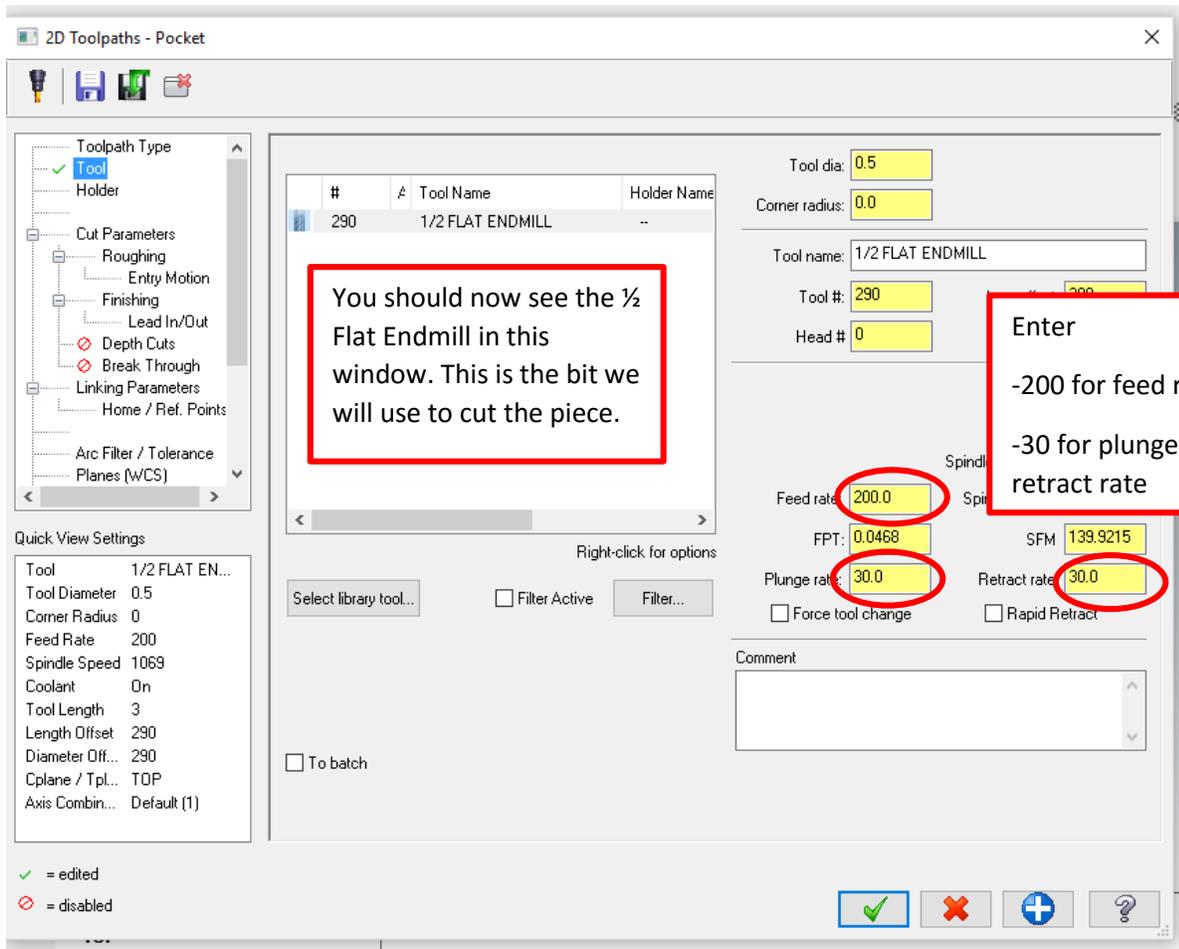


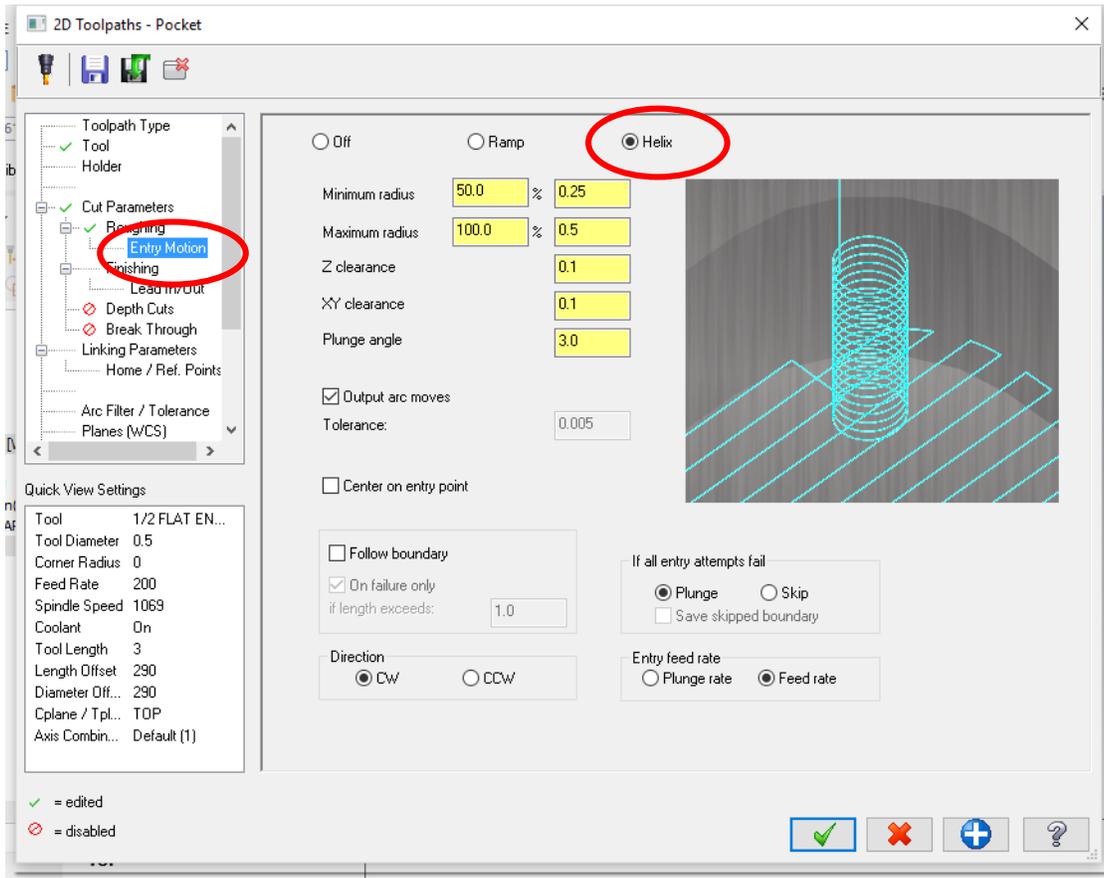
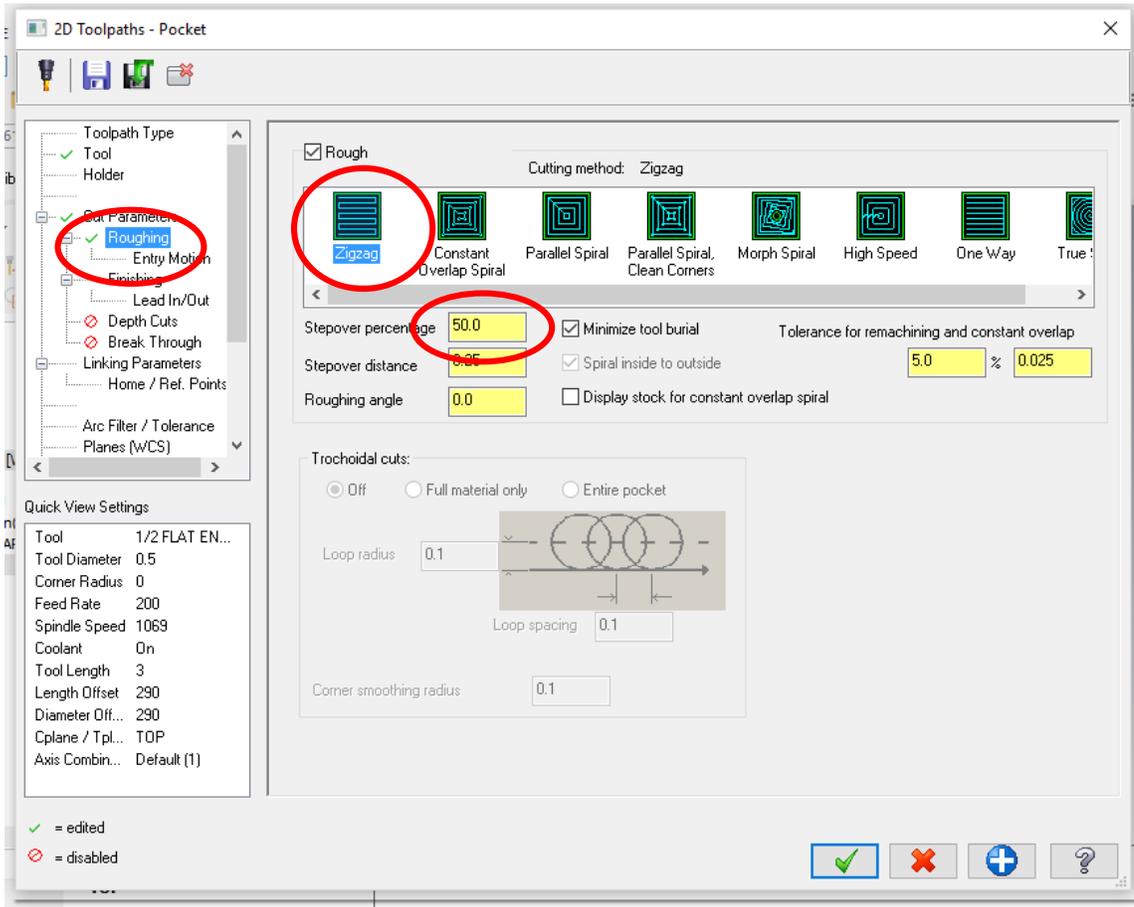


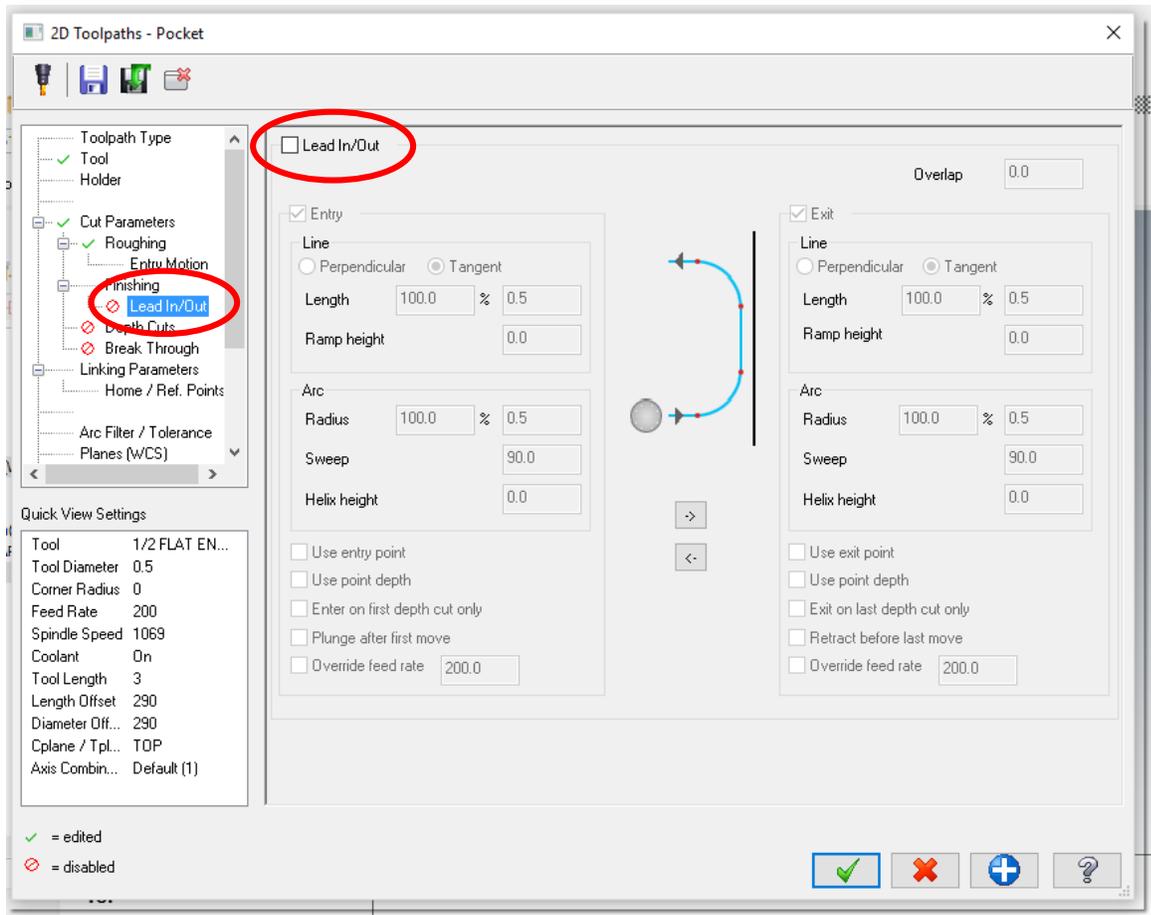
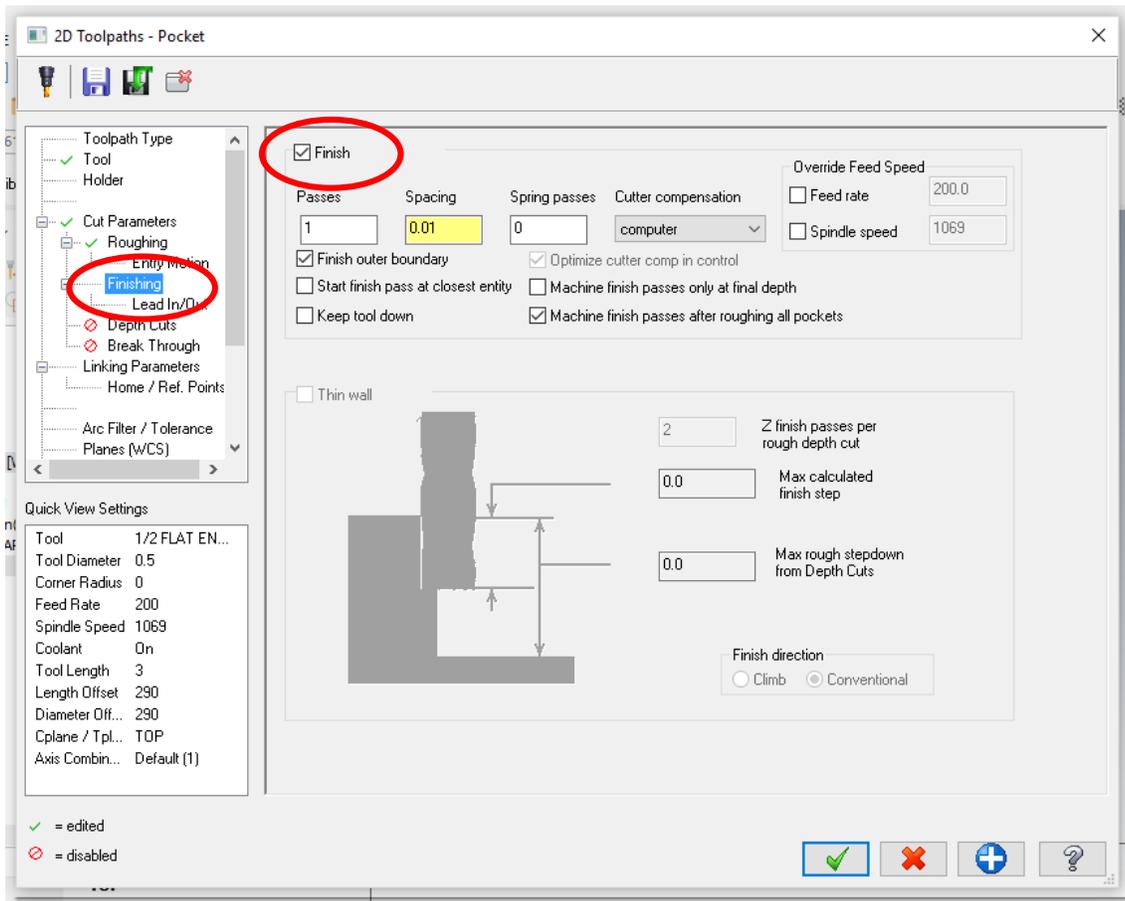
In the 2D Toolpaths – Pocket dialog box, please enter the following information:

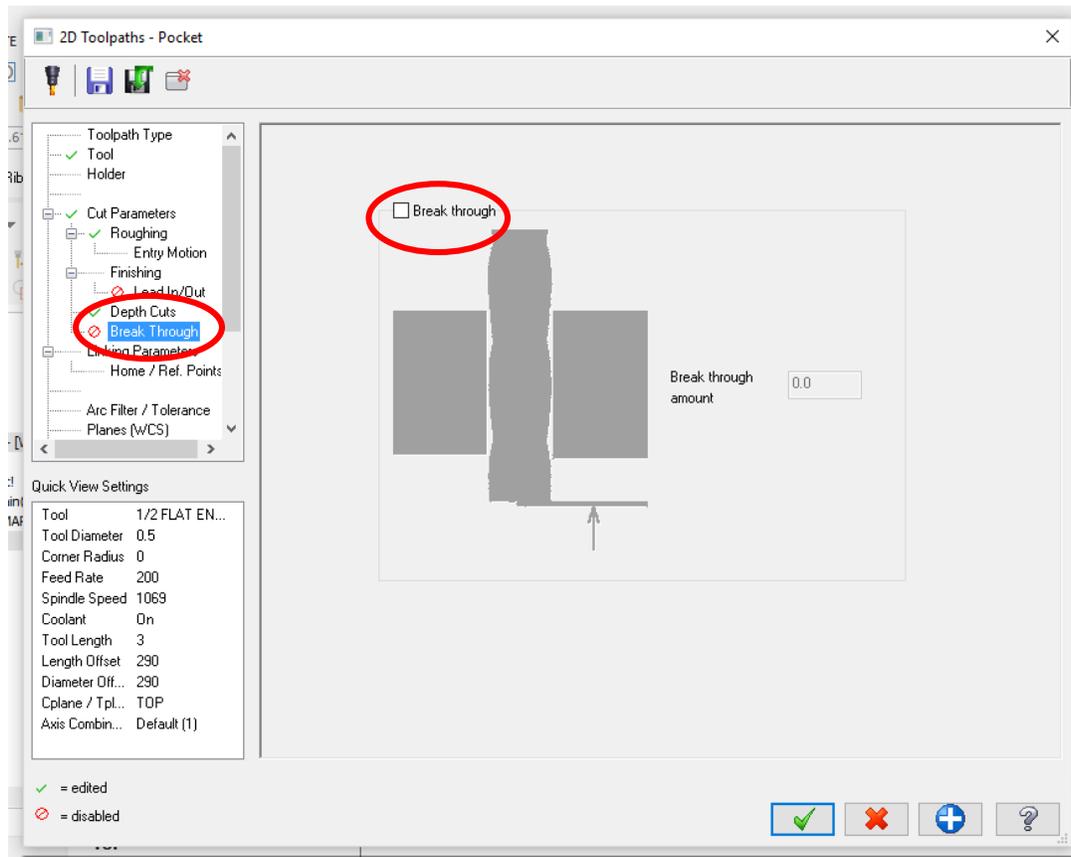
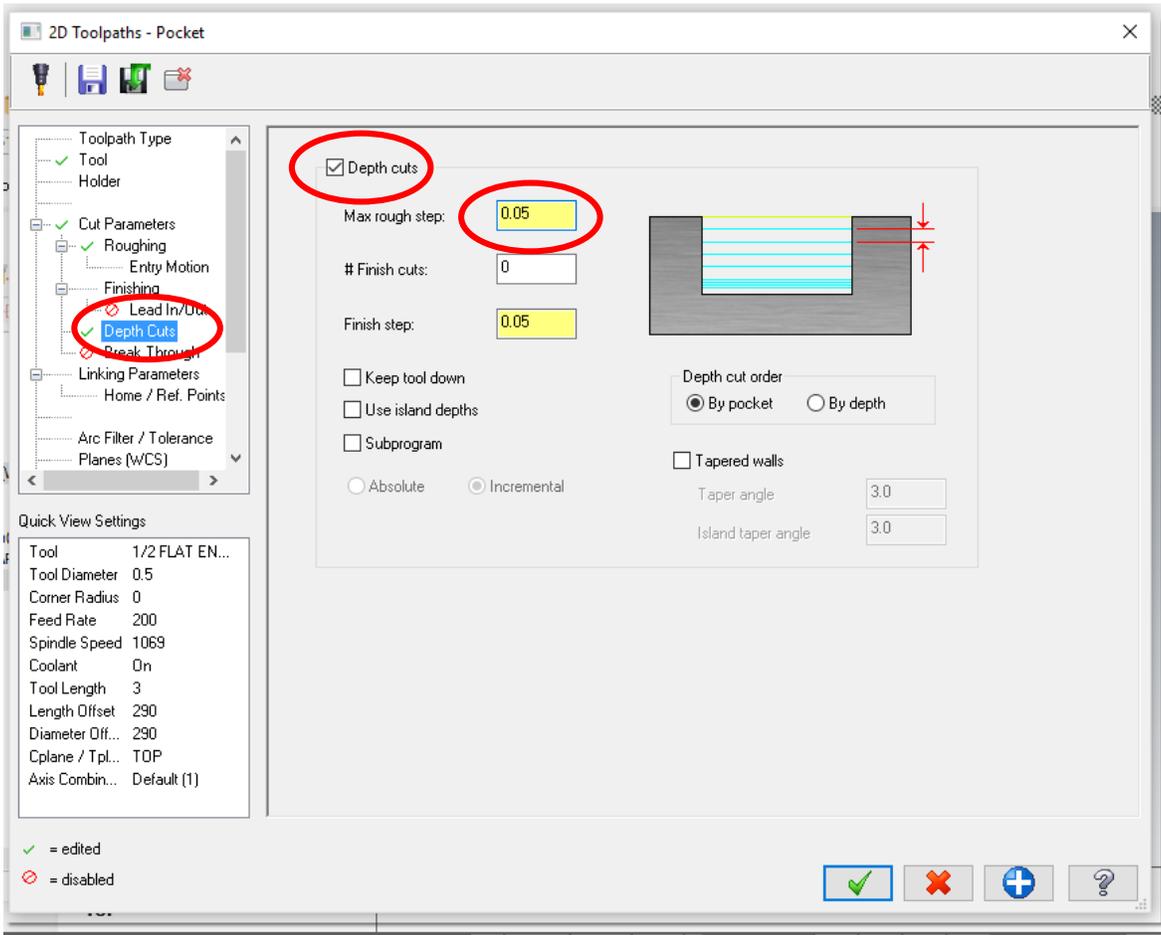




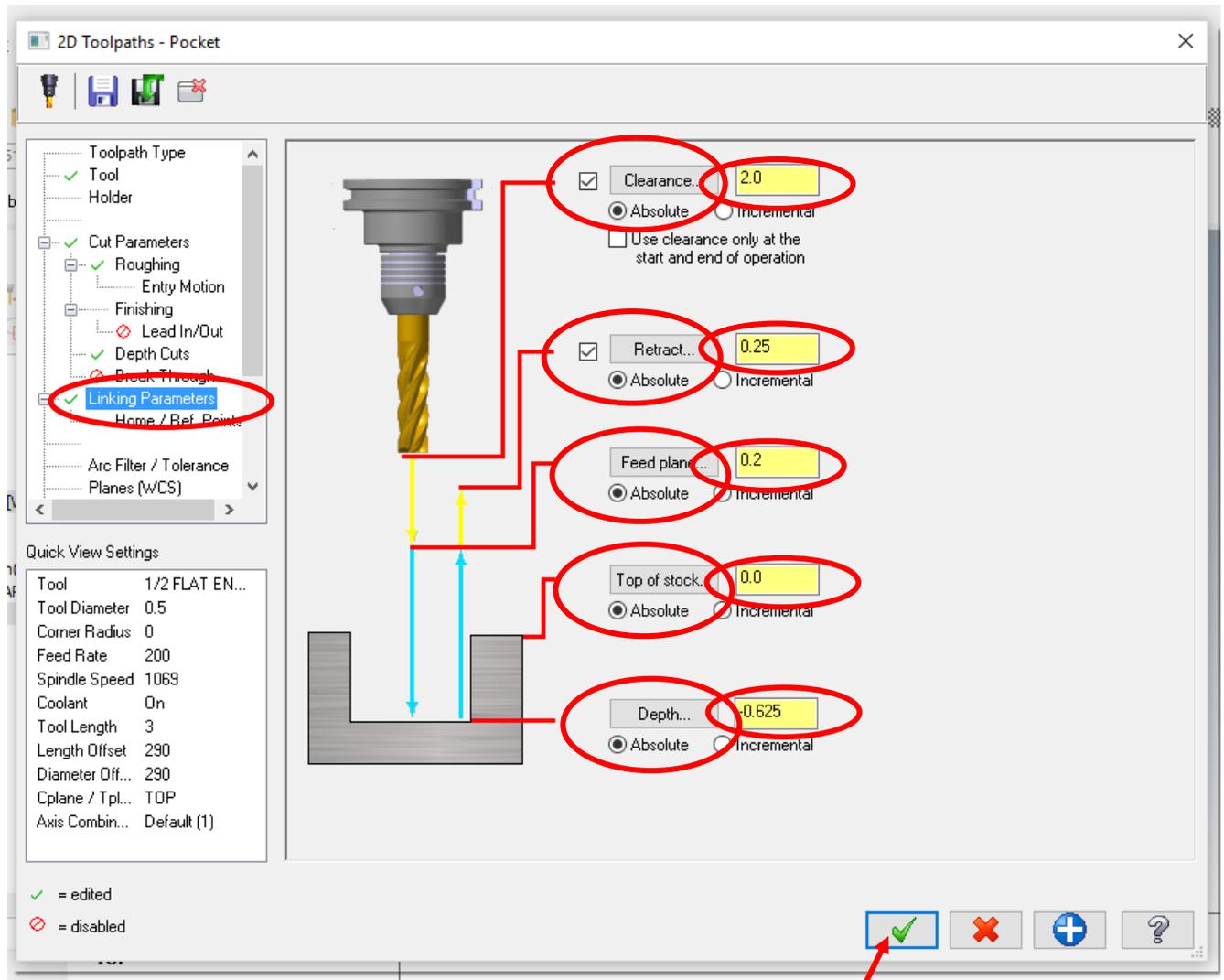






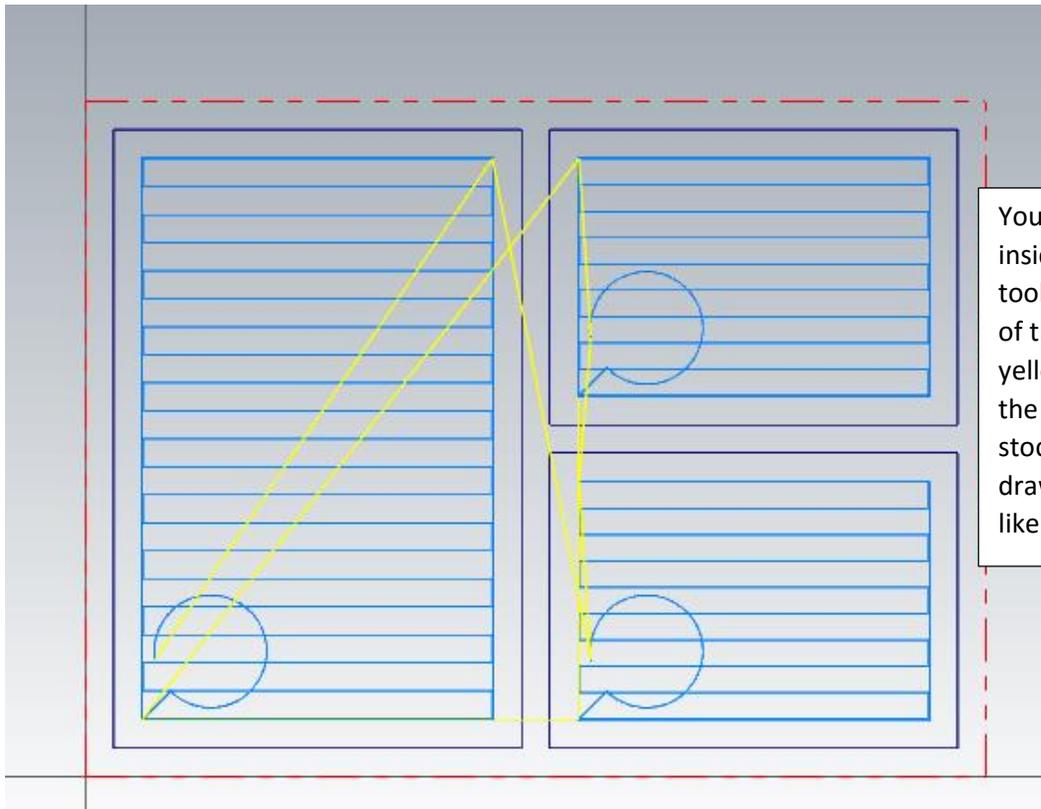


To set the depth of the cut, please enter the below values. In the Linking Parameters tab. Notice that all the values are **“Absolute”** and the depth is a **-0.625** for the example. Your depth might be different. Please make sure it is negative and less than your thickness of material.



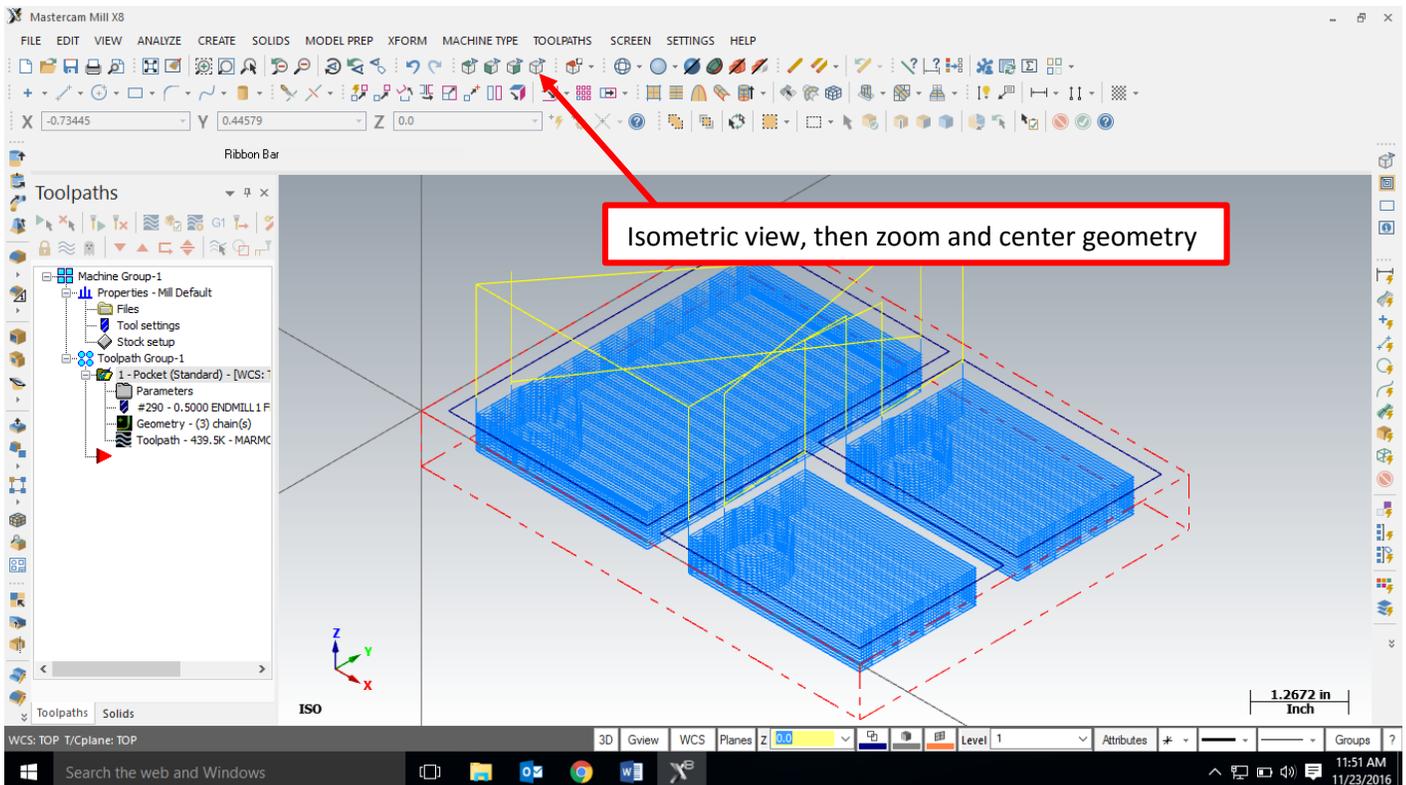
Now we can finally hit the OK check to enter all these values and MasterCAM will draw the pocket toolpath on the pockets for your tray.

Result:



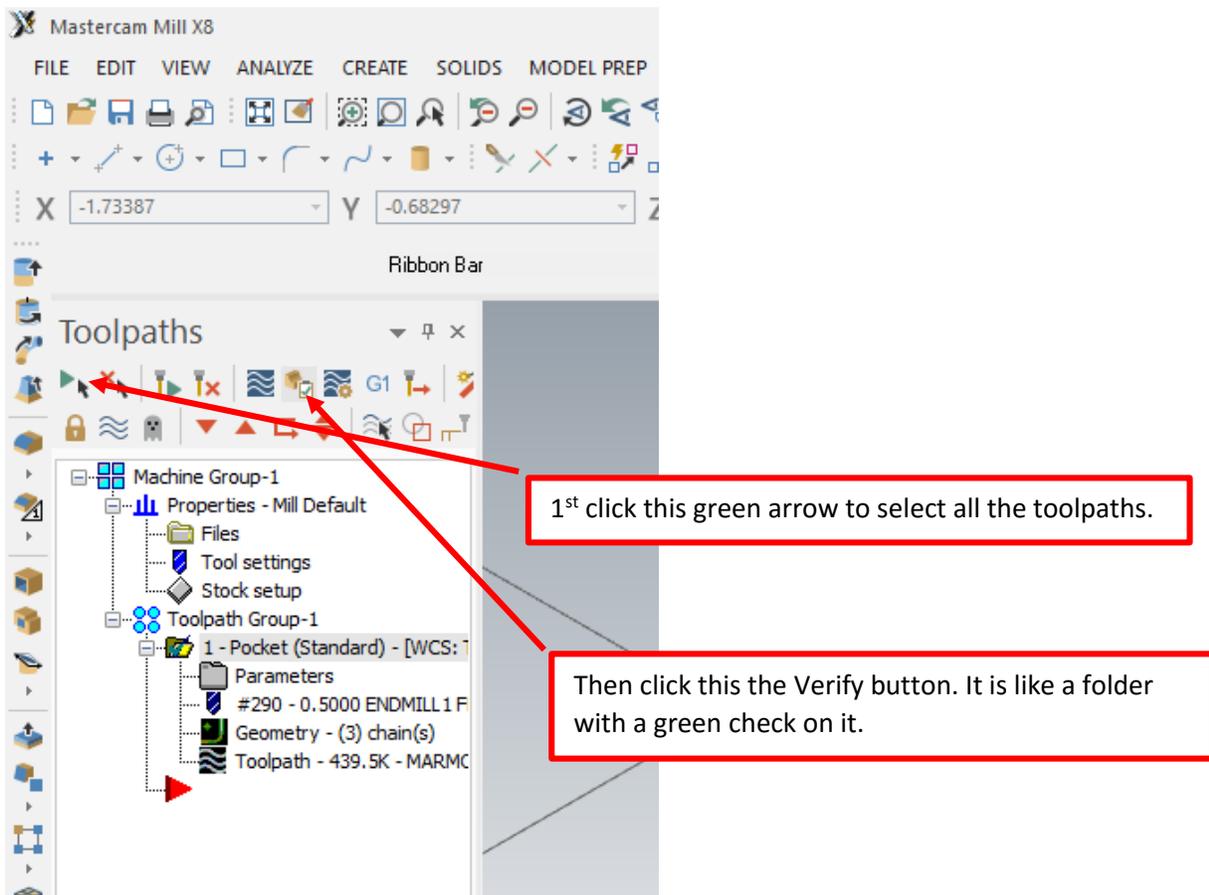
You should see blue toolpaths inside your rectangles. The blue toolpaths represent the center of the tool when cutting. The yellow lines are the center of the tool when it is above the stock, between cuts, If your drawing/toolpath does not look like this, please get assistance.

For the next procedure we want to verify the toolpath, basically we are going to virtually cut the piece on the computer. So we are going to look at the geometry and toolpaths in a 3D view so we can see what is going to happen better. Go to an isometric view, zoom in/out, and center the work piece so it looks something like what is below.

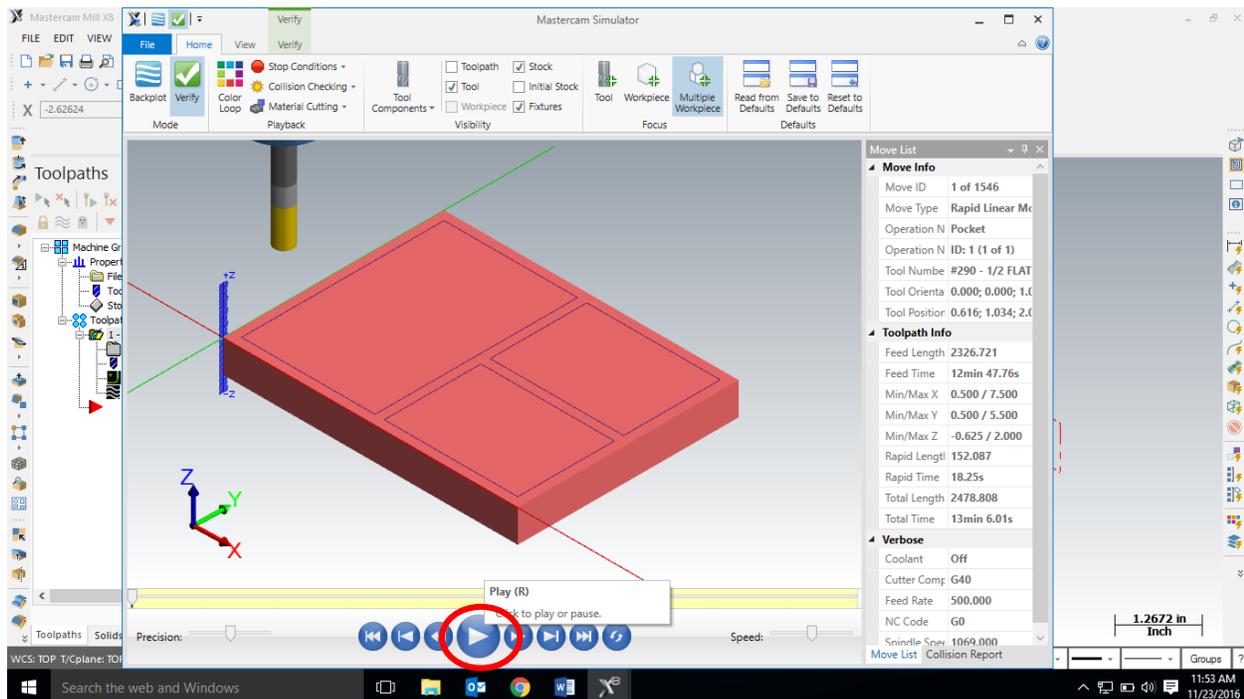


Isometric view, then zoom and center geometry

To verify the toolpaths, do the following:



To verify, click the play button such as below.



Result: Please show your instructor and SAVE your work.

