**Making the PCB Board**

1. Open MakeraCAM and choose 3 or 4 axis(4 if object is rotating)
2. Select the dimensions and material that you need to use. Most likely will be using PCB
3. Download the three files from Mr.Dubick’s drive folder.
4. Open the three files in MakeraCAM
5. Once the three files are open, select the whole object so that the lines are dotted instead of solid.
6. Press M to move and set the settings to X: 6mm and Y: 6mm
7. Zoom in and deselect the top line using the shift key.
8. Click on the eyes of the Resistance1-PTH and the Resistance1-F\_Cu\_gbr\_pad
9. Click on 2-d tools and select the 2-d pocket.
10. Make sure the end depth is .05mm
11. Go to the add tool and select 0.8 mm corn.
12. Add another tool, the 0.2mm 30 degree engraving(Metal).
13. Hit calculate, and make sure the pocket cut is in the sidebar.
14. Select just the .drl files and hide everything else.
15. Go up to 2-d tools and select drilling. Make the cutting depth 1.7mm
16. Add the corn tool again
17. Hide everything but resistance edge
18. Select 2-D tools and contour.
19. The tool is corn again and cut 1.7mm deep.
20. Scroll down and make the strategy outside.
21. Go to export, hit the three paths you made and select export.

**Milling the Board**

1. Loosen the screws and remove the copper if there is one already in there.
2. Place your copper and tighten the screws
3. Make sure your file is downloaded onto the computer
4. Go to Makeracam and upload and select your file
5. Home the machine
6. Make sure the fan is on
7. Make sure it is auto leveled
8. Make sure to preview to see if it looks right
9. Click run after preview
10. Check for a red light
11. Once it starts going, you can leave it