

Milling circuit board on Modela

Running Mod Server (If it is not running already)

1. Open a terminal window.
2. type: "cd ~/Desktop/fab_modules/mod.cba.mit.edu/mod_server "
3. type: "node mod_server.js"
4. The program should respond, "listening for on 12345"

Running fab modules for making circuit boards

1. Open fab modules.
2. Click input format - > load settings. Load Harvard settings file.
3. Load your png.
4. Choose output format: Roland mill (rml).
5. Choose process. (traces 1/64" mill)
6. Check default settings for depths, tools, overlap...
7. Calculate.

Running the Modela mill

1. Hit "VIEW" to bring table to front.
2. Double-stick tape board to sacrificial layer.
3. Put 1/64" bit in collet (Insert high - almost all the shaft in the collet).
4. On Modela, hit view button to bring tool to origin.
5. Use down button on Modela to move within 5mm of lowest position.
6. On Fab modules, use "move to xmin,ymin" controls to find a good origin.
7. Loosen tool and move it to the board, holding down while tightening screws to establish good z-zero.
8. Tighten setscrews just the right amount.
9. Send path.
10. When job is done, hit "VIEW" and vacuum up the dust.
11. Change to 1/32" tool to cut outline.
12. Load the outline image, choose "png" for input format, "Roland Mill" for output format, "1/32"" for process, zero the z. xmin,ymin should be retained.
13. Check, calculate, and send the job to cut the outline.

To cancel a job:

1. Open up the Python window, using an icon on the menu bar.
2. Hit "cancel" in the Python window.
3. On fab modules, click the "move home and stop" button.
4. If necessary, flush the buffer in VIEW mode by pressing up and down at the same time for a few seconds.