

## MiiCraft 50 Operating Checklist

Dave Bothman

Rev. 1 – 26 Feb. 2019

### Safety issues

#### A note about file extensions

There are three files associated with a print job

- a. .stl file that you bring to the lab to print. This is a triangular surface mesh of your part.
- b. .slc file generated by MiiUtility that creates image files of each slice of the part.
- c. .mii file generated by MiiPrinter that includes all motion and projection commands needed to print the job.

## Operating Checklist

### At the printer

1. Power on the printer if not already on
2. Open the door and remove the cover over the resin
3. Install the build platform (Ref. MiiCraft125 Series, User Manual for Hardware, v1.5)
  - a. Get a build platform from the fume hood
  - b. Make sure that there is no resin residue – clean with IPA if necessary
  - c. Install the build platform on the printer, make sure that it is seated and that the locking lever is pressed down.

### At the computer

4. Start the MiiCraft software MiiUtility (red **Mii** at the bottom of the screen)

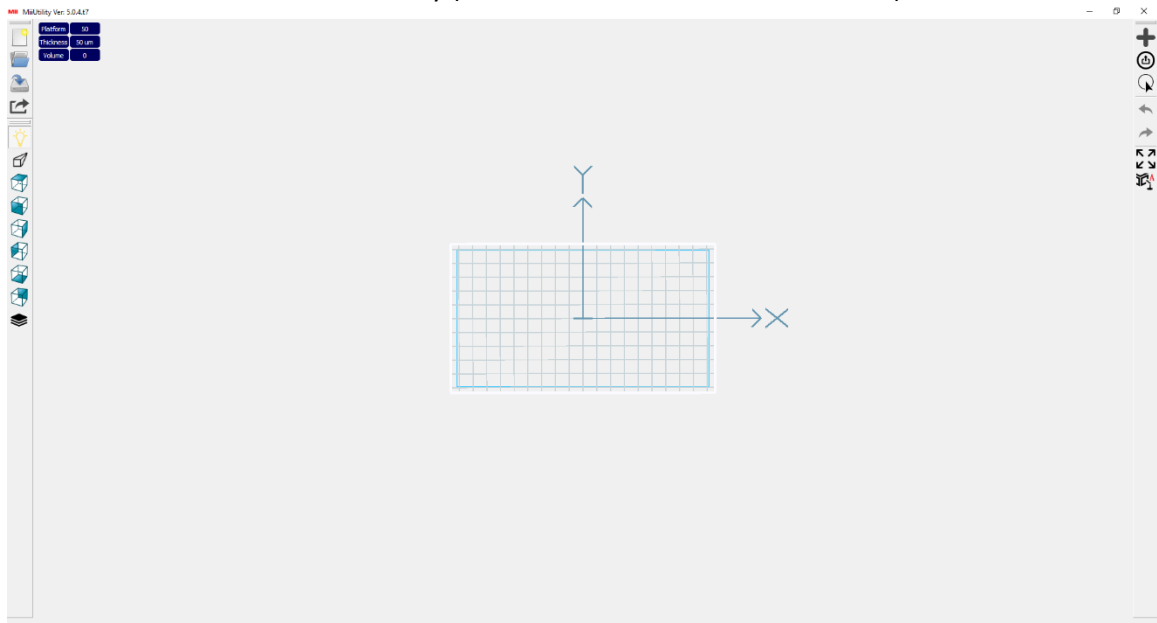


Figure 1 – MiiUtility Window

5. Select the + icon at the top of the RH menu to load an STL file. Your part should appear on the printer bed.
6. Select the part using the mouse cursor and click the mouse button. Additional menu items will appear on the RH menu.

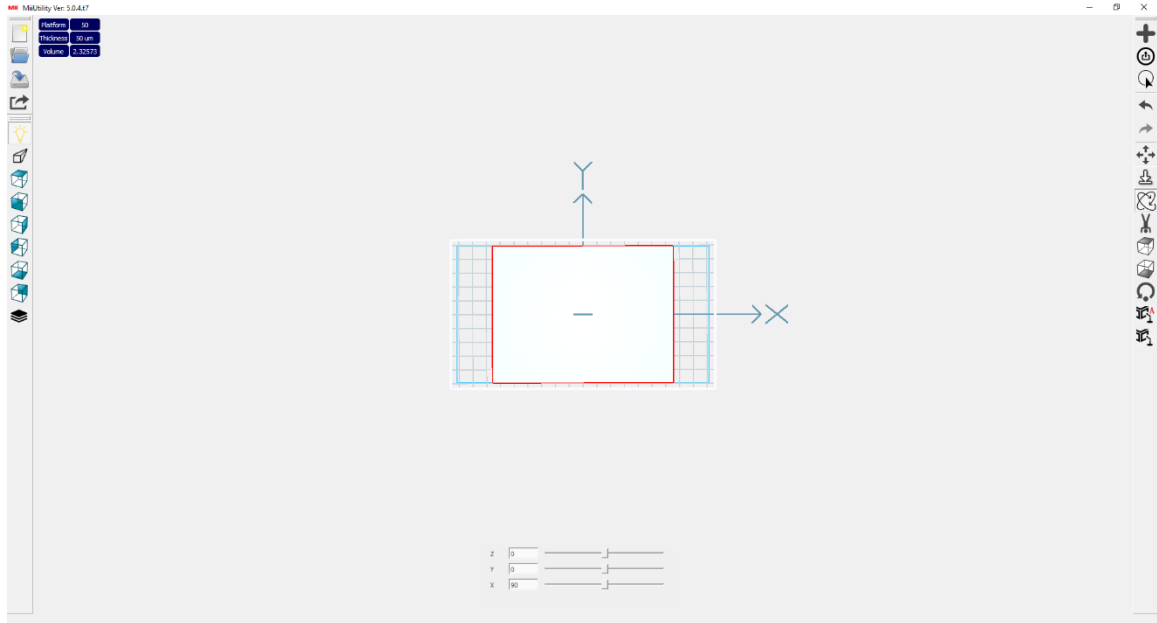


Figure 2 - Part shown on the bed, and additional menu choices visible when part is selected.

7. Select the curved arrow icon to rotate the part so that the base is parallel to the print bed.
8. Select the downward pointing arrow icon to make sure that the bottom of the part is on the print bed.
9. Check the layer thickness shown in blue in the upper left-hand corner of the window. If you want to change the thickness click on the blue cell and a dialog window will open in the bottom of the screen allowing you to change the layer thickness.
10. Select the icon that contains a box with an upward point arrow (below the +) to slice the file.
  - a. Select “no” when asked whether or not to enter half-auto mode.
  - b. Save the .slc file
11. Mii Printer window will open automatically (see figure 3 below)
  - a. Step 1: if MiiCraft Ultra 50 with a name of Test #1 is present it is OK for the IP address to be blank.
  - b. Step 2: Make sure that the correct .slc file is shown. If not, select the correct file. Note the .mii file that will be written.
  - c. Step 3: Select the recipe file that you want to use.
  - d. Step 4: Convert the .slc file into an .mii file.
  - e. Step 5: Press launch to printing
12. The MiiController window will open inside the MiiCraft Simple Browser (see figure 4 below). Click on “Select From PC” and select the correct .mii file
13. Your part should be shown in the RH window along with the print settings in the LH window.
14. Click print and the printer should start moving the print bed into position in the resin.

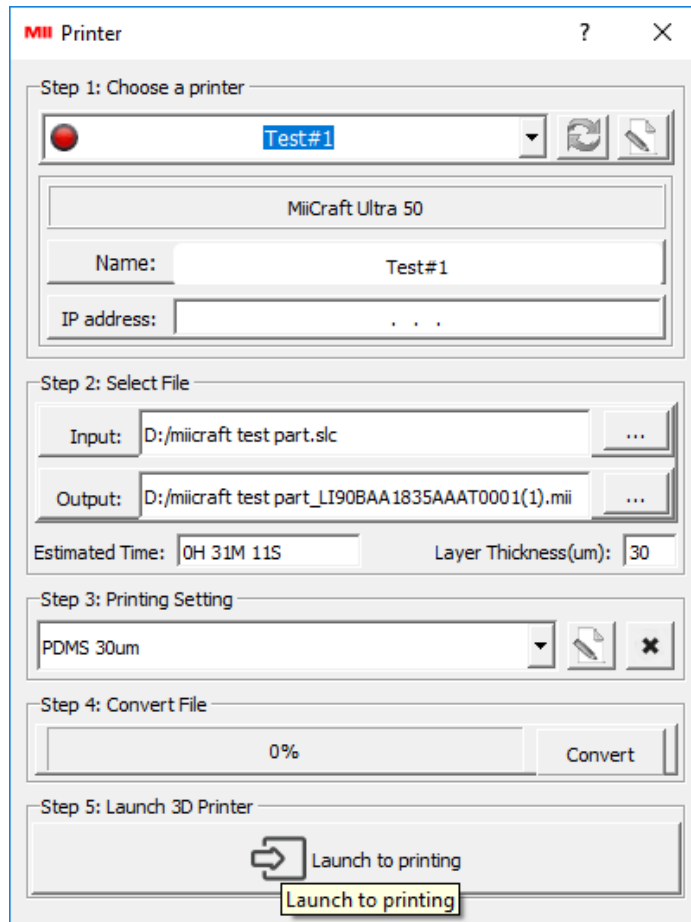


Figure 3 - MiiPrinter window opens automatically after you save the .stl file

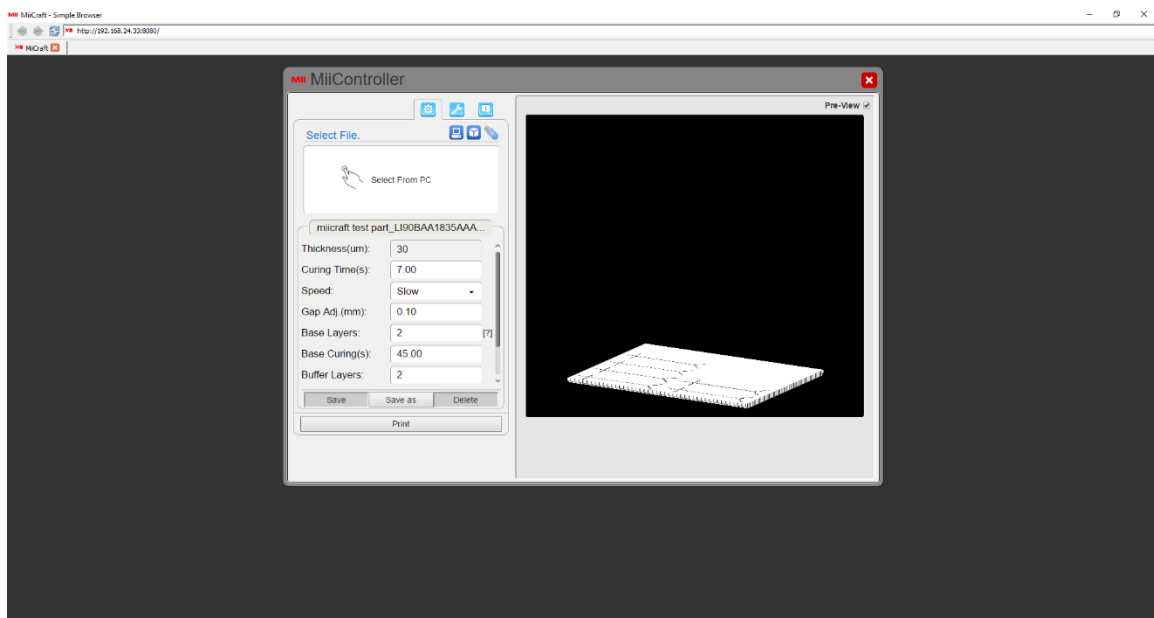


Figure 4 - MiiController Window

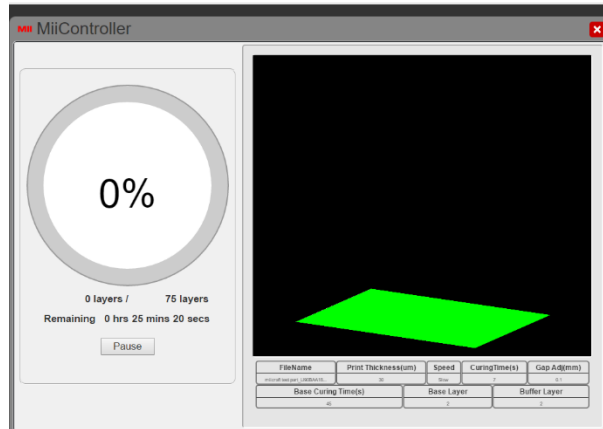


Figure 5 - MiiController window showing print progress

### At the Printer

15. After the print is done allow several minutes for residue resin to drip back into the tray.
16. Wearing gloves and a lab coat remove the build tray:
  - a. Lift the locking lever
  - b. Slightly lift the platform and slide it towards you
  - c. Place the platform in a plastic transport container that has an absorbent pad in it.
  - d. Take the build platform to the cleaning station in the fume hood
17. Replace the black cover over the resin in the build tank.

### Clean and remove the part at the cleaning station

18. Open the IPA wash station (see resin print SOP)
19. Place the build platform in the basket
20. Start a 20 minute clean
21. Remove the base when the cycle has finished.
22. Remove the part from the base.
23. Clean the base and put it back in the plastic transport container.

Contact information:

Creative CADWorks, [www.miicraft.ca](http://www.miicraft.ca)

Hemdeep Patel, or Kamal Patel; [sales@creativecadworks.ca](mailto:sales@creativecadworks.ca), 416-720-1081, 416-720-1081