

Refresher Guide: Replicator Makerbot 3D printer

This guide should remind you how to take an .stl file from a 3D modeling program and print it on the Replicator 3D printer. To control the printer you need to install MakerBot Desktop at makerbot.com/desktop.

We recommend Fusion 360 for the 3D modeling portion. For more info see our Fusion 360 Guide.

Questions? Need help? Ask a mentor or e-mail makerhelp@uconn.edu

Installing Makerbot Desktop

If you have Makerbot Desktop & a Thingiverse account skip this section

1. Go to makerbot.com/desktop and download the latest version
2. Click on the download to begin installation.
3. When asked for a Thingiverse account add your credentials or make an account. Makerbot owns Thingiverse, this account will allow you to log into Makerbot software and find 3D models at <https://www.thingiverse.com/>
4. When Makerbot Desktop finally opens go to the learn tab  and watch the first four instructional videos on how to manipulate your models to make them print ready

Preparing Files to Print

1. You must have an .stl or .obj file in order to make it print ready with Makerbot Desktop
 - a. In Solidworks choose <Save As> ... Save as type: STL
 - b. In Fusion 360:

- Select the piece you would like to convert to an .stl
- Choose <Make> in the upper right of the screen. (A)



- If the popup window (B) doesn't show you a triangle count, reselect your object
- Uncheck the <Export to print utility> box
- Click <Okay> this will ask you where you would like to save your .stl file

2. Start Makerbot Desktop  and import your .stl file 

(If your model doesn't appear, toggle between a few of the windows and it will.)

3. You can view a model from different angles  scale it  rotate it  and reposition it.  (NOTE: placing your model at the center usually results in the most accurate prints)

4. Once you are ready to print, we need to make sure your file has the correct settings.

Open  ->  and set the extruder to: 

If you are unsure what settings are being used you can  then update the extruder setting.

5. Now export your model, and choose where to store your .makerbot file. 
6. Move your file to a flashdrive and plug it into the Replicator.
7. On the Replicator: Choose Print -> External Media
8. Find your file and move it to an SD Card.d

9. Move your flashdrive to a printer.
 - a. Turn the dial to scroll through options, press dial to select Models.
 - b. Select: Print -> External Media -> Find you file -> start a print
 - c. Platform will heat, while waiting: **Fill out Print Job Summary form.**
10. Stay for beginning of print to watch out for early errors.
 - a. Carefully remove filament that leaks onto build platform.
 - b. If necessary, cancel, pause, or have a mentor change filament during a print. Press the dial to pause the print.
11. Clean-up:
 - a. Wear safety gloves.
 - b. Use scraper to remove part and raft from platform. If necessary, platform can be removed after disconnecting connectors.

