

3D PRINTING

How to create a 3D Print on MakerBot printer






Key Terms:


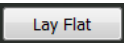

- Inventor
- STL
- MakerBot

NOTES:

Create your model:

- Produce a 3D model using CAD software
 - Inventor, Maya, etc.
- Go to the  icon in the upper left hand corner of inventor
 - Export
 - CAD-Format
 - In the “Save file type as” drop down choose STL file
 - Save
- Open the MakerBot software 
 - Click on Add File
 - Find the location of your STL file
 - Open 
 - A message will come up asking if you want to “rescale” object. Do not rescale.

Using MakerBot software:

- Rotate your object based on the best printing practice 
 - Using the least amount of supports
 - Keeping the flat part on the “table”
 - Press the Lay Flat button 
- The other 3 buttons are View, Move and Scale
 - You may need to use these in the future to place your object on the printing bed
- Make sure your object is the correct size
 - Click the scale button 
 - Check the conversion of mm → inches (google)
 - Press the Lay Flat button again

Print Settings:

- Click on settings in MakerBot
 - Quick Tap
 - Quality: Standard
 - Raft: Check
 - Supports: Only needed if you have an object that has an overhang or something that is not supported by the printing bed
 - Extruder Type: Smart Extruder+
 - Extruder Temp: 215 C
 - Click OK

- Export Print File
 - Name your file with your FirstLastObject
 - Customize for your project
 - Save
 - Export box will pop up to prepare your preview
 - When finished press Print Preview
 - Use the layer slider on the left to see how your print will run
 - Click close
 - Click OK
 - Put your MakerBot file on your flash drive

Printing on MakerBot:

- Changing the filament
 - Scroll to the Filament icon
 - Unload filament if there is already loaded
 - Follow the screen prompts
 - Load filament
 - Make sure you have the filament wheel on in the right direction
 - Follow the screen prompts
- Take your flash drive/file on it down to the Innovation Center
 - Insert your flash drive into the front of the printer
 - Use the wheel to scroll to USB
 - Scroll to find your file
 - Press the wheel to select
 - Wait for the machine to heat
 - Stay with the printer until your raft is complete and the object has started to print
- Prints can take minutes/hours/days to print depending on the size and complexity of the object