

South Brunswick Public Library

3D Printing Part I



Welcome to the 3D printing class at South Brunswick Library.

To get started, you will create your user id for the MakerBot program. Click on the shortcut on your desktop to open the program.

If you are working with your own laptop go to <https://www.makerbot.com/download-print/> to download the MakerBot software. It will work in PCs and Macs.

Next, click on the sign-in icon in the upper right-hand corner. The sign-in box will appear. At the bottom of this box is a "Create an Account" button. Click that button and create your own account. Your MakerBot account will also work for a "Thingiverse" account.

Click on the Thingiverse shortcut on your desktop or go to to www.thingiverse.com to open the website to search for 3D objects to download and replicate.

Click the "Download this thing!" button. This will download the item into a "zip" file. Click on the zip file to open.

Then click on "files" and choose the object file to open.

This will automatically load your object into the Makerbot software "prepare" tab so you can preview your file.

There are many important things you can discover in the preview tab. The preview will tell you if the item fits on the build plate and how long it will take the item to print. The preview will tell you how much filament will be used so you can calculate the price of printing.

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Let's search for a skull, and choose the skull entitled "To Make or not to Make".

Download this object following the above instructions and view it in the preview tab. The first thing you will notice is that the object is too large for the build plate. When you choose the to "build to scale" option and preview the file, it says that it will take over 26 hours to print. This project is too big to print here in the library. The time limit for printing an object is two hours.

Next, let's search for "Scotty Dogz." Choose Scotty Dogz by Muzz 64.



In this case Scotty Dogz will easily fit on the build plate. He will print in about 52 minutes and use 7.63 grams of filament to create. Filament is 10 cents per gram so Scotty Dogz will cost 70 cents to print.

Now that we found an object to print that will fit on the build plate and won't take too long to create, let's save the file.

In the upper left corner of the MakerBot program choose "File" then "save as" .stl file. Then save it to the desktop.

Email this file to rmarsola@sbpl.info

I will print this file during the week and notify you when it is ready.

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