



## 3D Printing at Richmond Hill Public Library

Richmond Hill Public Library 3D printers create three dimensional objects from digital models. Both 3D printers use PLA filament of 1.75 mm (+/- 0.5) with a 0.4 mm nozzle. Only library-provided filaments can be used.

Central Library: MakerBot Replicator 5th generation Desktop 3D printer, with a building space of 10" x 8" x 6" inches, located on the 3rd floor.

Oak Ridges Library: Prusa i3 mk3s, with a building space of 9.84 x 8.3 x 8.3 inches, located on the 2nd floor.

## 5 Steps to 3D Printing

### 1. Source your Model

#### Finding something to print

Completed open source designs are available from sites such as Thingiverse ([www.thingiverse.com](http://www.thingiverse.com)).

#### Designing your own model

If you enjoy creating your own designs, you can explore any 3D drafting software. There are a number of open source applications which include instructions and tutorials like TinkerCad ([www.tinkercad.com](http://www.tinkercad.com)).

### 2. Convert your File

Whether you downloaded a model file or designed your own model, the file should be saved in one of these formats: \*.stl, \*.obj, or \*.thing. Our iMac Creation Stations are equipped with software to convert the file to the required format for the printer.

#### For Central Library

Use MakerBot Print desktop software to export your file to \*.makerbot format to print.



## **For Oak Ridges Library**

Use the PrusaSlicer to prepare and export your file to \*.FILETYPE format print.

### **3. Book the 3D Printer**

Reserve ahead or come into the Library to reserve a printer. Printing time is limited to a maximum of 4 hours per day per printing job.

You must also have:

- An RHPL Library Card that is in good standing at booking and time of use.
- A completed Maker Space Waiver form.

Please ensure that you reserve the equipment at the location you intend to visit.

For Central Library: call 905-780-5062

For Oak Ridges Library: email [bookaskill@rhpl.ca](mailto:bookaskill@rhpl.ca)

### **4. Calculate the Cost & Pay**

Arrive 15 minutes prior to your appointment with your library card and a signed Maker Space Waiver Form. Printing is \$0.10 + HST for each gram of filament used.

Our staff can help you determine the cost of your print job. Prior to printing, you must pay first at the Welcome Desk on the first floor and obtain a receipt.

### **5. Get Printing!**

Return to our maker space service point with your receipt and notify staff that you are ready to print.