

## **UXBRIDGE PUBLIC LIBRARY**

## **Self Serve 3D Printing**

These notes are offered as a supplement, and not substitute for, the manual. You are respectfully reminded to study the manual and fully acquaint yourself with the printer's functions and use.

## **ENJOY THE EXPERIENCE**

**SAFETY FIRST** You cannot enjoy your printing experience if you hurt yourself. Read the manual and the other documentation we have prepared for you, yes really. While its not rocket science you will benefit from reading the MAKERBOT documentation and the safety tips will ensure no physical pain (the print head and filament get twice as hot as boiling water). Getting an understanding of the process will help you enjoy using the printer and avoid frustration.

**SAVE TIME** You can save an awful lot of time by preparing files for printing on your home computer (Mac or PC). By working on your own system and fine tuning your printer file you will be able to "Plug and Print" when you go to the library. This will ensure you do not waste valuable printer time trying to discover how to resize or build your image. Don't have a computer at home? We have the MAKERBOT software on a selection of public access computers at the library.

Download the full (and free) printing software to your home computer (MAKERBOT.com/print). You will need to register with MAKERBOT (that's also free). This enables you to download and work independently on your own devices. This is the full program as used on the computer at the Library.

Before you ask, "Yes", there is a MAKERBOT app for your iOS or Android device, but while this is useful to monitor the printing it is NOT the full program.

**FILE NAMES & TYPES** You may be familiar with file names such as .doc for Word or .jpg for an image. With 3D printing you will create your own print file or download one from sites such as 'Thingiverse'. These are called .STL (**ST**ereo**L**ithography - but you knew that didn't you!). This is used to as a basis for your final product.

To create your 3D masterpiece the image it now needs to be sliced into thin layers so that MAKERBOT can do the actual printing. When you load the .STL file into the MAKERBOT software it will convert the file to a .makerbot format. This can take several minutes or longer depending on the size, and needs to be done each time your resize or adjust resolution. All the more reason to do it before you come to the library. Once done the .makerbot file can be saved for future use and even be changed.

**MONITOR YOUR PRINTING** There is the rare possibility, that your print job may go awry. By keeping a close watch, if it does go wrong, you can quickly stop the job and resolve/restart. What you do not want after 2 hours is to end up with a failed print, no time left, frustration and the cost of the consumables. So, start the print, sit down and read one of the 3D print books, with one eye on the printer.

**GET A USB MEMORY STICK** This will make file transfers quickly and easily and save time when you set up your print job. You don't need an expensive or high capacity USB3 stick.

When searching for information note we use this printer

