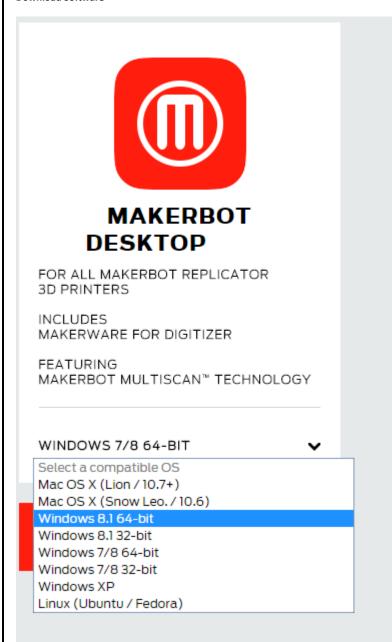
# **MAKERBOT DESKTOP**

All instructions in this tutorial are for use with a Flashforge Creator X (replicator single) using Makerbot Desktop.

#### **Download Software**



Download software from-

https://www.makerbot.com/desktop

#### Select computer operating system-

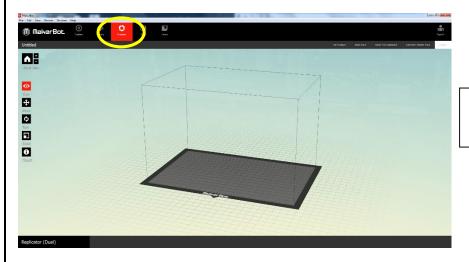
MakerBot is Mac OS friendly.

If you are running windows XP on a PC or in bootcamp some instructions contained within this document will be slightly different.

NOTE: Makerbot desktop is not the only software that can be used to prepare your model for creation, there is better software available. But no assistance will be available if you choose software other than Makerbot Desktop.

Advanced users look into- Replicator G, Autodesk Meshmixer, Slic3r.

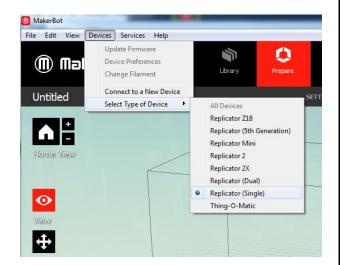
## Open:



**Open** Makerbot Desktop and click "Prepare" from the upper menu

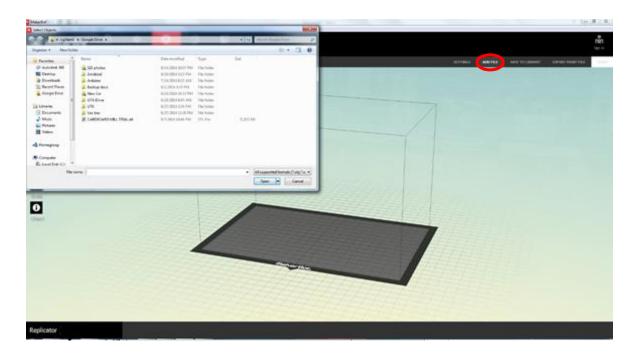
### **Machine Type:**

From the top menu select-Devices> Type of device> Replicator Single



NOTE: File will only work with the printer selected, check and confirm 'Replicator single'!

### Add:



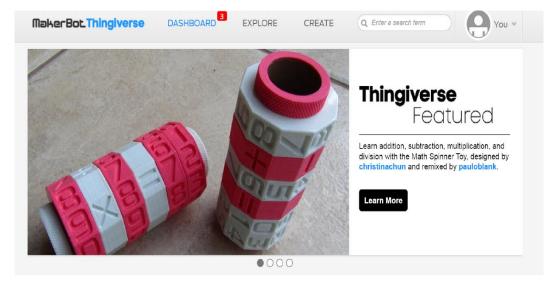
Select 'add file' (upper right menu), locate your file (.obj or .stl) and add it to the print area.

NOTE: Files cannot be created in this software, you must import a watertight file from a 3dm source.

3d file creation is a skill and HIGH quality WATERTIGHT models are required to produce a successful 3d printed model.

3D printable files can be downloaded at- www.thingiverse.com

(Remember these printers are for COAD related items and not for personal use or for profit!)

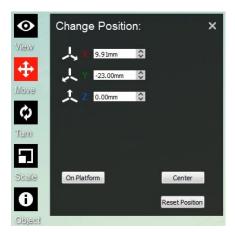


thingiverse.com

#### Model preparation:

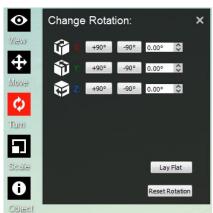


**VIEW:** With this tile selected, press and hold your mouse to move your viewpoint around and the three buttons will move the camera to the preset viewpoints. Reset View will take your camera to a default position and auto scale your view.



**MOVE:** With this tile selected, allows you to drag your model around. You can also move the model by entering XYZ values.

You model must always be placed on the platform (Z0) or supported. On Platform will move the lowest point of your model to the build plate, Center will place you model in the middle of the build area (X+Y axis). For multiple part positioning press- CTRL+L (auto layout).



**TURN:** With this tile selected you can rotate your model by clicking and dragging or rotate on 90° increments with the buttons. It is possible to rotate a specific amount by entering values, but not recommended. Lay flat will auto-rotate your model so that a flat surface that is close to the ground plane will be parallel with the ground plane.



**SCALE:** With this tile selected you can click and drag or input measurements to resize your object uniformly. To scale in one dimension (non-uniformly), uncheck 'uniform scaling' and enter desired dimension. Inches -> mm will scale your object by 25.4. If your model looks small use this first as you may have modeled in Inches, this software is metric.

Maximum Size will uniformly scale your object to the largest size that can be printed.

### **Print Settings:**

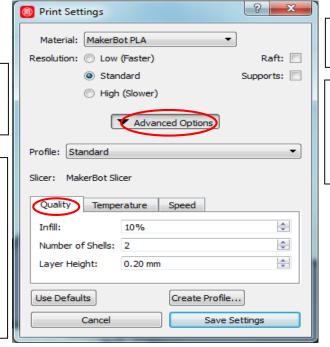
When you model is positioned, sized, rotated correctly, select **SETTINGS** from the upper menu



Material: 'MakerBot PLA'

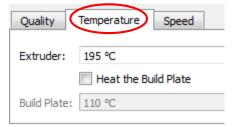
**Resolution:** Choose the resolution you want to print at: Standard is recommended.

The 'Advanced Options' allow you to adjust the density of the internal structure (infill), the number of continuous layers to build around the infill structure (Number of Shells) and to adjust the vertical resolution manually (Layer Height). Use settings as shown

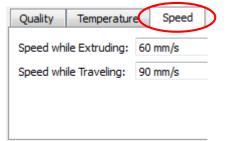


**Raft:** Unless your model contains a large flat base, print with a raft.

**Supports:** If your part has significant overhangs, (larger than 1/8" or 3mm) that are also more than 45° away from vertical, print with supports.



The Temperature setting for PLA is 195 deg. Celsius, PLA does not require the build plate to be heated.



Although it is possible for the the printer to move faster, for the best resolution use setting listed above.

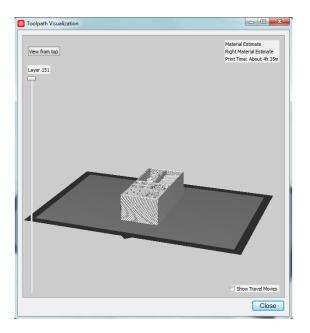
When desired setting are correctly input, 'Save settings'

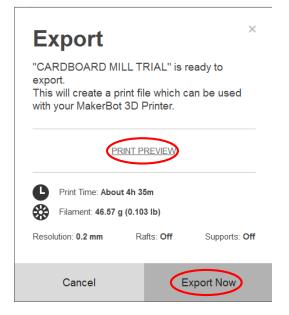
### **Export Print File:**



When you hit the 'Export Print' button, slicing will begin, when the process is complete the following window will appear.

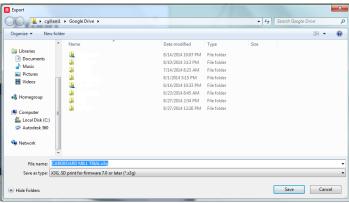
Click 'PRINT PREVIEW' to see a 3d visual approximation of your finished print.





Also note the 'Print Time' and quantity of filament used.

When you have verified your model, 'Export now'. Export the file to an SD Card or a temporary location before placing it on an SD card for the printer to accept.



It can take many minutes to correctly save your file to the SD card, ensure your file has saved correctly, file format is .X3g file extension. Close MakerBot Desktop and safely remove the SD card, your file is ready to print.