

## Using the Makerbot Replicator 2X

### Model Preparation:

1. Make sure that the model you want to print is a .OBJ, .STL or .THING file.
2. Begin by selecting what type and color of filament you want to print with. The Makerbot can use ABS or PLA plastic. The material type will be listed on the filament spool.
3. Open the Makerbot program and go to the "Prepare" tab.
4. Bring in your model either by dragging it into the program or using "Add File" to locate the file.
5. You can reorient the object by clicking to select it and then using the Position, Rotate and Scale buttons on the left side of the screen.
6. Position and rotate your file so that it is laying flat on the build plate, on whichever side of the model is the flattest.
7. Click the "Information" button below the scale button to select which extruder will be used to print the object.
8. Go to "Settings" and choose the type of filament you are using.
9. Select the quality of the print that you want. High quality means longer print times.
10. If your object requires supports to be built, check the "Support" box. (A print requires supports if the object has any overhanging parts or sections that aren't supported by the object itself. This option will build a temporary "scaffolding" structure to support the object while it's printing.)

### Loading the Filament:

1. Load your filament spool onto the back of the printer.
2. Slide the end of the filament through the guide tube (the length of plastic tubing) and out the other side.
3. Use wire cutters or scissors to snip off the end of the filament if it's not cut cleanly already.
4. Turn on the printer using the switch on the back, on the right-hand side.
5. Use the up and down arrows on the printer's control panel to navigate to the "Utilities" menu. Press the "M" button to select it and then select "Change Filament."
6. Select "Load Right" or "Load Left" depending on which extruder you selected to print with.
7. Wait for the extruders to heat up, and then follow the directions on the printer's screen to load the filament.

### Printing:

1. When the filament is loaded, press "Print" on the Makerbot program window. (If the "Print" button is grayed out, try unplugging and replugging the USB cable that runs between the computer and the printer.)
2. You can cancel a print at any time by pressing the right arrow on the printer control panel and selecting "Cancel Build." Cancel the print and ask for assistance if the printer starts to make a rhythmic clicking noise (this indicates that the extruder is jammed) or if filament stops extruding.
3. Turn off the printer when you are finished.

For more detailed instructions and troubleshooting, visit [support.makerbot.com](http://support.makerbot.com) .

