

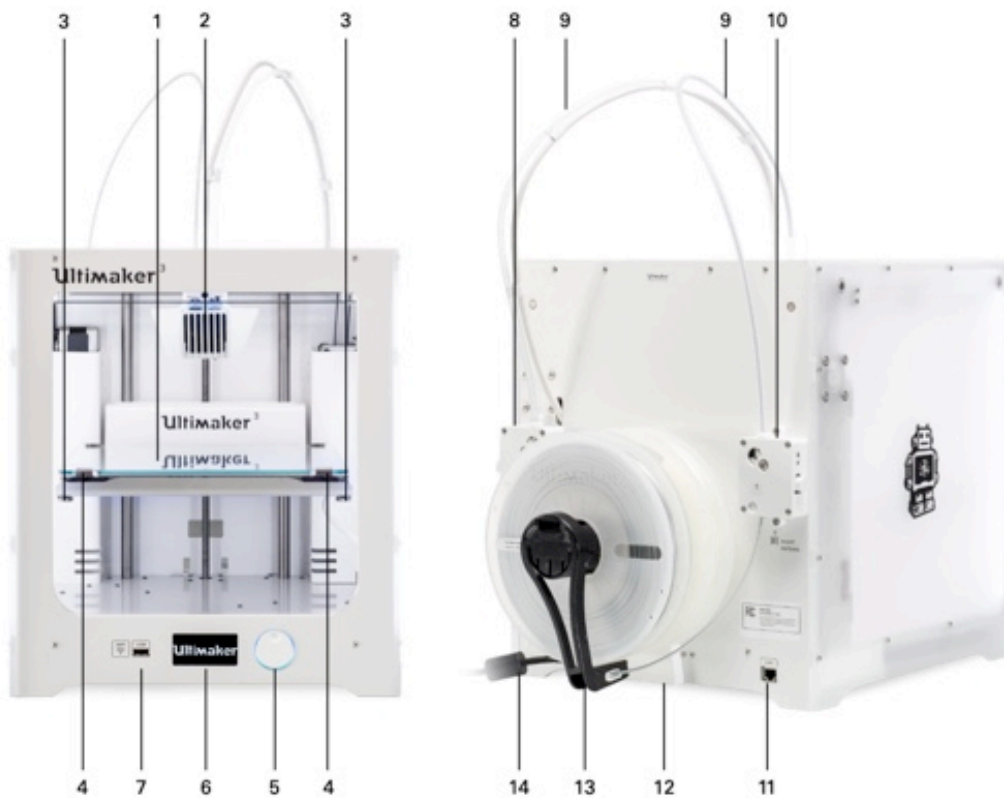
Ultimaker Cura Software Tutorial

General Safety Information:

The Ultimaker 3 generates high temperatures and has hot moving parts that can cause injury. Never reach inside the Ultimaker 3 while it is in operation. Always control the printer with the button at the front or the power switch at the back. Allow the Ultimaker 3 to cool down for 5 minutes before reaching inside.

The Ultimaker 3 is equipped with a glass build plate. Please make sure the build plate is clean and free of debris before using. you can wipe it with a damp paper towel.

Main components Ultimaker 3 or Ultimaker 3 Extended



1. Build plate
2. Print head
3. Build plate screws
4. Build plate clamps
5. Push/rotate button
6. Display
7. USB socket

8. Feeder 2
9. Bowden tubes
10. Feeder 1
11. Ethernet port
12. Cable cover
13. Double spool holder with NFC cable
14. Power cable

Dual Extrusion Capacity:

Ultimaker 3 uses a dual extrusion capacity, meaning it is equipped with two print cores that the filament material comes out of during printing. There are two types of print cores: Type AA for printing build materials and breakaway material, Type BB for printing water soluble material. The printer will automatically detect which print core is in place.

Loading Material:

If replacing Material 2, load this one first because it must be placed closest to the back side of the printer.

1. Place the material spool on the holder
2. Insert the end of the material into feeder 2 until it reaches the blue tape line.
3. Wait for the printer to heat up and grab the material to load into print head.
4. Do the same steps if replacing Material 1

Loading material 1

Material 1 will be put on the material guide first before placing it on the spool holder to avoid tangling of the 2 materials during printing. Follow the below steps to load material 1.

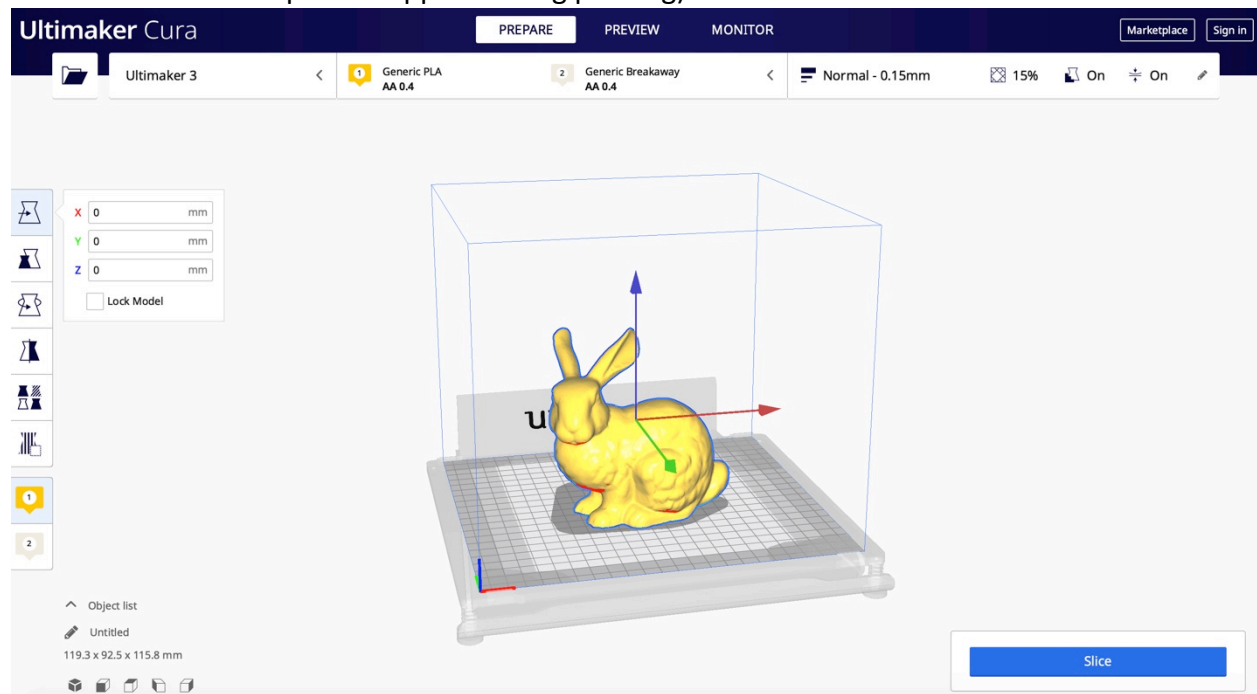
1. Take the material guide and hold it with the outer part towards you.
2. Place the material spool with material 1 (PLA) on the material guide with the material in counter-clockwise direction.
3. Guide the end of the material through the hole in the material guide. When you have done this, select continue.
4. Place the material guide - with material 1 on it - on the spool holder, behind material 2 and wait until it is detected by the printer.
5. Insert the end of the material into feeder 1 and gently push it until the material is grabbed by the feeder and is visible in the bowden tube. Select confirm to continue.
6. Wait for the Ultimaker 3 to heat up print core 1 and to load the material into the print head.
7. Confirm when the new material extrudes from the print head.
8. Wait a moment for print core 1 to cool down.

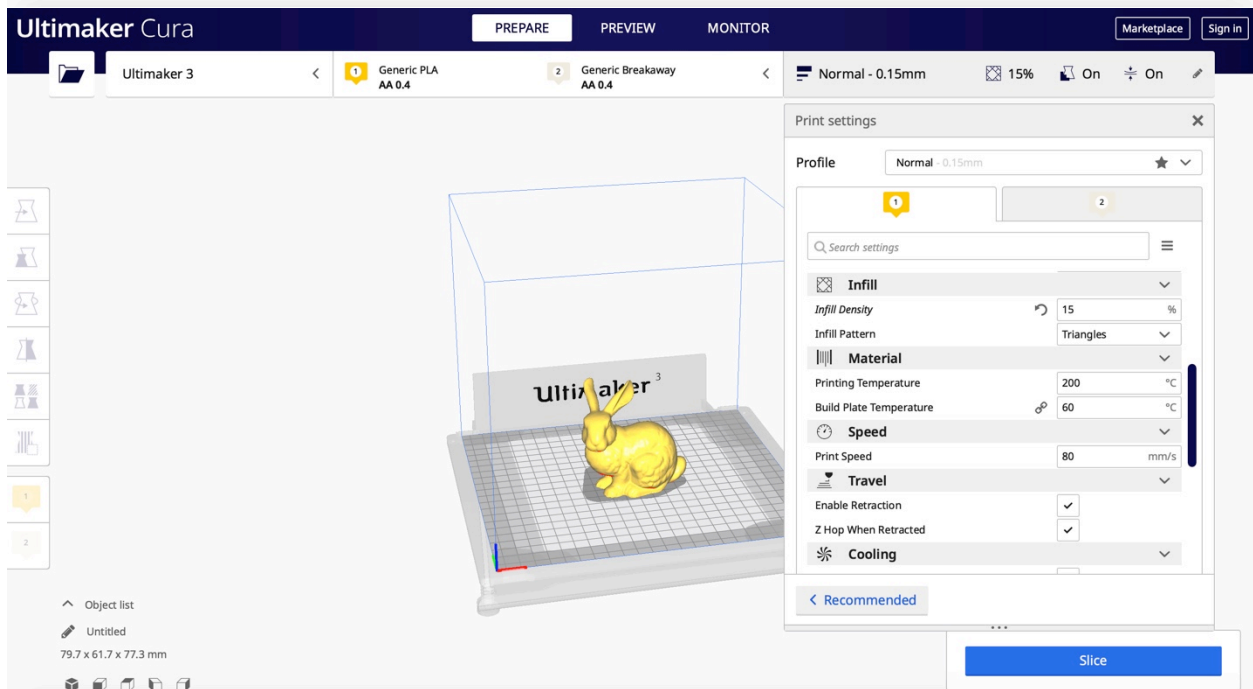
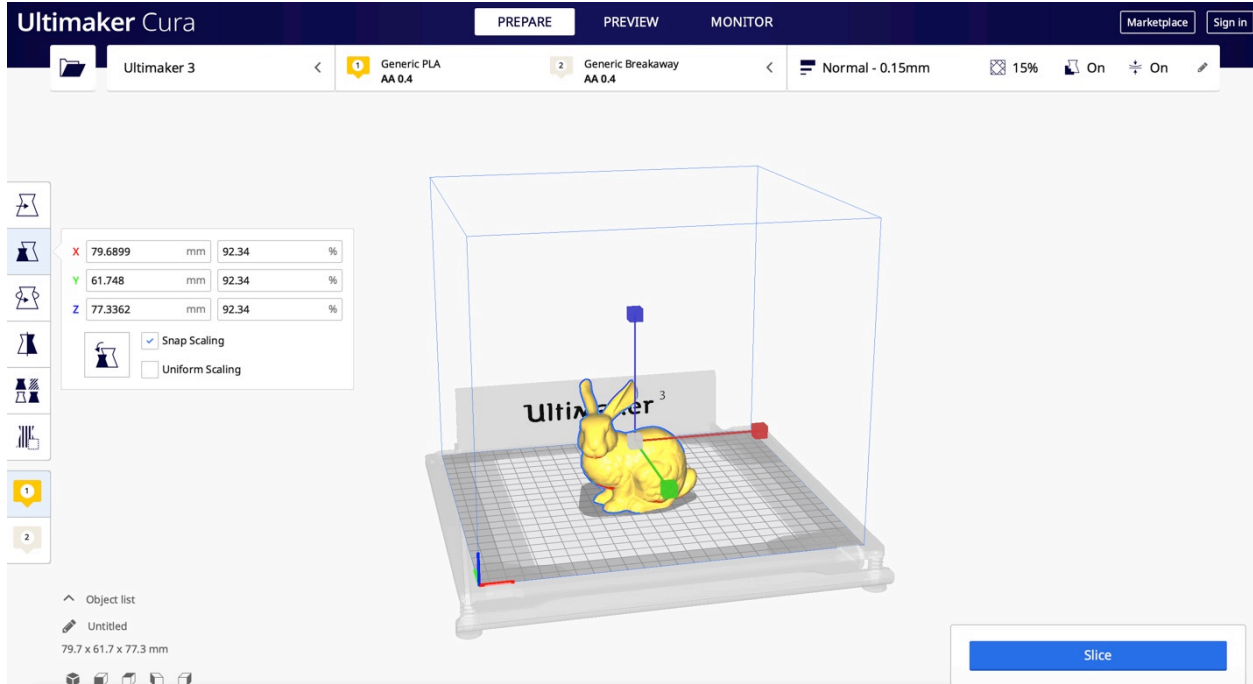


Preparing a Print:

Log onto the Cura program to import your 3D design. Cura can be downloaded for free if you want to put it on your computer.

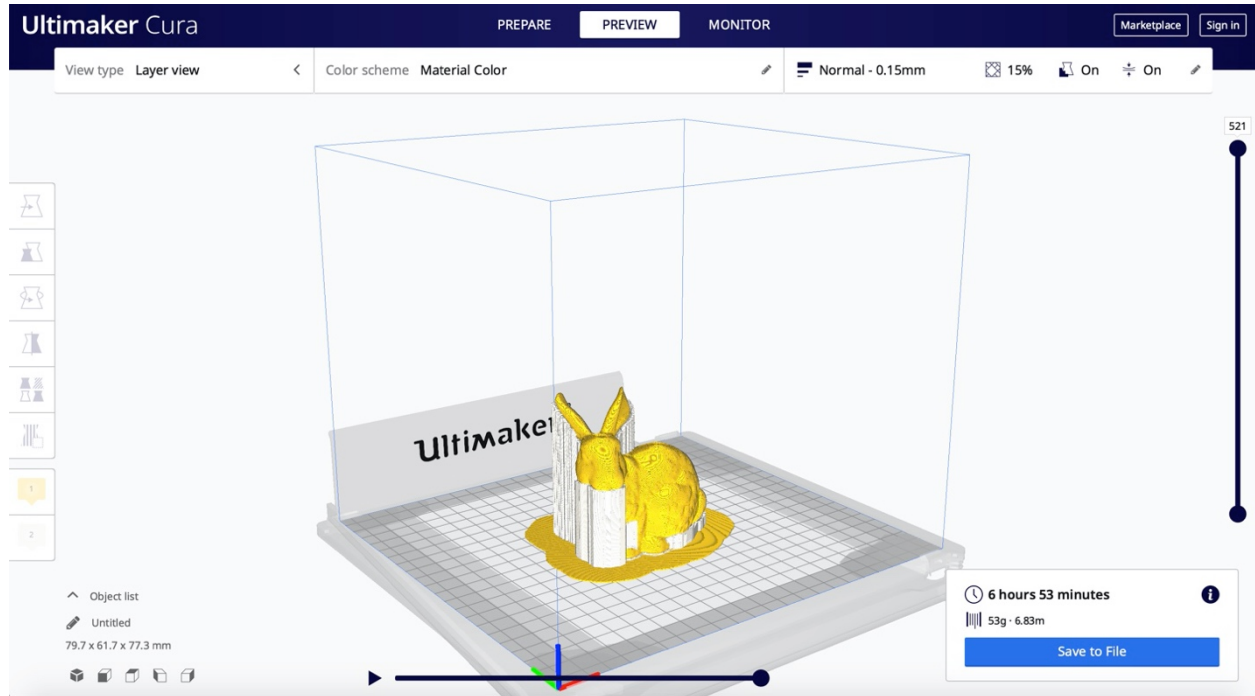
1. Once you see the interface, click the file icon at the top left corner of the program screen to access and choose your STL file. Your object will appear on the virtual build plate of the Ultimaker 3.
2. The left tool bar will appear on the left side of your object. You can use those tools for many adjustments including movement, scale, rotation, mirroring, model settings, support blocker and extruder selection.
3. Before starting your print, use a glue stick to smear glue on the build plate so that the material will adhere to the plate.
4. Select your desired settings (layer height/print speed, infill, support, and build plate adhesion) under Print Setup. You will do all of this in PREPARE mode (see top of Cura interface)
5. It's important for printing strategies to consider these selections in the PREPARE mode: Shell Thickness (to determine thickness of walls of your model), Wall Thickness (to create a sturdier model, or if a faster print is desired you will reduce wall thickness), Speed (Slower speeds render a better surface finish but take longer), Infill Density (defines the amount of plastic inside your print), Support (to specify which part of your model will require a support during printing).





Slicing a Print

Slicing refers to taking your design and slicing it into individual layers for print preparation. Cura software generates the path (g-code) the printer will use for printing. You can view the sliced version of your model in PREVIEW after you've pressed the SLICE button. Once the print is completely prepared with your settings, it is ready to print.



Printing Your 3D Model:

Save your file to an external drive, preferably your own personal USB drive. Plug your drive into the USB port on the front of the printer, and you will be prompted to start your print with a dialogue box on the front of the printer. The print menu allows you to select a print and follow prompts. This menu also allows for you to pause and abort the print if needed.

System

The System menu offers various options to control the network, build plate, print head and frame light, and to perform maintenance and diagnostics tests. These options in the menu are especially useful when performing maintenance or troubleshooting your printer.

