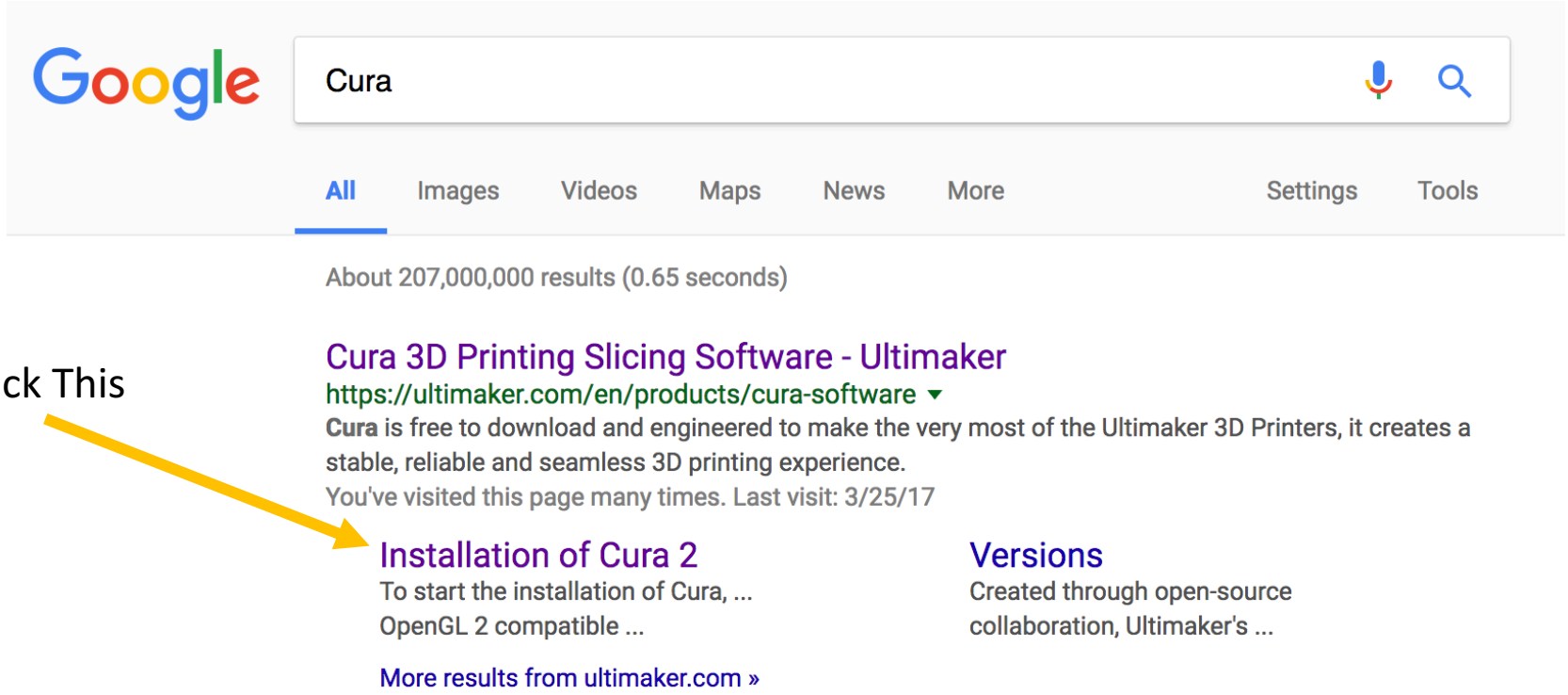
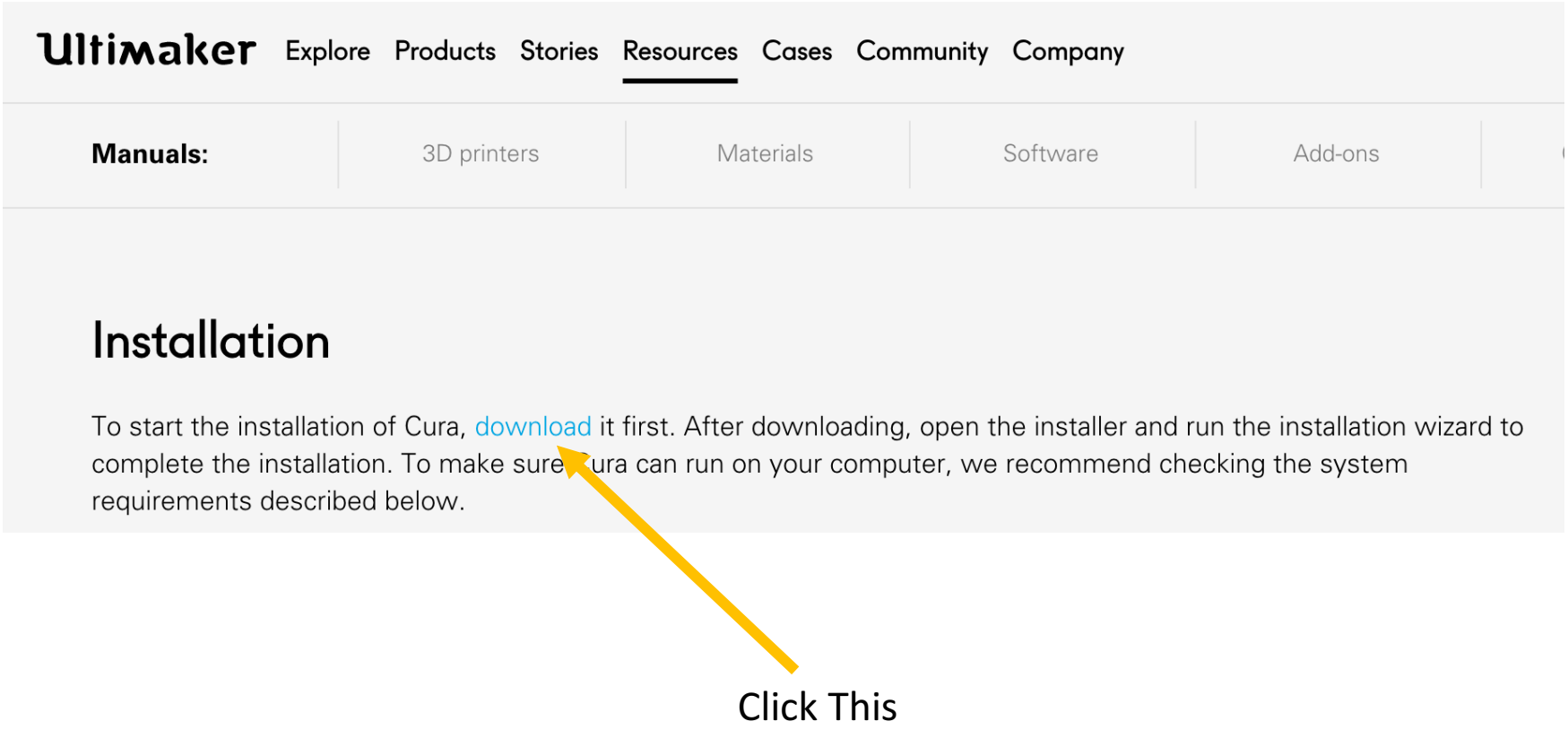
Lesson 2

Install cura and print your part

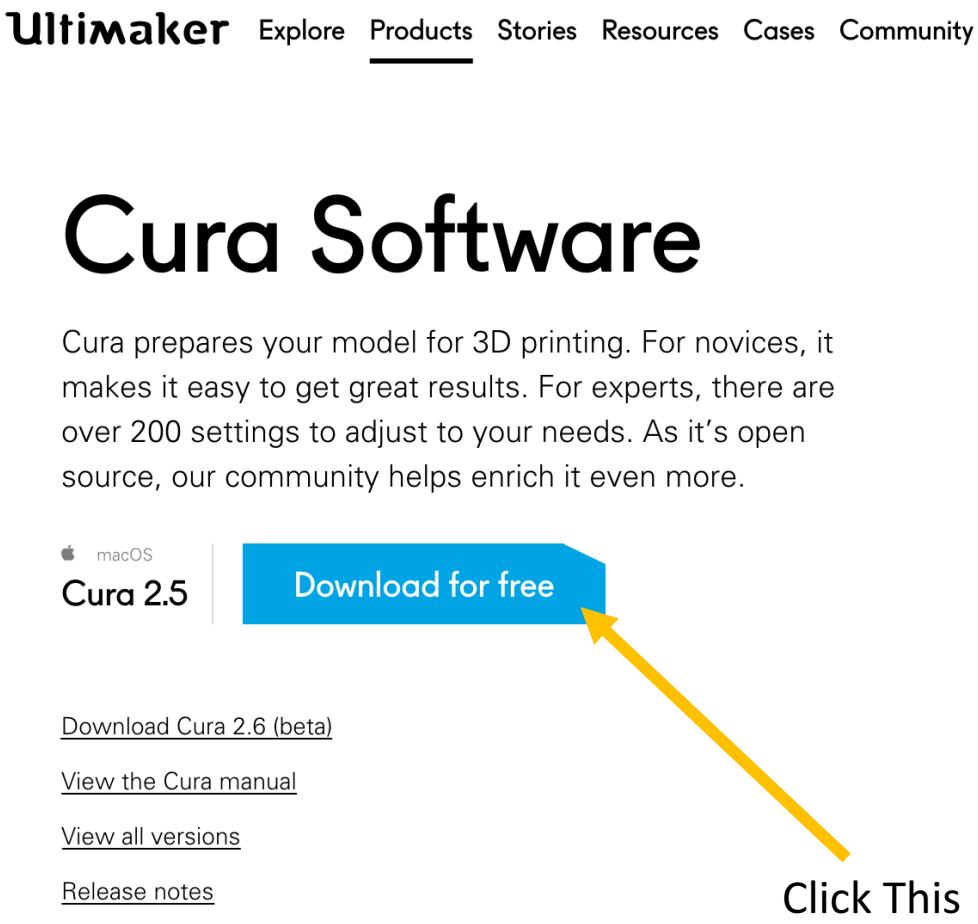
Step 1: Google for ‘Cura’, click “Installation of Cura 2”.



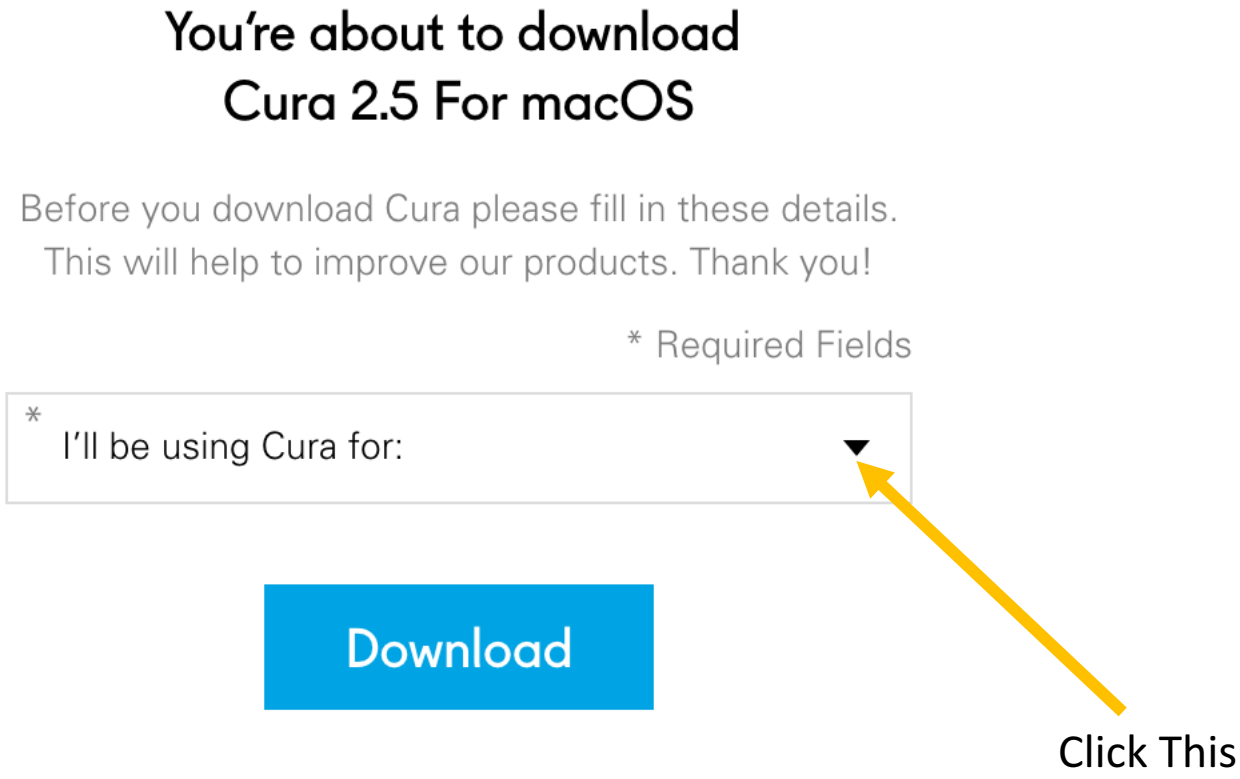
Step 2: Click “download”.



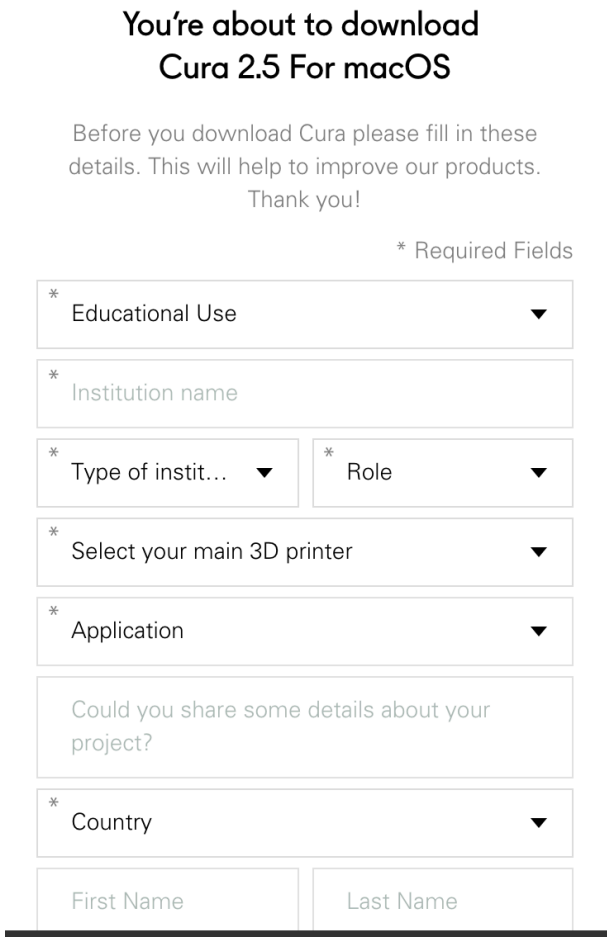
Step 3: Click “Download for free”.



Step 4: Choose “Educational Use”.



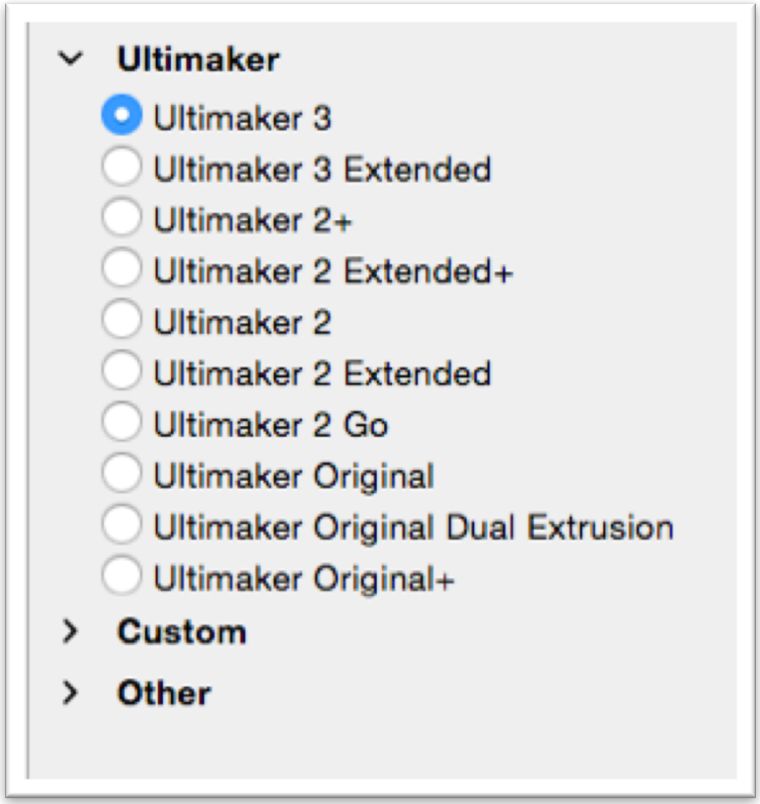
Step 5: Fill in your profile then click “Download”.

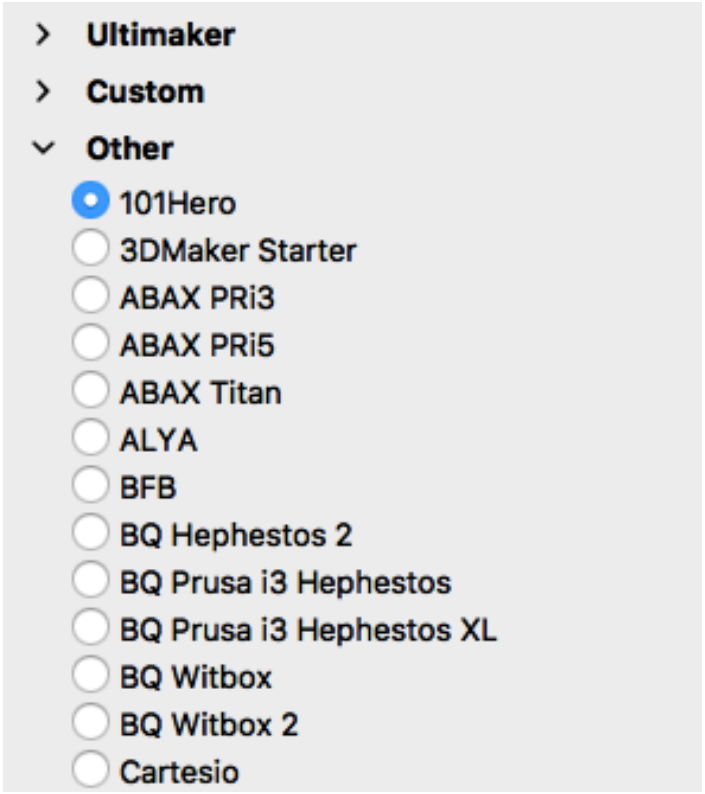


Step 6: Once download is completed, double-click the dmg file or exe file to begin installation.

Step 7: Launch Cura by clicking on the Cura icon.

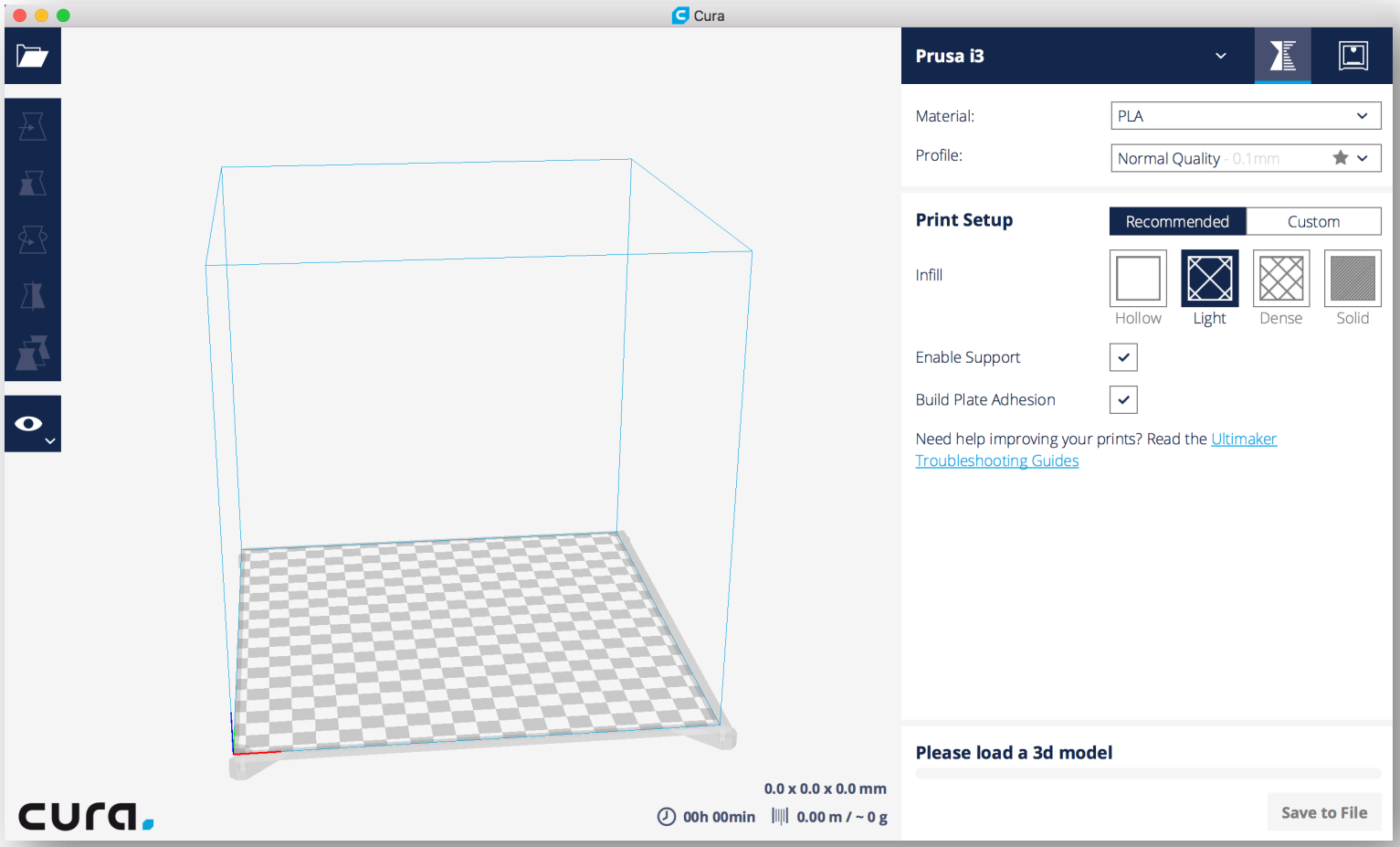
Step 8: Tell Cura the printer that you are using.



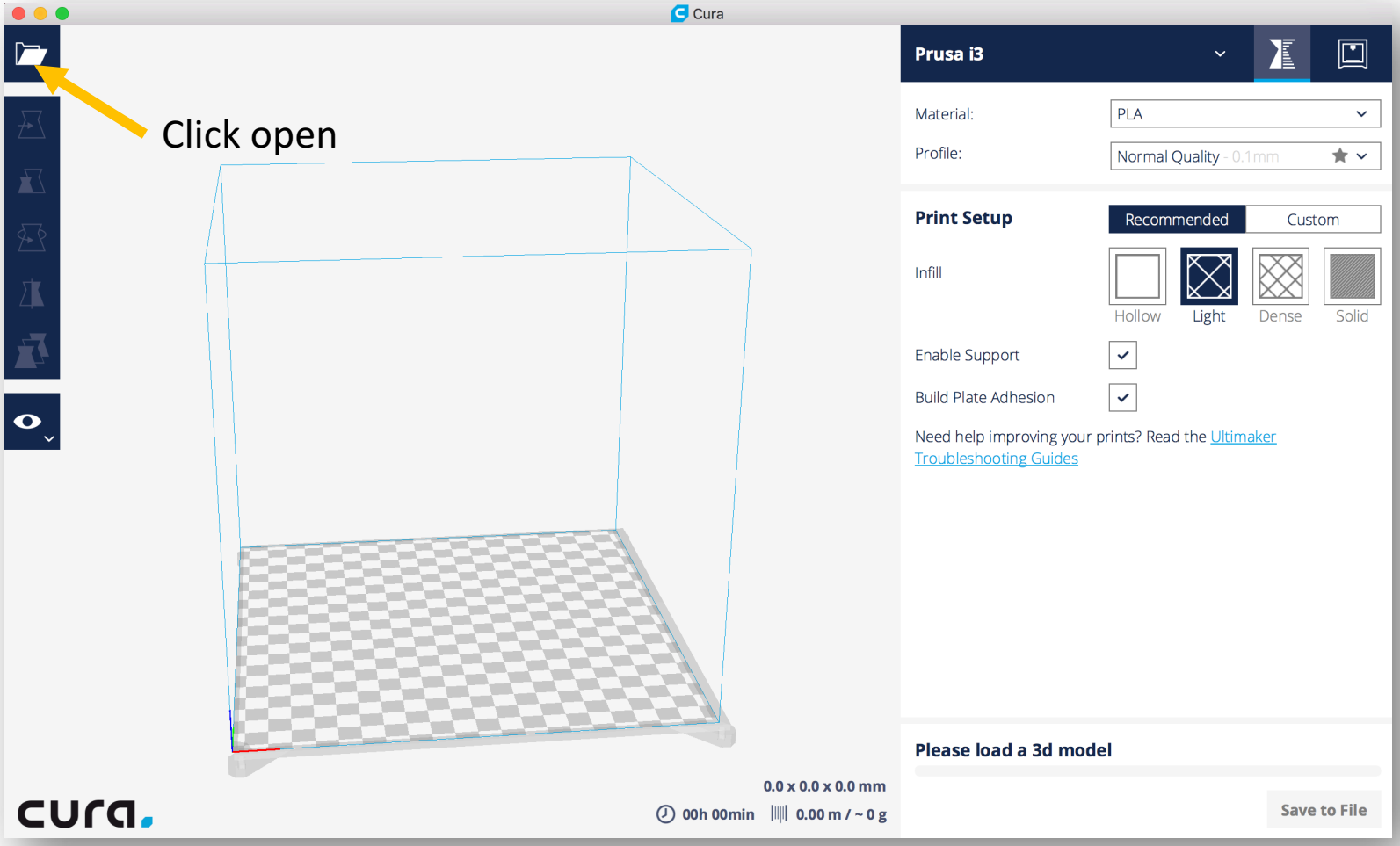


Note: If you can't find your printer from the list, then you need to go to 'custom' and key in the printer's parameters manually.

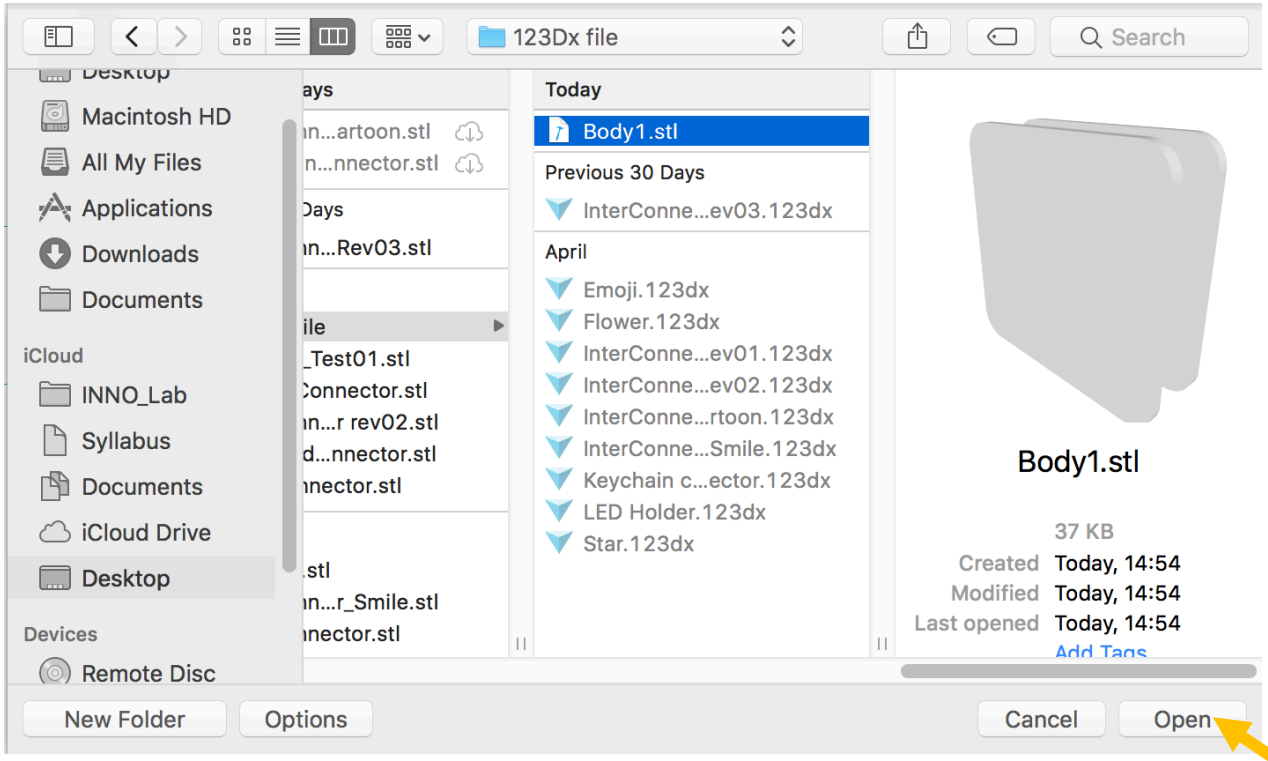
Step 9: This is Cura's User Interface.



Step 10: Click the “open” icon to import the STL file you have drawn in Lesson 1.

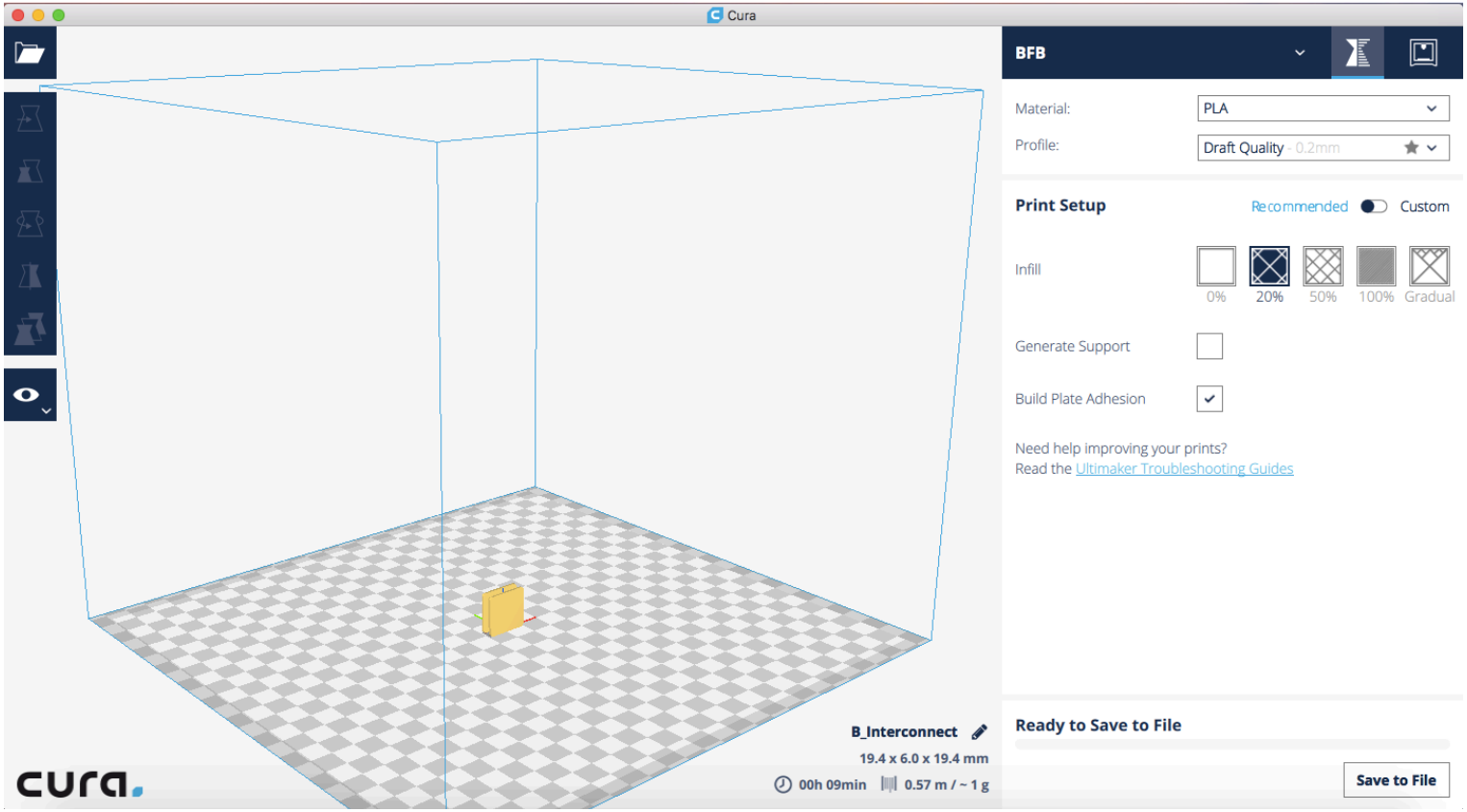


Step 11: Select the STL file then click “Open”

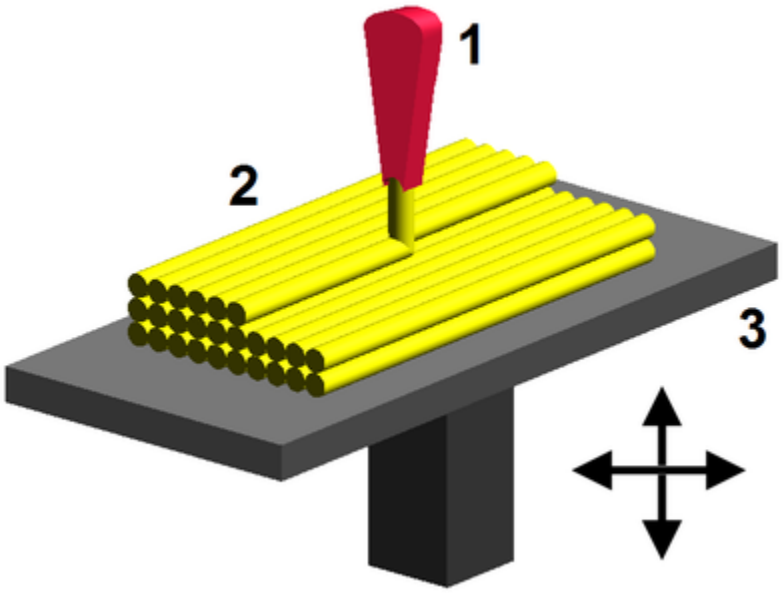


Click Open

Step 12: Your part is now loaded into the Cura software.

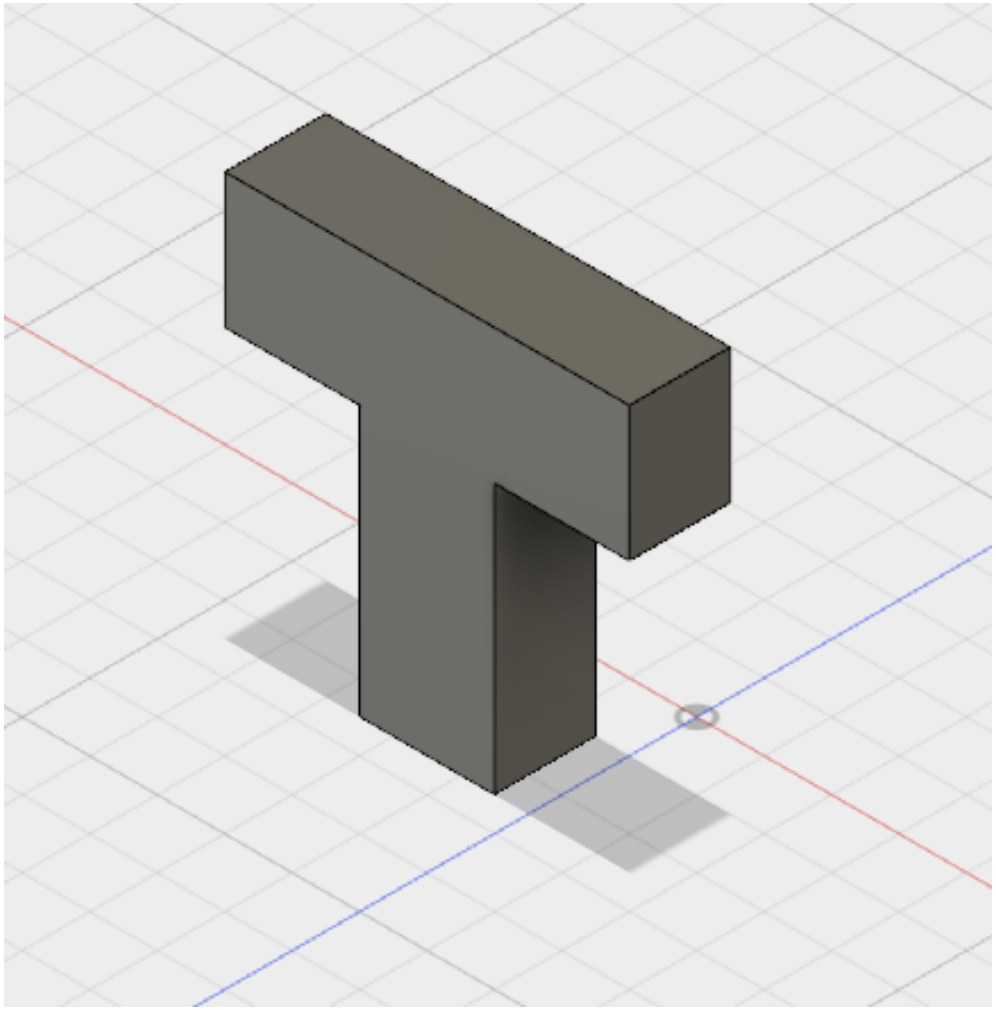


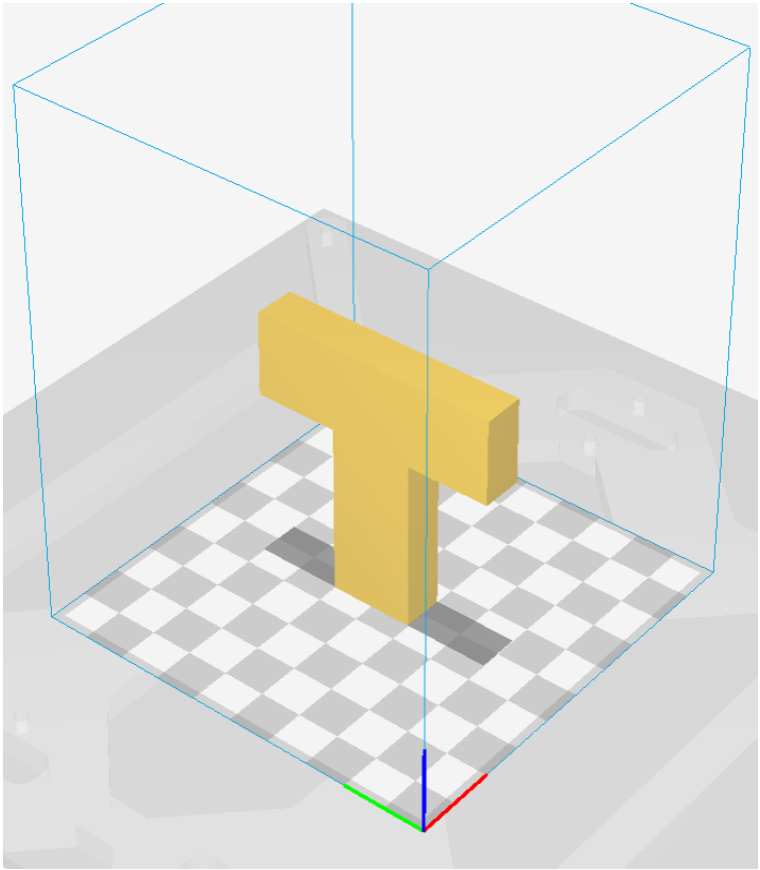
Note: Before we start printing, we need to have some knowledge on how 3D printing works. Most 3D printers use the *Fused Filament Fabrication* method (FFF).



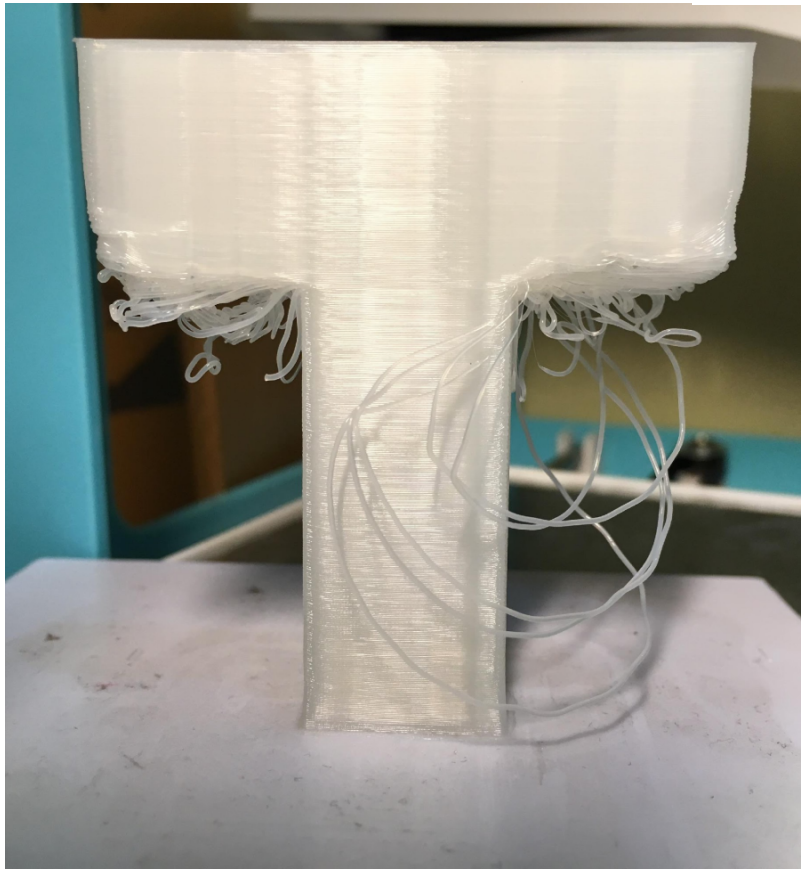
The 3D object is fabricated layer by layer with melted plastic.

Let’s see an example here. We want to print the “T” object shown below.



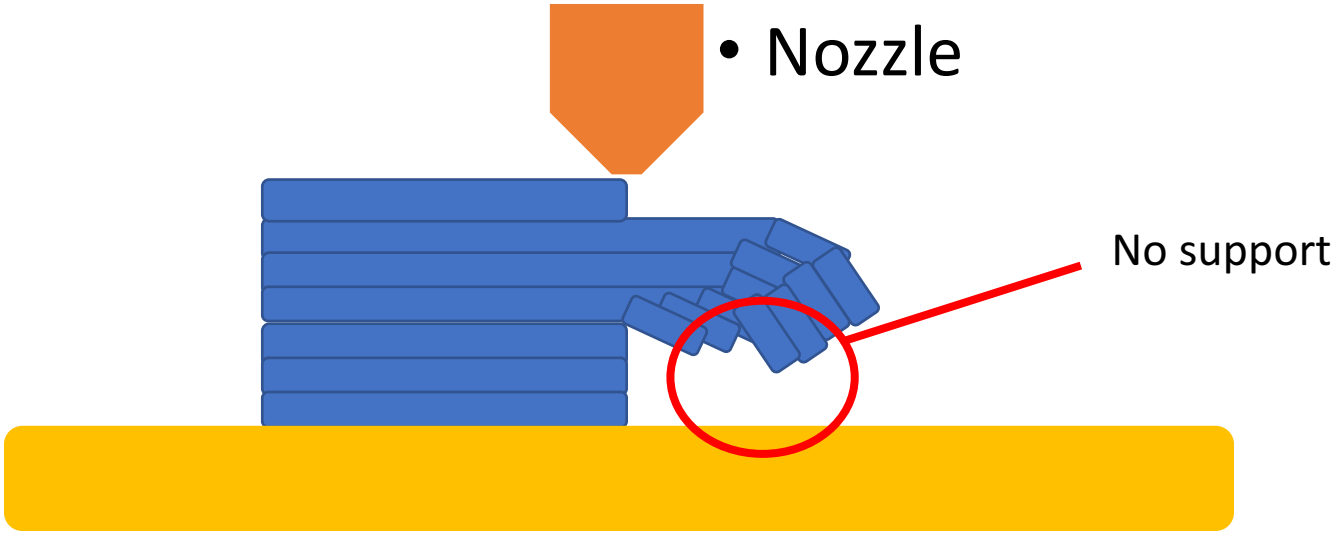


This is what we planned



But, this is what we will get

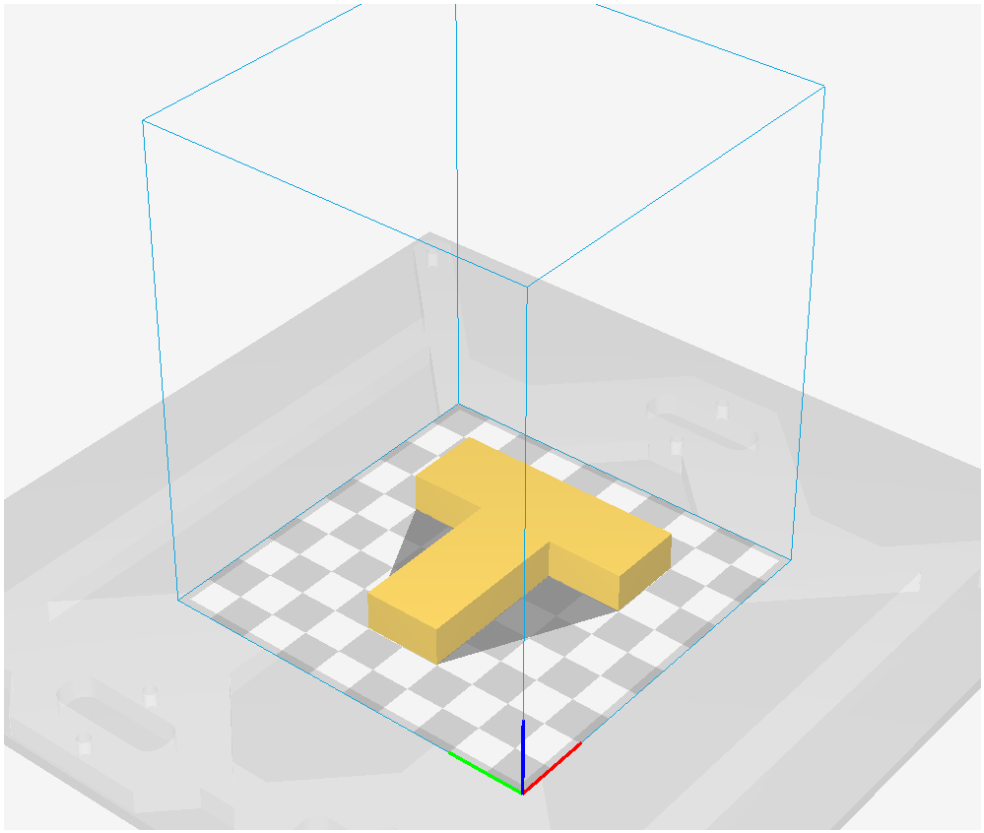
This is due to the FFF principle where the object is filled layer by layer. There is no support at the “hanging” part, so it will fall.



To solve this problem, we have 3 options:

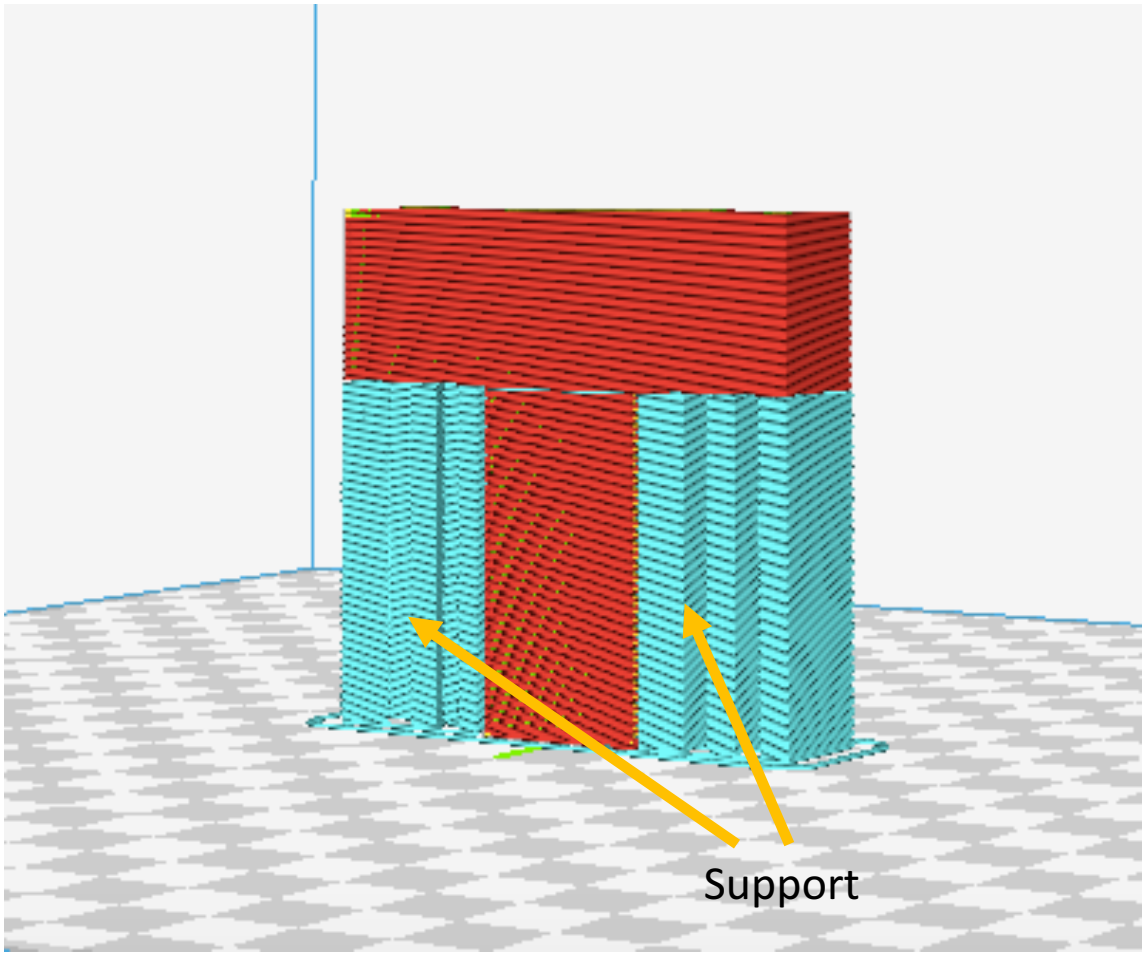
1. Change orientation
2. Add support
3. Change design

Option 1: Change Orientation



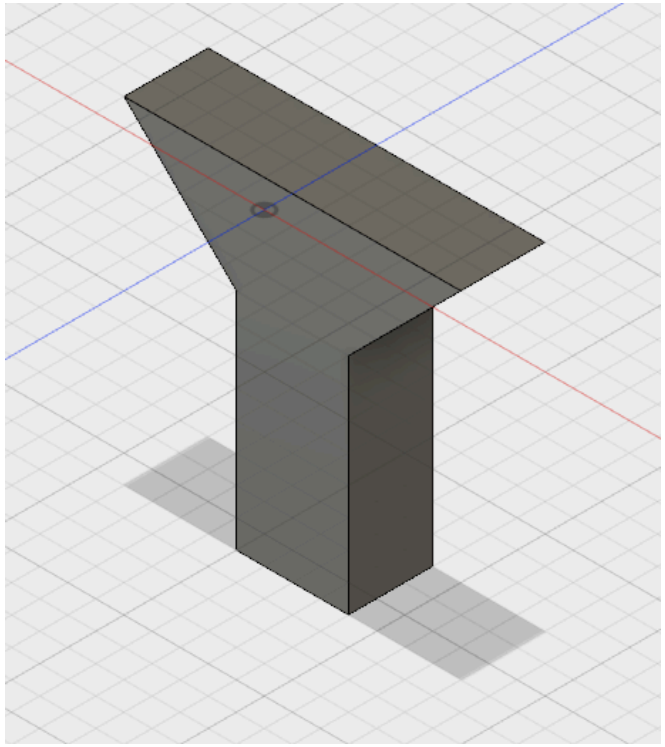
Note: This is the easiest and most common option. Use this as priority option.

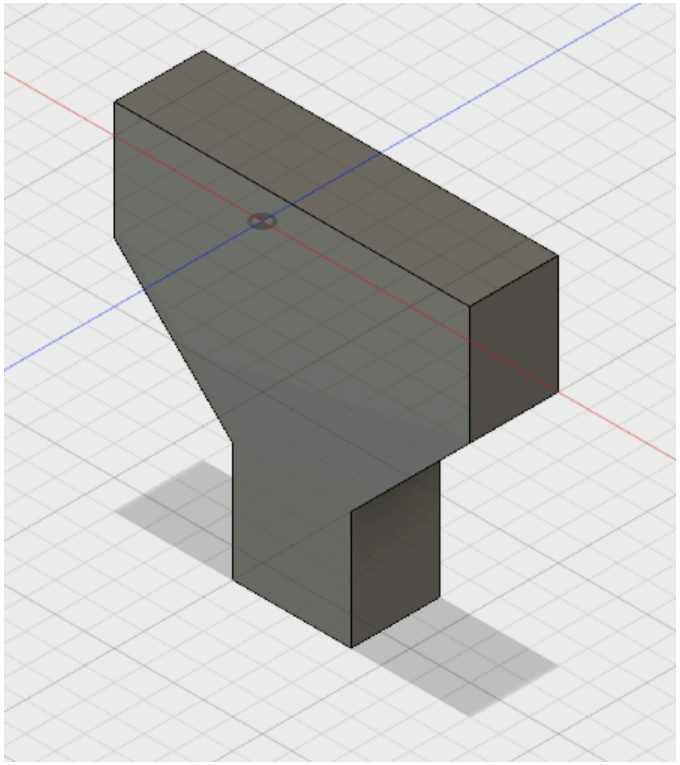
Option 2: Add Support



Note: This option is not recommended because it consumes a lot of material.

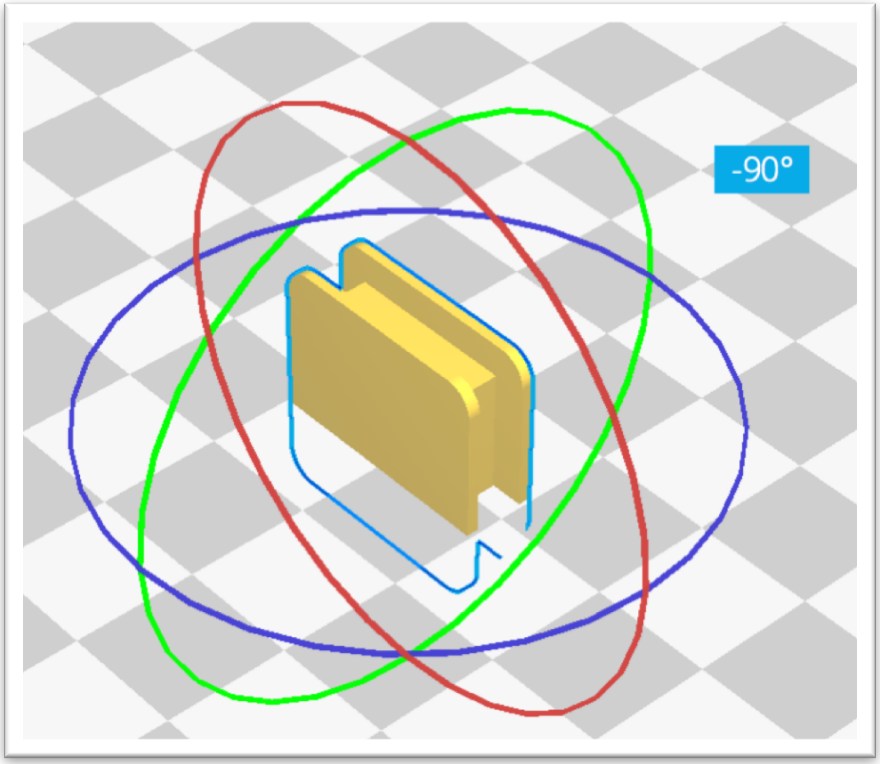
Option 3: Change Design



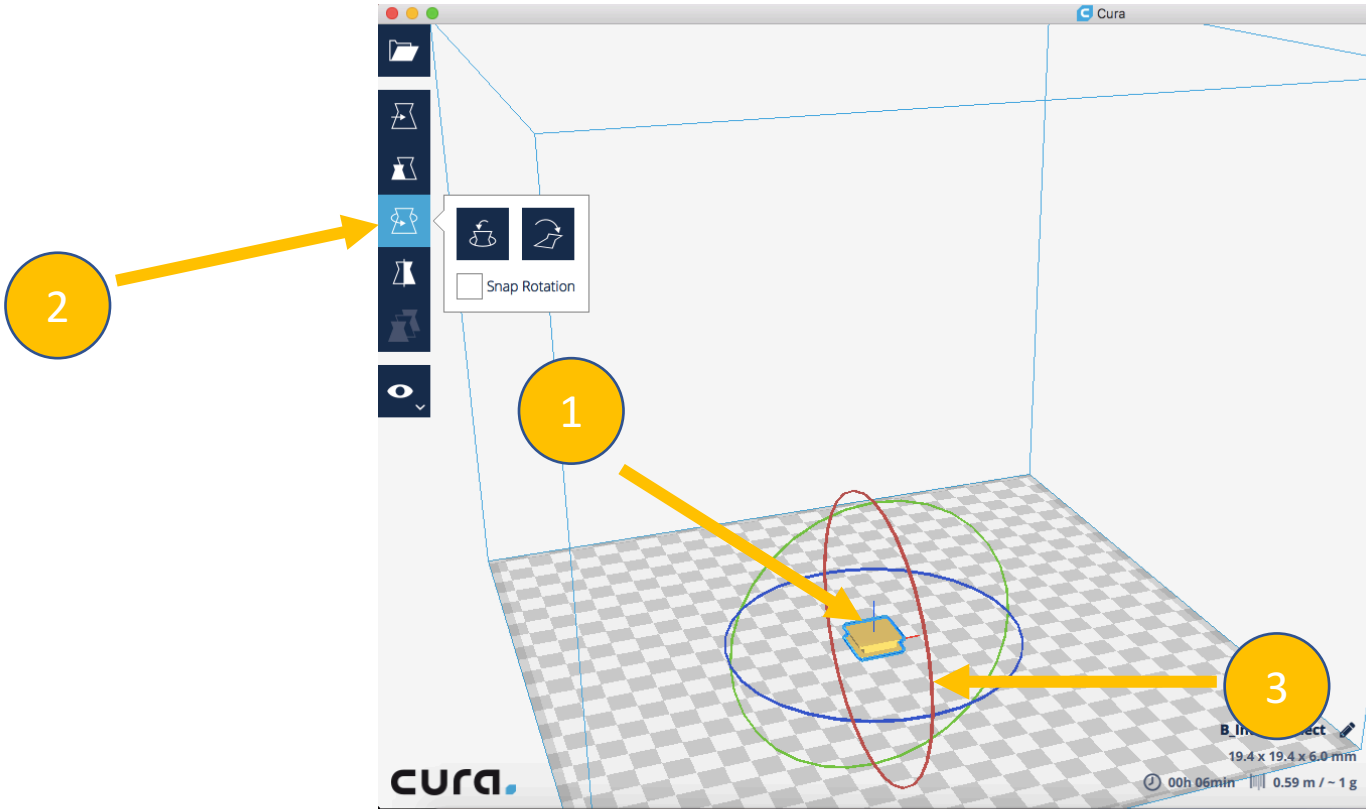


Note: You can consider changing the design if it does not affect its primary function.

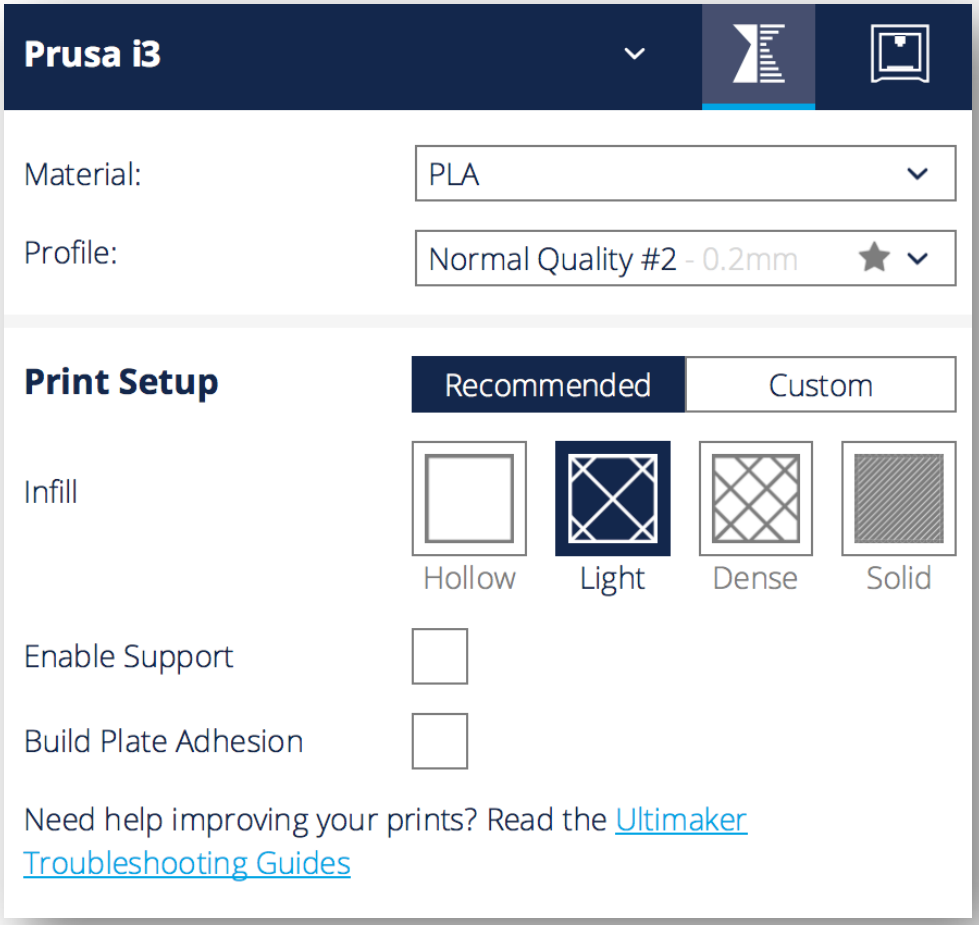
Step 13: For this part, you need to ensure it is standing upright as shown below.



Note: If your part is loaded in flat position, you will need to click on the part, choose “Rotate”, then drag the red circle to rotate the part to 90 degrees.

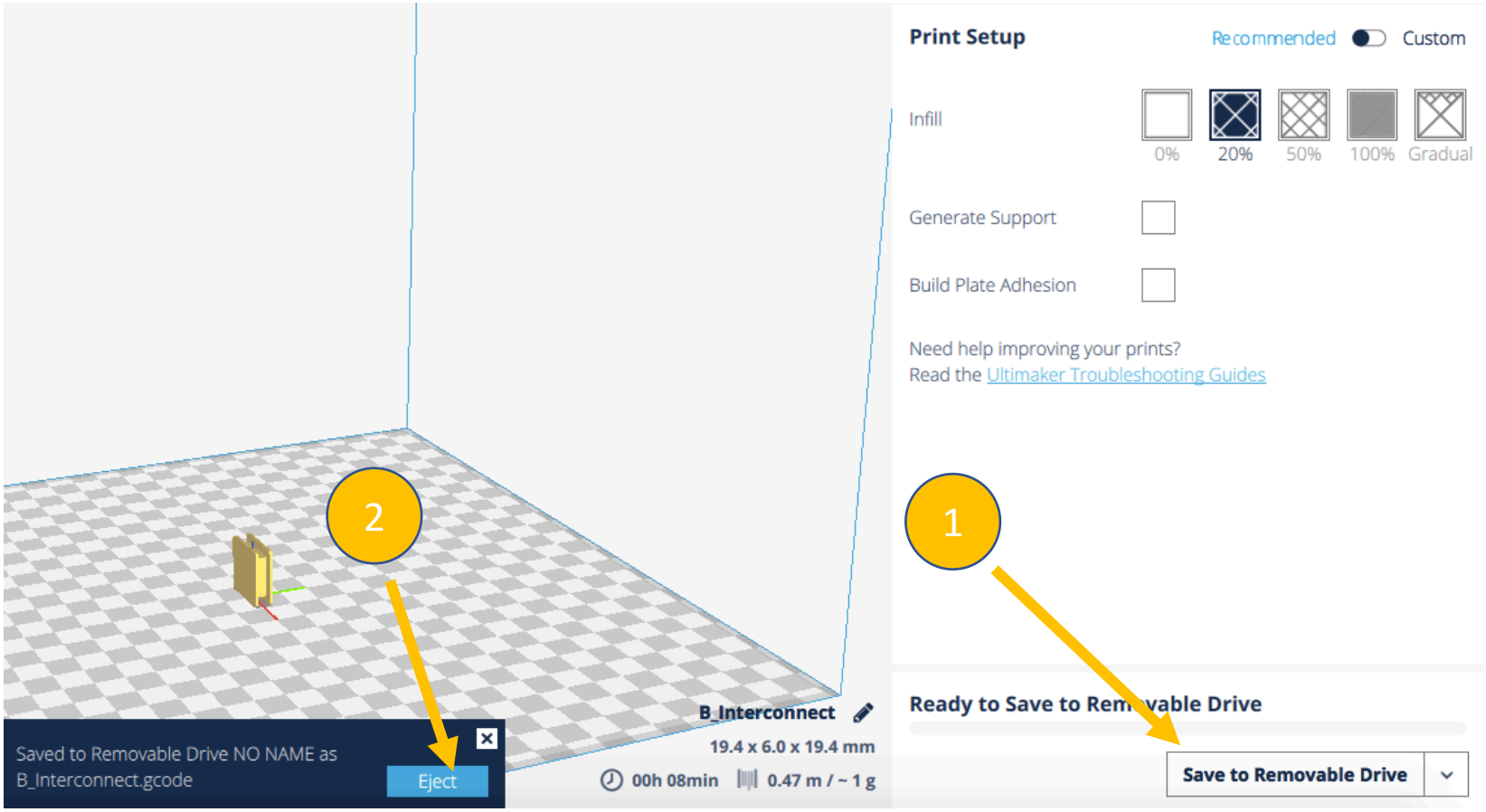


Step 14: Follow the printing setup as shown below.

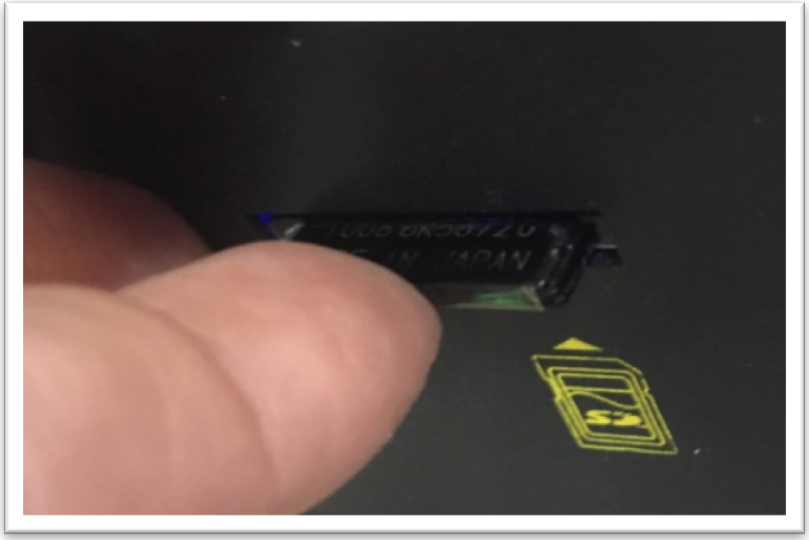


Step 15: Insert your SD card into your computer.

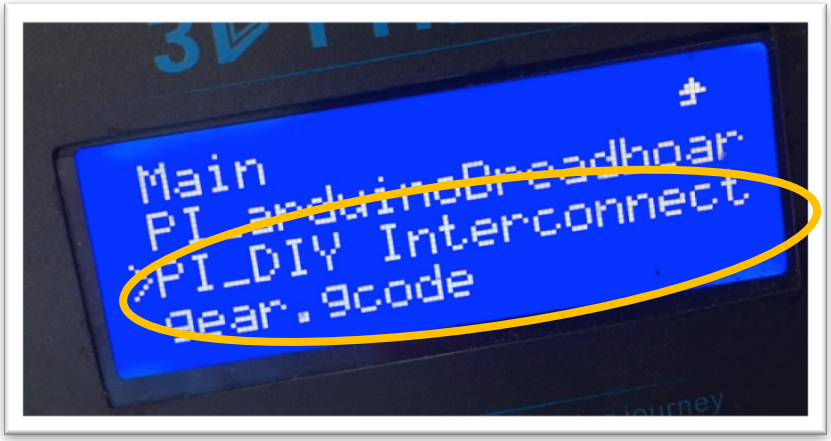
Step 16: Next, click “Save to Removable Drive”, then click “Eject”. Then remove your SD card from your computer.



Step 17: Next, insert your SD card into your 3D printer.

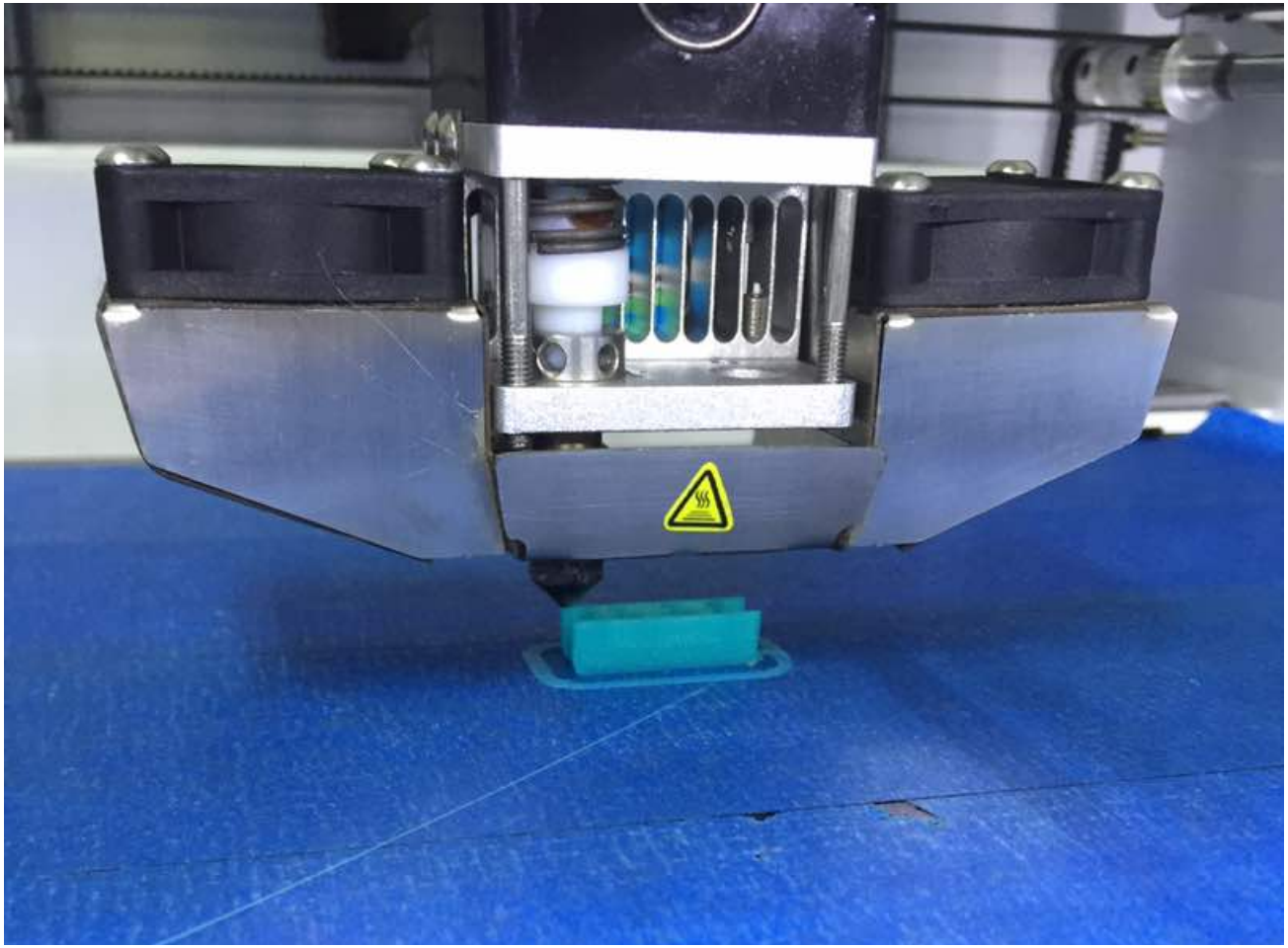


Step 18: Rotate the knob to select your printable file.



Step 19: Once the correct file is selected, the printer will take several minutes to heat up before it starts printing.

Step 20: Printing in progress.



Congratulations! You have your first 3D part ready!