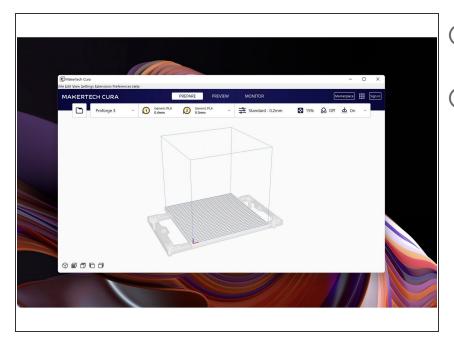
Makertech Stage 09: First Print

Written By: Makertech 3D

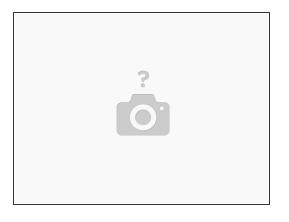


Step 1 — CURA - Windows



- Download the new v5.2.1 of Makertech Cura for windows <u>here</u>.
- (i) Run through the install and setup wizards.
 - If you have an earlier version of Makertech Cura installed, delete it from your programme folder before installing the new one.

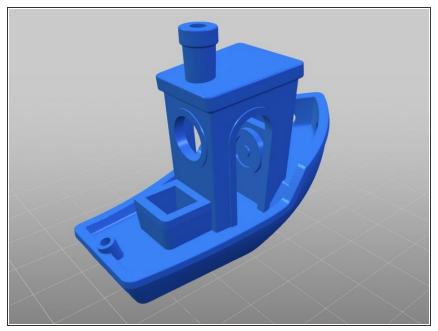
Step 2 — CURA - MacOS/Linux



i If you are running Mac OS or Linux the 3.5 profiles will be made available in the next release of the <u>official Ultimaker Cura.</u>

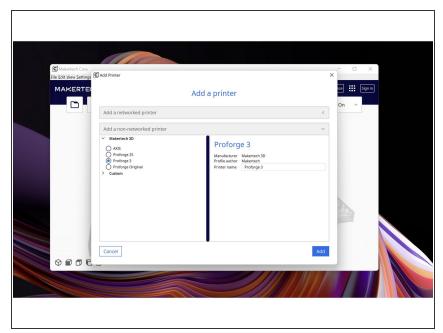
Follow the progress of this request here.

Step 3 — 3D Benchy



- (i) Our first print will be the 3D Benchy.
- (i) Click here to download the STL file.

Step 4 — CURA Setup



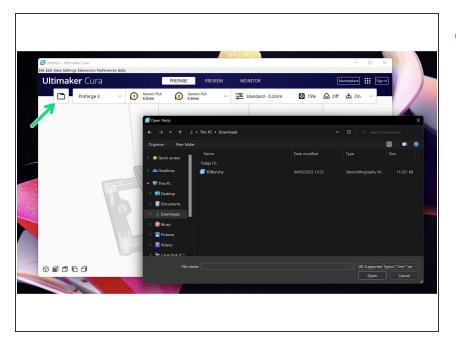
(i) In Cura add the Proforge 3 3D printer.

Step 5 — IMPORTANT - Retraction Setting

Enable Retraction		~	/
Retract at Layer Change			
Retraction Distance	5	0.2	mm
Retraction Speed		60.0	mm/s
Retraction Retract Speed Retraction Prime Speed Retraction Extra Prime Amount Retraction Minimum Travel		60.0	mm/s mm/s mm ³ mm
		60.0	
		0.0	
		1.32	
Maximum Retraction Count		90	
Minimum Extrusion Distance Window		0.2	mm

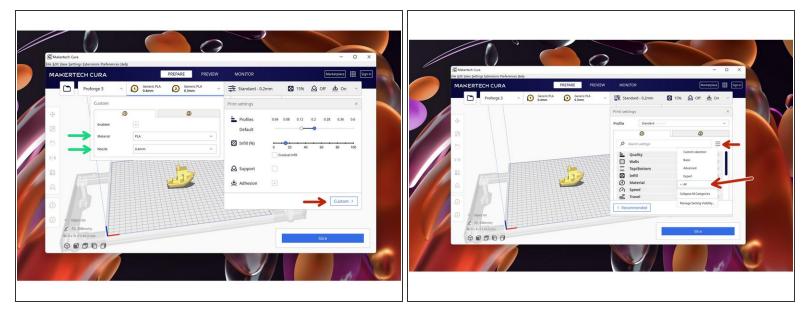
 Under the *Travel* dropdown adjust the retraction setting to **0.2mm** for the direct drive extruder.

Step 6 — Loading STL's

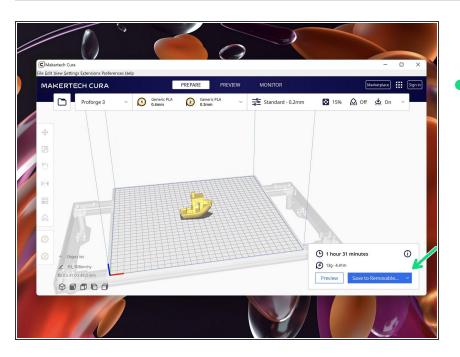


 Click here to load the Benchy STL that you downloaded earlier.

Step 7 — Slicing



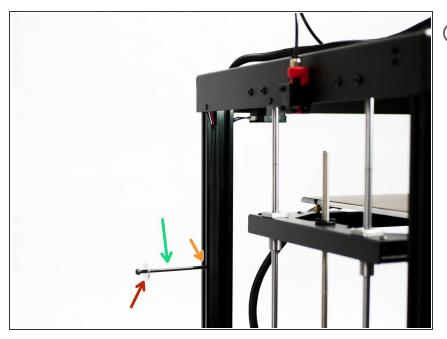
- Set the correct nozzle size and material for your set-up.
- The default profiles give you a good starting point, these will need to be edited to get the best results out of your material, this can be done by going into the custom settings.



Step 8 — Save to SD

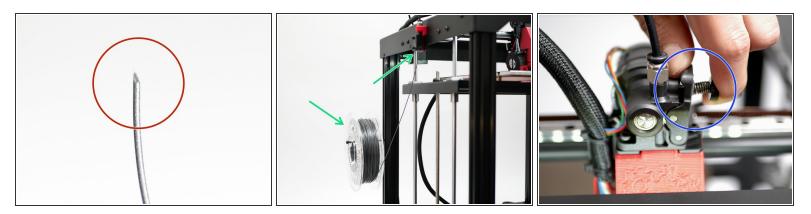
• Once happy, hit slice and save the gcode to your SD card.

Step 9 — Spool Holder



- Fix the spool holder assembly to the side of the printer:
 - M5 x 100mm Bolt
 - M5 Penny Washer
 - M5 T-Nut

Step 10 — Load Filament



- Use a pair of scissors or side cutters to cut a sharp point to your filament.
- Place the spool onto the spool holder and feed the filament through the filament sensor and up to the extruder.
- Put pressure on the extruder idler arm and continue to feed the filament into the hotend.

Step 11 — Pre-Heating



- Pre-heat the hotend and heated bed.
- Remember that the bed is measuring the temperature of the heater, the platform still requires a few minutes to uniformly reach that temperature.

Step 12 — Printing From SD Card



• From the home screen go to *Print -> TFT SD -> P3_3DBenchy.gcode*

Step 13 — Print Begins



- (i) Once the print begins, you can monitor/adjust it from the print menu.
- Make sure that you have a good first layer, this is key to a good print.
 - If it's too close (the nozzle is scraping the bed) or too high (the first layer is peeling away) adjust your P offset. See the previous guide for a reminder on how to do that.
- (i) Keep monitoring your print.

Step 14 — Congratulations!



Your Proforge 3 is successfully up and running!