

USER MANUAL

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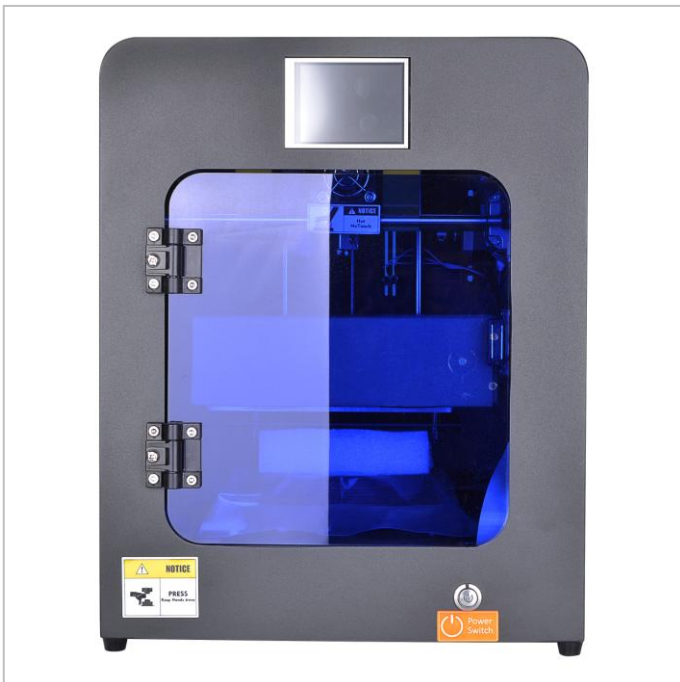
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A.SETTING UP YOUR 3D PRINTER

1. Open package



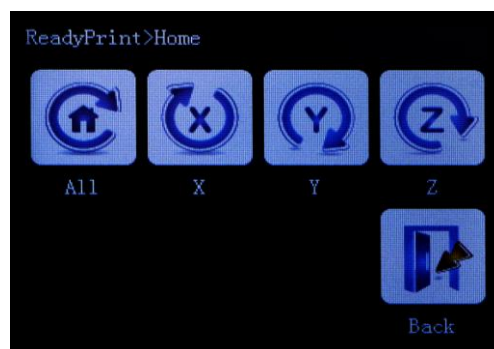
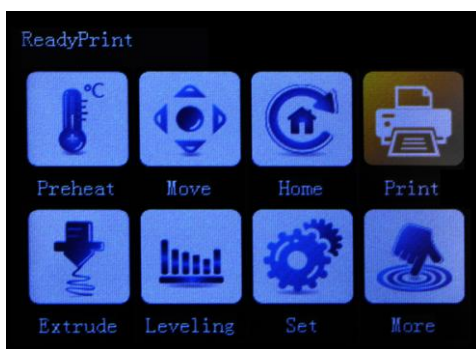
2. Removing the Accessory Box



3. Attaching Power Supply and Powering On

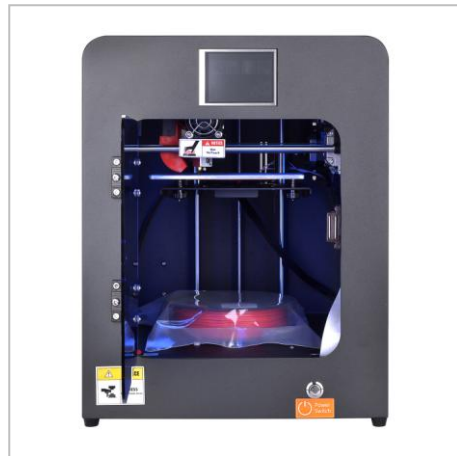


4. Resetting the Machine and open the Filament Spool



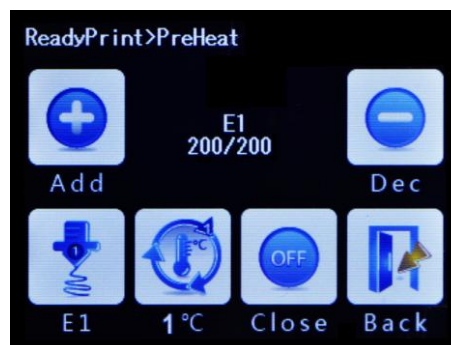
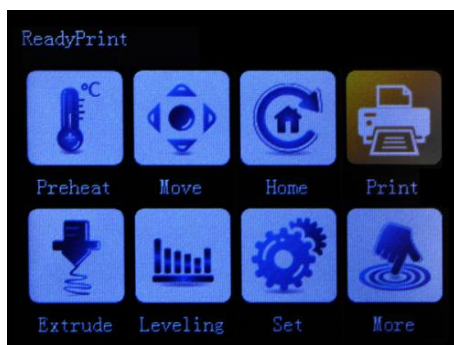
Press “HOME”-“HOME”.

The extruder will move to the left-front,the plate will up to the top until hit the z limitswitch.



B.FIRST USE

1.Preheating the Extruder



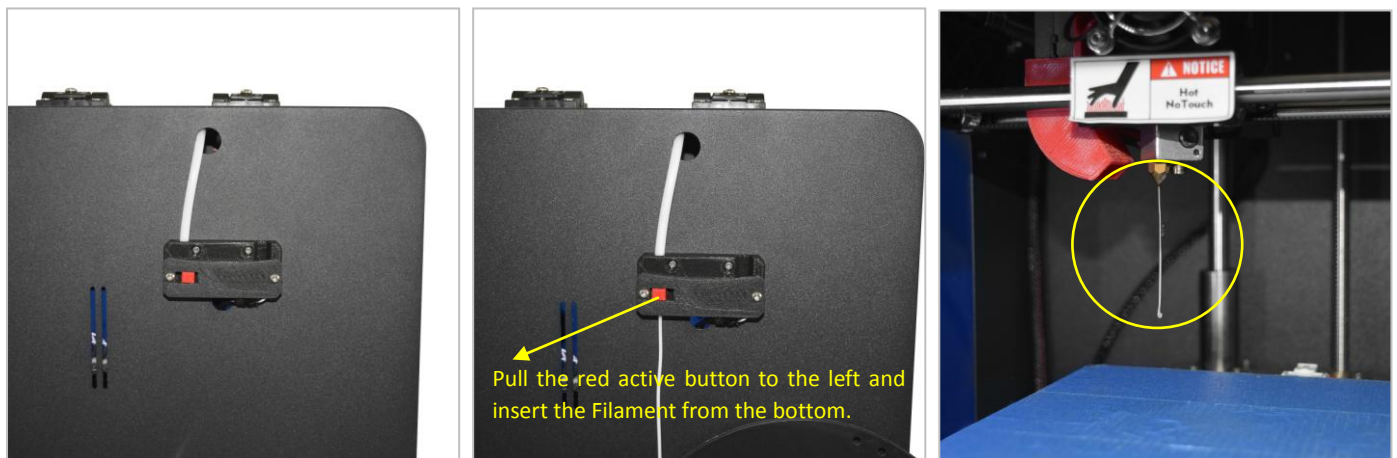
select HEAT > Preheat ADD.

Waiting for the extruder to heat to the set temperature 180°C (like pic.2).

3. Loading Filament

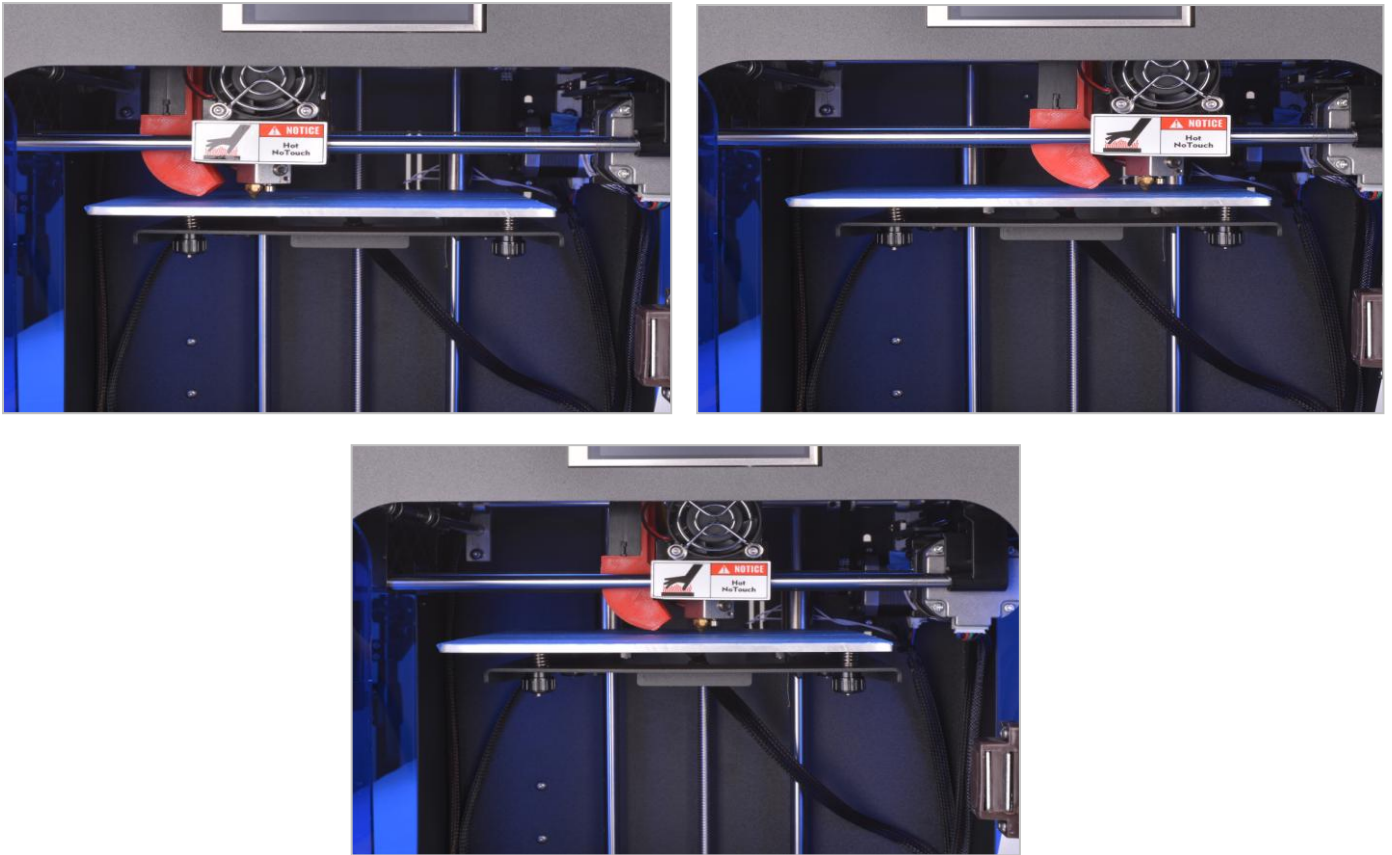
After the extruder reaches 180° C, press the knob on Filament Out Device to the left, Take and straighten the end of the filament, insert it through the device into the extruder.

Push down on the Extruder Arm, Continue to hold it down as you insert the free end of the filament into the hole in the top of the extruder. Push the filament in as far as it will go. You will see plastic start to emerge from the extruder nozzle. Release the extruder arm.



4. Leveling the Build Platform





Select Prepare-Auto home again,then select “Disable steppers”

Then you can move the extruder to the “left-front” ,put one A4 paper between paper and nozzle,keep the paper just can move ,it means it had leveled ok in this position now,like this way,move to “right-front” , “right back” , “left back”.

(It is the first leveling,maybe it is not the best level,the best level depends on the first layer ,refer to the later)

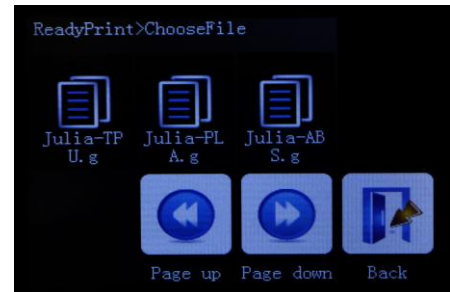
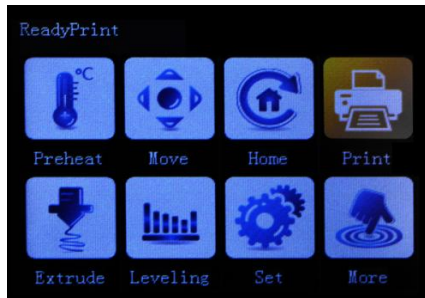
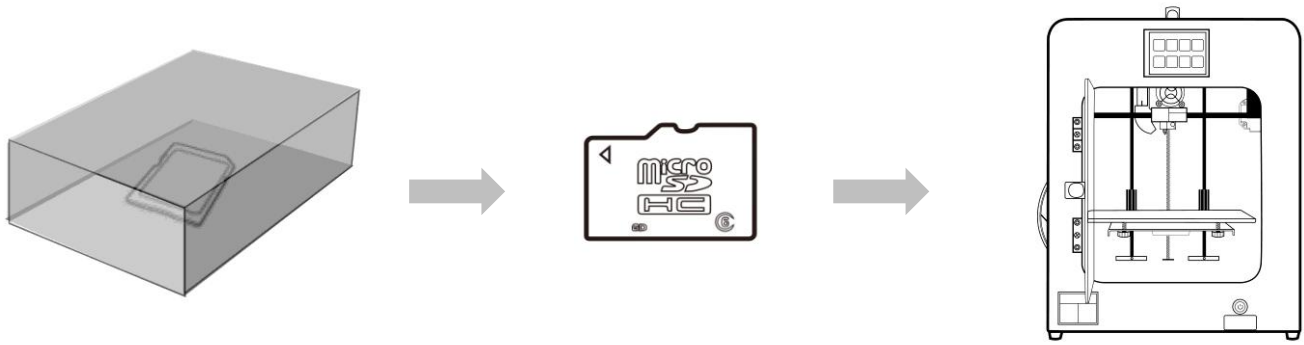
C. Model print test

1. Making a Test Object from the SD Card

The package includes an SD card pre-loaded with files for making test objects.

The SD Card is located in the accessory box. Insert the SD card into the SD card slot. Go to the LCD screen panel and select Print and choose“ whistle.g ” to start printing.

Tips: STL is a widely used file format for 3D models. (Others: obj , amf , dae)
Thingiverse is a website where 3D printer users can share design files and download it for free.



For printing it is very important that the first layer is nicely squished into the build plate and sticks well to it.

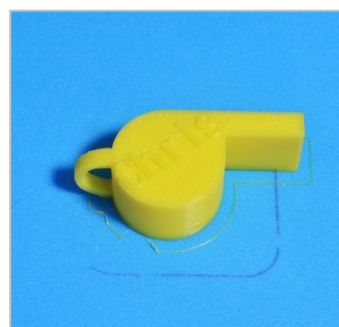
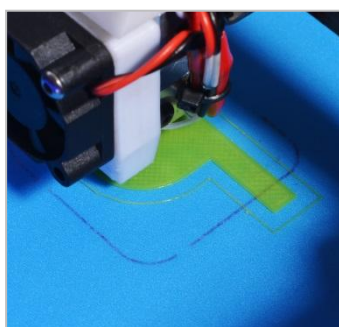
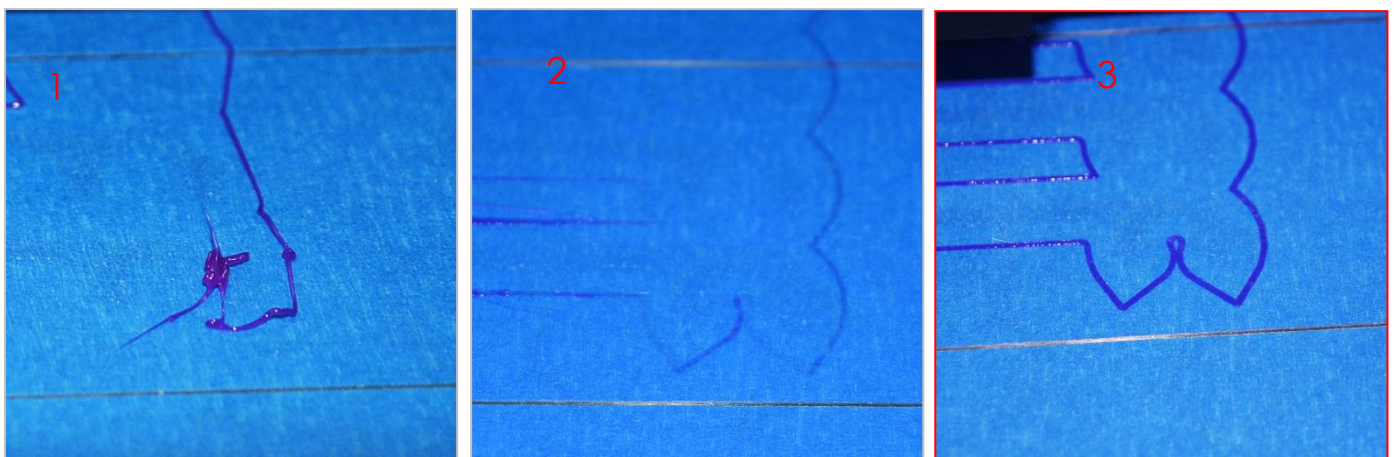
1. If the distance between the nozzle and build plate is too big, your print won't stick properly to the glass plate.

Please loose the knobs [turn them to the left] moves the build plate closer to the extruder nozzle

2. If the nozzle is too close to the build plate it can prevent the filament from extruding from the nozzle. This can also scratch the build plate.

Please tighten the knobs [turn them to the right] moves the build plate away from the extruder nozzle.

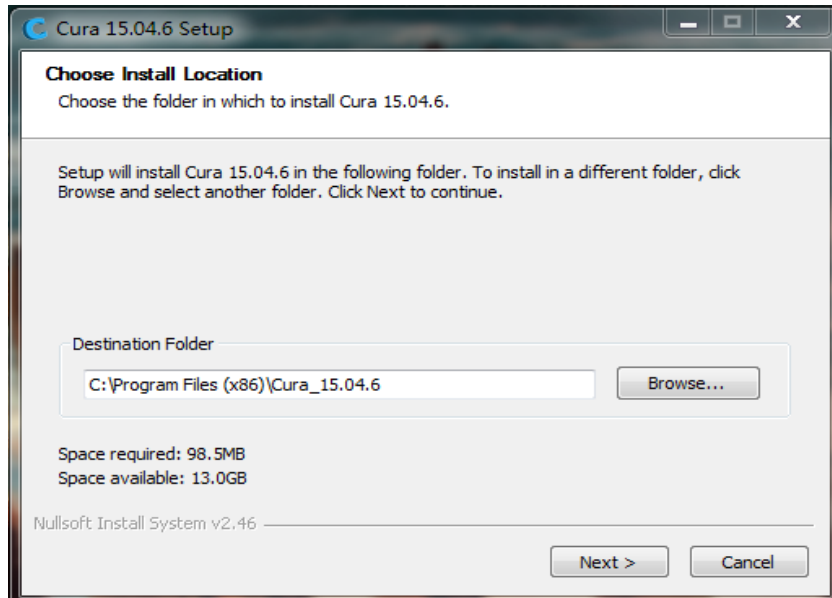
3. Perfect first layer.



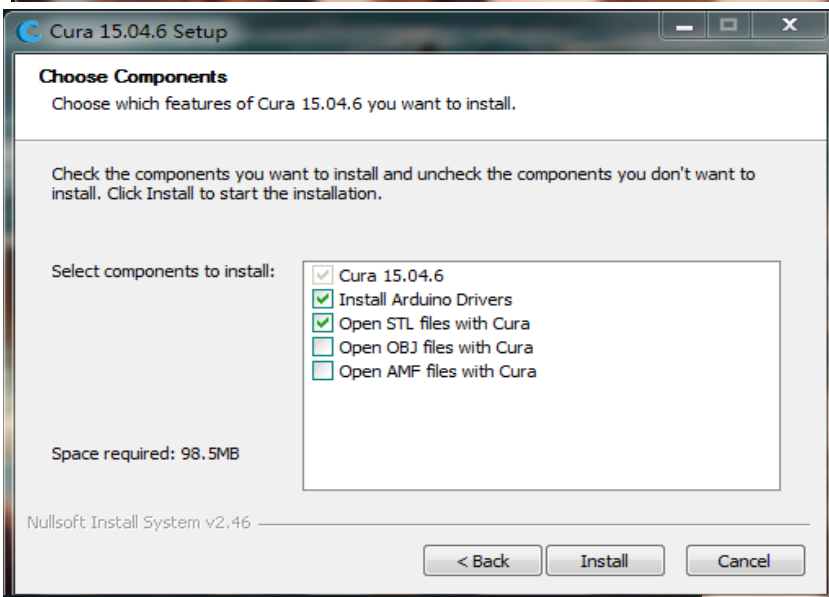
● Using Slicer Software Cura

1. Installing Software

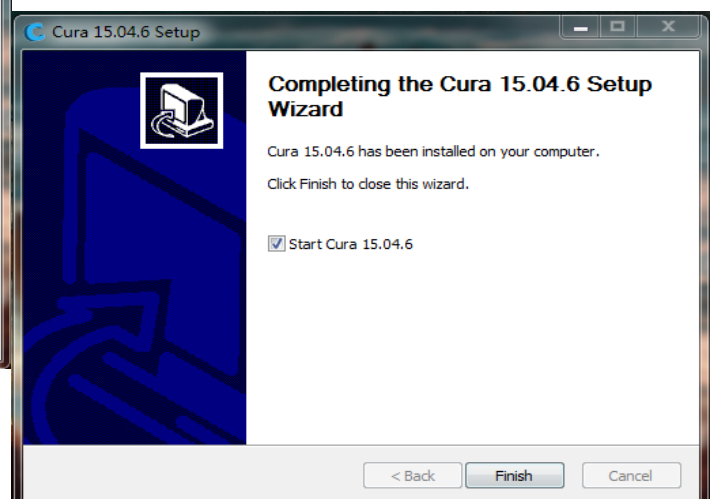
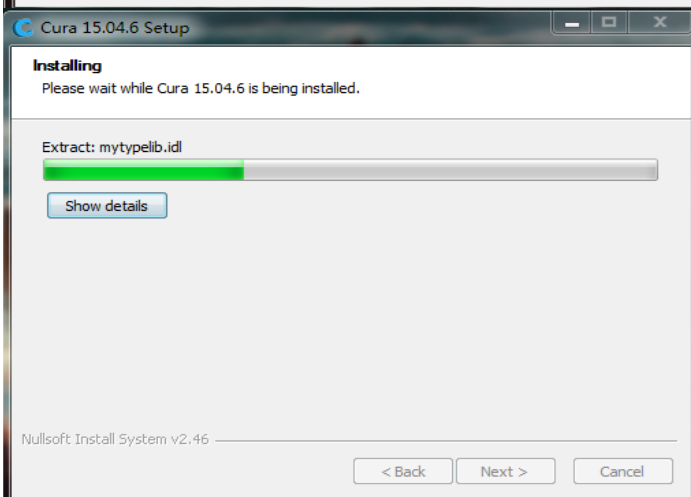
Insert the SD card reader with SD card on your computer, copy the Cura installer to your computer.



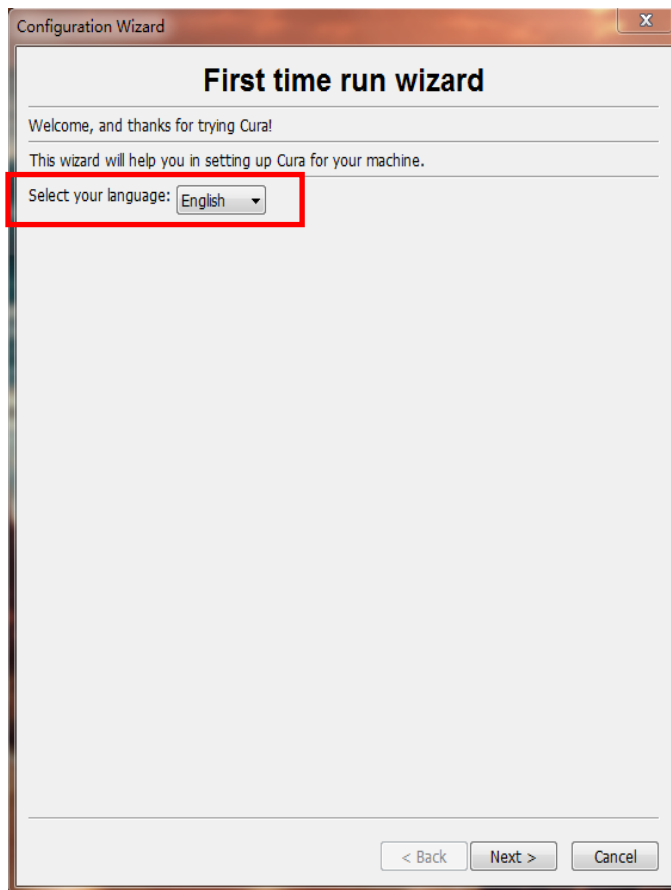
- Open the installer and run the installation wizard to complete the installation.



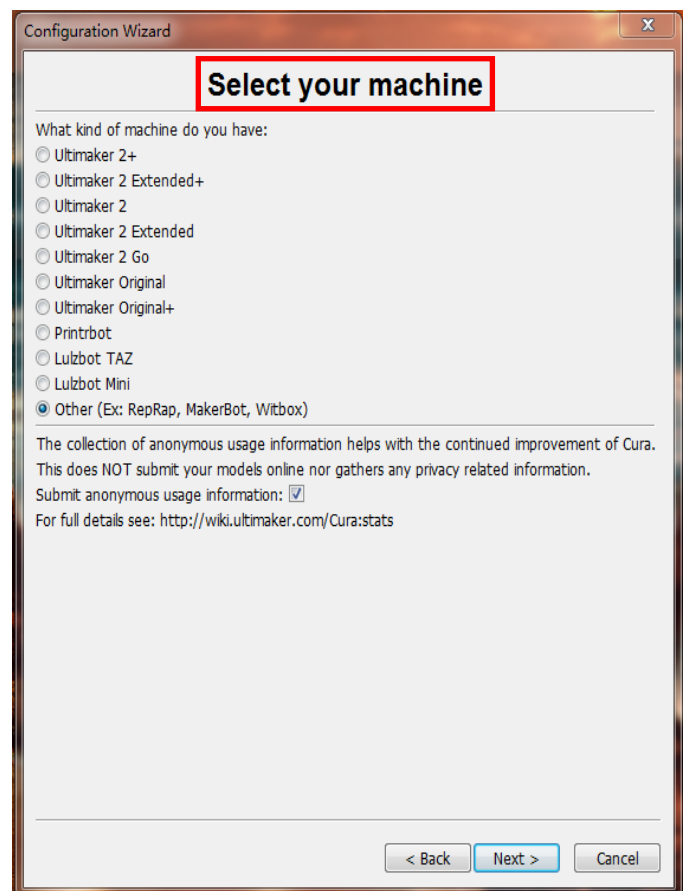
- Select Next and tick all the options.



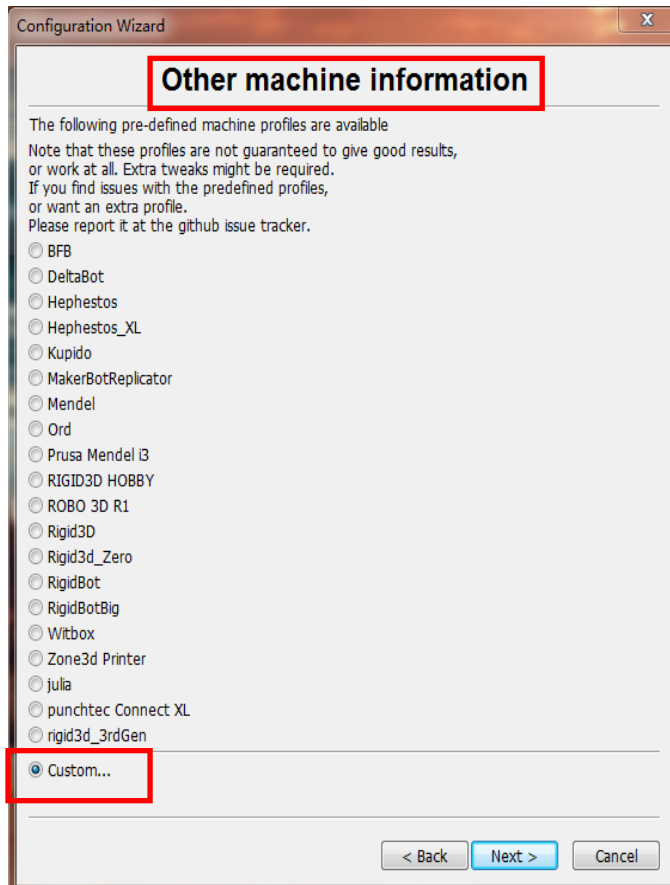
- Install > Next > Finish



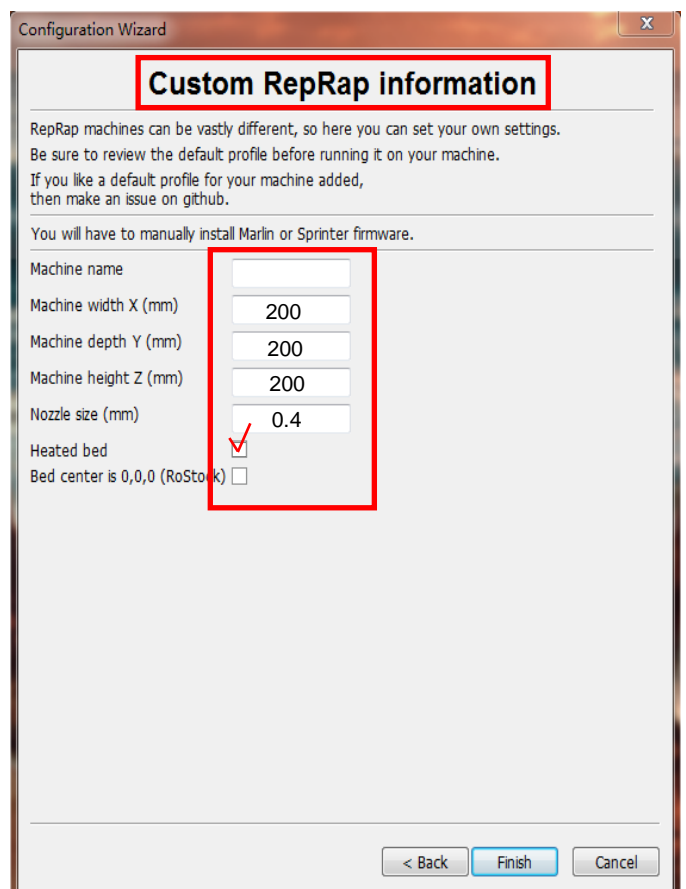
- Select your language > English > Next



- Select your machine > Other > Next



- Other machine information > Custom > Next



- Finish the blank with the specs of your 3D printer in Custom RepRap information > Finish

2. Software Settings

Cura - 15.04.6

File Tools Machine Expert Help

Basic Advanced Plugins Start/End-GCode

Quality

Layer height (mm) 0.2

Shell thickness (mm) 0.8

Enable retraction ☒

Fill

Bottom/Top thickness (mm) 0.8

Fill Density (%) 20

Speed and Temperature

Print speed (mm/s) 40

Printing temperature (C) 200

Bed temperature (C) 0

Support

Support type None

Platform adhesion type None

Filament

Diameter (mm) 1.75

Flow (%) 100.0

Machine

Nozzle size (mm) 0.4

Cura - 15.04.6

File Tools Machine Expert Help

Load model file... CTRL+L

Save model... CTRL+S

Reload platform F5

Clear platform CTRL+D

Print... CTRL+P

Save GCode... CTRL+G

Show slice engine log...

Open Profile...

Save Profile...

Load Profile from GCode...

Preferences... CTRL+,

Machine settings...

Recent Model Files

Recent Profile Files

Quit

Cura - 15.04.6

File Tools Machine Expert Help

Basic Advanced Plugins Start/End-GCode

Retraction

Speed (mm/s) 30.0

Distance (mm) 2.0

Quality

Initial layer thickness (mm) 0.3

Initial layer line width (%) 100

Cut off object bottom (mm) 0.0

Dual extrusion overlap (mm) 0.15

Speed

Travel speed (mm/s) 120

Bottom layer speed (mm/s) 20

Infill speed (mm/s) 0.0

Top/bottom speed (mm/s) 0.0

Outer shell speed (mm/s) 0.0

Inner shell speed (mm/s) 0.0

Cool

Minimal layer time (sec) 5

Enable cooling fan ☒

Machine settings

Machine settings

E-Steps per 1mm filament 0

Maximum width (mm) 140

Maximum depth (mm) 140

Maximum height (mm) 140

Extruder count 1

Heated bed ☒

Machine center 0,0

Build area shape Square

GCode Flavor RepRap (Marlin/Sprinter)

Printer head size

Head size towards X min (mm) 0

Head size towards Y min (mm) 0

Head size towards X max (mm) 0

Head size towards Y max (mm) 0

Printer gantry height (mm) 0

Communication settings

Serial port AUTO

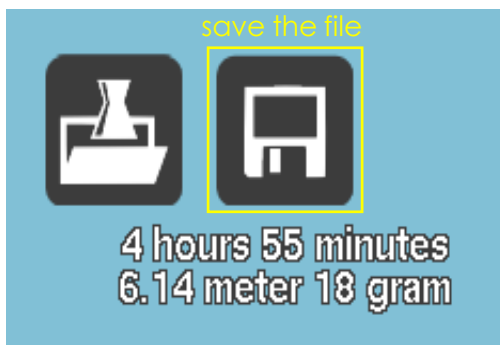
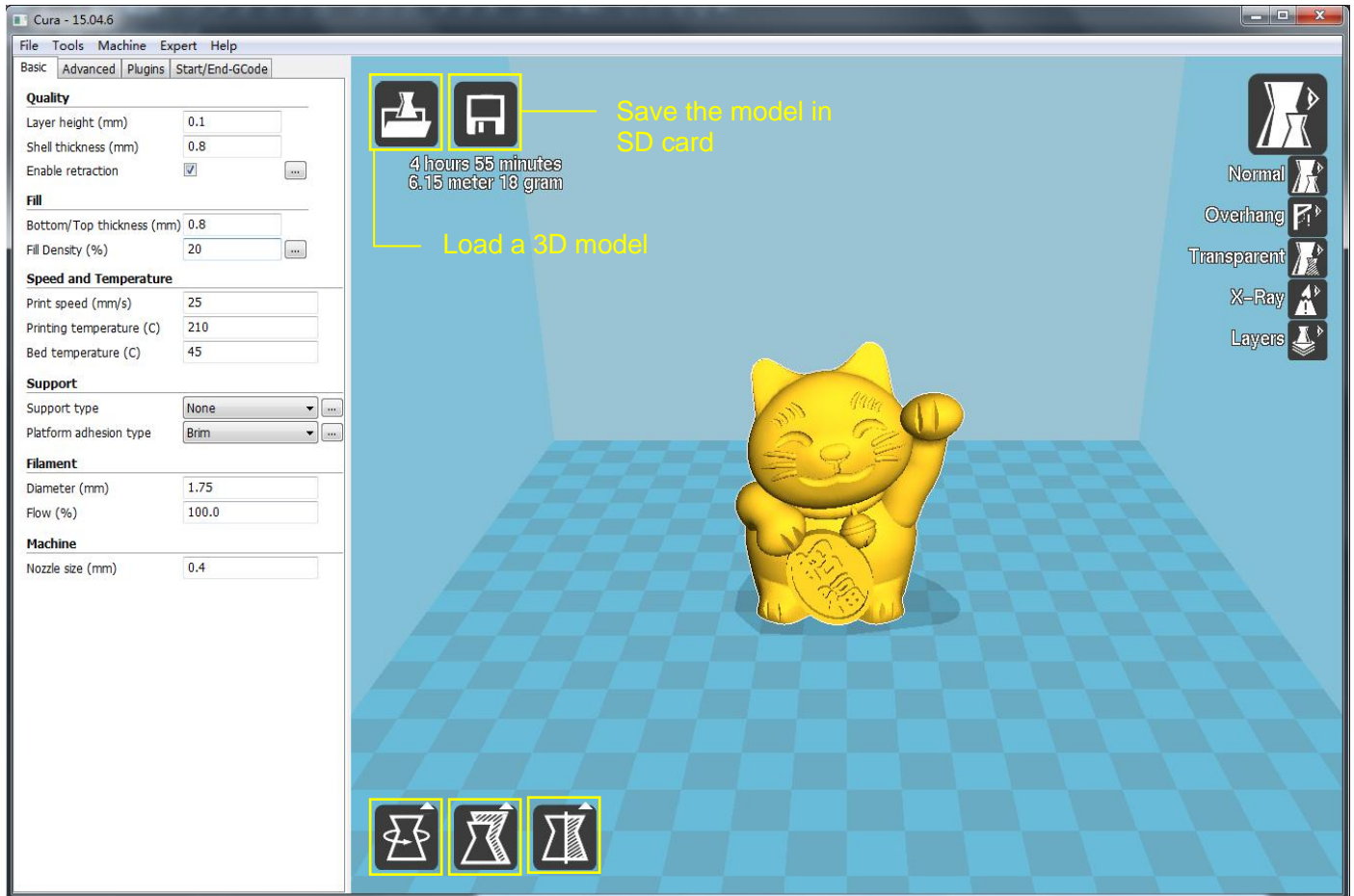
Baudrate AUTO

Ok Add new machine Remove machine Change machine name

3. Tutorial of parameter setting

1. The layer height of general settings for the 0.1,0.2,0.3mm.if 0.3 mm, the model has obvious sense of hierarchy, but it can reduce the time of printing;0.2mm,it is usually be used; the fine print is set to 0.1mm, the printing surface is smooth, the print time will be longer
2. The shell thickness is set to a multiple of 0.4mm, such as 0.8,1.2,1.6., and so on.
3. Enable retraction, it can avoid printing residue silk filament, the detail is in advanced settings.
4. For the general model. The bottom / top thickness is set to 1mm. If you print a thinner object, the upper surface has an unfilled surface. This value can be increased appropriately.
5. The fill density is generally set to 5%--20%, and smaller objects or single wall models can be set to 100% fill, and larger seal models can also be set to 0 fill.
6. Print speed is set to 30mm/s--80mm/s range
7. The print temperature is only the nozzle temperature of the extruder, the PLA print is set to 200-210 centigrade, and the ABS is set to 240 centigrade.
8. The heating bed temperature for PLA is usually set to 45-50 centigrade, and ABS need more then 80 .
9. Support is divided into: no support for the None, Touching buildplate, everywhere, full support for Everywhere. Print model has vacated part or larger slope need to open the support function, Touching buildplate refers to the generation of support between the platform and the supporting model. everywhere refers to in addition to support generation between the platform and the model can also generate support in the inner of the hang model, the specific choice depends on the display of model.
- 10.The platform adhesion type is generally selected as None, the contact surface between print model and platform is smaller, and when the printing model height is higher, the adhesion can be opened, and the attachment type is divided into two kinds, brim and raft ,and the specific difference reference software is introduced.
- 11.filament diameter defaults to 1.75mm
12. flow default 100%, if diameter less than 1.75mm and lead to print model surface filling unevenly, can increase this value appropriately, but seldom happened.

4. Software Operation



Choose your desired settings and wait for Cura to slice the model.

When Cura has converted the file you can save the print file (G Code) via the “Save” button. Save the file to the SD card.