mElephant 3D Printer
User Guide V1.0
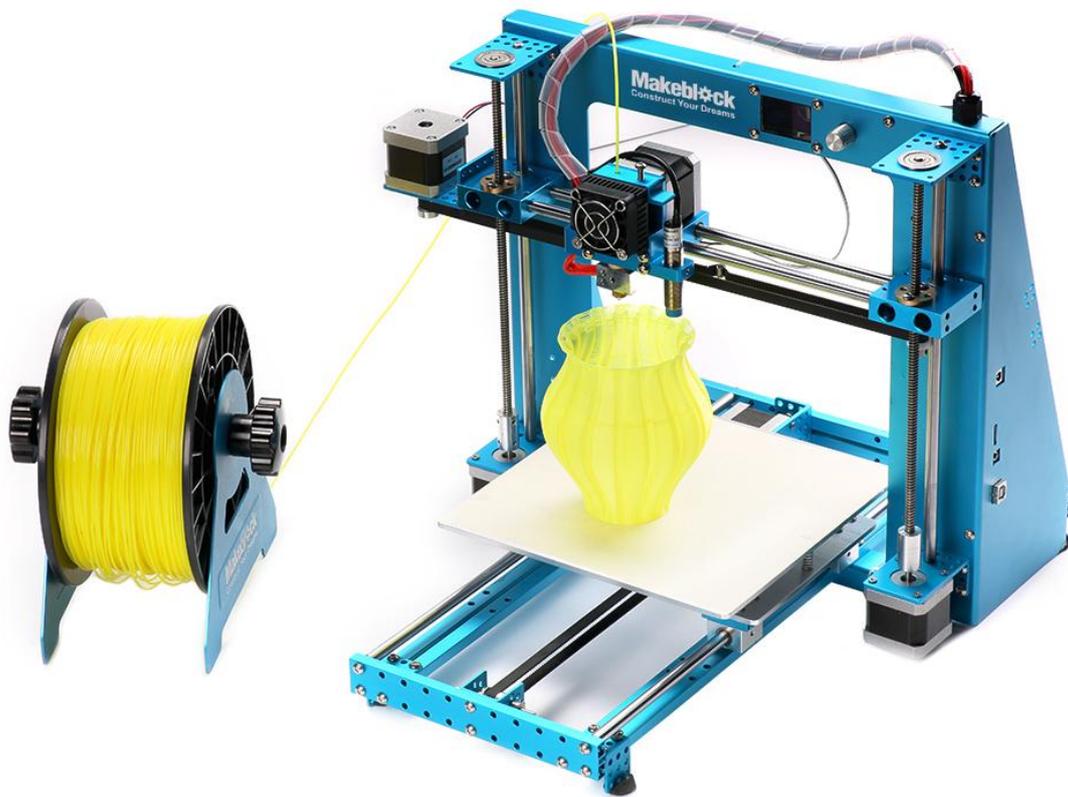
Makeblock mElephant 3D Printer

Contents

What is mElephant?

Makeblock mElephent 3D Printer is the new generation of Makeblock 3D printer, which is a 3D printer based on an open source and aluminum frame.

Makeblock studied very hard on the 1st generation Constructor I 3D Printer, and made huge improvement. With the most steady and concise Prusa i3 structure, delicate brand new designed OLED screen, automatically print bed leveling module, and more powerful integrating control panel, mElephant is the most powerful 3D printer in Makeblock ever!
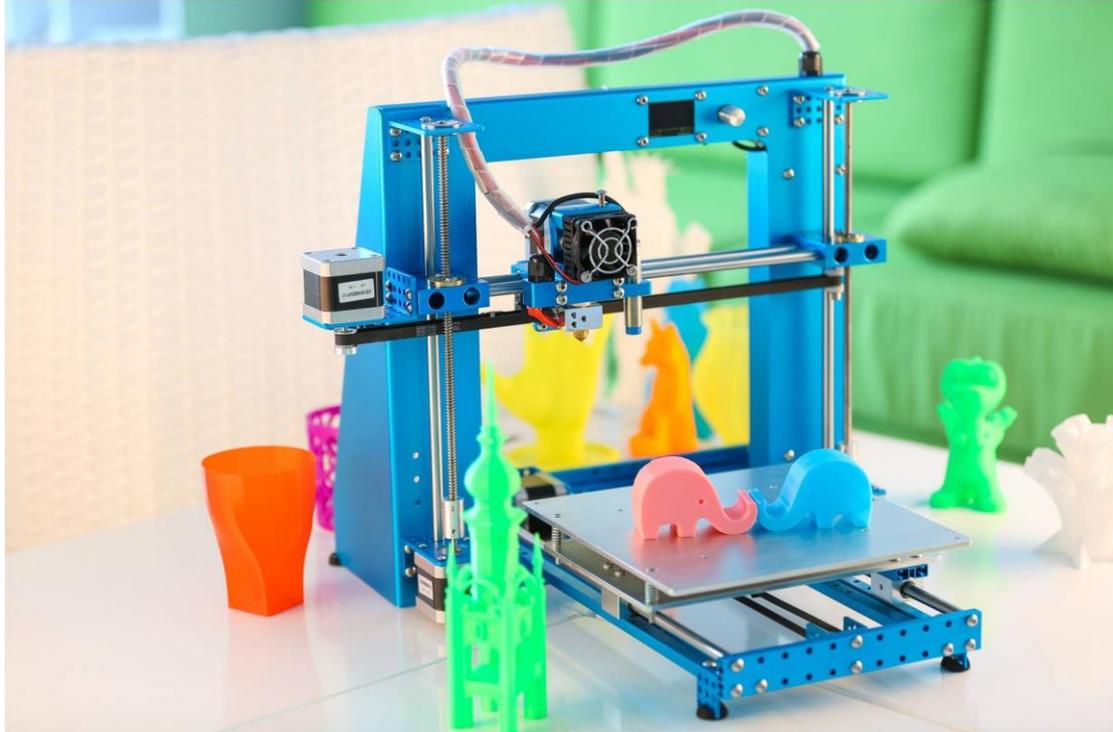
mElephant matching with Electronics (RAMPS1.4 shield, Mega2560 compatible board) and software (Crua,Printrun), you can get high-quality prints and extreme precision, XY Resolution: 0.1mm, Layer Resolution: 0.1-0.3mm. You can enjoy so much fun from your own 3D printer and even use it for prototyping, printing art craft, models, sculptures or toys.

mElephant also can be extensioned to a 4-in-1 machine (3D printing, Laser Engraving, Drawing, CNC) with additional parts.

No matter if you are students, office clerks, designers, engineers, educators or inventors, you can always bring your ideas to life by printing out objects such as prototypes, various models, homehold articles, phone cases, toys, and mechanical parts to build your robots.

Package Content

1		1 × mElephant 3D Printer	
2		1 × Power 24V5A	
3		1 × Filament Support	
4	Tool Box	1 × Micro SD Card	
		1 × Cross & 2.5mm HEX Screwdriver	
		1 × Slotted Screwdriver	
		1 × Wrench	
		1 × Tweezers	
		2 × Hex Allen Key	
		1 × Shovel	
		1 × USB Cable	
		1 × Masking Tape	
		1 × Spirit Level	

Specifications

Frame	Anodized aluminum and Sheet metal
Extruder	All metal, temperatures up to 230 degree Celcius
Physical Dimensions	416mm × 344mm × 330mm
Print Materials	1.75mm PLA
Build Volume (WxDxH)	180mm × 200mm × 160mm
Weight	6.7KG
XY Resolution	0.1mm
Layer Resolution	0.1-0.3mm
Print Bed	Not heated
Speed	Print speed general 50mm/s
Power	110-240 VAC Power adapter,24V/5A
Software	Cura, Printrun
Firmware	Marlin
Display	OLED
Supports file type	STL
Connections	USB&Micro SD Card
Electronics	Compatible with RAMPS1.4 Mega2560
Auto Bed Leveling	Yes

Before Use

1. Make sure all screws have been tightened.
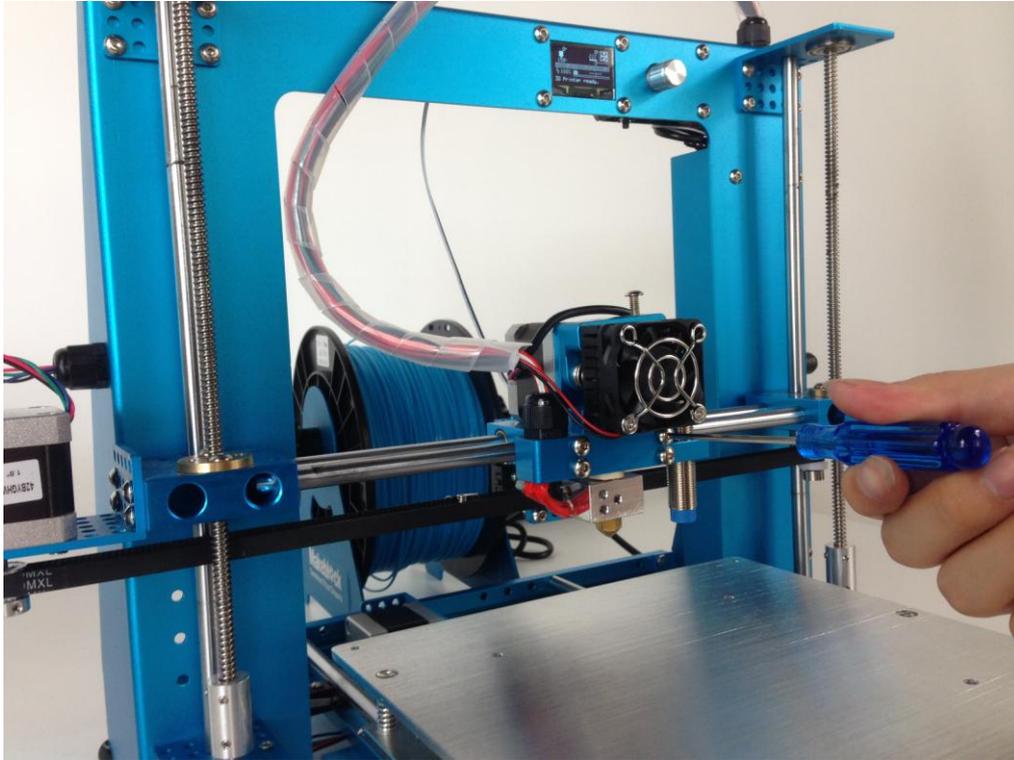
2. Make sure the timing belts of both X-axis and Y-axis are tensioned.
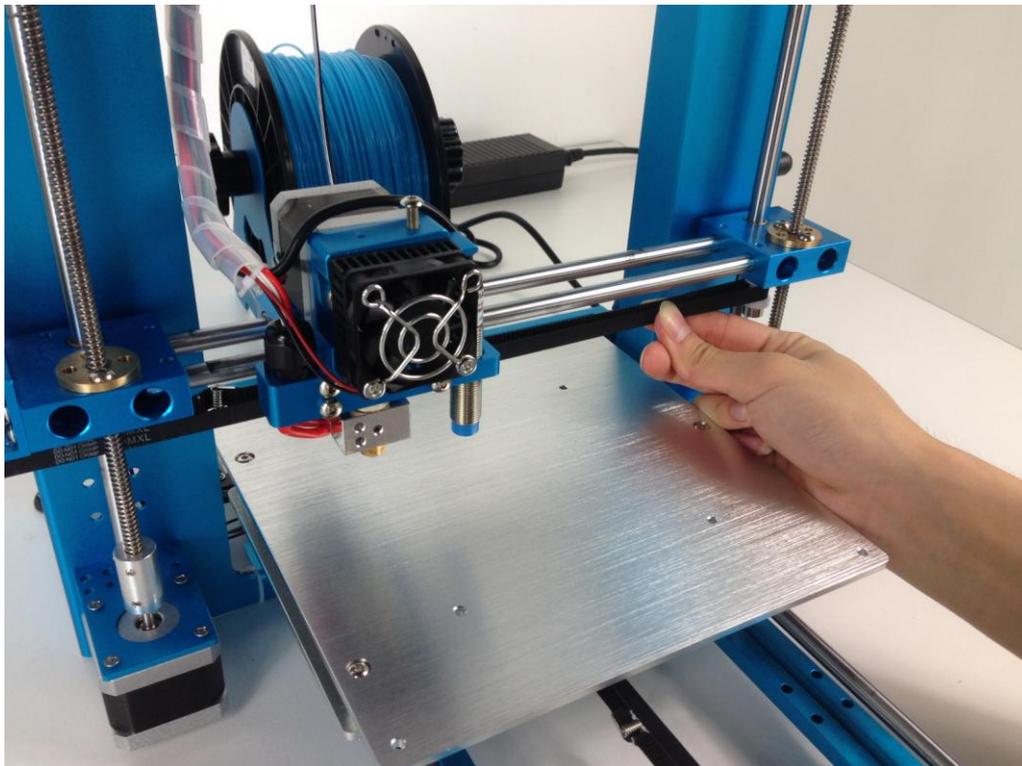
3. Stick a piece of paper tape on the platform, Place the paper tape carefully and make sure no spare part.
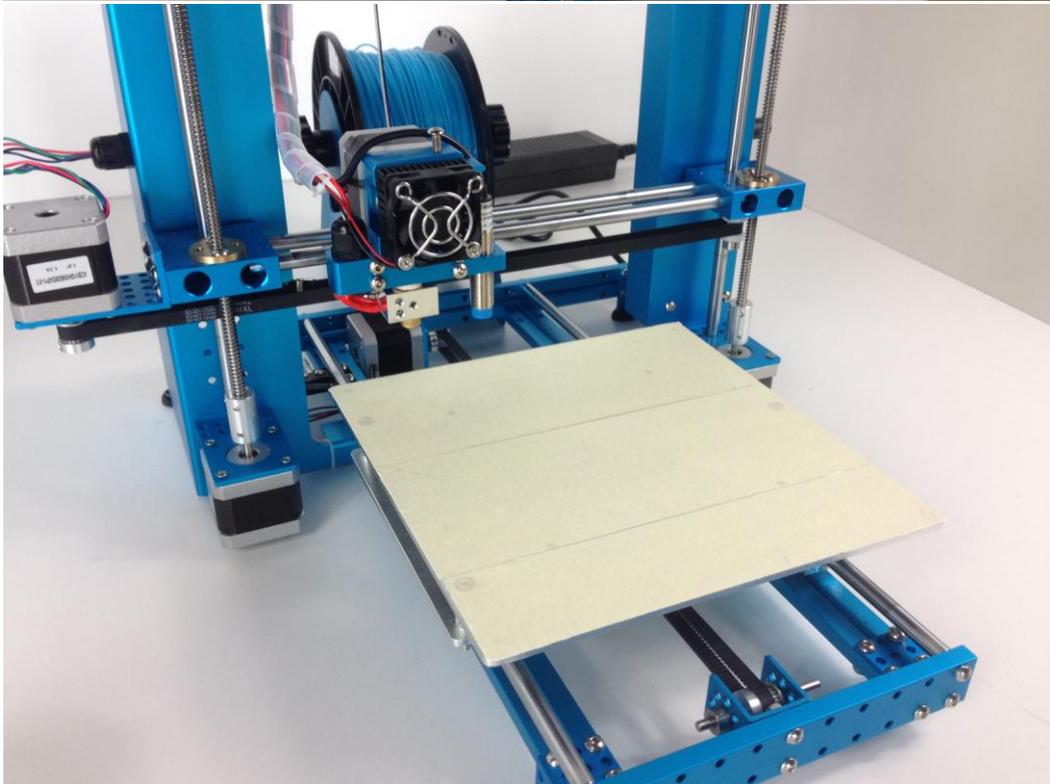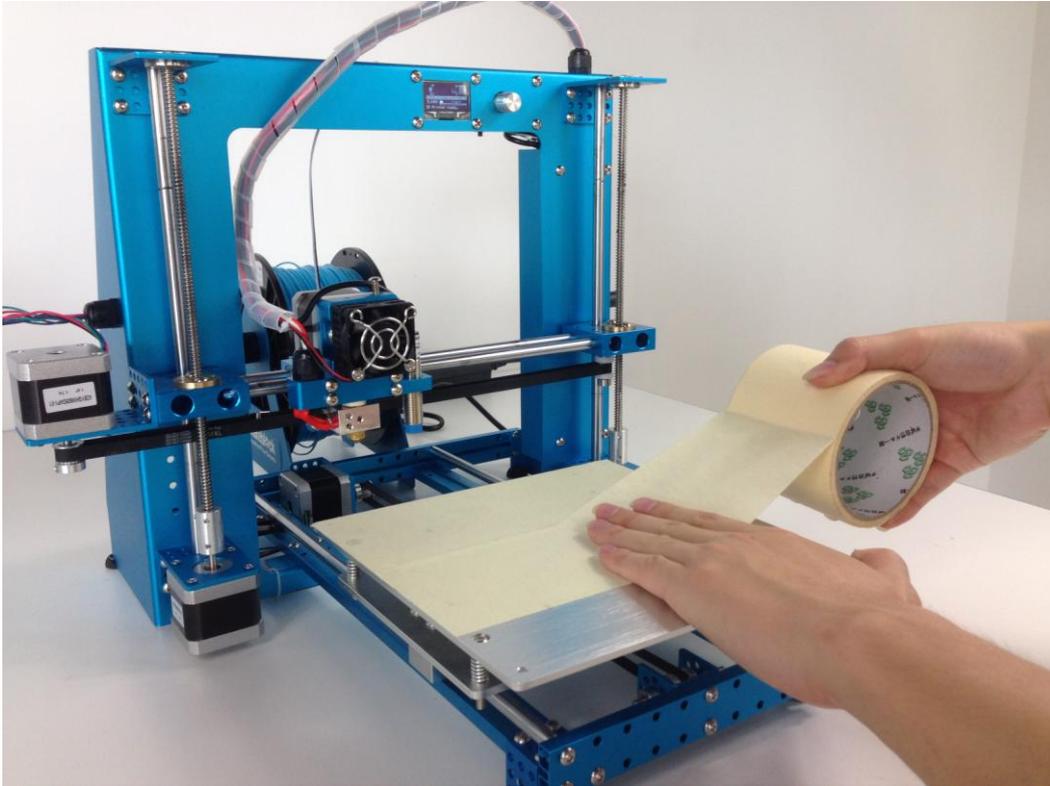
4. Plug in power, and press the knob to open the mElephant printer.
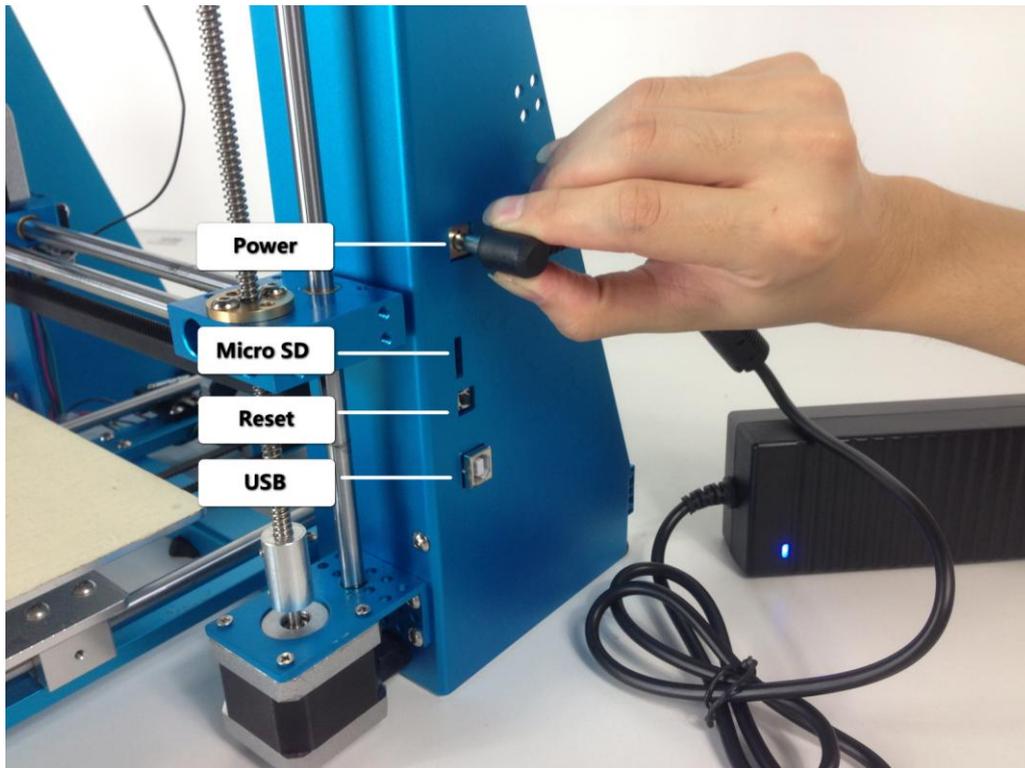
5. Rotate the knob clockwise, choose "Prepare", and then press the knob again to confirm.
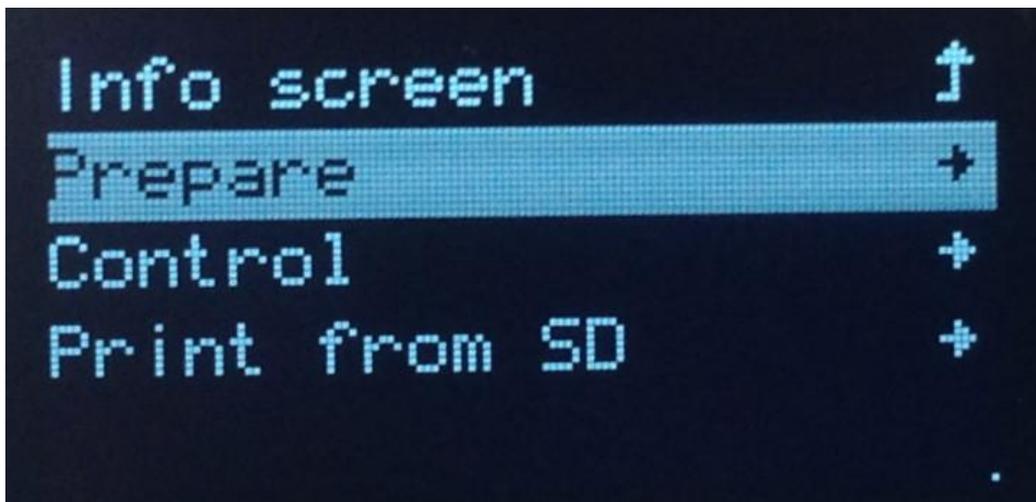
6. Rotate the knob clockwise, choose "Preheat PLA" and press the knob to confirm preheating.
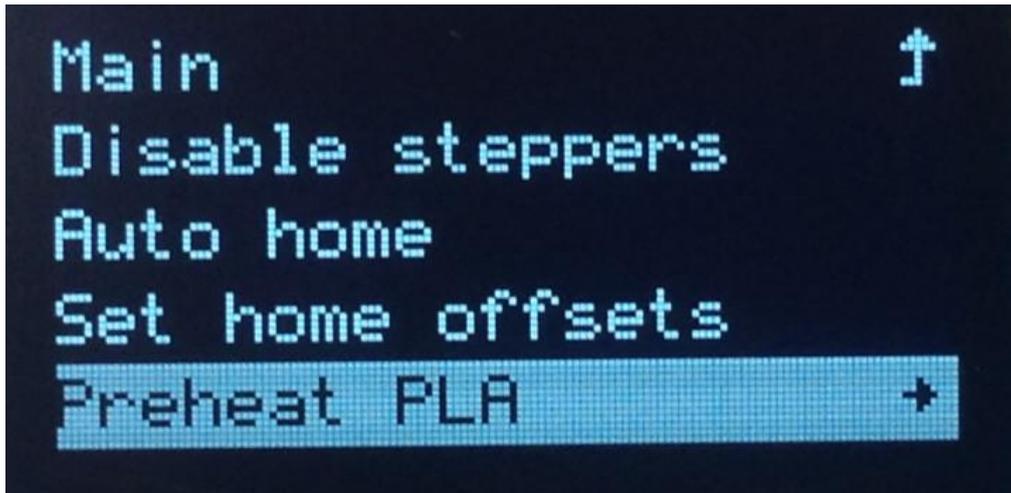
7. Rotate the knob clockwise, choose "Preheat PLA1" and press the knob

to confirm
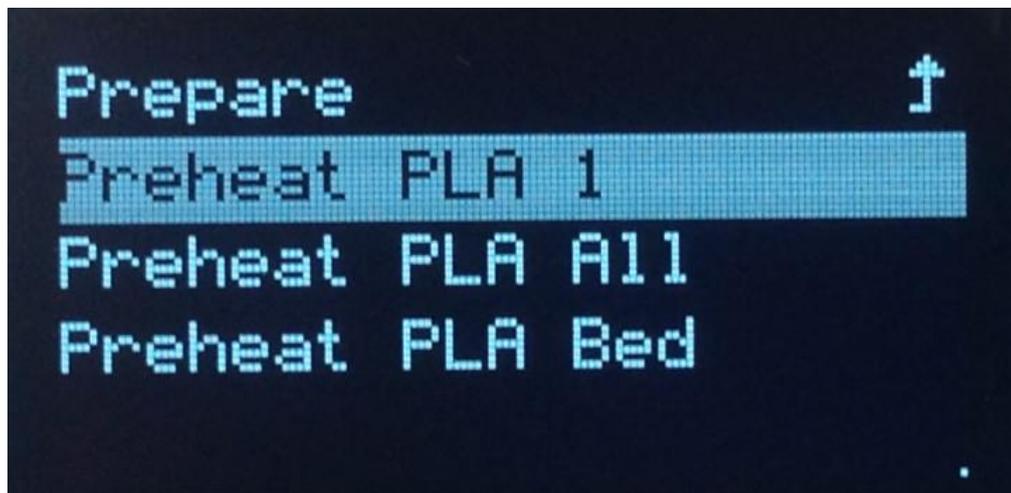
8. Go back to the main menu, and you will see the target temperature has

already changed to 180 ℃and the temperature is going up continuously.
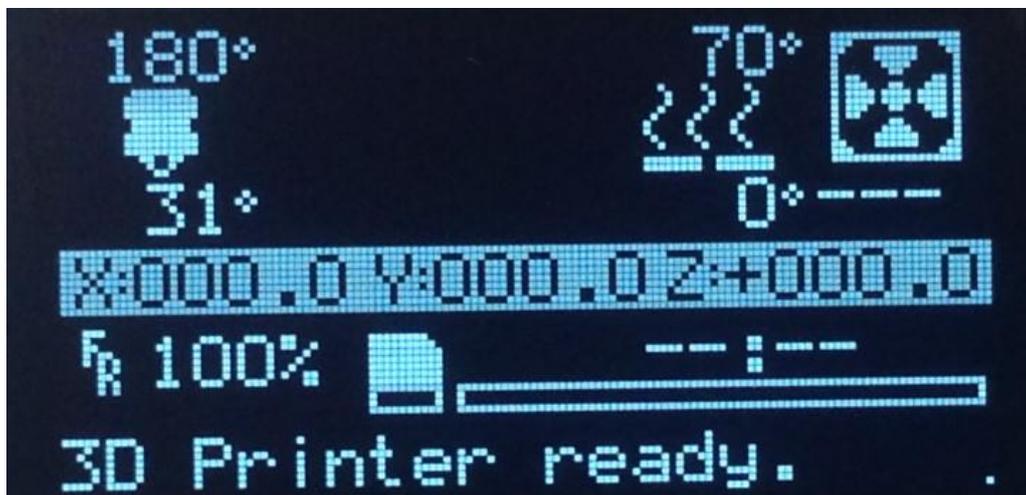
9. When the temperature has already reached 179 °, get ready to put the filament into the nozzle.
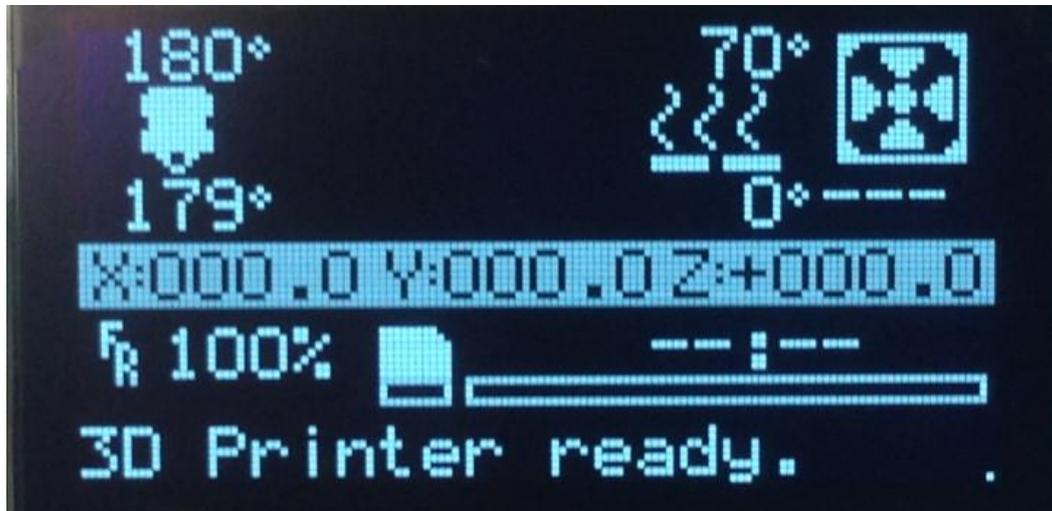
10. The filament will curve naturally , so make sure to straighten the front-end of the filament in order to insert the filament into the extrusion head smoothly.
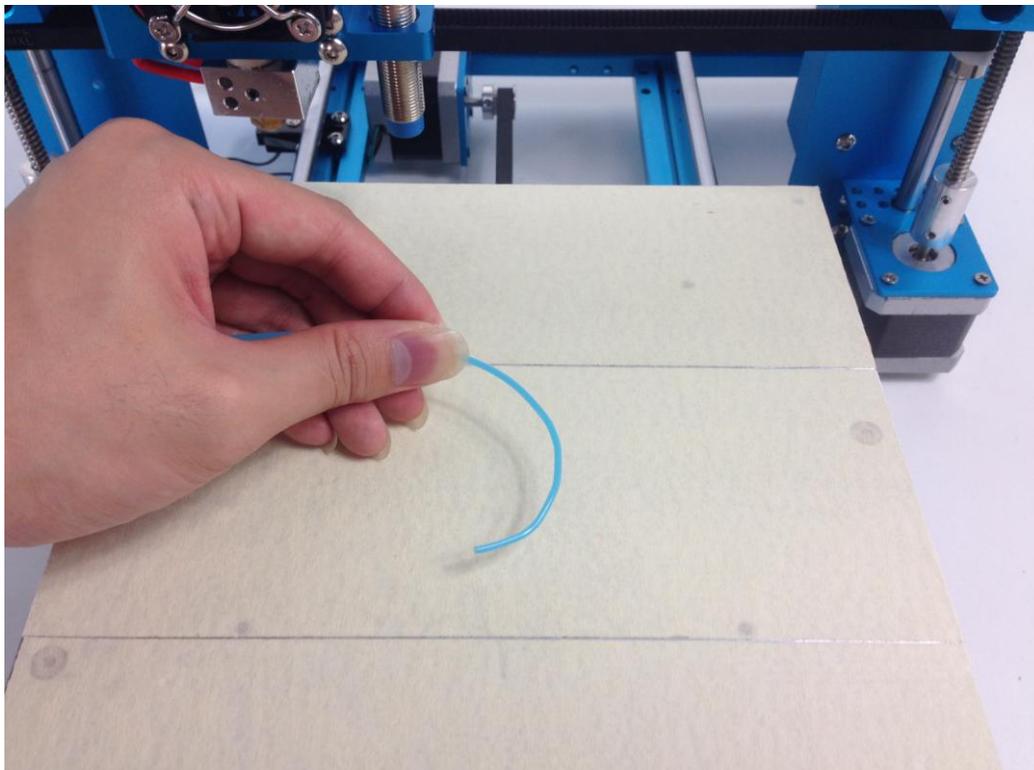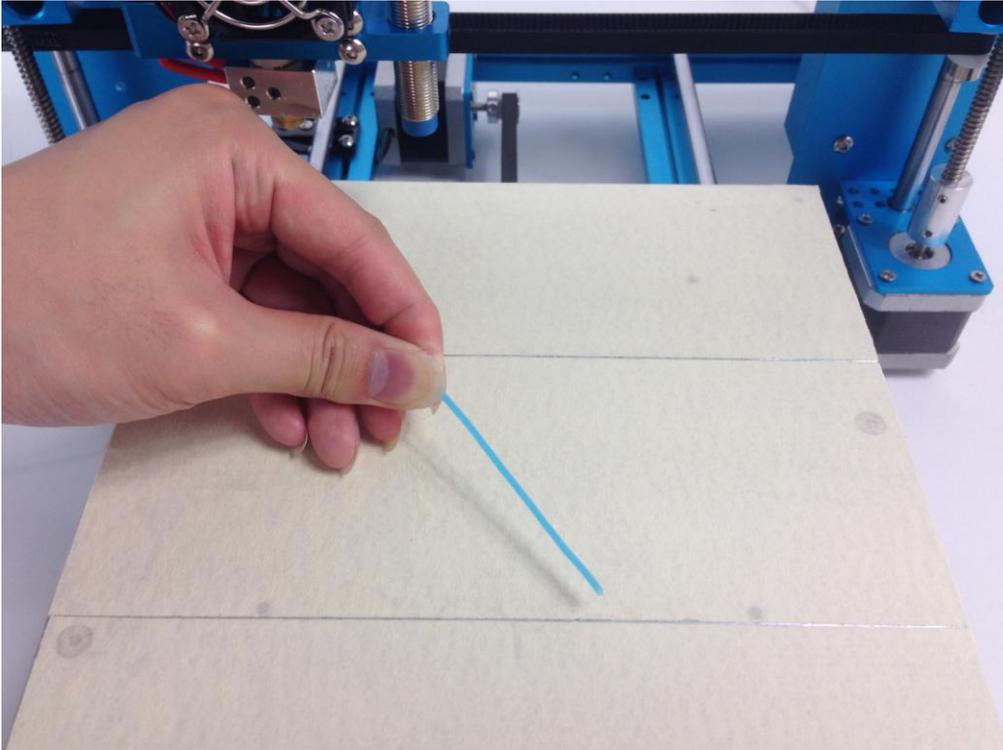
11. Press the active block to compress the spring, meanwhile use the other hand to insert the filament perpendicularly into the hole till the end.
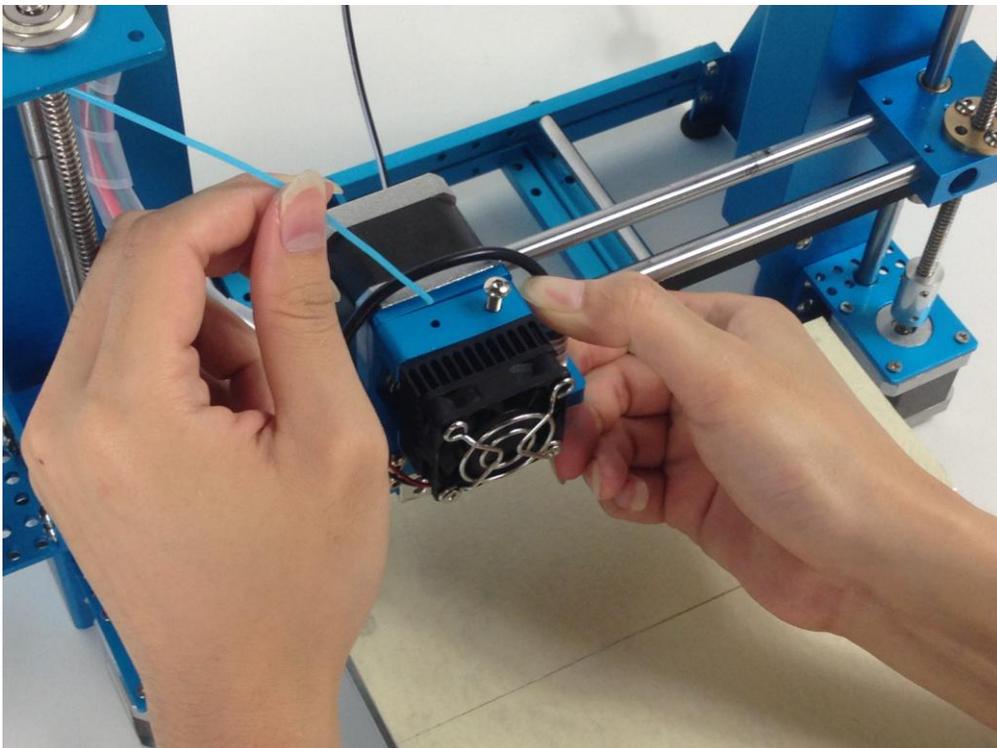
12. When you see filament coming out from the nozzle, it means the PLA filament has been completely inserted to the nozzle.
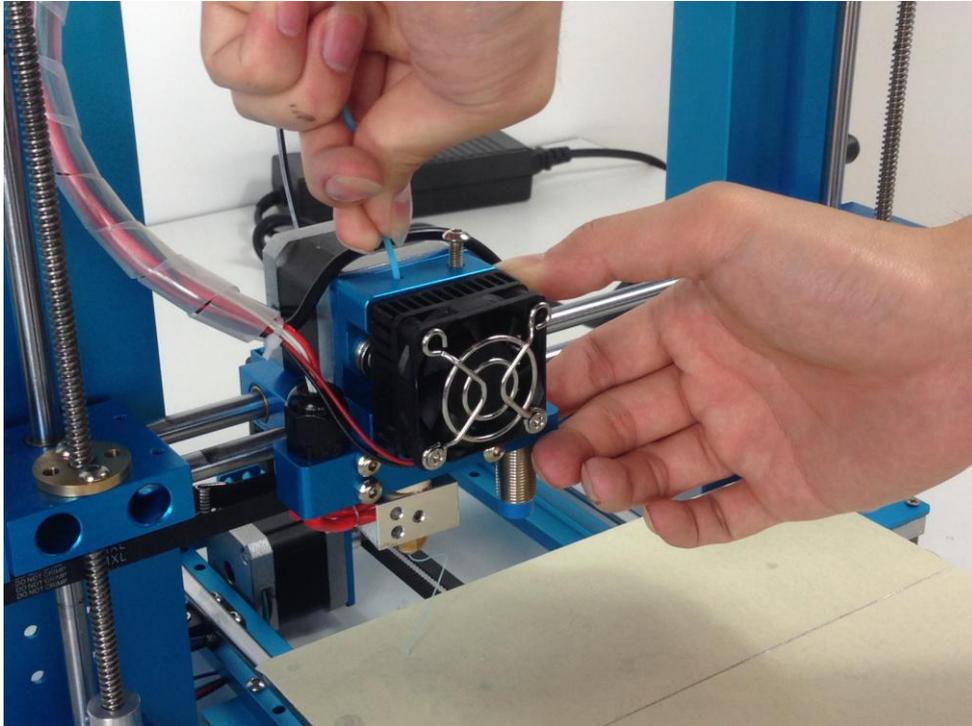
Print with Micro SD card

1. Copy the Gcode files to a Micro SD card
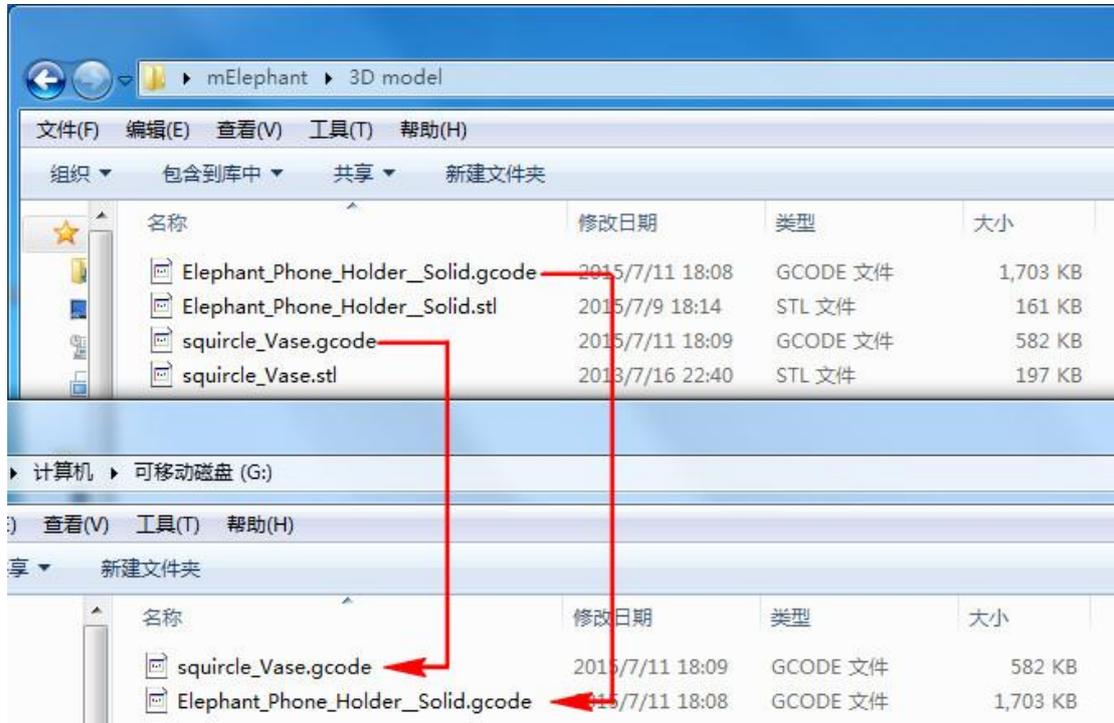
2. Insert the Micro SD card into the card slot of the 3D printer in correct direction.
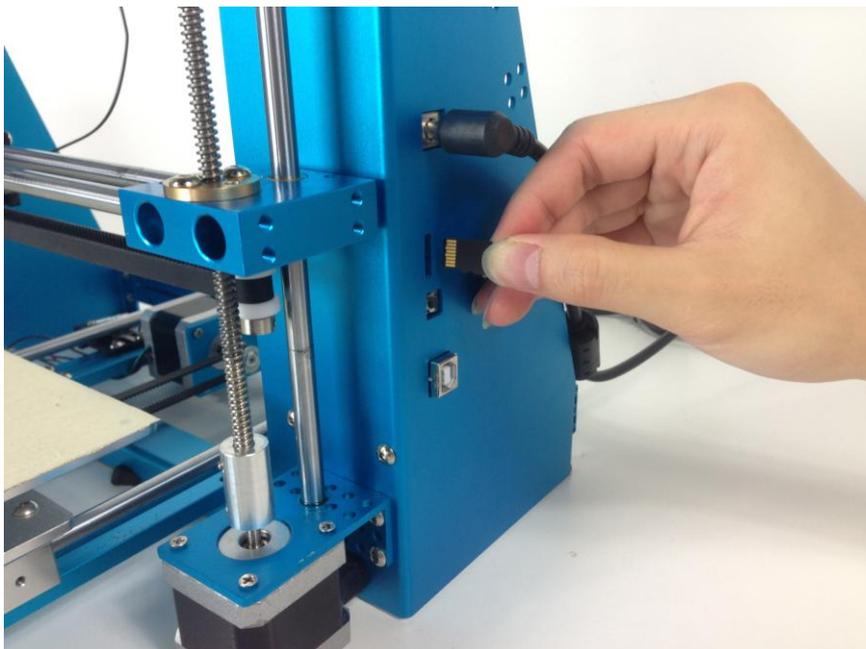
3. Gently insert the card into the card slot, and Use a finger to press the card into the slot until you hear a clicking sound.
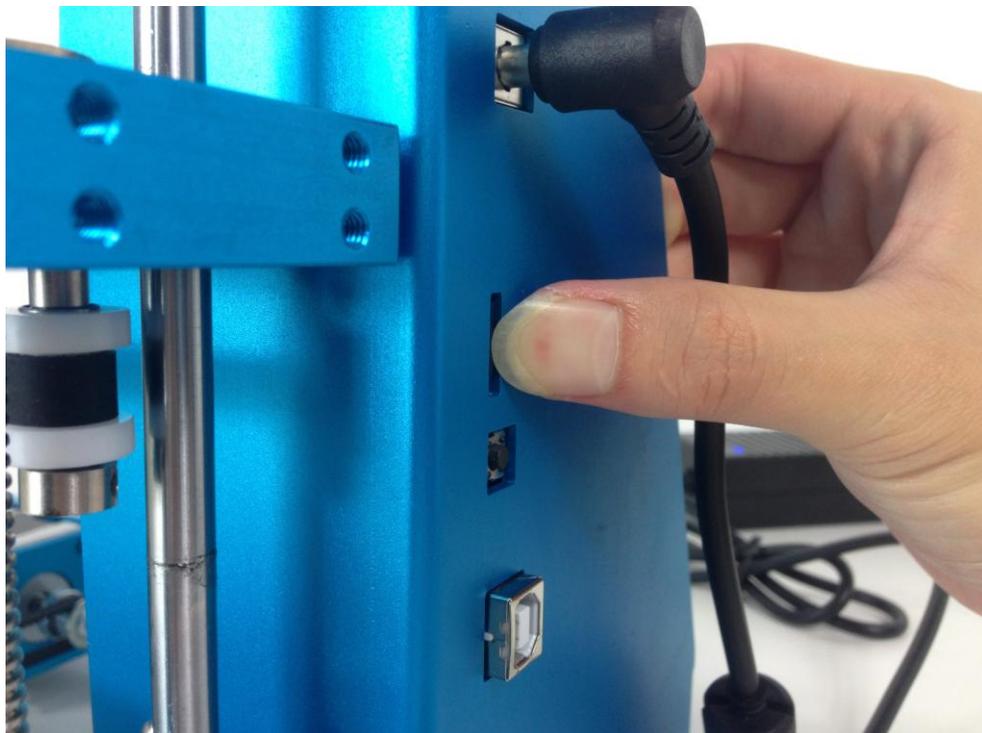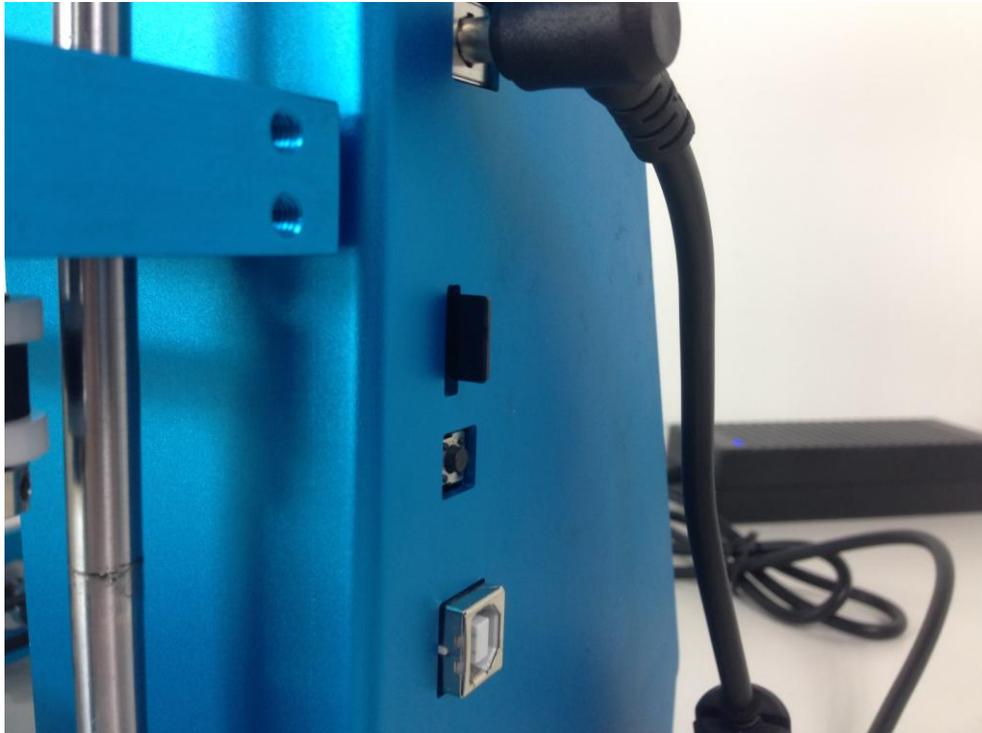
4. Operation Rotary Knob - Press the knob to turn on this 3D printer, rotate the knob clockwise, choose "Print from SD", and then press the

knob again to confirm.
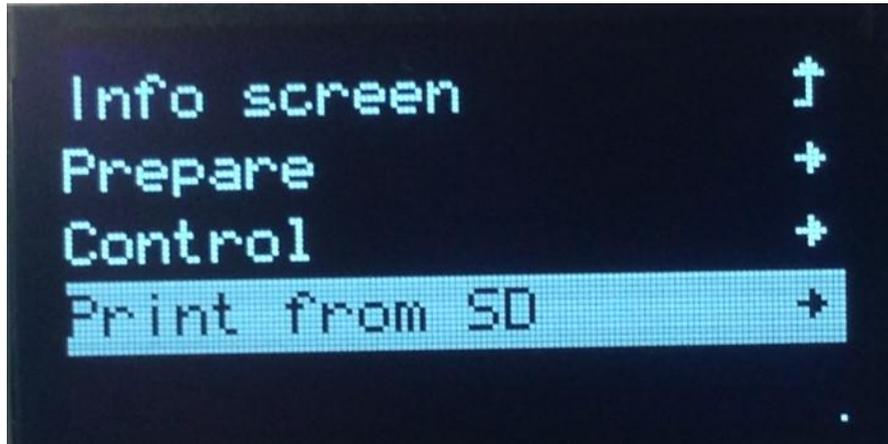
5. Rotate the knob clockwise, choose the file you want to print, and press

the knob to confirm.
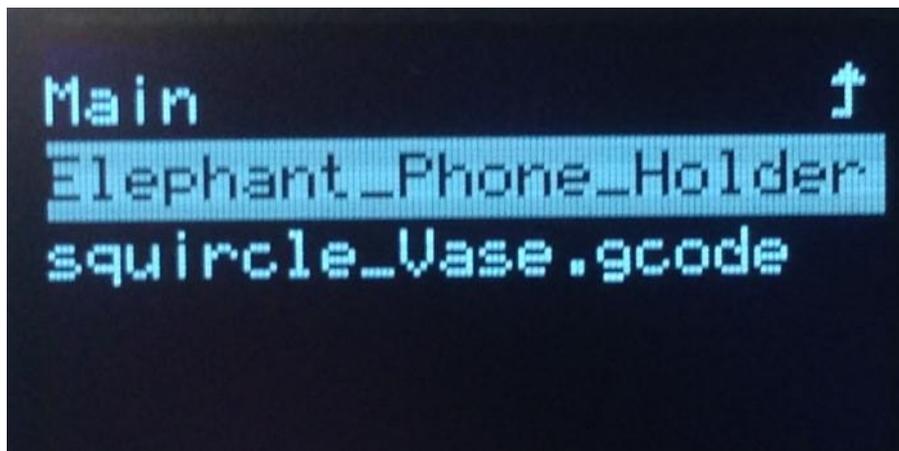
6. Go back to the main menu and wait for the temperature to reached the

target one.
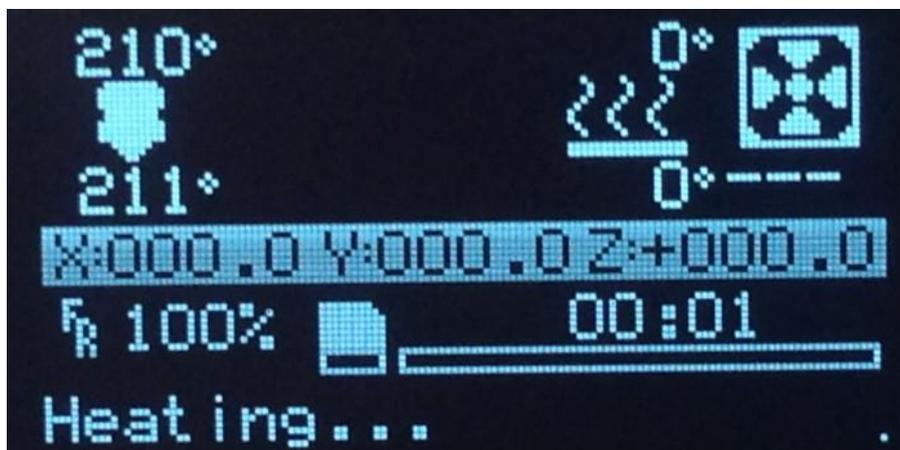
7. Clear the filament in nozzle before start printing.
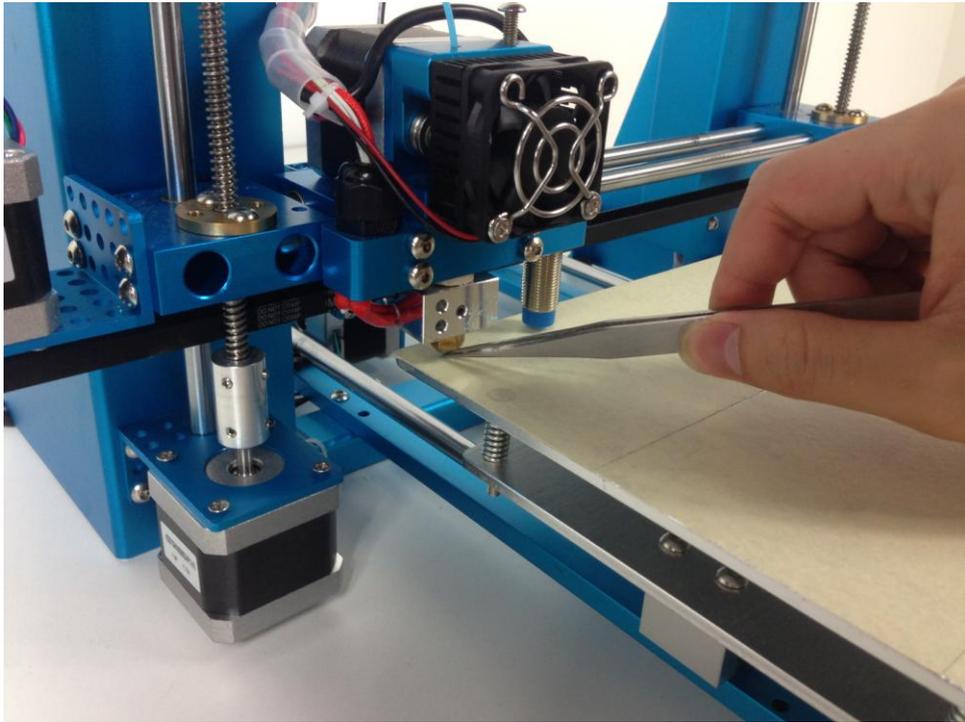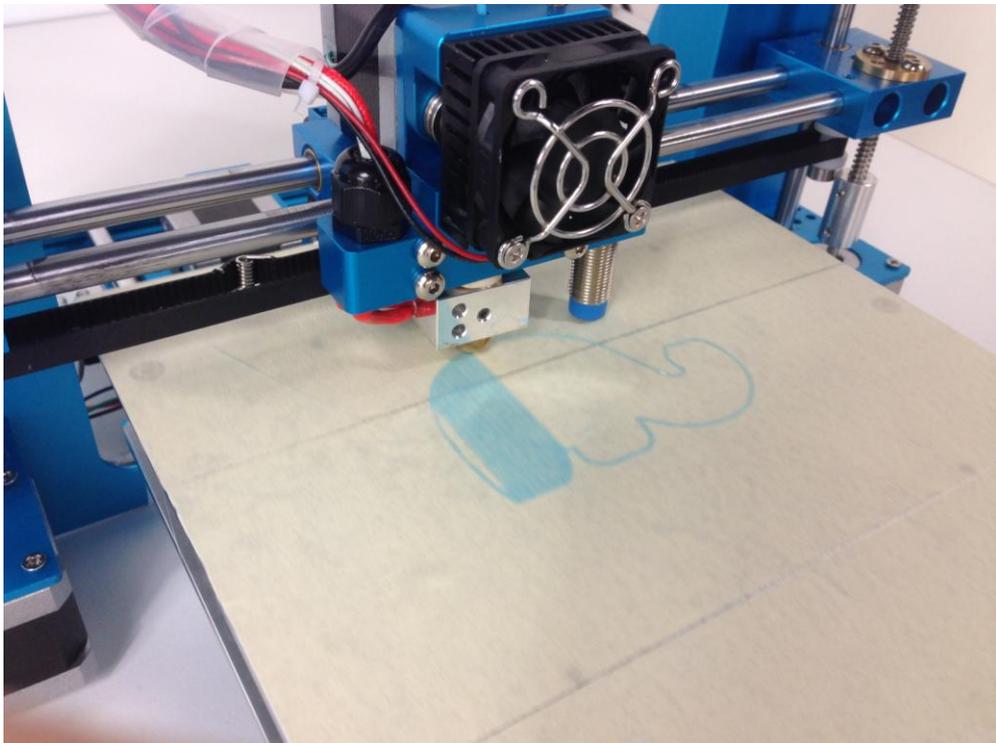
8. The first layer

9. Now waiting for the printing
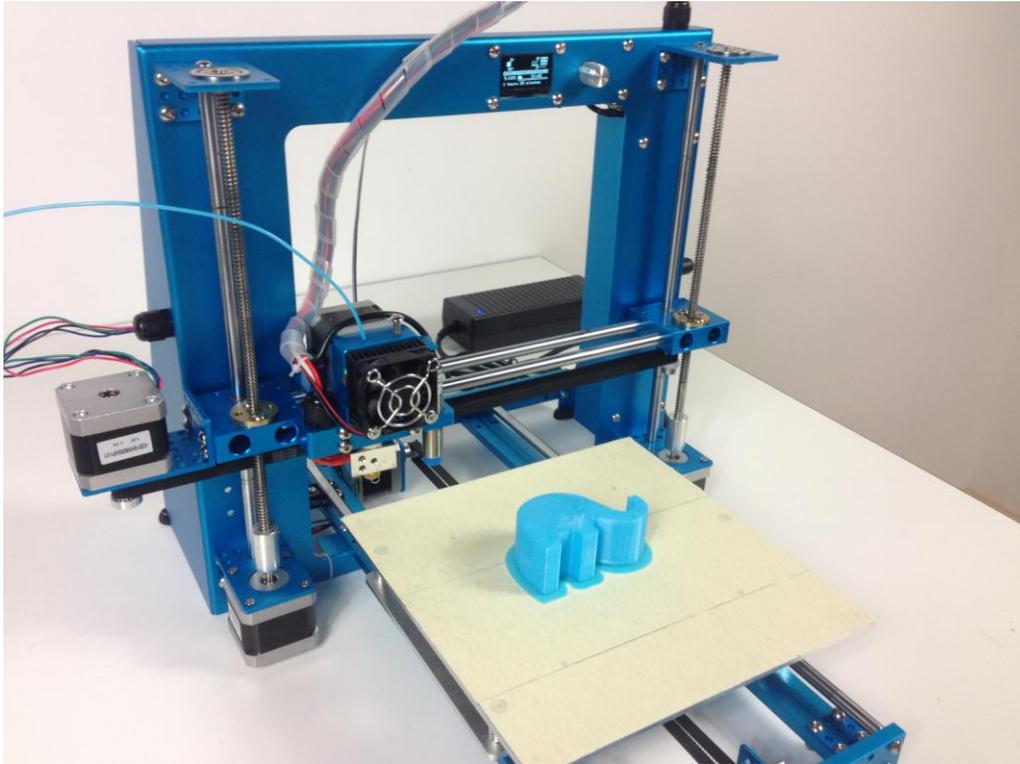
10. Gently remove the model from the platform with a shovel.
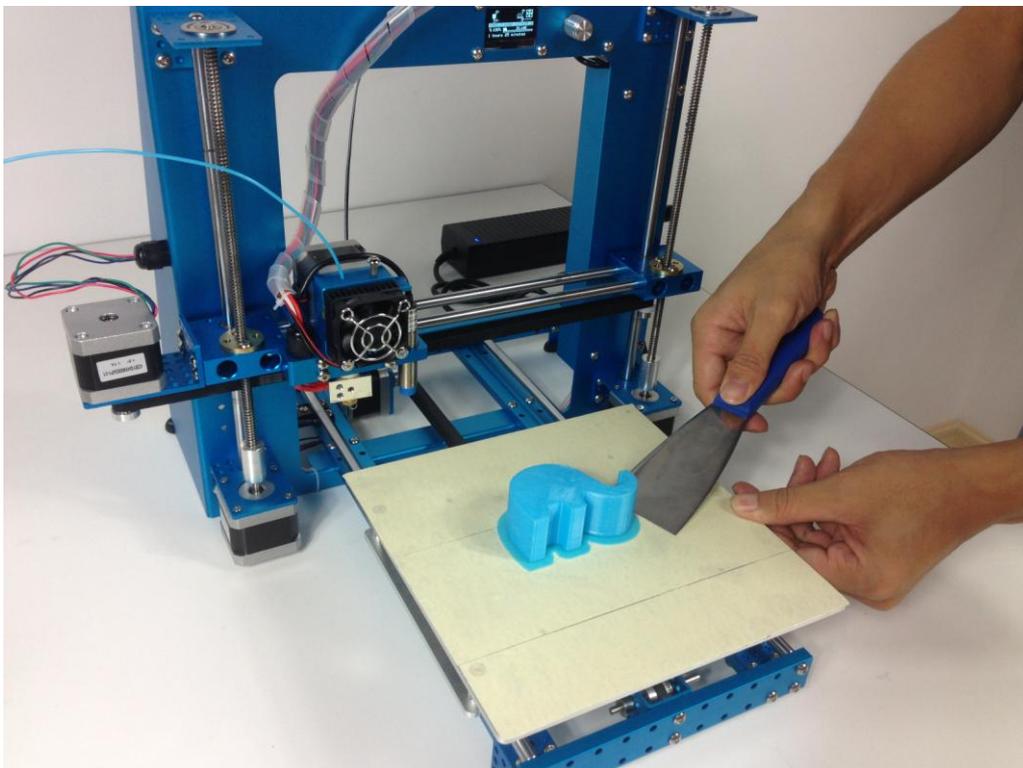
11. The printing is finished, Now enjoy your 3D printing journey.

Install Arduino Driver

1. For Windows users, double click "CH341SER.EXE"

2. Click "Install"
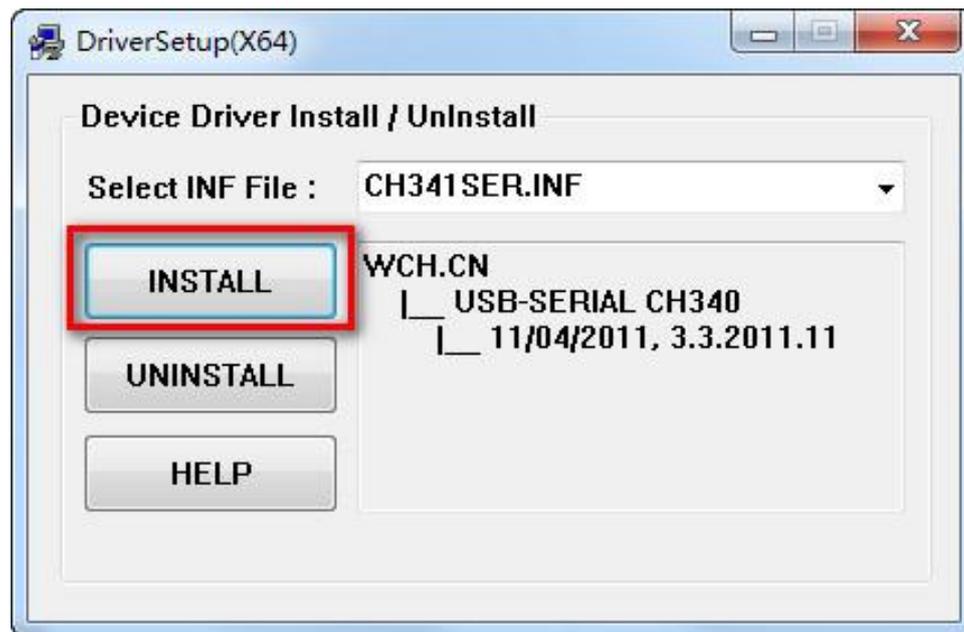
3. Click "OK"

4. Connect the 3D printer to your PC via the USB cable and go to the "Device Management", then you will find a hardware named "CH340". Remember the serial port No.e. g. COM4.
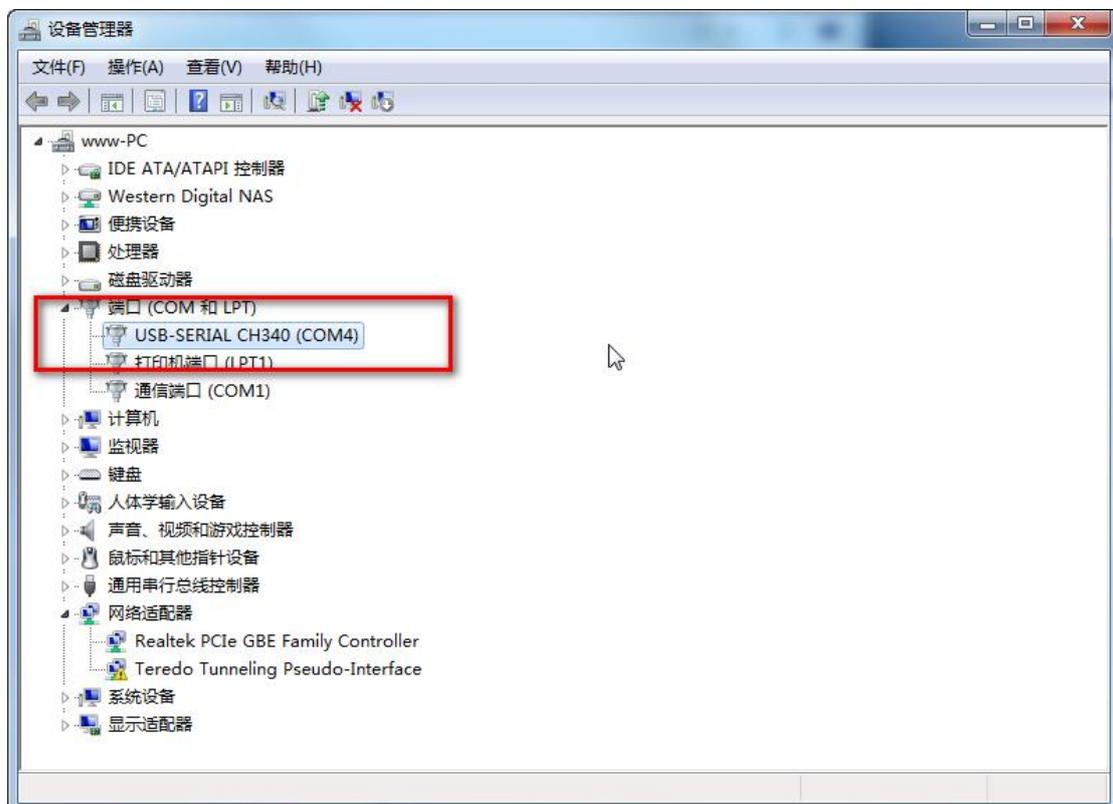
Install Cura, and print with USB

1. Double click " Cura_14.07.exe" to setup

2. Click "Next" to continue
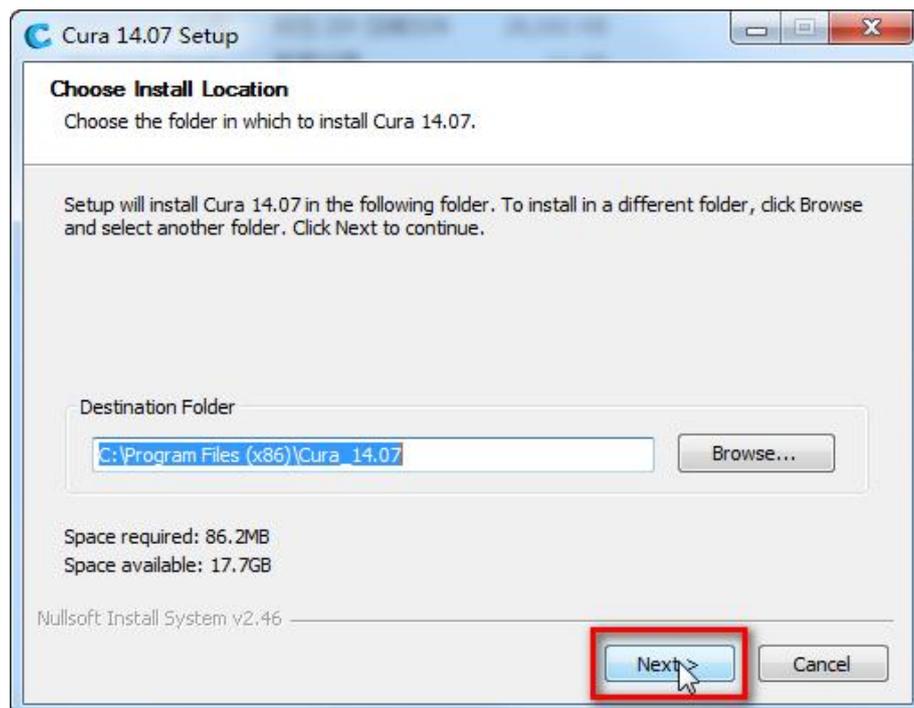
3. Click "Install"
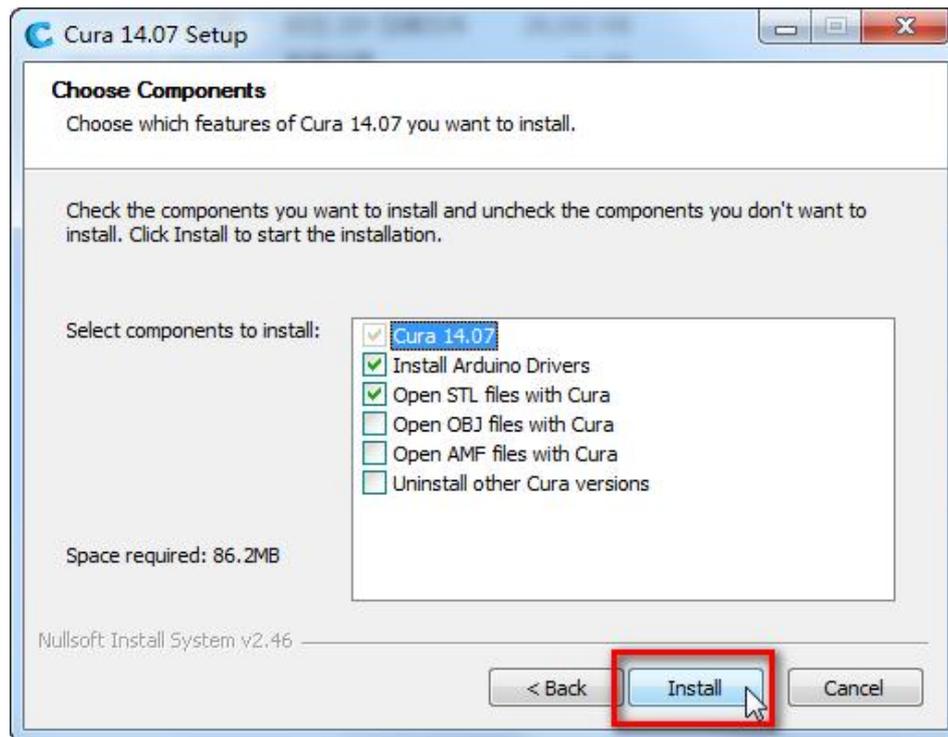
4. Click "Next"

5. Click "Finish"
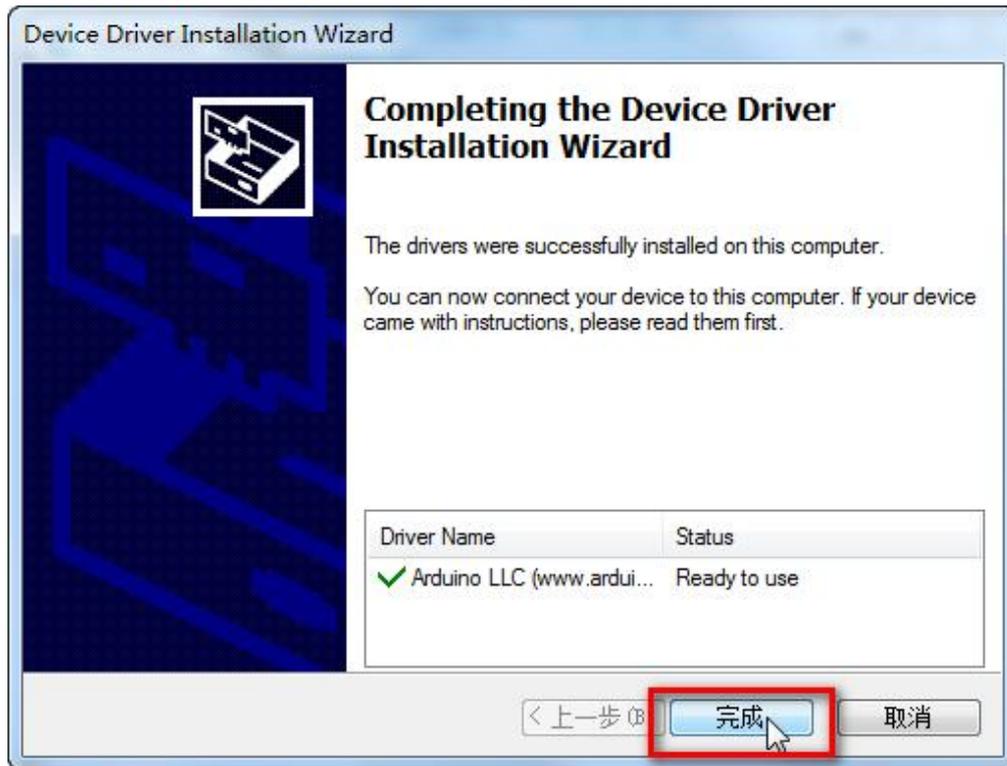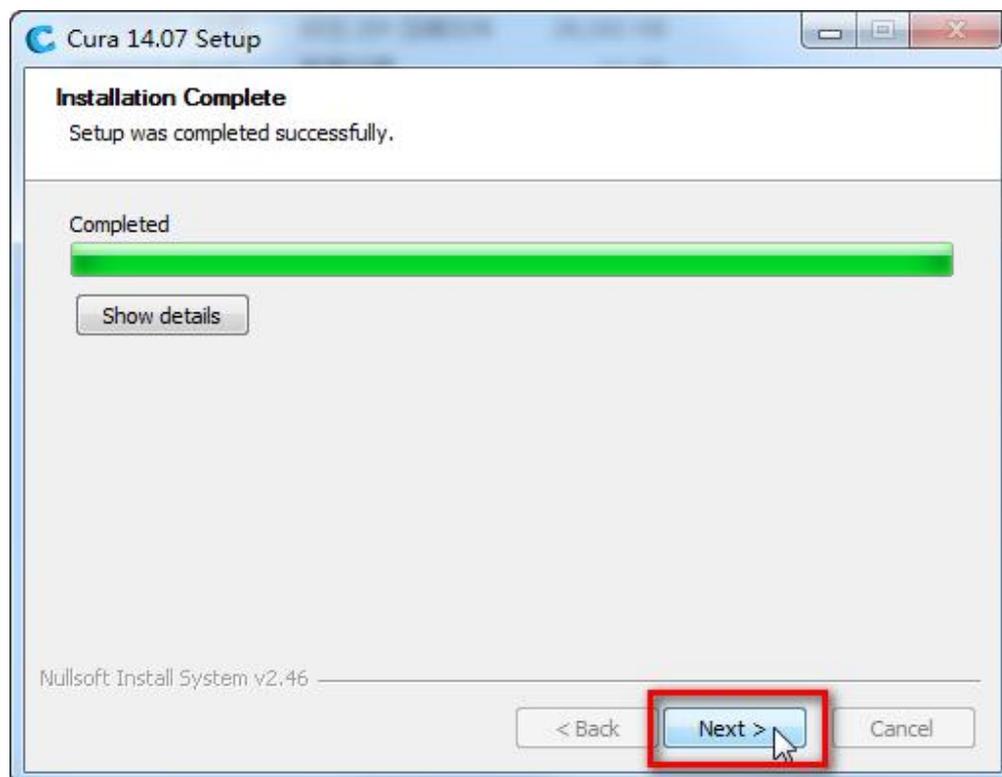
6. Click "Next"

7. Click "Finish"

8. Click "Next"
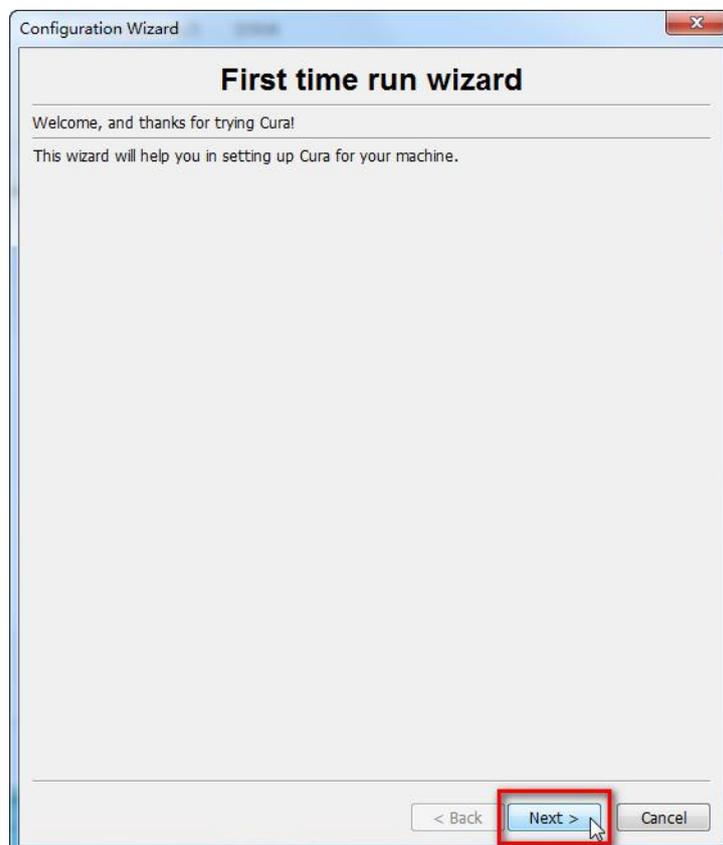
9. Click "Other" to select your machine, and then "Next"
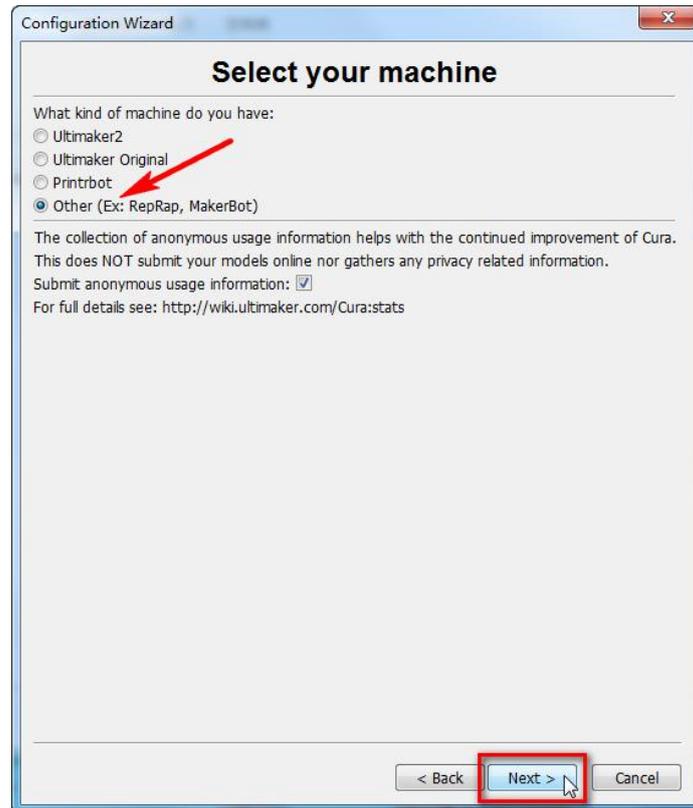
10. Choose "Custom", and then "Next"
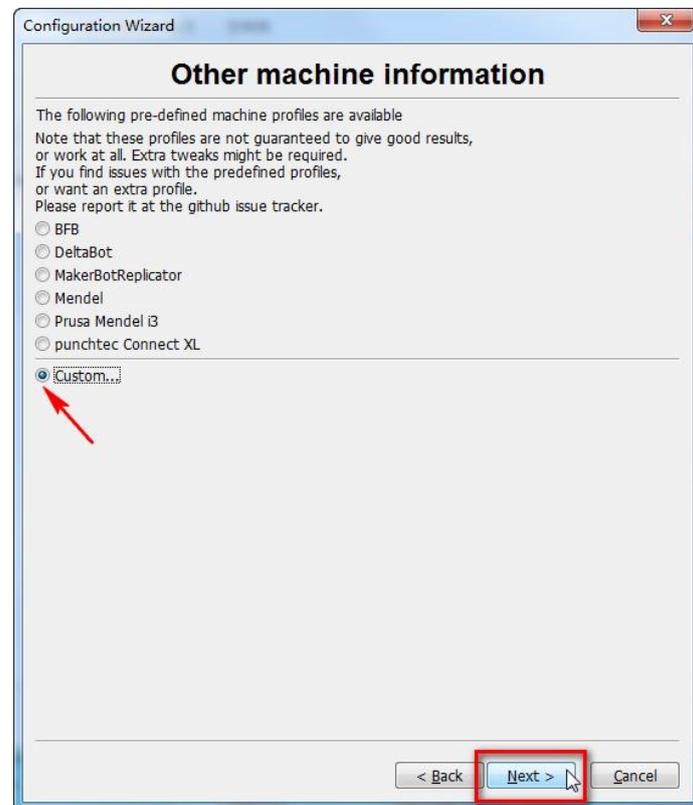
11. Fill in the parameters accordingly, and then "Finish".
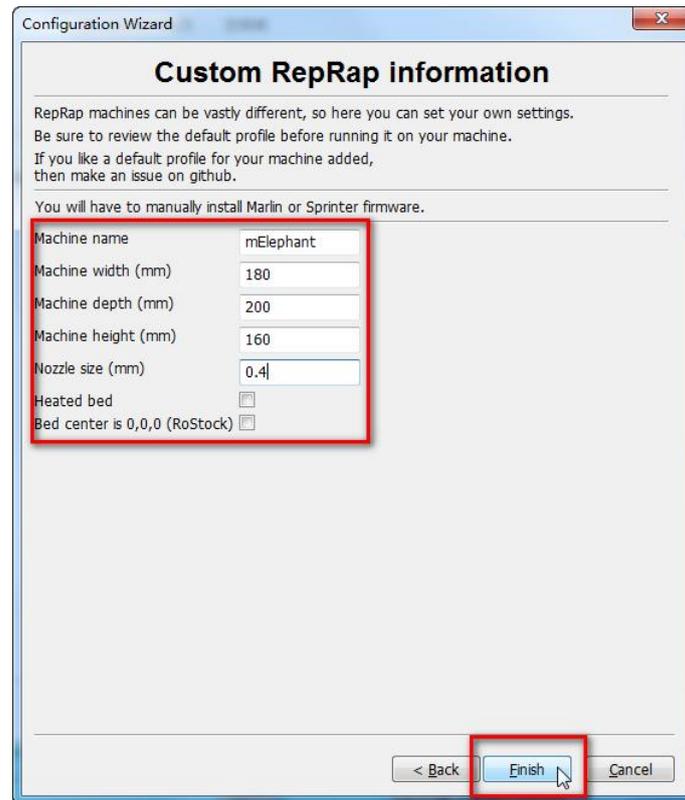
12. Click "No"
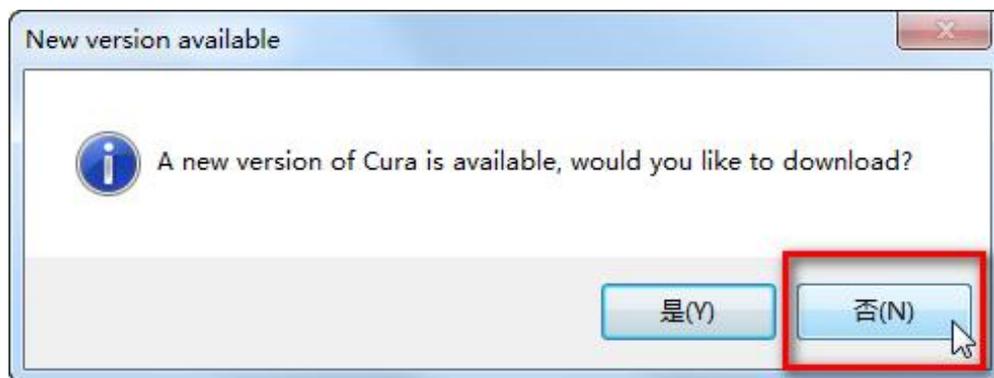
13. Choose to "Open Profiles"
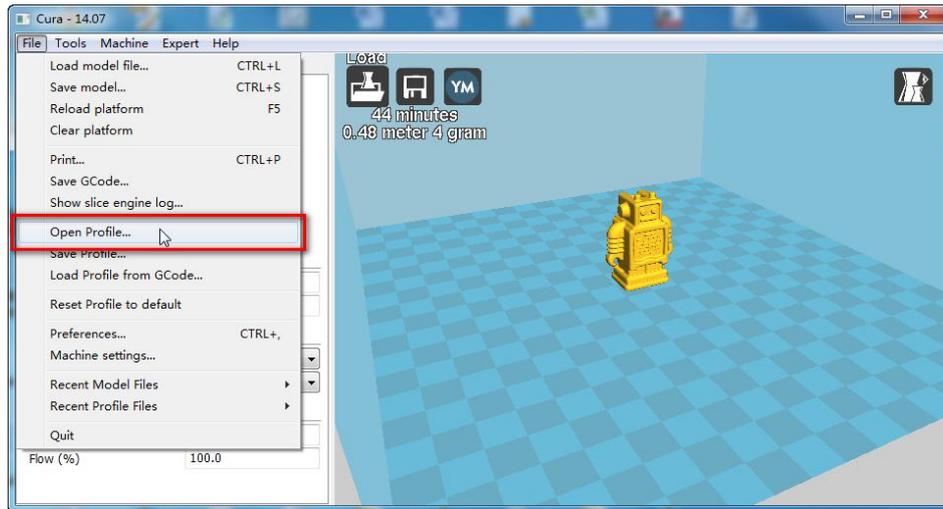
14. Find the corresponding configuration file, and open it.
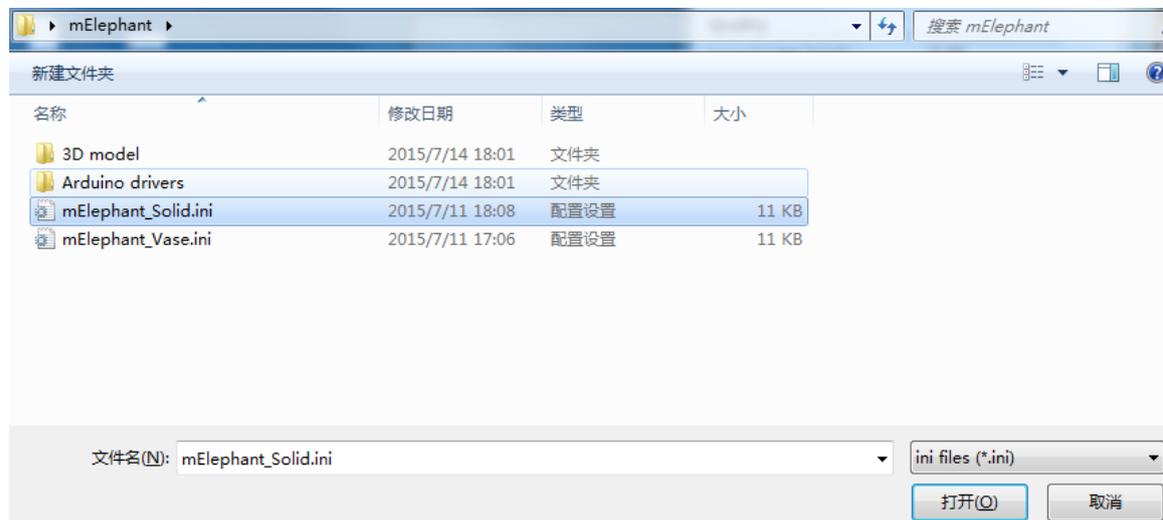
15. Enter Machine Setting
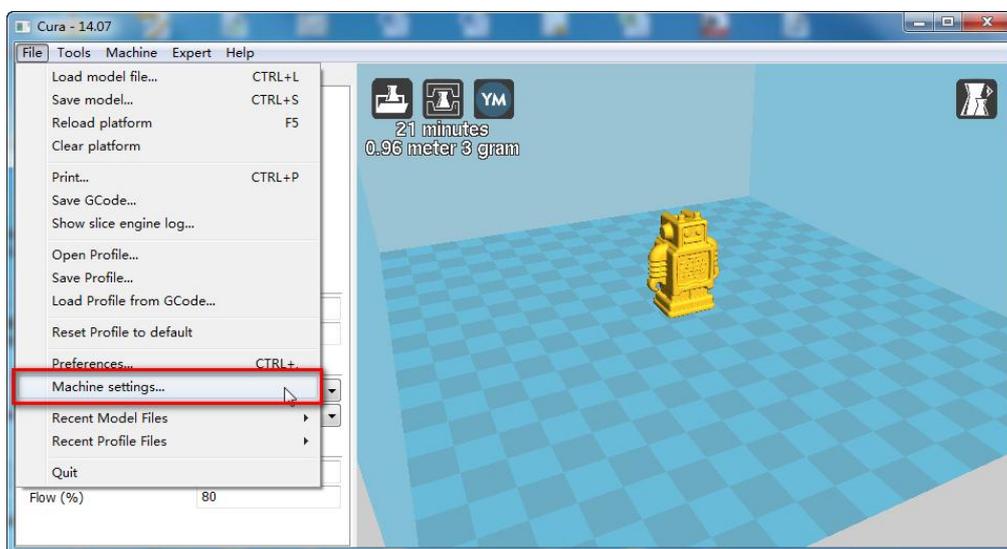
16. Select correct serial port (this port No. refers to the one you get from the "Device Management" of your PC after installing the Arduino driver. Please refer to "Install Arduino Driver" Section)
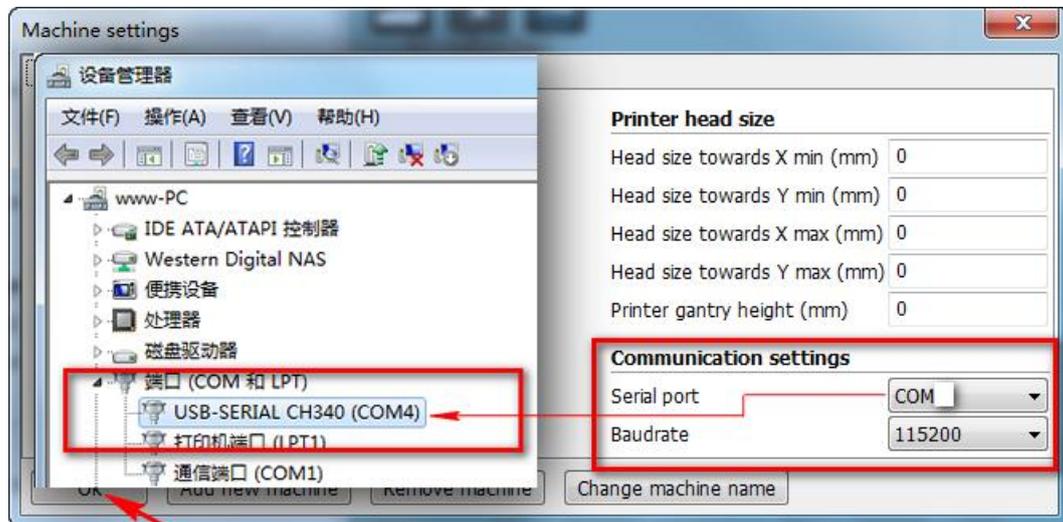
17. Enter advanced setting (Preferences)
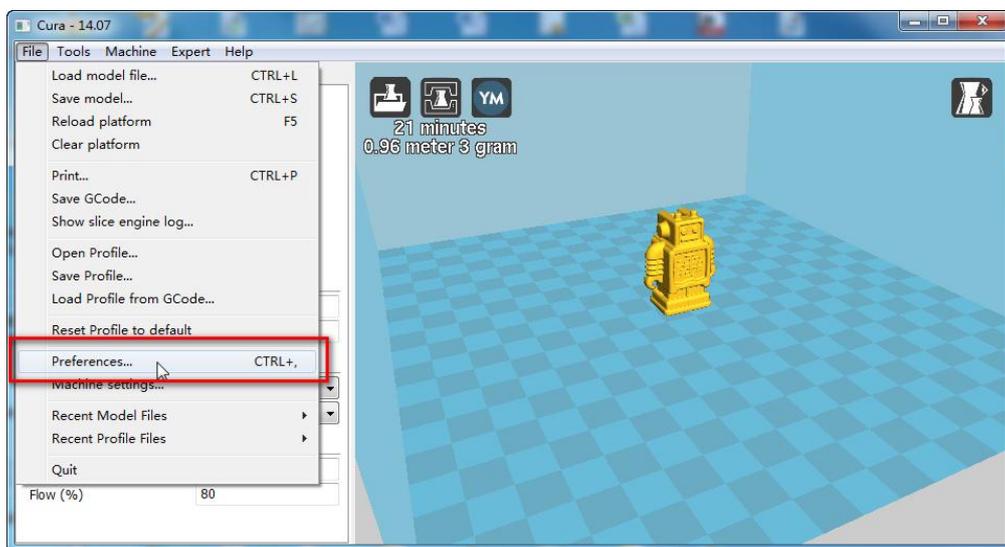
18. Choose "Pronterface UI", and uncheck the "Check for Updates".
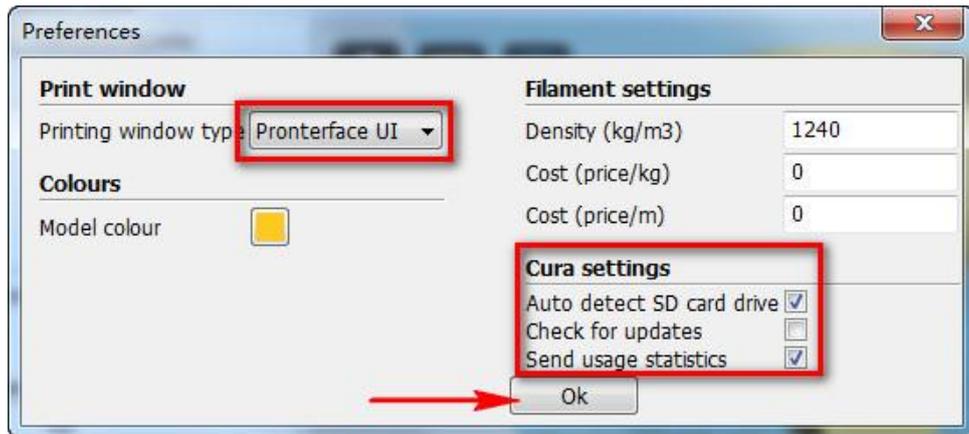
19. Click "Print with USB"
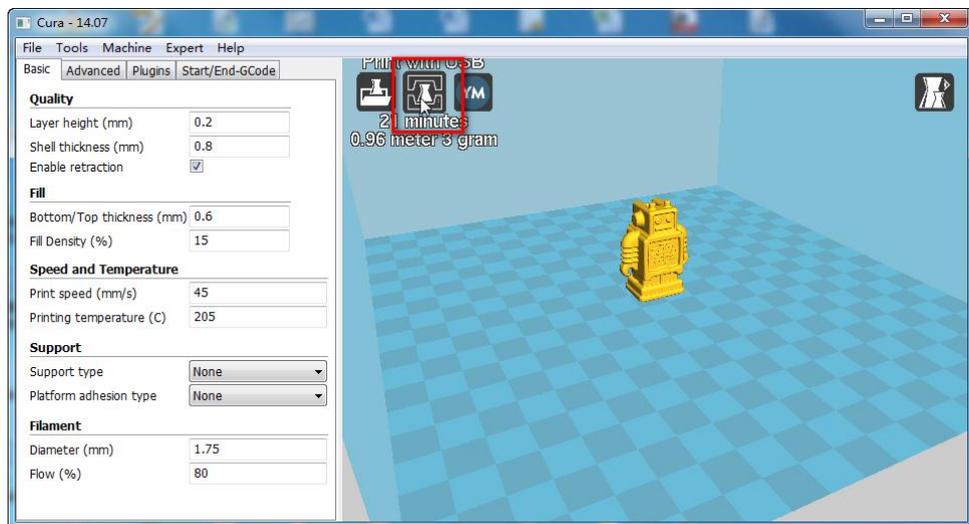
20. Click "Print", and then the printing will start，now waiting for completed.
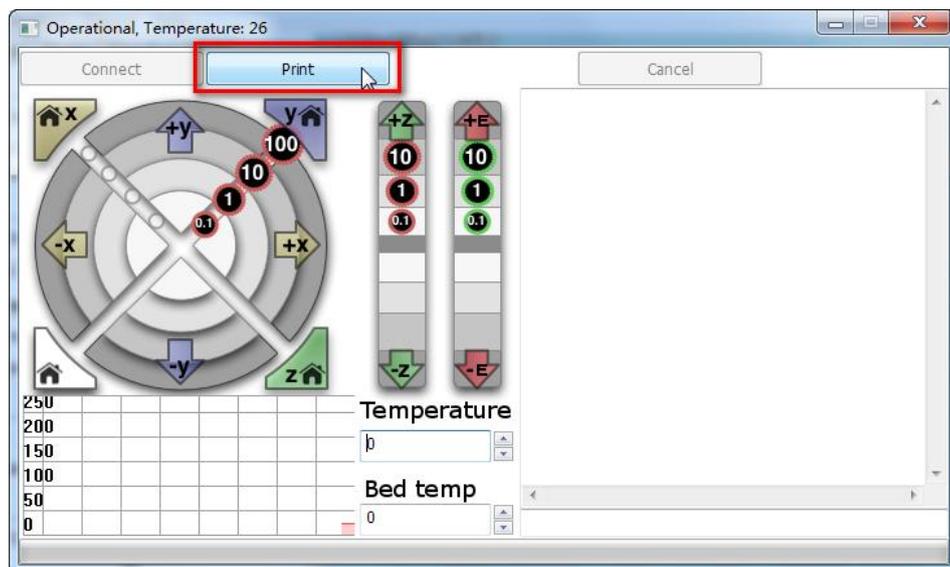
3D Prints Show

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