WINBO 3D PRINTER

USER MANUAL

VERSION: WB20141117

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We are so excited to welcome you to the Winbo 3D printer community. 3D printers are precision manufacturing equipment. Therefore, this User Manual is designed to start your journey with the Winbo Dragon Style desktop 3D printers in the right direction. Your Winbo Dragon is optimized for PLA and PETG. It is so crucial to take the time to learn about this User Manual as well as your new machine!
Due to long distance of transportation, please kindly unpack the machine box and check all the accessories and tool sets before using your new machine, to make sure everything is OK: bolts fastened. Also please remove those fixtures or padding used for the transportation. If there are questions or exceptions, please feel free to contact us any time!

Before the first print, you need to know the following:

1. This is machine have been strictly tested before delivery. If it refuses to work when you receive it, please kindly contact us as soon as possible.
2. Please save all packing materials for the machine in case of transportation and future repair (in factory). If the machine will go through long distance transportation or be sent back to the factory for repair work, please make sure that the machine has been well packed as the original packing. For repair issue, it is unnecessary to send back the related accessories, such as the glass.
3. If you encounter any malfunctions for unknown reason, please turn off the machine and contact us as soon as possible.
4. The materials for this machine are PLA and PETG.
5. Since it is a kind of plastic modeling machine, it may give out certain unpleasant smell during printing. Please make sure the machine is working in a place with good ventilation.
6. The machine's working environment should be between 15 to 35℃.
7. Protect the machine from humidity and dust.
8. Both the build plate and the extruder are heating parts. Please keep away from these two parts during heating or printing process. Before repair, please cool down these two parts first.
9. The glass is fragile. During maintenance or repair work, please take away the glass first.
10. A 3D printer is a machine instead of a toy. Therefore, please don't leave the kids along with the machine.
11. This User Manual is updated all the time. You may contact us for the latest version if we fail to notify you. WINBO will reserve the final interpretation on the User Manual.
12. Unpack the machine. Take out the machine as well as the accessories.
13. Install CURA, the software on the computer.
14. Power on the machine and level the build plate.
15. Load the material: PLA or PETG.
16. Transfer STL file into ".gcode"by CURA.
17. Save the ".gcode"file to the SD card and insert it to the machine. Find out the ".gcode" file that you need to print.
18. Wait for the printing.
19. Make sure the machine is well working and material is enough.

A. MACHINE SPECIFICATIONS

PHYSICAL SPECIFICATIONS
DARGON
MACHINE SIZE: 440 x 360 x 740 mm
CBM: 560 x 485 x 960 mm
MACHINE WEIGHT: 16.2 kg
SHIPPING WEIGHT: 38.5 kg
PRACTICAL
MACHINE SIZE: 440 x 360 x 540 mm
CBM: 560 x 485 x 760 mm
MACHINE WEIGHT: 14.5 kg
SHIPPING WEIGHT: 35.4 kg
VALUE
MACHINE SIZE: 380 x 360 x 440 mm
CBM: 520 x 500 x 625 mm
MACHINE WEIGHT: 11.7 kg
SHIPPING WEIGHT: 19.7 kg
MINI
MACHINE SIZE: 335 x 305 x 390 mm
CBM: 475 x 445 x 560 mm
MACHINE WEIGHT: 9.2 kg
SHIPPING WEIGHT: 14.4 kg

TEMPERATURE
NOZZLE TEMPERATURE: 0-240℃（no more than 260℃）
BUILDPATE TEMPERATURE: 0-110℃（adjustable）
BUILDPATE HEATING: around 5 min
NOZZLE HEATING: around 3 min

PRINTING
LAYER THICKNESS: 0.06-0.4 mm (adjustable)
PRITNING MATERIALS: PLA / PETG / ABS
FILAMENT DIAMETER: 3.0 mm
NOZZLE DIAMETER: 0.4 mm
NOZZLE MOVING SPEED: 20-150 mm/s（ADJUSTABLE）
POSITIONING PRECISION:
Z-AXIS: 0.002 mm
XY-AXIS: 0.010 mm
BUILD TYPE:
FDM (FUSED DEPOSTION MODELING)

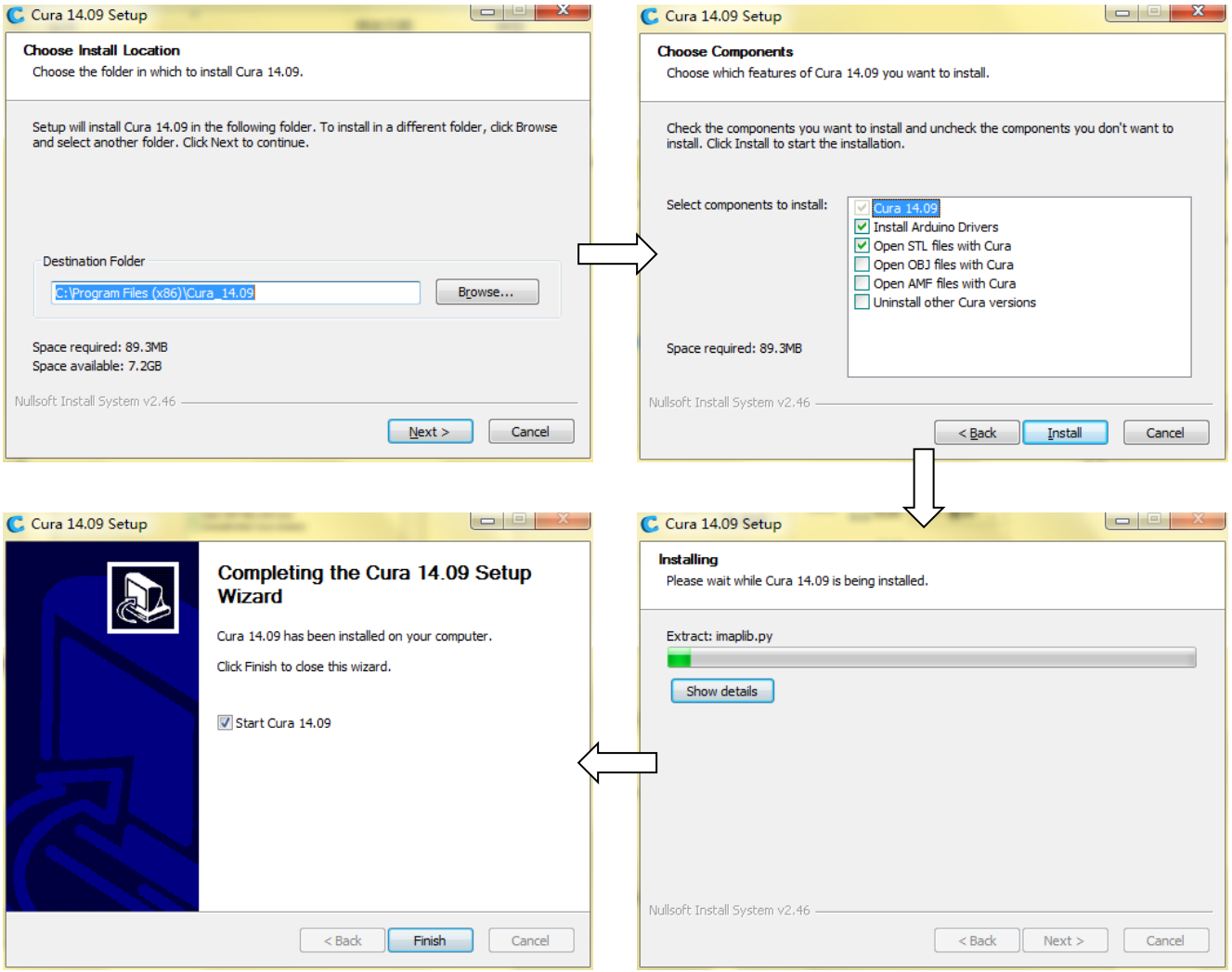
POWER SUPPLY
Connection: USB or SD CARD
AC INPUT: 95-230V, 50-60Hz
Output: 24V
Rated current: 14.6A
MACHINE POWER: 350W (Mini Style: 150W)
Working temperature: -20℃-60℃

SOFTWARE
FILE FORMAT: .stl
Input file: Gcode
OPERATONAL SOFTWARE: Professional 3D printer software
SUPPORTS: Windows，Linux，Mac OX
3D DESIGN SOFTWARES:
SolidWorks, PRO-E, UG, Auto CAD, 3ds-Max, Maya etc.

B. SOFTWARE INSTALLATION

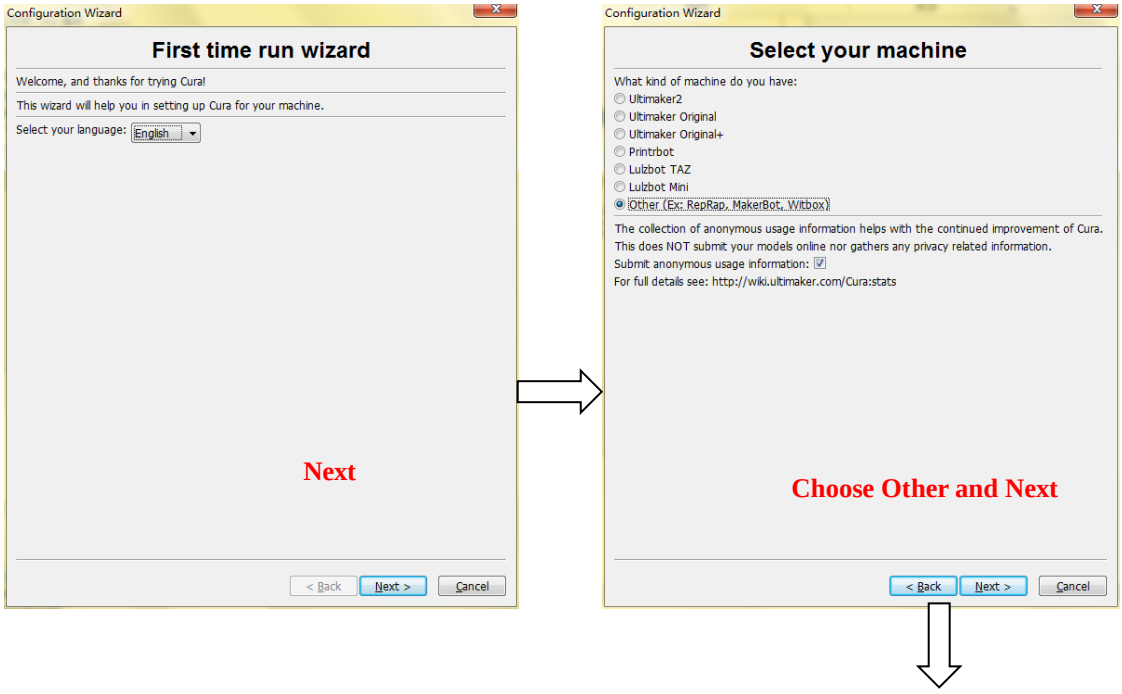
B.1 SOFTWARE INSTALLTION

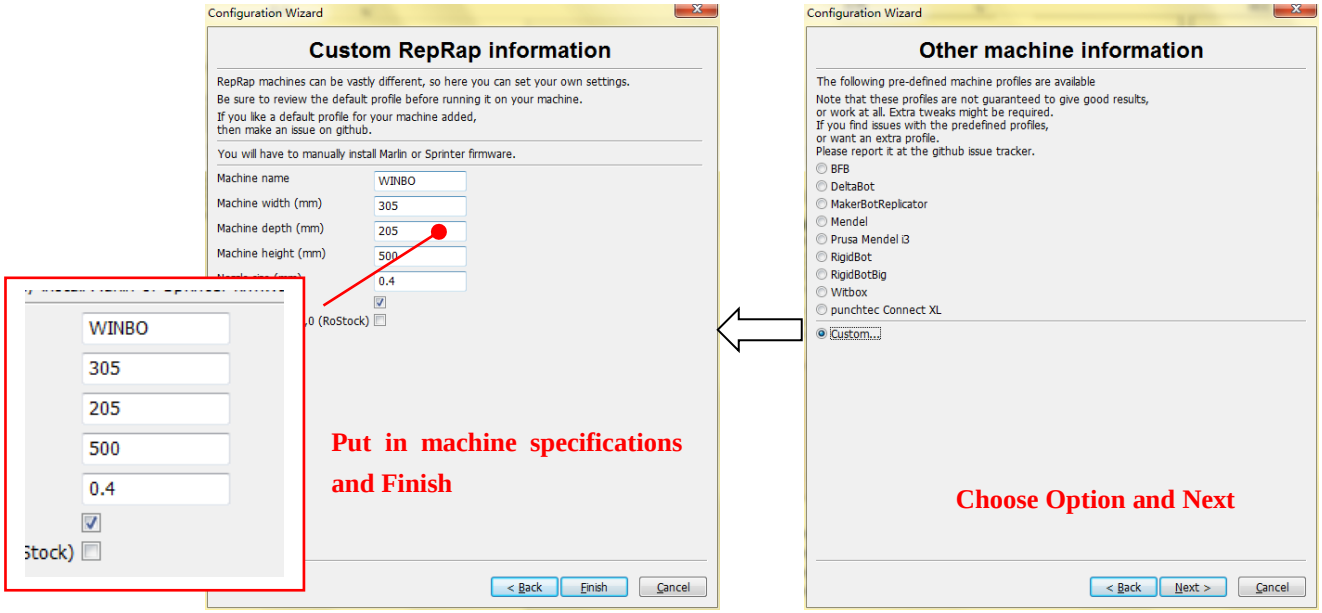
Inside the SD card, there is the operation software for our machine. Double-click on “Cura_14.09.exe” and install it by following default options as shown below:



B.2 SOFTWARE CONFIGURATION

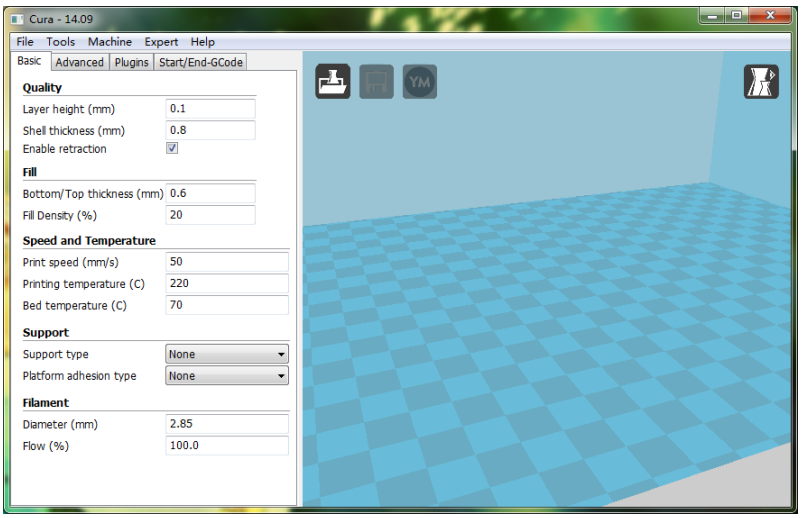
To run the software for the first time, you will encounter a welcome interface. Click on “Next” to enter the First time run wizard and you may follow the instructions as below:





Build size:
DARGON：305 x 205 x 500 mm
PRACTICAL：305 x 205 x 300 mm
VALUE：245 x 205 x 200 mm
MINI：210 x 150 x 150 mm

Here comes the interface for the software:

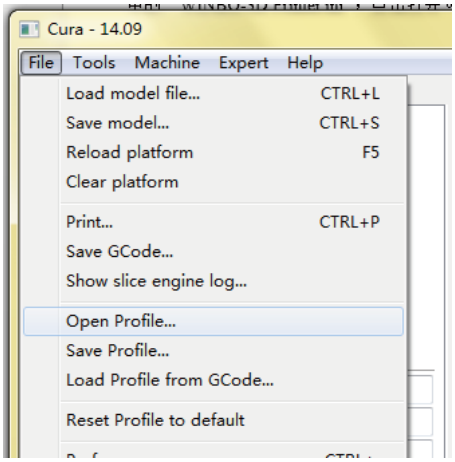


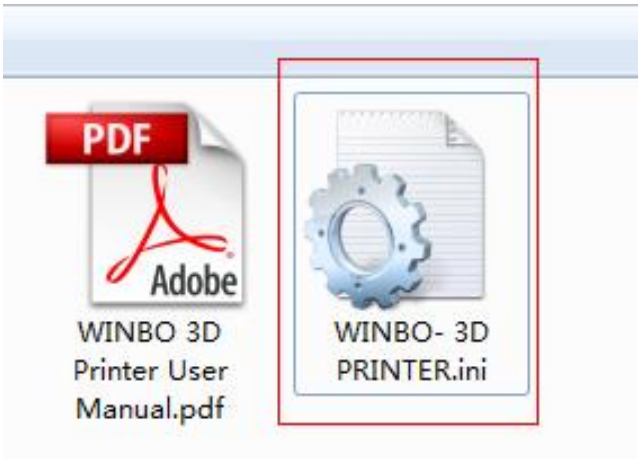
If the machine has not been connected with the computer, you may skip the First time run wizard. When running the software, you may enter the First time run wizard by coming to the “Expert” → ”ReRun first run wizard” under the menu.

C. SOFTWARE SETTINGS

C.1 CONFIGURATION FILE LEAD-IN

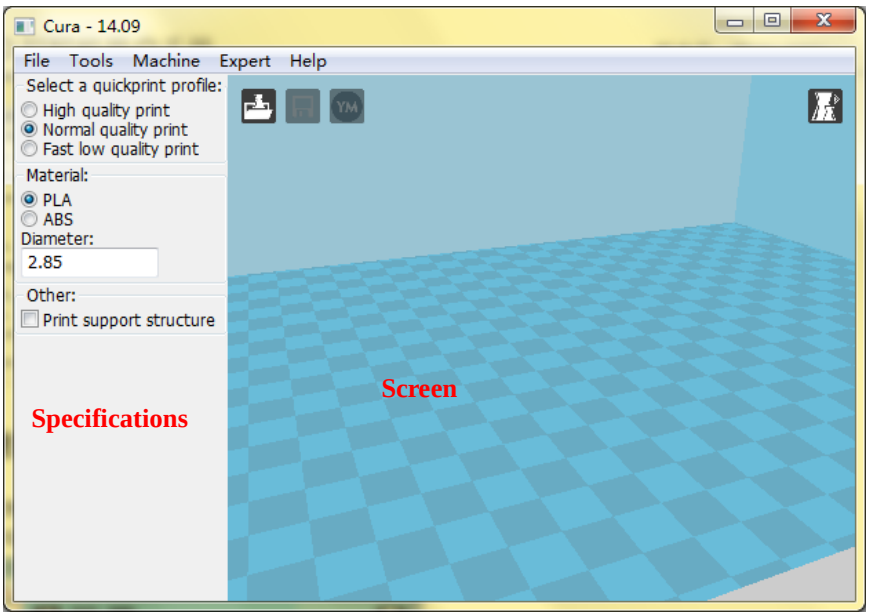
You may finish the software settings by leading in the configuration file in the SD card. Click on “File” and choose “Open Profile”. Find out the “WINBO-3D Printer.ini” and click on it.



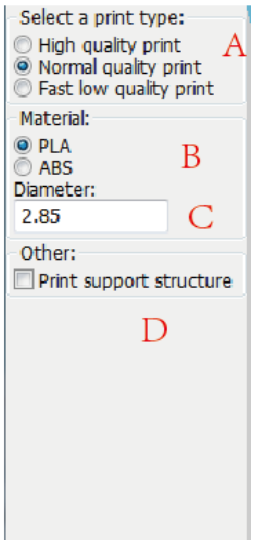


C.2 QUICKPRINT PRINTING

When running the software the default option is QUICKPRINTING mode. On the left, you will find the Specifications and Screen as shown below:



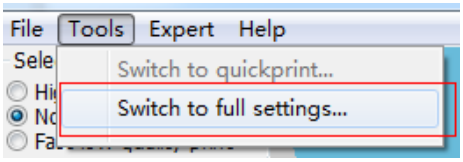
There are 3 types of QUICK PRINT High quality print, Normal quality print, Fast low quality print. You may print with PLA or PETG.

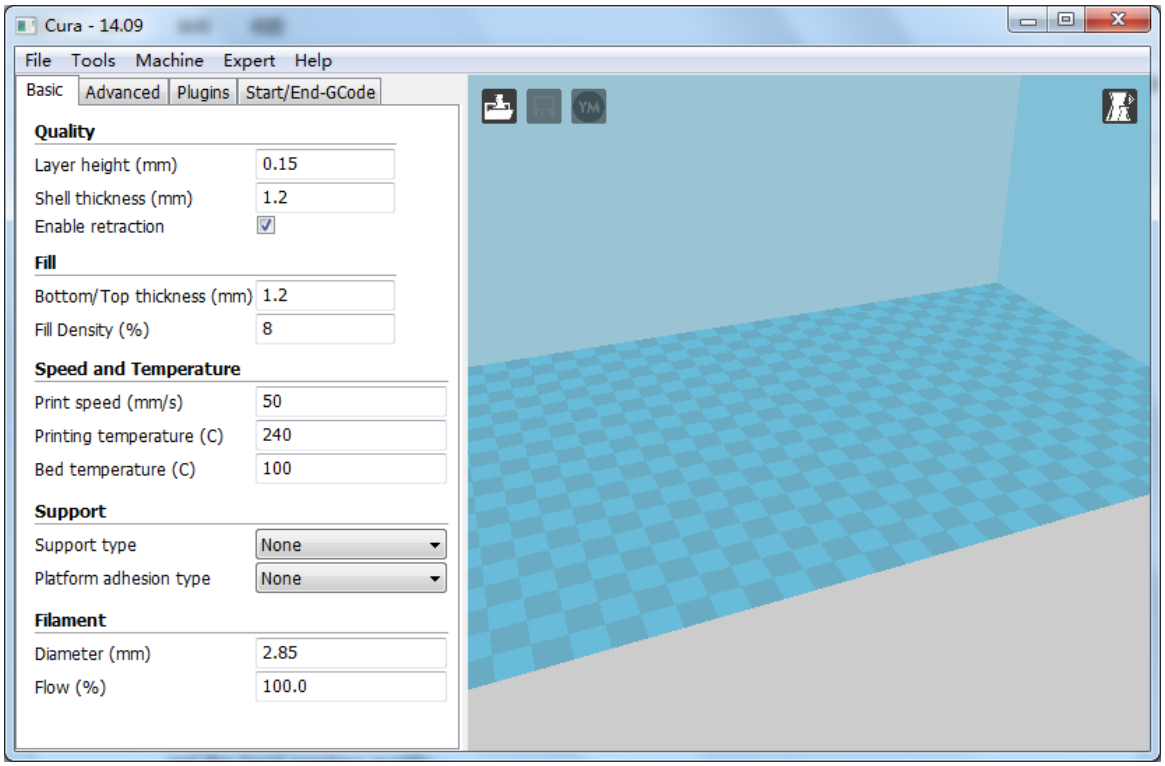


A. 3 types of QUICK PRINT:
   High quality print
   Normal quality print
   Fast low quality print
B. Choose the material for the printing: PLA or ABS
C. Diameter for the filaments: 2.85mm
D. Print suport for the sample

C.3 FULL SETTINGS PRINTING

Choose “Tools” under the menu→”Switch to full settings” as below:





BASIC SETTINGS ARE AS BELOW:

（1） Layer height: thickness for each layer. Normally it is 0.15mm. If you need high resolution, you may choose smaller one.

（2） Shell thickness: the amount should bea multiple of 0.4. You may need to adjust this amount to get the best printing quality.

（3） Enable retraction: Retract the filament while it is not printing. Enable recommended, otherwise, it will create fine lines during printing.

（4） Bottom/Top thickness: it is related to the printing speed.

（5） Fill Density: normally it is 10-30%.

（6） Print Speed: the faster the print speed, the faster the feeding speed. And the result is burrs created during printing.

（7） Printing Temperature: 230℃ for ABS, PETG and PLA.

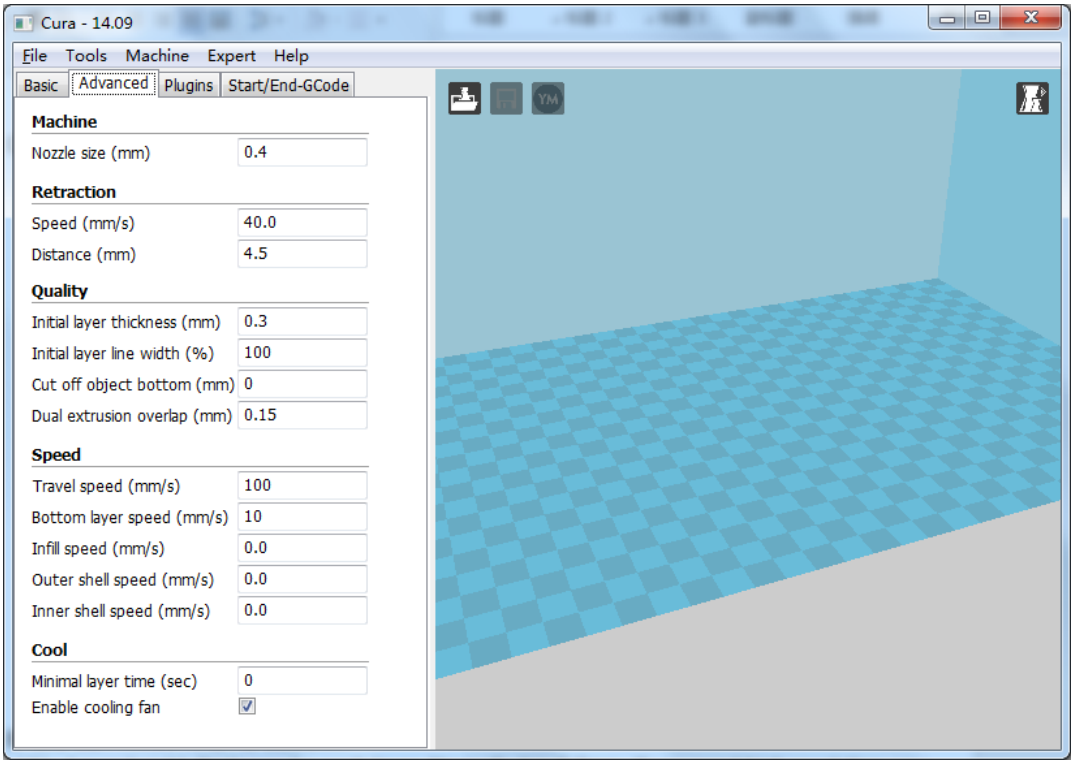
（8） Bed Temperature: 0℃ for PLA and 70℃ for ABS.

（9） Support Type: to choose where to print the support.

（10） Platform adhesion type: a setting to help the printed object stick to the printer bed.

（11） Diameter: you may put the actual diameter.

（12） Flow (%):100% for PLA and 85% for ABS.



Advanced settings:

（1）Nozzle size: 0.4mm (fixed).

（2）Speed（retraction）: the speed for retraction. Retraction is pulling the filament back when moving over a gap in the print.

（3）Distance（retraction）: if it is 0, it mean no retraction made at all.

（4）Initial layer thickness: a thicker layer gives a thicker bottom layer which is easy to stick to the platform. If it is 0, it means the same bottom layer as the printing layer.

（5）Cut off object bottom: Cut the bottom of the model, this effectively sinks the object into the printer bed. If your object does not have a lot of contact area with the printer bed then this feature could help you.

（6）Travel speed: the speed at which the printhead moves when it is not printing.

（7）Bottom layer speed: the speed at which the printhead moves while it is laying down the first layer. This is done to make the print stick easier.

（8）Minimal layer time: the minimal time spent on printing a single layer. If a layer takes less time to print than this configured time, then the layer is cooled down. This ensures that a layer is cooled down and solid enough before the next one is put on top.

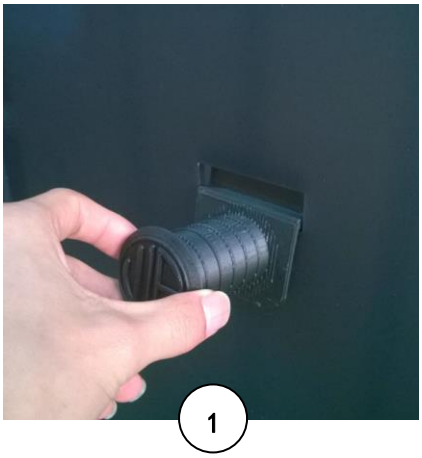
（9）Enable cooling fan: the cooling fan is usually enabled and greatly improves print quality for PLA.

Note: for the Advanced setting, normally, they are default and require little adjustment.

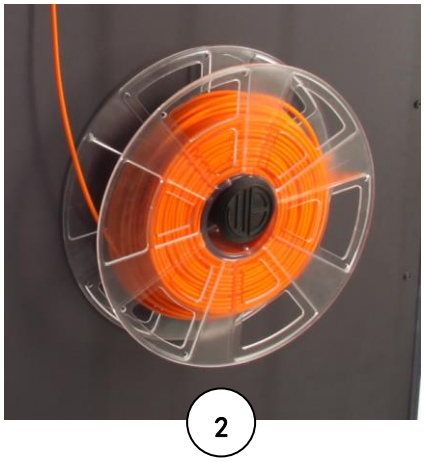
D. Accessories Installation and Basic Functions

D.1 Accessories Installation

Unpacking the machine, you need to install the accessories:

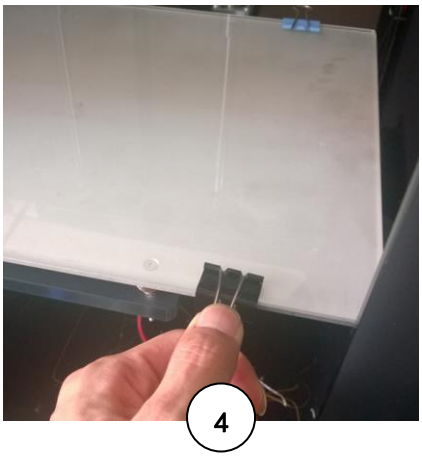


Put the spool holder

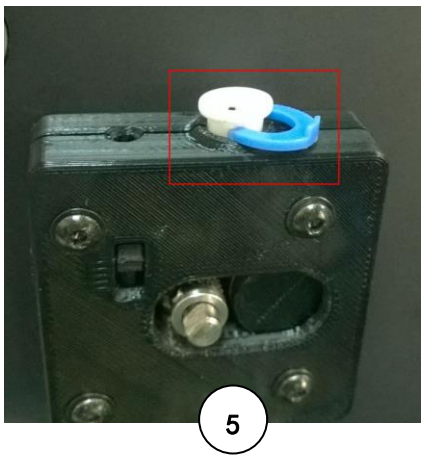


Load the filaments spool

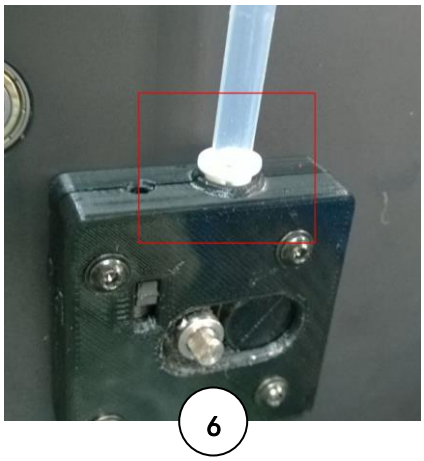
Connect the cable



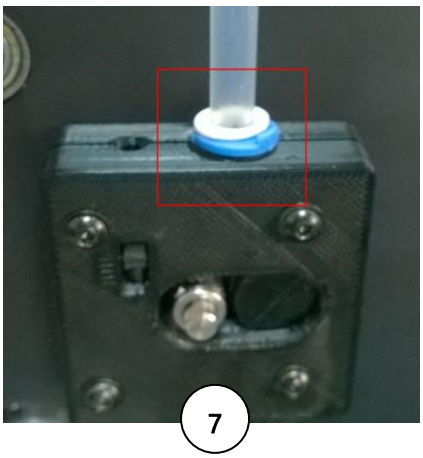
Put on the glass plate



Pull out he blue buckle on the feeder mechanism



Insert the other end of the transparent tube



Put back the blue buckle

D.2 Basic Functions

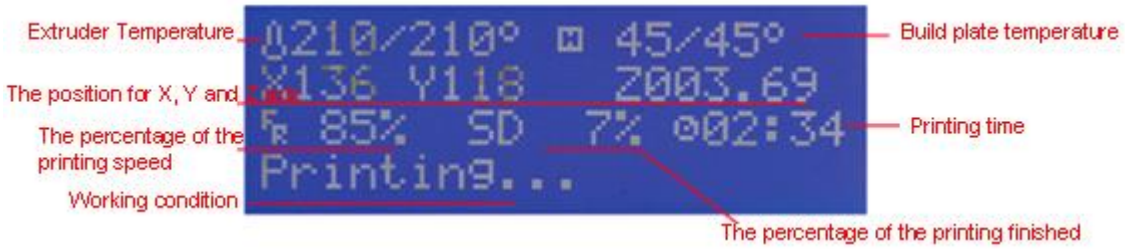
There is a control knob on the right of the LCD panel and the functions are as below:

You may press the knob for confirmation

Rotate it counter-clockwise: you are reading the next menu

Rotate it clockwise: you are reading the last menu

With power on, the LCD panel shows as below:



After pressing the knob, there will be “ticking” sound and then comes to the next interface on the LCD panel:

D.2.1 MACHINE TESTS

You may need to test the machine first before printing.

Check the movement on each axis.

1) Check the X-axis. If it moves, it is OK.

Go to the LCD panel and choose “Prepare” → ”Move Axis” → ”Move 1mm” → ”Move X” and press the control knob. If the X-axis moves, it is OK.

2) In the same way, you may check the movement on Y and Z axis accordingly.

Check the heating process.

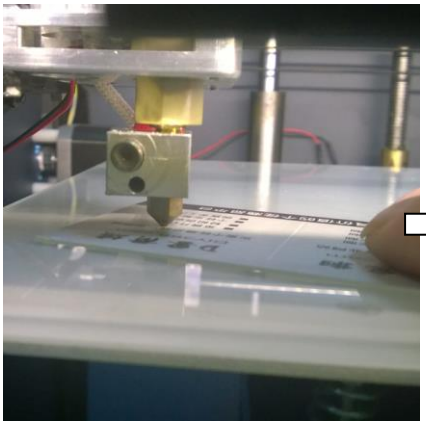
Go to the LCD panel and choose “Prepare” → ”Preheat PLA” and press the control knob. Go back to the main menu and watch temperature fluctuations. If it is on the rise, it is OK.

Notes: by preheating the machine, you may save time waiting for the printing. You may stop the heating by go to “Prepare” → ”Cooldown”.

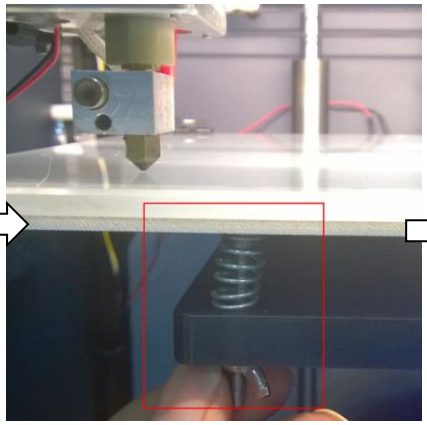
D.2.2 Level Build Plate (Important)

The build plate has been well leveled before delivery. However, it requires re-leveled after long time transportation. If the build plate is far away from the extruder, the material will fail to stick to the build plate. However, if they are too close, the extruder will fail to make printing at all. Therefore, the gap between the build plate and the extruder should be 0.3mm.

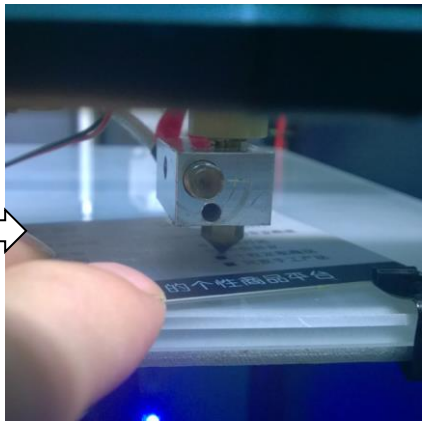
Choose “prepare” under the main menu and then “auto home”, the X, Y and Z axis will return home. You may use your hand to move the extruder to each point on the build plate to adjust the gap between the build plate and the extruder as shown below:



Use a name card to check the gap

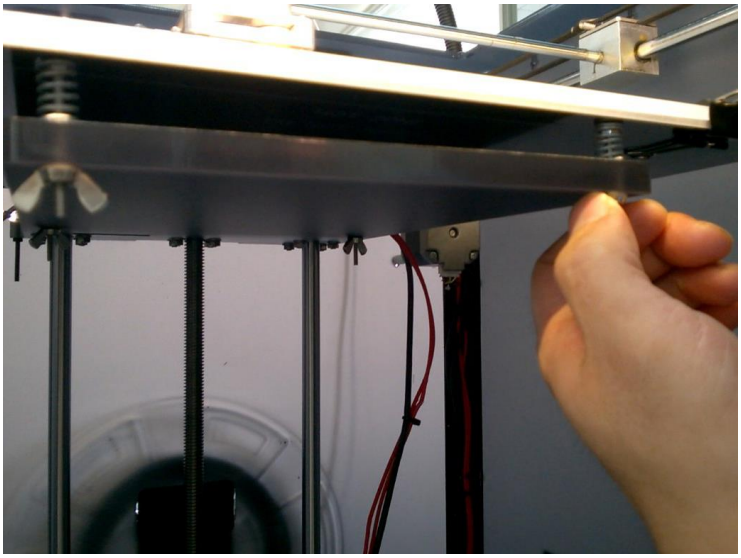


Adjust the gap by the knobs under the build plate



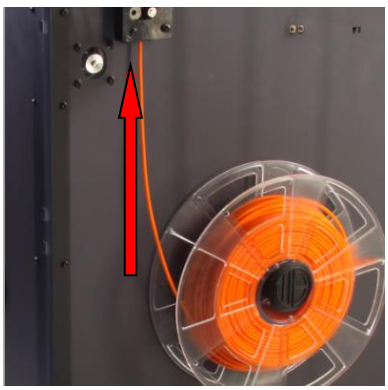
Recheck the gap

Tips: you may level the build plate roughly first and then make small adjustment during printing. The gap should be 0.3mm.



D.2.3 LOADING

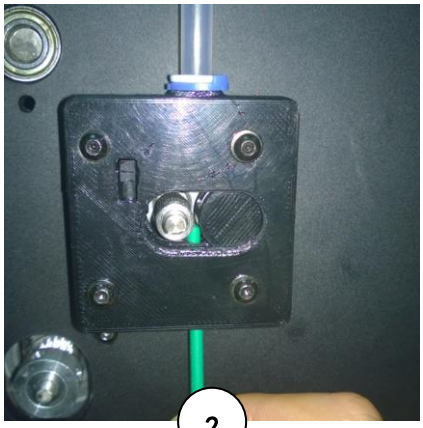
For smoother feeding, the spool should be rotated clockwise as below:



The feeding should be:

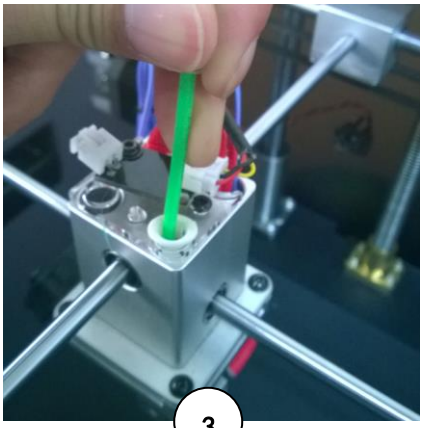
1

On the main menu "prepare"→"preheat PLA"or"Preheat ABS" to heat the extruder



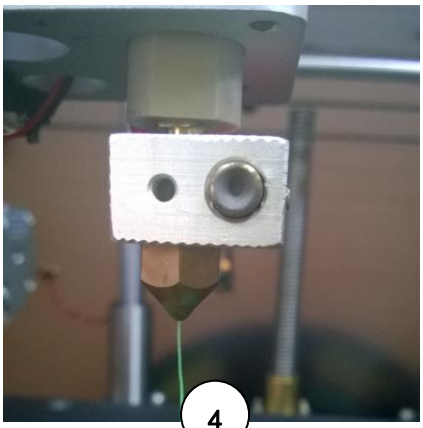
2

Push the filament through with strength until the filament passes the gear to the tube



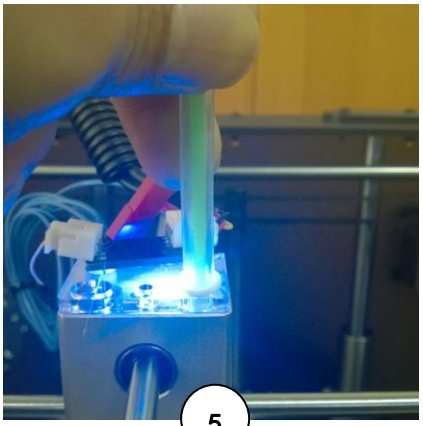
3

After heating, insert the filament to the extruder and push it down a little



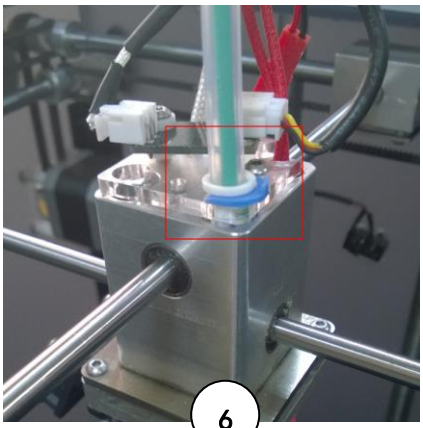
4

Material comes out of the nozzle



5

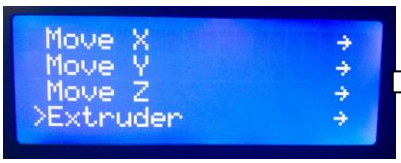
Insert the tube to the extruder

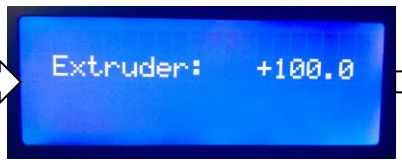


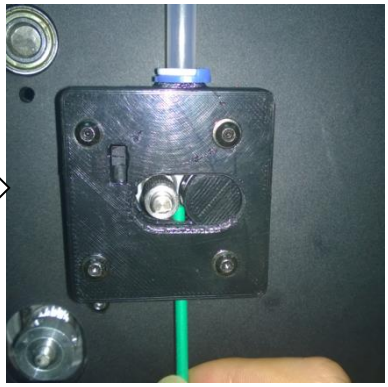
6

Put back the blue buckle

Tips: If the filament refuses to go into the feeder, you may need to preheat the extruder first and then go to the LCD pane: "Prepare" → "Move Axis" → "Move 1mm" → "Move Extruder" to make the value as 100 or above. After that, you may push the filament into the feeder as shown below:

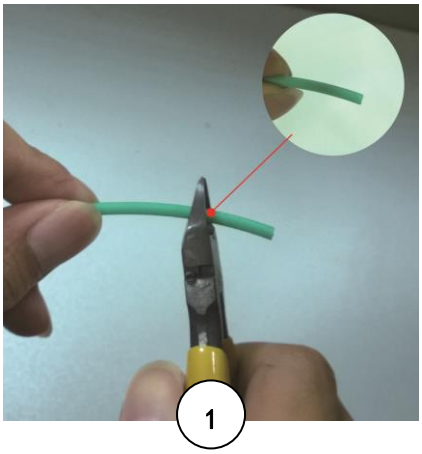




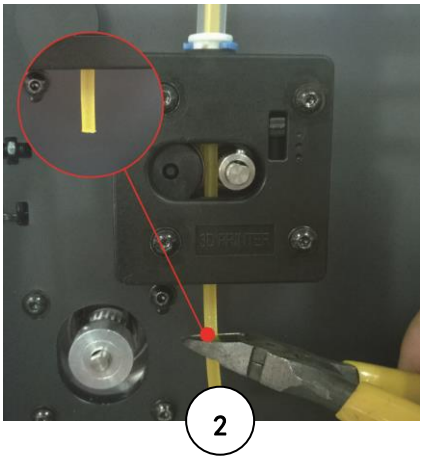


D.2.4 Change Filament During Printing

If you find that the material is running out during printing or you want to change another color, you may do as shown below. (Note: the yellow material is the current one while the green one is the new material).

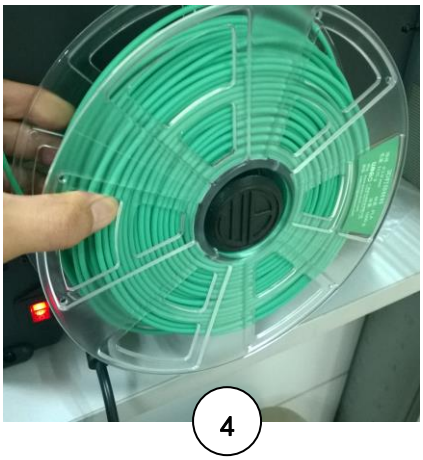


Use the pliers to cut one end of the new filament and make sure the cut is flat and smooth

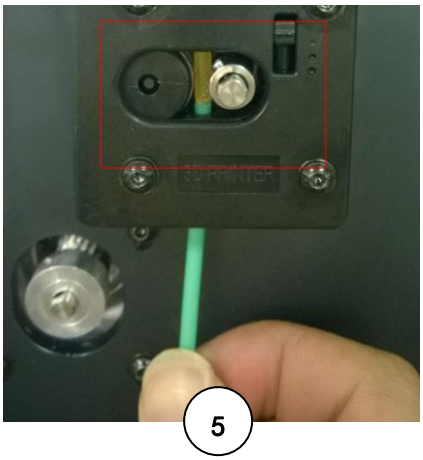


In the same way, make sure the cut on one end of the current filament is flat and smooth

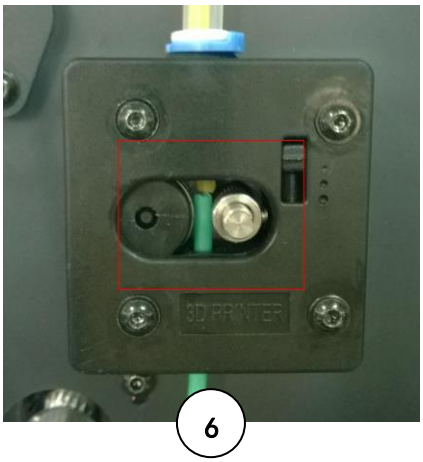
Take away the current spool



Replace a new one



Push the new filament into the feeder to make sure the new one and the current one are well jointed.



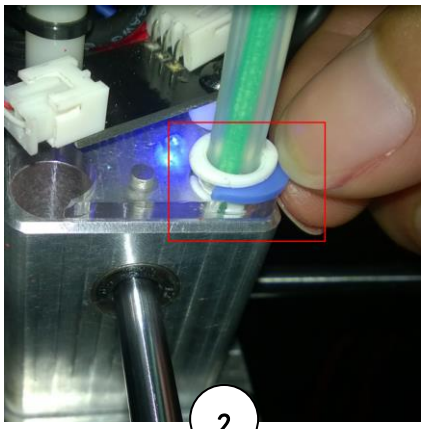
Until the green one passes the gear at the feeder.

The result

D.2.5 UNLOADING

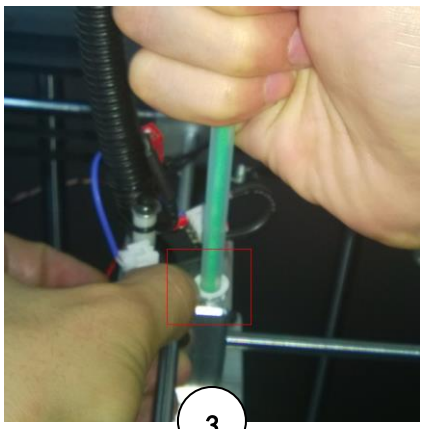
1

On the main menu“prepare”→“preheat PLA”or“Preheat ABS”to heat the extruder to 230℃



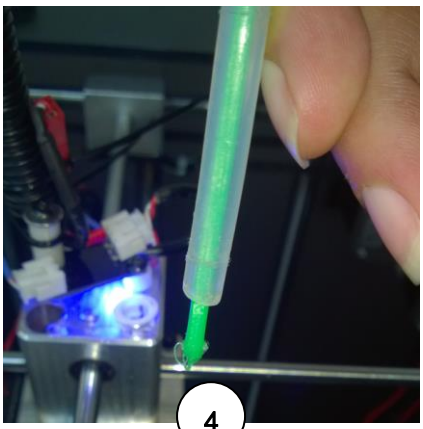
2

Pull out the blue buckle



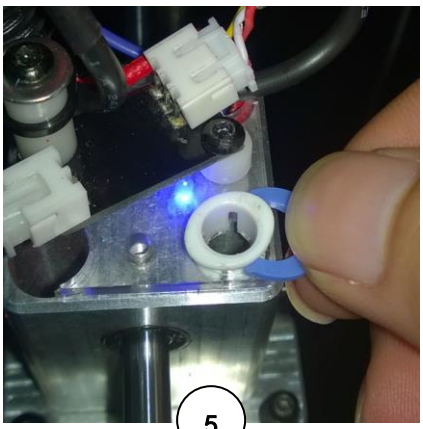
3

Pin on the lock catch and pull out the transparent tube



4

Unloading



5

Put back the blue buckle

E. MACHINE MENU EXPLANATION

By pressing the knob, you will enter the main menu as below:
MAIN MENU:

Info Screen
Prepare
Temperature
Print From SD (NO CARD)

Prepare: Sub-menu
- **Main**
- **Auto Home**
- **Move Axis**
  - **MOVE AIXS：** Sub-menu
  - **Prepare**
  - **Move X**
  - **Move Y**
  - **Move Z**
  - **Extruder**

Preheat PLA

Preheat PLA: Sub-menu

Preheat PLA All

Preheat PLA

Preheat PLA Bed

Preheat ABS

Preheat ABS: Sub-menu

Preheat ABS All

Preheat ABS

Preheat ABS Bed

Cool Down

Switch Power off

Disable Steppers

Temperature： Sub-menu

This menu is involved with mahcine's working condition. It is not adviced that changes shoould be madeonit.Here we will make introduction to certain functions.

Main

Nozzle

Bed

Fan Speed

With the start of printing, there will be more functions appear on the main menu and they are Temperature、Pause print、Resume Print、Stop print.

Temperature： Sub-menu

Main

Nozzle

Bed

Fan Speed

Pause print： suspend the printing.

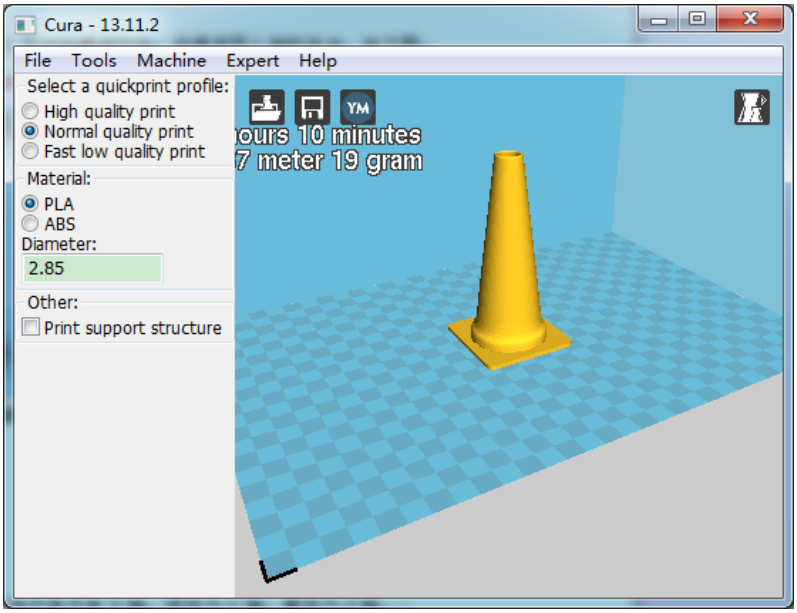
Resume Print: Continue the printing.

Stop print： cancel the printing.

F. START PRINTING

F.1 MODEL EDITION

Run the software and click on  to choose the model that need to print:

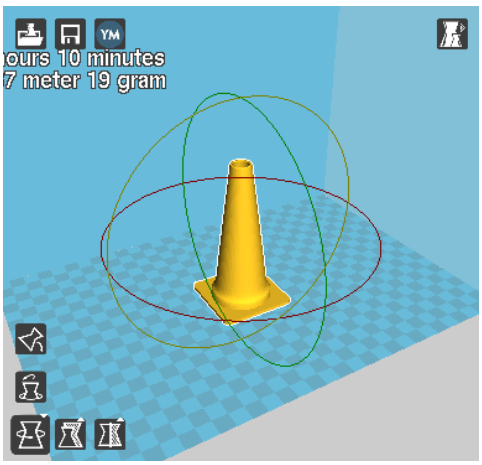


There are many functions to make adjustment to the model, such as flipping, rotating, scaling and so on.

F.1.1 ROTATE

Click 

and you can rotate the model from X, Y or Z axis. The red one is X-axis, green Y-axis and yellow Z-axis.



- Reset 

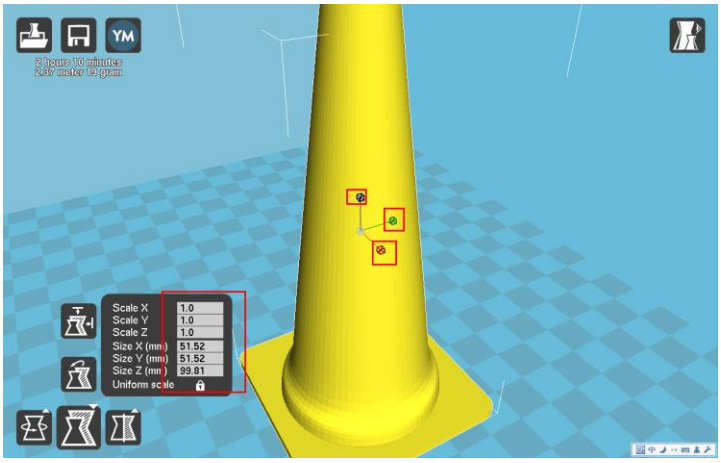
: reset the model that has been rotated.
- Lay flat 

: lay down the model that has been rotated.

F.1.2 SCALE

Click on 

to adjust the size of the model. You may make adjustment by dragging the mouse on the three points or inputting exact value as below:



- TO max 

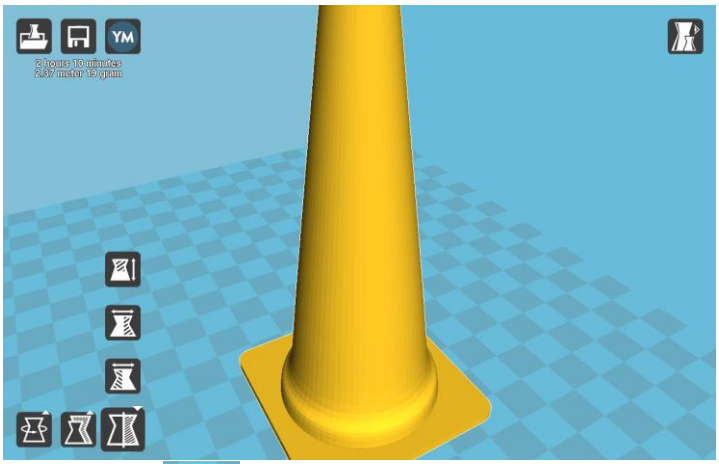
: to make the model to the maximum size within the build size.
- Reset 

: reset the model that has been adjusted.

F.1.3 FLIPPING (MIRROR)

Click on 

to flip the model as below:



- Mirror X 

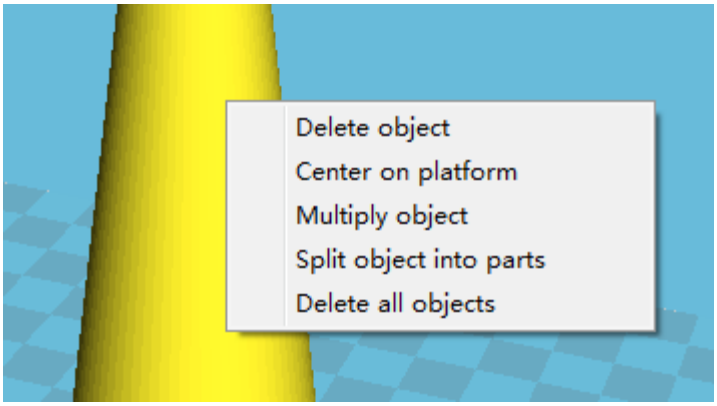
: flip the model toward X-axis.
- Mirror Y 

: flip the model toward Y-axis.
- Mirror Z 

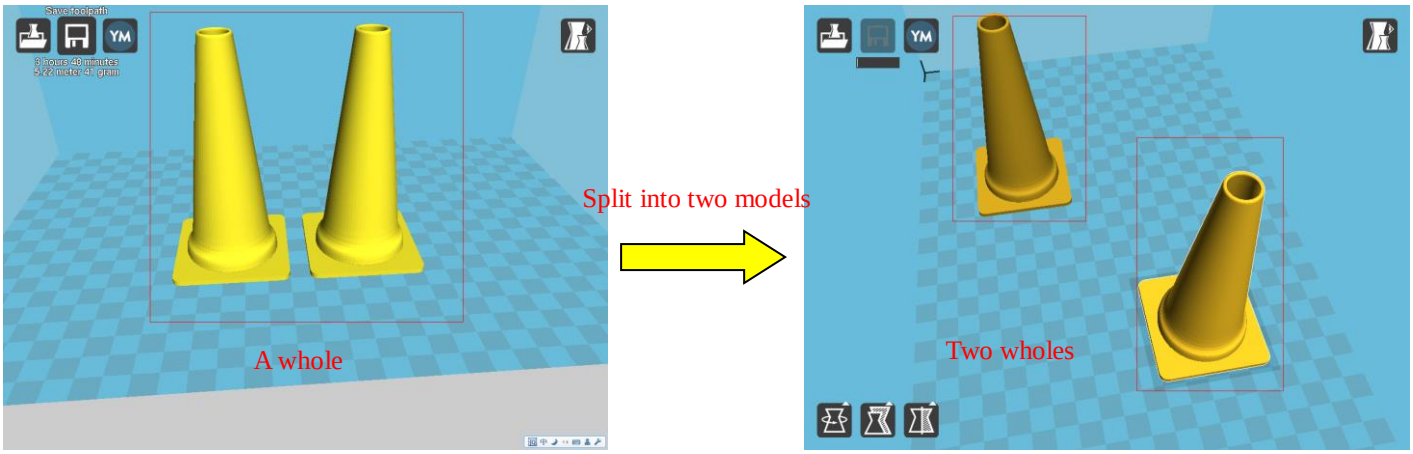
: flip the model toward Z-axis.

F.1.4 OTHER EDITTINGS

Right click on the model and you will find other editing functions: delete object, center on platform, multiply object, split object into parts and delete all objects as shown below:



Note: Slit object into parts is to separate two models instead of slitting a model into two parts.

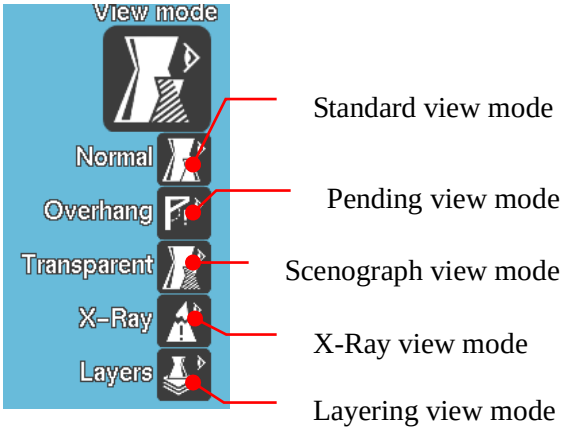


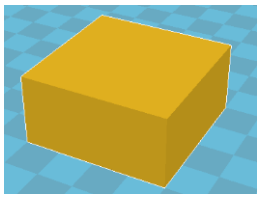
F.1.5 VIEM MODE

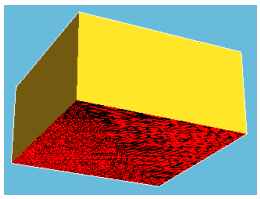
You may adjust the view mode for better checking and editing on the model.

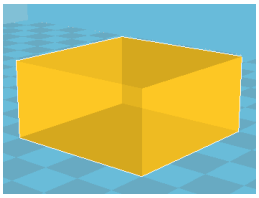
Click on 

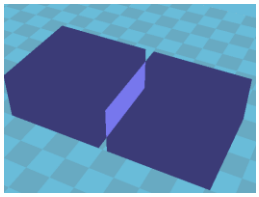
and you may change view mode for the model as below:

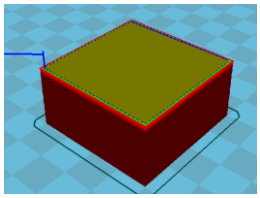



Standard view mode


Pending view mode


Scenograph view mode


X-Ray view mode

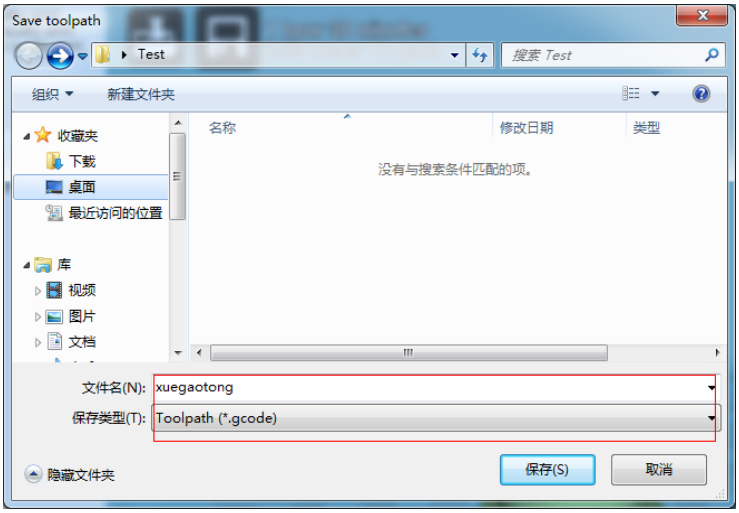

Layering view mode

F.2 PRINT FROM SD CARD (RECOMMENDED)

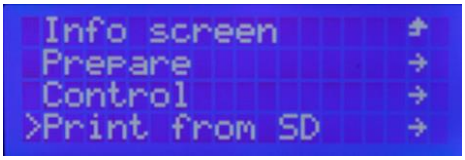
After editting, you may save it into SD card as G-Code. Insert the SD card and click on ”Toolpath to SD” 

to save the model. The model is saved into SD card automatically. If there is no SD card, click on “Save

toolpate”  and specify a directory path for it and name it as “.gcode” file.



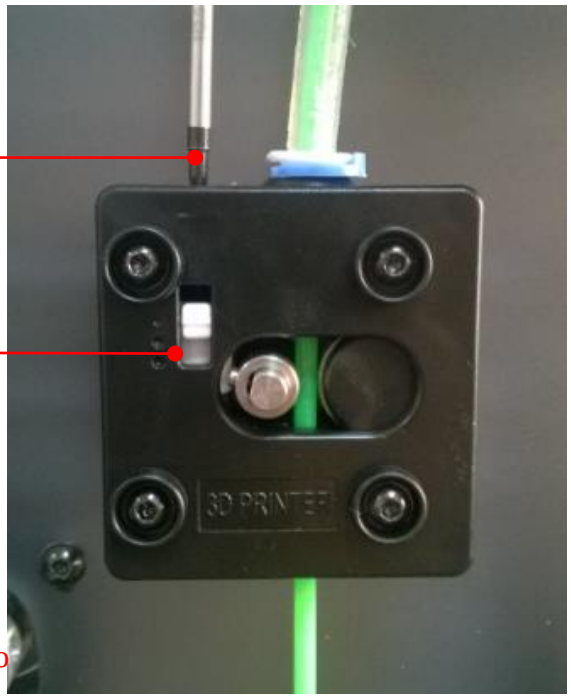
Insert the SD card on the machine. Choose “Print from SD” on the main menu and select the file that you would like to print. The machine starts heating automatically.



Note: if you find the extrusion is too little or no extrusion at all during the printing process, you may use a rocket screwdriver to adjust the feeder’s gear as below:

Turn the screwdriver counter-clockwise to tighten the gear.

Move down the white block to the middle place to tighten the gear.



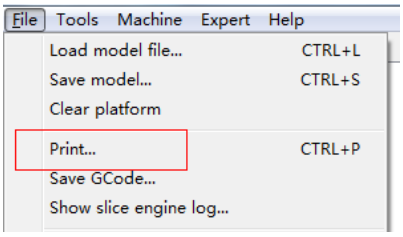
Note: the gear can not be too tight

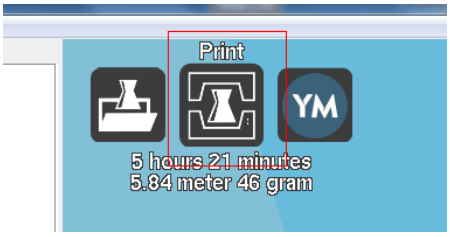
F.3 PRINT FROM COMPUTER

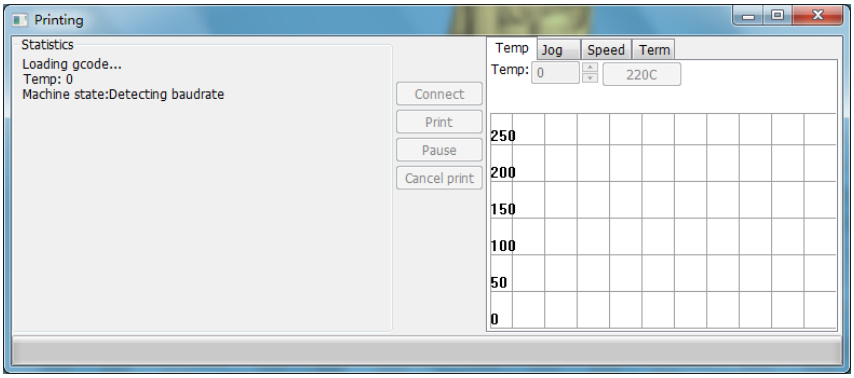
Power on the machine first and connect the machine to the computer through USB. Click on automatical recognition.

After loading the file into the software and finishing the settings, you may click on 

or go to the menu "File"→"Print" to start printing from computer.

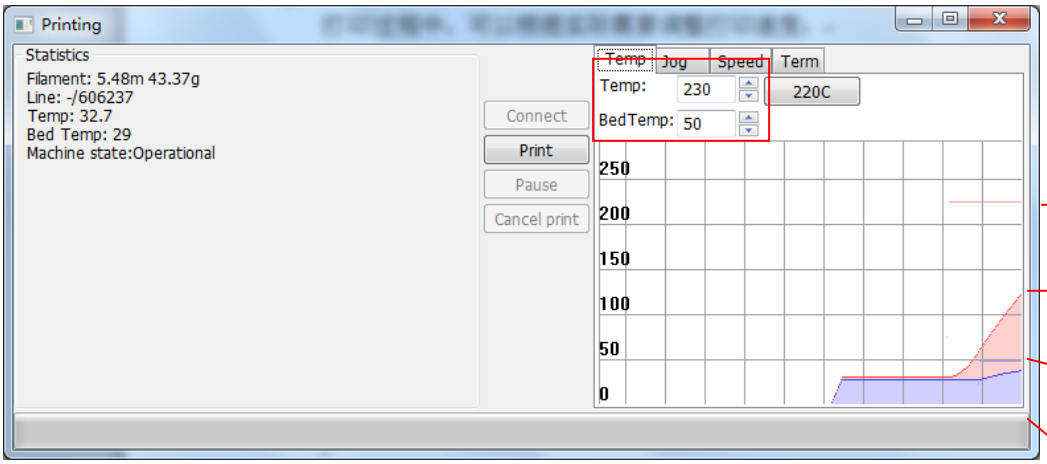






Temp's options:

Through "Temp"and "Bed Temp", you may make changes to the temperatures on the extruder and the build plate.When the target temperatures are higher than the actual ones, the extruder and the build plate will be heated automatically.



Target temperature on the extruder

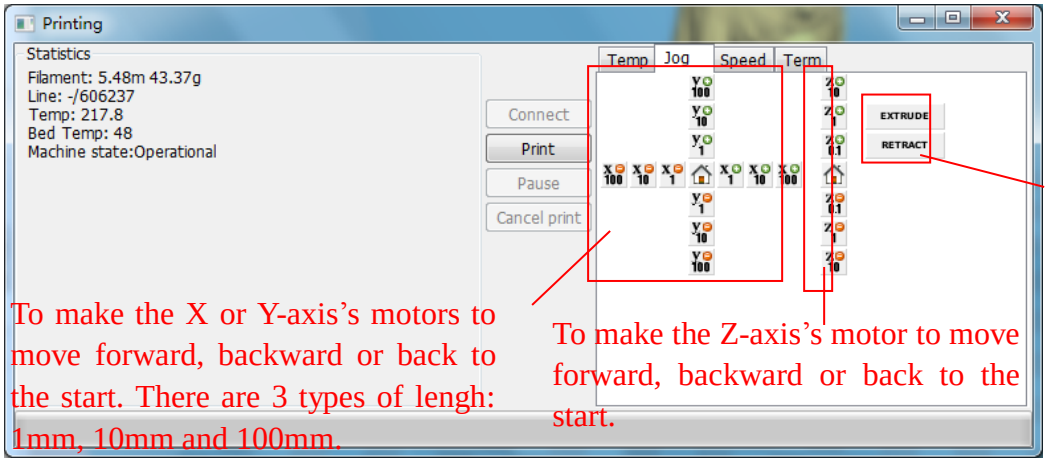
Actual temperature on the extruder

Target temperature on the build plate

Actual temperature on the build plate

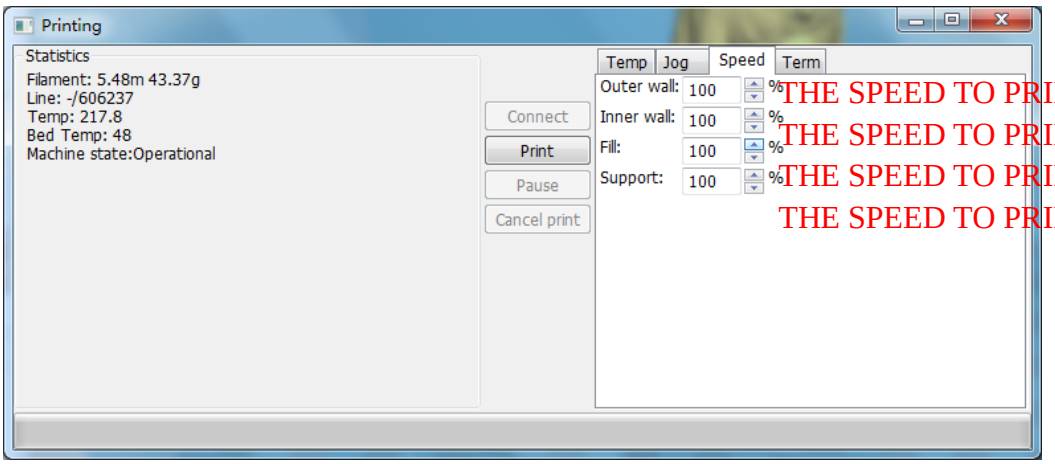
Jog's options:

By the knob, you may run the motors for X, Y and Z-axis or the extruder.



Speed's options:

You may make adjustments to the speeds during printing.



When both the extruder and the build plate reach the target temperatures, you may press "Print" and start printing from computer.

Note: While print from computer, the machine can not be disconnected with the computer and the computer has to be on the run all the time. Print from SD card is highly recommended.

G. CONTINUE THE PRINT AFTER POWER CUT

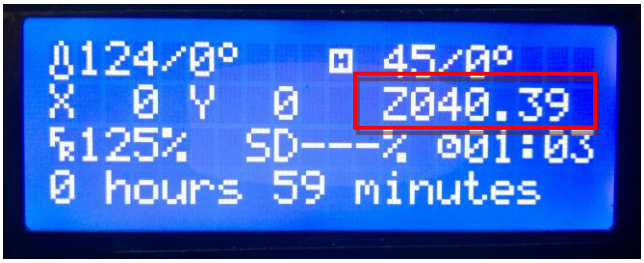
If your machine goes through power cut or any accidents like the SD card being removed during the printing process, the print is stopped. However, you may continue the print as shown below (it is applicable when the object stays on the glass):

1) Heat up the extruder to be 230℃.

2) Lower the build plate. Make sure the model is separated with the extruder.

3) Go to the LCD panel: Auto home → Disable steppers.

4) Lower the build plate again until the nozzle and the model's top are on the same level. Go to the LCD panel and take down Z axis's value.



5) Open the file ".Gcode" by Notepad order. The Gcode can be divided into 3 parts: the head code, printing code and the tail code. Shown as below:

```
;Print time: #P_TIME#
;Filament used: #F_AMNT#m #F_WGHT#g
;Filament cost: #F_COST#
;M190 S45 ;Uncomment to add your own bed temperature line
;M109 S230 ;Uncomment to add your own temperature line
G21        ;metric values
G90        ;absolute positioning
M82        ;set extruder to absolute mode
M107       ;start with the fan off
G28 X0 Y0  ;move X/Y to min endstops
G28 Z0     ;move Z to min endstops
G1 Z15.0 F9000 ;move the platform down 15mm
G92 E0                  ;zero the extruded length
G1 F200 E3              ;extrude 3mm of feed stock
G92 E0                  ;zero the extruded length again
G1 F9000
;Put printing message on LCD screen
M117 Printing...
```

The head code:
Information on the printing settings

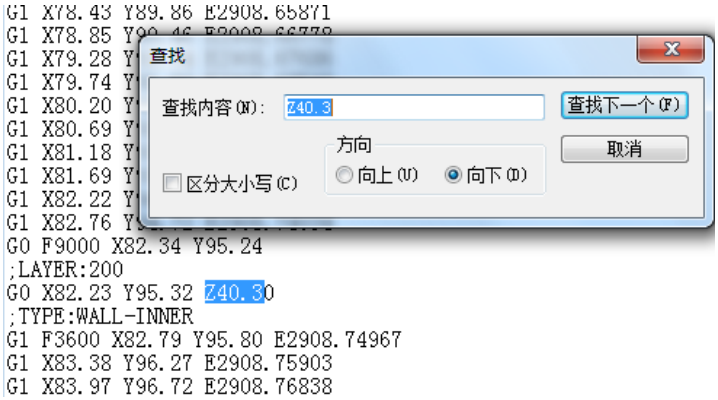
```
;Layer count: 250
;LAYER:0
M107
G0 F9000 X77.52 Y57.98 Z0.30
;TYPE:SKIRT
G1 F900 X78.00 Y57.35 E0.01499
G1 X78.51 Y56.74 E0.02990
...
...
...
G1 X102.03 Y102.23 E3355.46353
G1 X101.28 Y102.27 E3355.47280
M107
G1 F2400 E3352.47280
G0 F9000 X101.28 Y102.27 Z55.00
;End GCode
```

The printing code:
Information on the positions of X,Y and Z axis

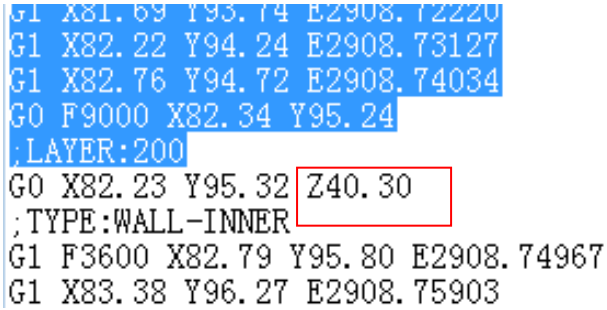
```
M104 S0                     ;extruder heater off
M140 S0                     ;heated bed heater off (if you have i
G91                                 ;relative positioning
G1 E-1 F300                         ;retract the filament a bi
G1 Z+0.5 E-5 X-20 Y-20 F9000 ;move Z up a bit and retract filamen
G28 X0 Y0                           ;move X/Y to min endstops,
M84                         ;steppers off
G90                         ;absolute positioning
;CURA_PROFILE_STRING:eNrtWltv2zYUfhWC/Qg+tljj6WI3aQ29tEvysg4F4mFt
JBKnZDZWsN3025E84Cpnb7RG0IafgF+D+VMHR702HJ+YevGtmQH3padMUCUKT1Ip1
nzvQK1WmdjispbYhbCpsE2EQD6dAXZJVCoat0u0zkVaZ5mXXtQqrRwXSWIqjmNhNc
```

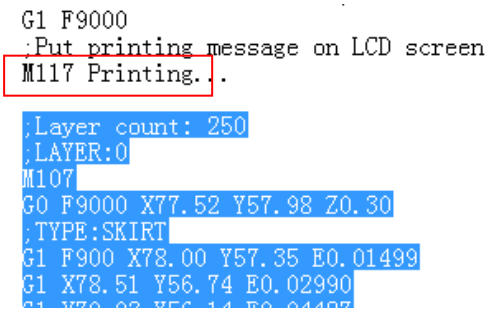
The tail code:
Information on the work after print done

6) Seek the Z axis's position by inputting Z axis's value just taken down before.

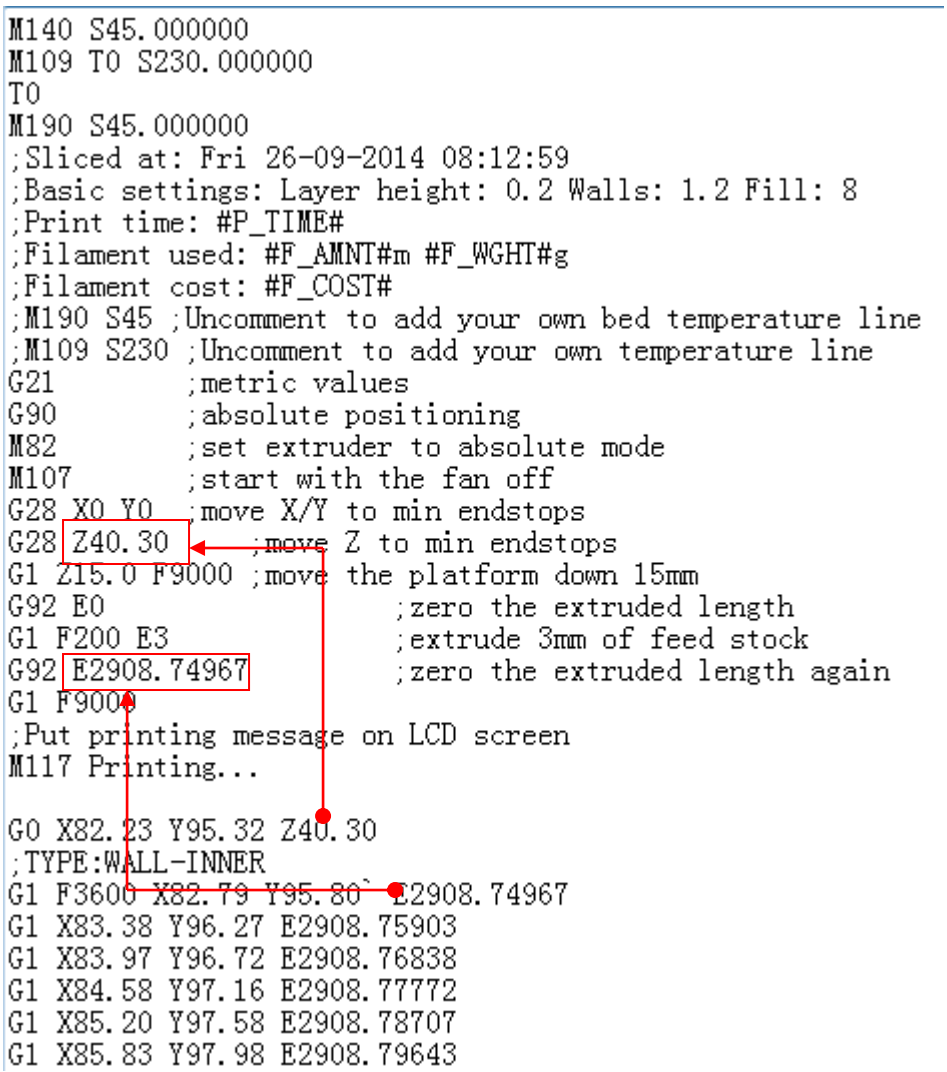


7) Within the printing code, delete all information above this position.





8) Modify the head code's information as shown below:

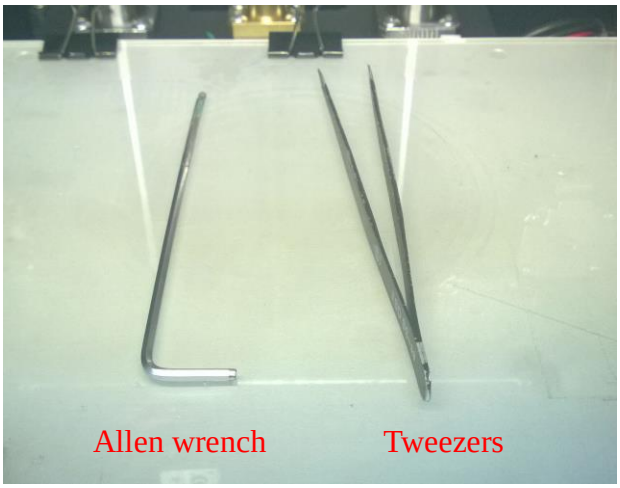


9) Save the Gcode and put it back to the SD card.

H. MACHINE MAINTENANCE

WINBO 3D printers can work for dozens of hours continually. After long time working, some parts on the machine may go through wear and tear. We kindly advice that you should apply maintenance to the machine every month.

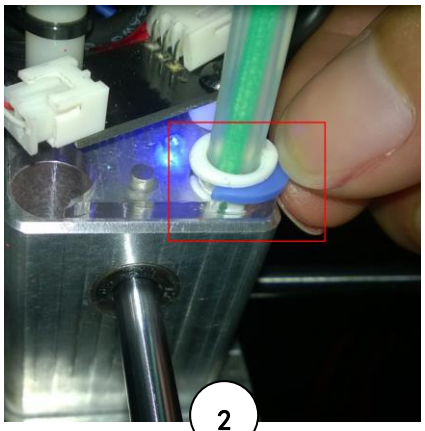
1) Machine casing. Clean the machine casing with soft cloth, to remove the dust and plastic fragment.
2) Axis. When you find that there is unpleasant noise or intense vibration on the axis, it is time to lubricate them. Apply some lube on the axis with a cloth.
3) Extruder. To clean the extruder, you need an Allen wrench of 0.2mm diameter and a pair of tweezers.



Steps:

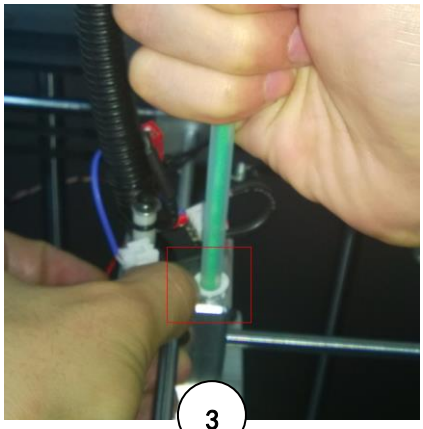
1

Go to the LCD panel “prepare” → “preheat PLA” or “Preheat ABS” to heat up the extruder to 230℃



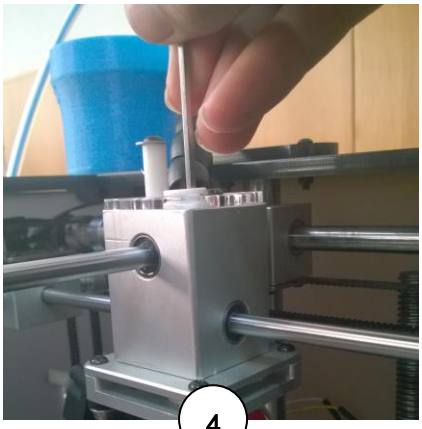
2

Pull out the blue buckle



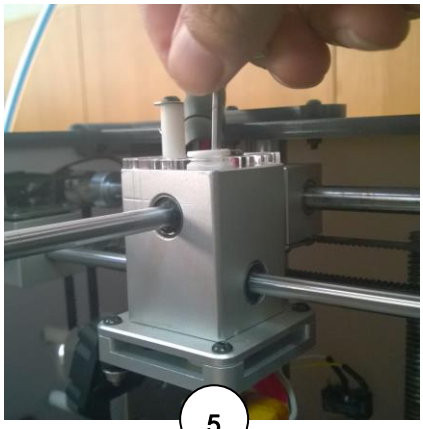
3

Pin on the lock catch and pull out the transparent tube



4

Put an Allen wrench inside the extruder to pull out the plastic residue

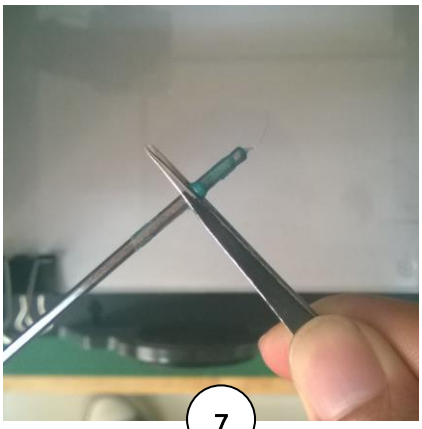


5

Turn around the Allen wrench so that the residue can attach to it

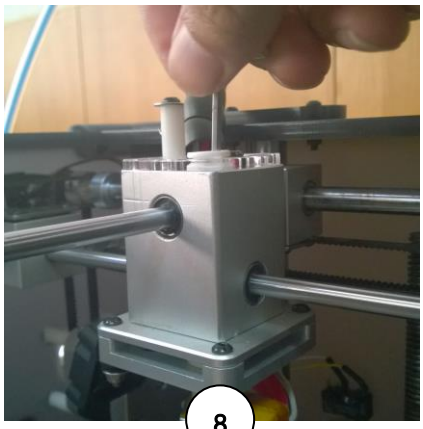
6

Pull out the Allen wrench very quickly



7

Scrape out the residue on the Allen wrench



8

You may repeat steps 4, 5, 6 and 7 until the Allen wrench can hit on the nozzle easily.

4) Gear on the feeder. You may find some plastic fragment on the gear after long time working. Such plastic fragment will do harm to the printing quality. Therefore, we need to clean the feeder regularly: use a brush to clean the gear.

I. CONTACT US

WINBO 3D Printer: www.wb3dprinter.com
EDIY: www.ediy.com
Contact: Ms. SUKI
Phone Nr.: +86 20 6628 6618
Skype: winbo02
E-mail: sales2@winbocn.com

Declaration: CURA software is owned by Ultimaker. We use CURA to perform simple operation for the 3D printers, not for commercial purpose.

Appendix:

AFTER-SALE SERVICES

To well protect customers' interests, sparing them from worries after purchase, WINBO is devoted to provide following after-sale services:

1. High quality products.

Any machines from WINBO factory or WINBO distributors / resellers are high quality products.

2. Technical support.

WINBO is devoted to provide perpetual technical support to all WINBO 3D printer users. Including:

1). Provide machine's catalog for free.

2). Reply technical consultation by phone or e-mail.

3). Remote on-line analysis and debugging are available.

For any technical support, you may contact by:

Phone: +86 206628 6618 (Sales Dept)

Skype: winbo02

E-mail: sales2@winbocn.com

QQ: 2355566702

Office hours: from Mondays to Saturdays, 08:00-18:00

3. Warranty.

The warranty policy for WINBO 3D printers is as below:

1). Warranty period: total six months from the date of receipt.

2). Warranty coverage: main board, LCD panel & the key board, power switch, motor and structural parts (non-artificial damage).

3). Not covered by the warranty: nozzle, printing materials (like ABS and PLA filaments), 3M tapes, glass plate and the tool set.

4). For the following occasions, WINBO will not take as warranty coverage:

A. The damage is from mishandle by the user.

B. The damage is from private disassembling.

C. Without any qualified warranty certificate.

D. Damage from factors that are beyond human control.

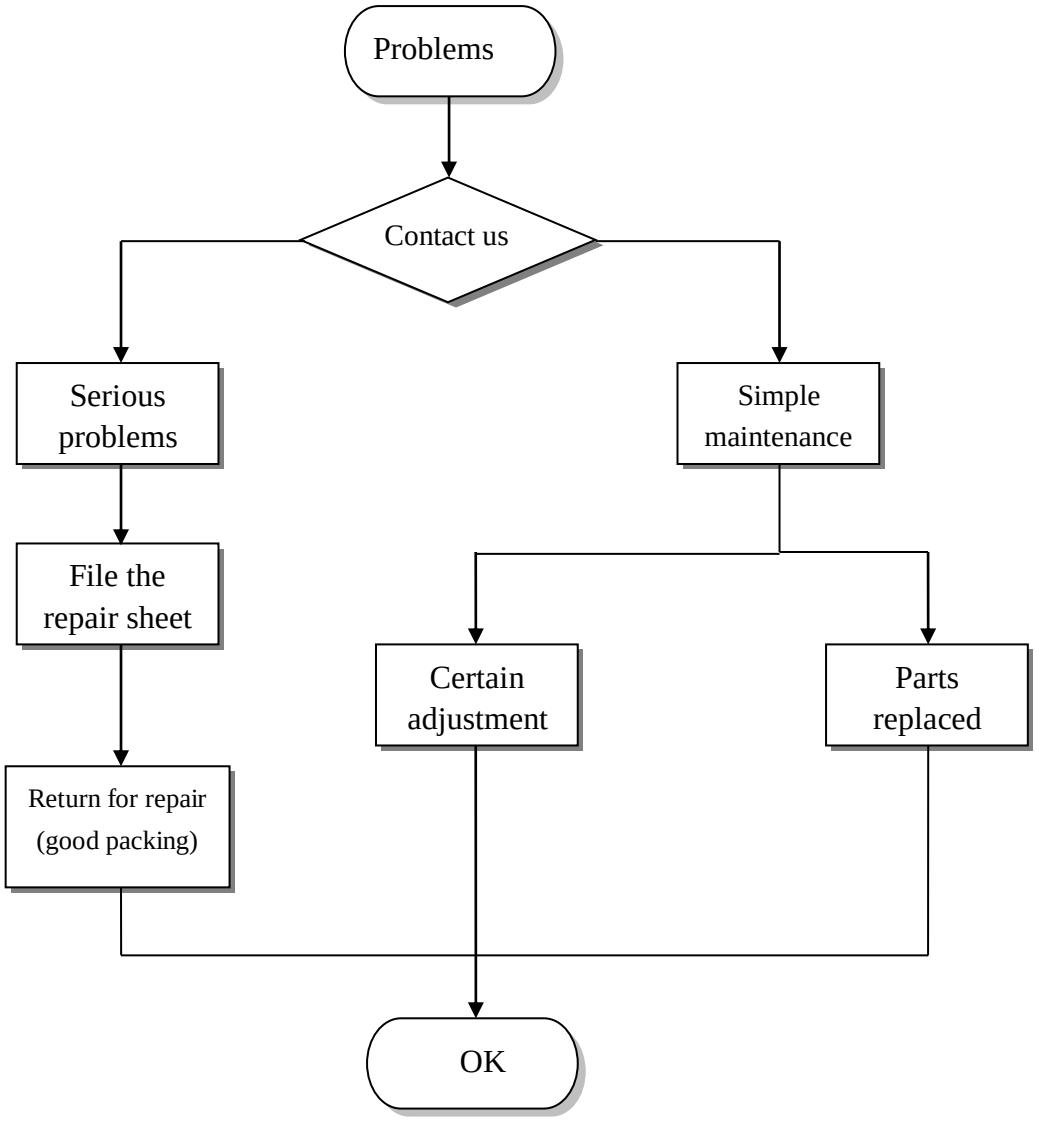
D. Out of warranty period.

5). WINBO will not provide on-site service for free.

6). Machines that need to be returned for repair, both WINBO and the customer will share shipping costs. The machine has to be well packed as the original packing (no need to include accessories).

7). WINBO has the final interpretation on the after-sale service.

4. Steps for repair.



5. Repair charge.

If the replaced parts are not covered by the warranty, or the machine is out of warranty, the customer needs to pay for them. For machines out of warranty, customers need to pay for the shipping costs for machine.