

one Series
www.wiiboox.com

USER MANUAL

WiibooxTM

成就非凡创意

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Application Notices

1.1. About the User Guide

This User Guide contains important information on the installation, use, maintenance and other questions frequently raised up about the 3D printer. Please read this User Guide carefully before using this 3D printer. For damages to the 3D printer and other losses caused by the violation of safety precautions and operational processes given in this User Guide, the user should take all the responsibilities.

1.2. Safety Precautions

1. The temperature of the extruder would be up to 200 °C during printing or immediately after printing; therefore, it is prohibited to directly touch the printing extruder during these times.
2. The temperature of the printing platform would be up to 100 °C during the printing of ABS consumables or immediately after printing; therefore, it is prohibited to directly touch the printing platform during these times.
3. The 3D printer is equipped with active air filtration system which can handle most of the irritant gases exuding from the heated fiber during printing. For continuous printing of a long time, however, it is better to place the printer in a well-ventilated environment.
4. The structure of this 3D printer is very complex; please refer to this user guide for troubleshooting, should there be any failure. If the problem still cannot be solved, please contact our after-sale service. Our company will not offer warranty for printers with unauthorized repair by the user.
5. There is high voltage within the 3D printer and it is prohibited for non-professionals to disassemble the printer. All the consequences for violation of this precaution should be the responsibility of the user.
6. Please use the power cord and the USB data cable supplied by our company. For printer failure and other consequences because of the use of third-party power cable or USB data cable, the user should take all the responsibilities.
7. When the 3D printer is connected to the power, please plug the power cord into three-hole flat receptacle complying with the international standard. The power cord cannot be forced into a two-hole receptacle. The ground wire must be connected to the ground and shall not be suspended. Our company will not be responsible for mechanical failure or other accidents caused by the disconnection of the ground wire.

8. Default input voltage of the 3D printer is 220V. To use the 3D printer in areas outside the mainland China, please contact our after-sale service; our technical personnel will provide you with the solutions.
9. If unexpected power outages are frequent in your area, please equip the 3D printer with UPS power.

1.3. Printing Consumables

Please use the printing consumables provided by our company for this printer. Printing consumables sold at the retail market are different in specifications and varying in quality; as a result, it is easy to block the printer extruder and damage the extruder and motor. Our company will not offer warranty for printer failure for using third-party printer consumables.

1.4. Environment requirements

This 3D printer uses a fully enclosed structure, which means that it has strong adaptability to the ambient temperature. It can work properly in a environment from 5 °C to 40 °C. If the ambient temperature is beyond this range, the quality of the printing products will decline.

If the unpackaged printing consumables will not be used for a long time, please store them in sealed package, and it is especially true for PLA consumables which will absorb moisture in prolonged exposure to air and affect the quality of finished printing products.

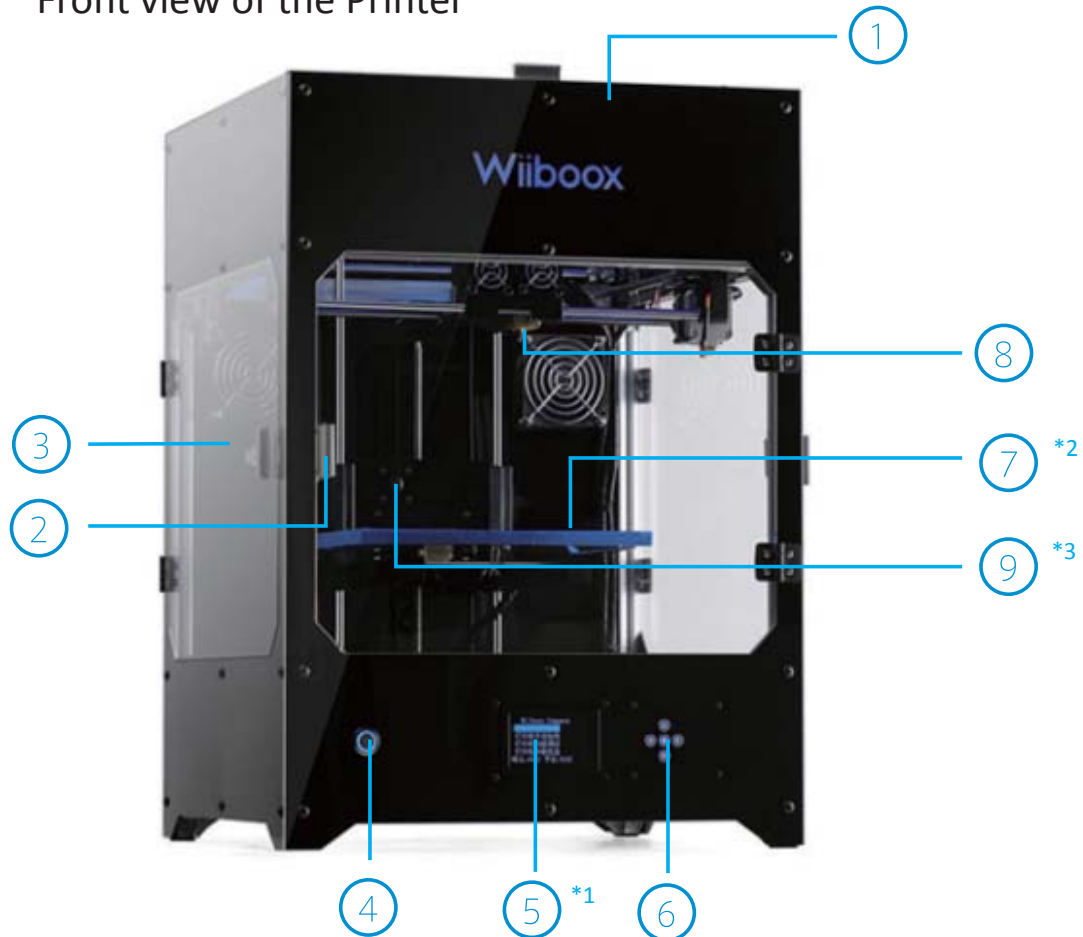
2

Introduction to the Printer

The printer applies the FDM (Fused Deposition Modeling) principle to slice and convert the STL three-dimensional model, and then print out the physical object layer by layer. This printer boasts a series of innovative design such as a metal frame, a fully enclosed structure, an electric heating platform and an active air filtration systems with the characteristic of high print speed, good product quality, easy to use, easy maintenance and supporting high- strength connecting cable print.

2.1 Appearance Introduction

Front view of the Printer



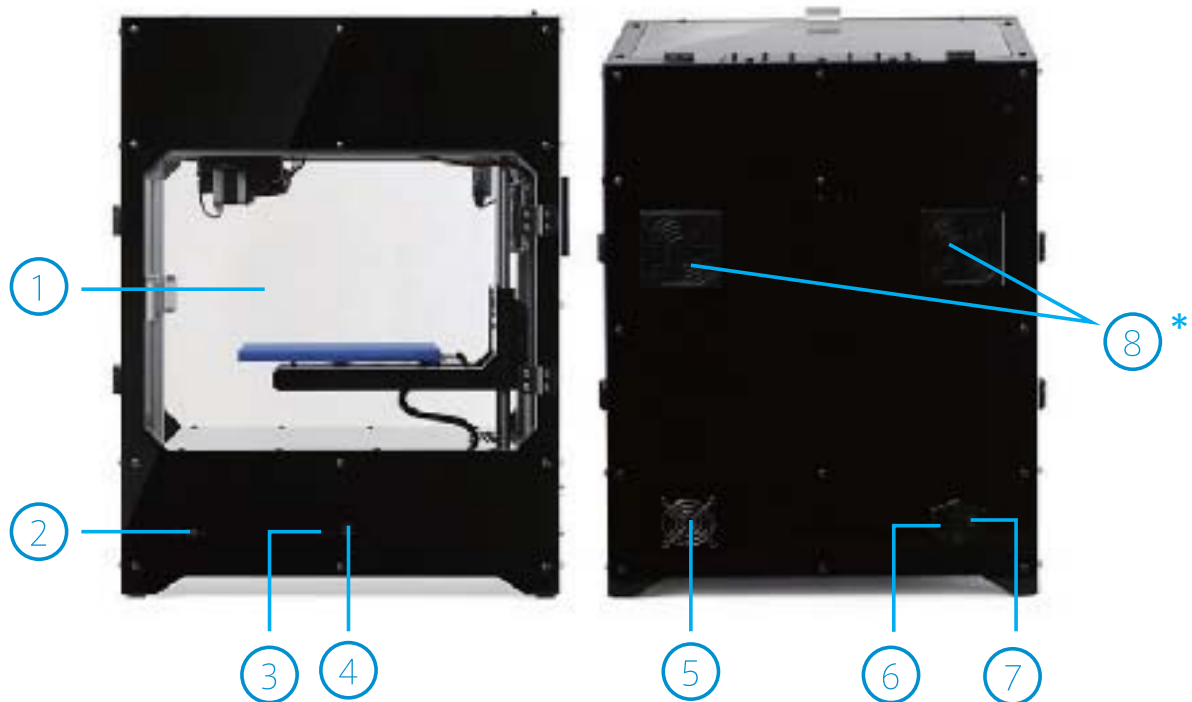
- | | |
|-----------------------------------|---------------------|
| ① top cover | ② front door |
| ③ left side door | ④ power switch |
| ⑤ ^{*1} LCD Display | ⑥ Control Panel |
| ⑦ ^{*2} printing platform | ⑧ printing extruder |
| ⑨ ^{*3} Camera | |

Note : * 1.Wiiibox One model is with English display

* 2.Wiiibox One Pro model is not equipped with electric heating plate

* 3.Wiiibox One Pro model is not equipped with camera

Right view and rear view of the printer



- | | |
|-------------------|--------------------------------|
| ① Right side door | ② Socket for monitoring camera |
| ③ SD card socket | ④ USB socket for printer |
| ⑤ Host Fan | ⑥ Power socket |
| ⑦ Power switch | ⑧ * Air filter fan |

Note: * Only the Company model is equipped with two air filter fans

2.2 Technical Parameters

Printing parameters		Machine parameters	
Printing Size	250*200*200mm*1 260*210*200mm	Display Type	English * 2 / Chinese display
Thickness of one layer	0.1~0.5mm	Machine Size	480*475*620mm
extruder Diameter	0.4mm	Machine Weight	19kg
Printing Accuracy	0.1mm/0.08mm*3	Machine Color	Black
PrintingSpeed	20~150mm/s	Input Voltage	220V
Positioning	Z axis 0.0025mm	Maximum Power	350W
Accuracy	XY axis 0.011mm	Filtration System	Three- mesh filtration
Consumables parameters		Software parameters	
Consumables Type	ABS/PLA/PLA Pro/ PVA*4	Printing software	ReplicatorG Chinese version / Cura Chinese version
Consumables Diamete	1.75mm	File Format	STL/GCODE
Consumables Color	Colors are optional	Operating System	Windows/Linux/ MacOS
		Printing mode	USB/SD Card

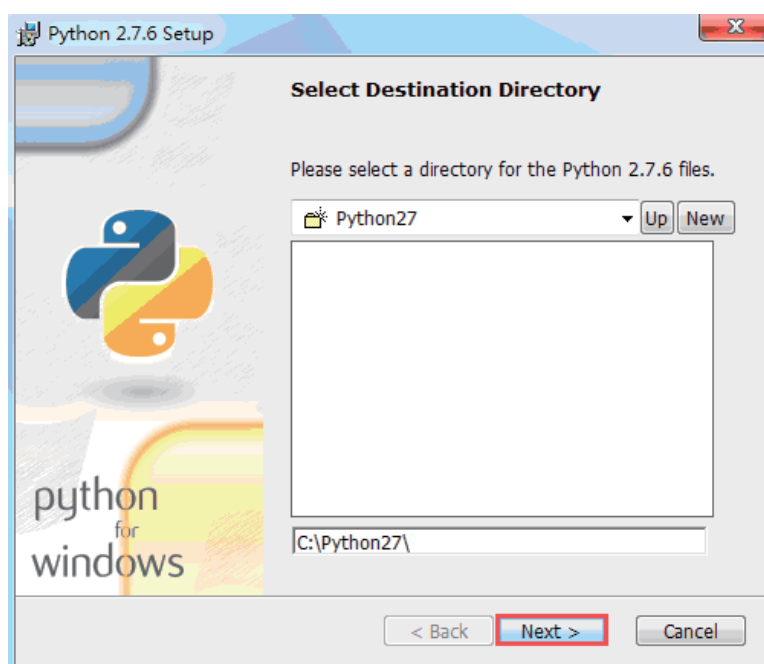
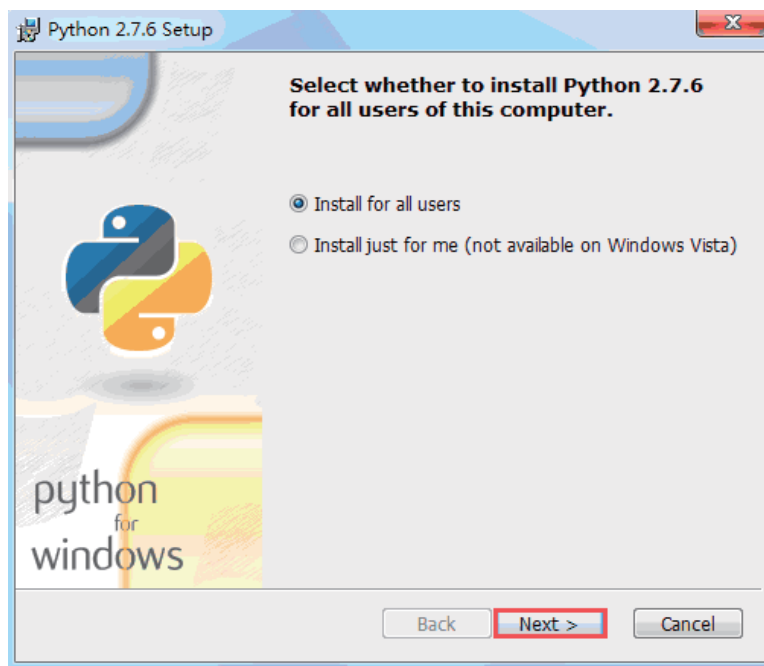
Notes: * 1. Wiiibox One model
* 2. Wiiibox One model
* 3.Company model
* 4. only for dual- extruder model



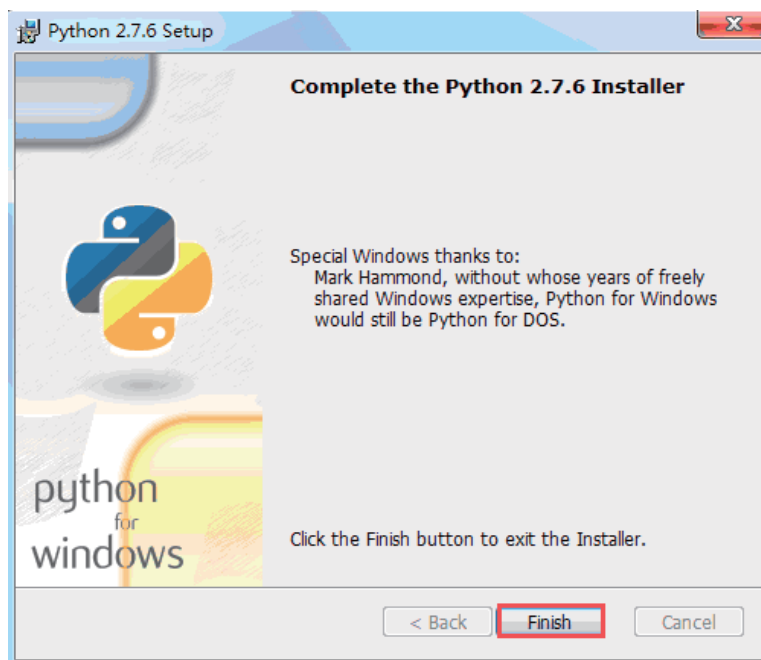
Install the software of the printer

3.1 . Install the Python runtime library

Open the installation disc or the installation package downloaded from the official website and run the python-2.7.6.exe. After the installer starts, click "Next" to continue. In the window to select the installation path, please use the program default path, otherwise the printing software can not automatically find the path of Python runtime library. If a user's system is already installed with the Python runtime library, please skip this step.



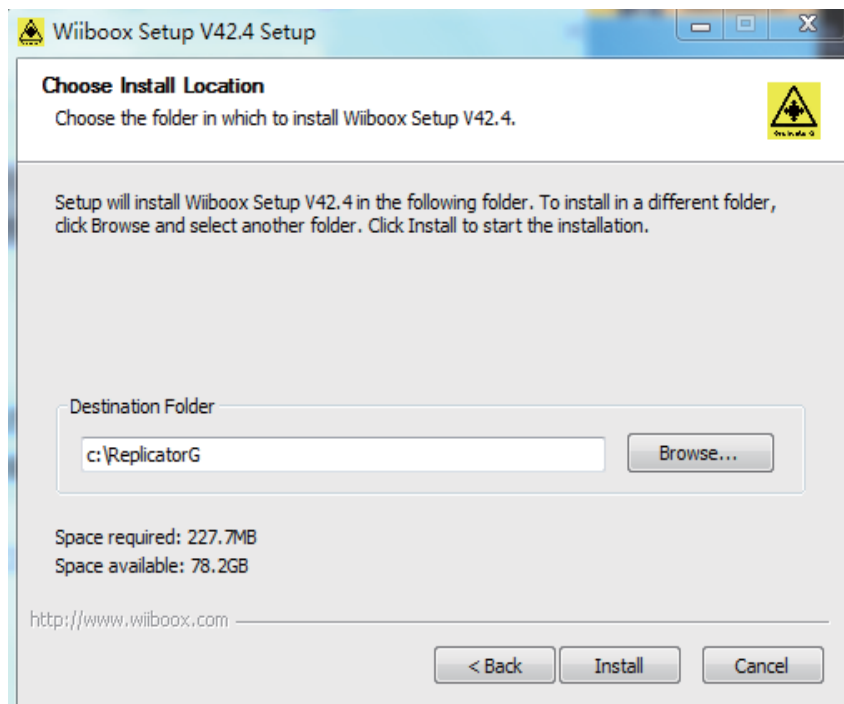
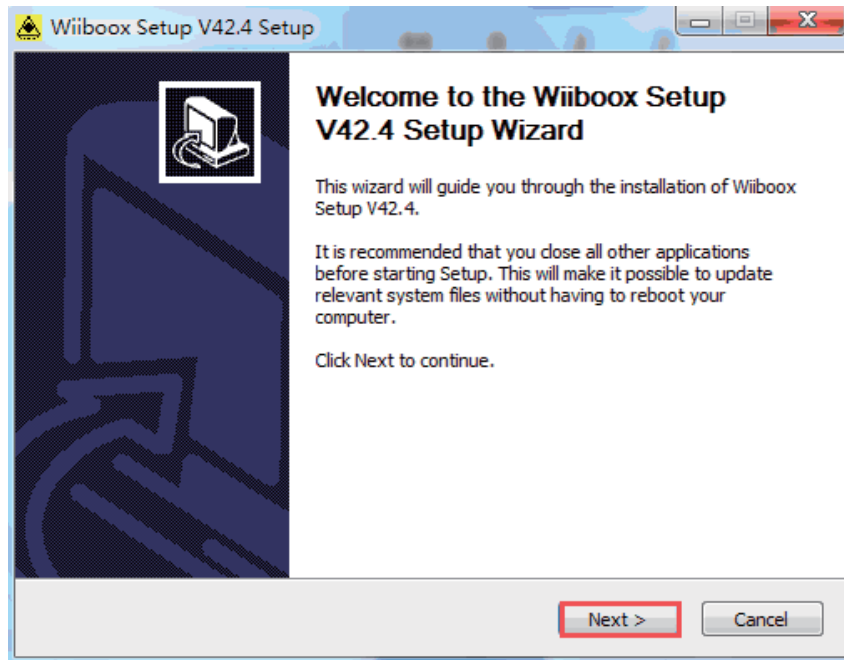
In the window to select the Installation Items, please use the default option to install all the components.



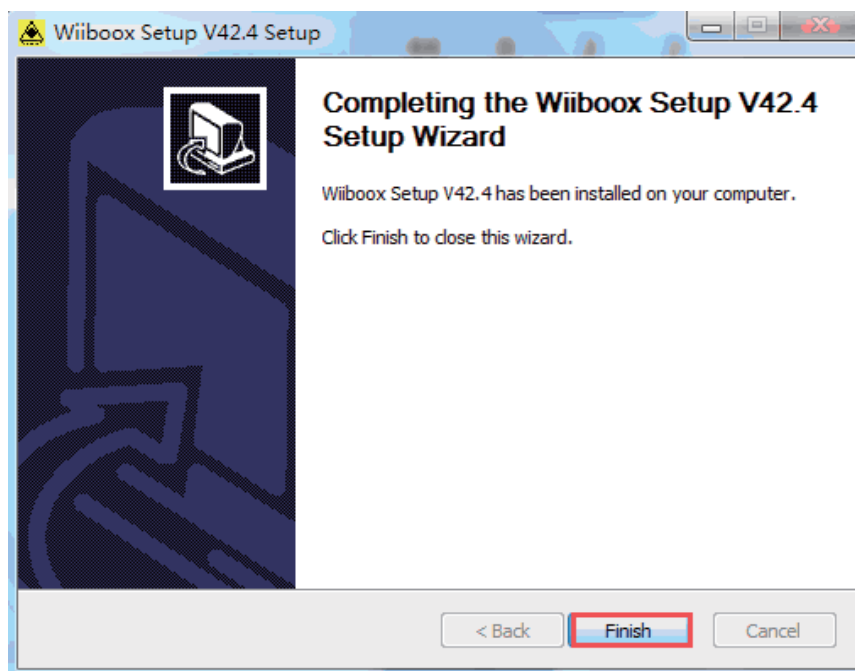
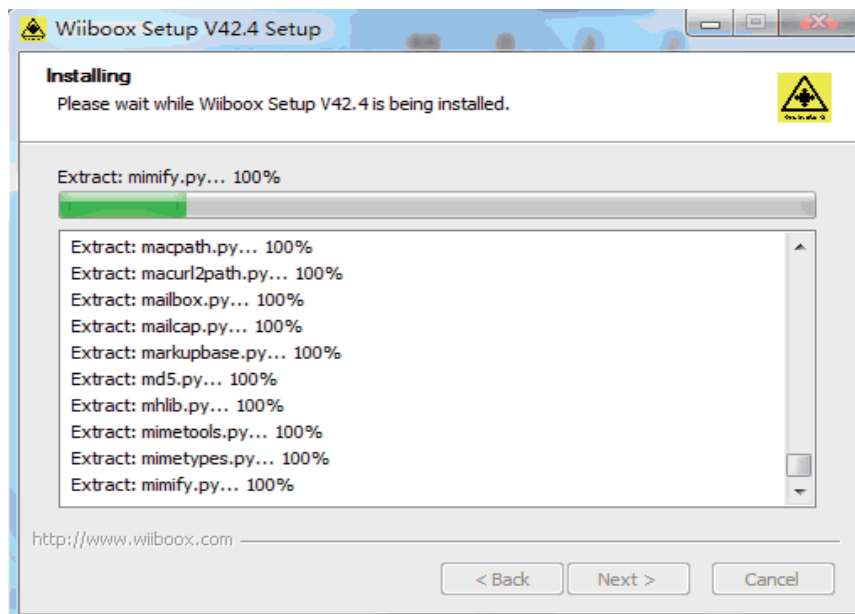
After the installation is complete, please click "Finish" to exit.

3.2 . Install the ReplicatorG printing software

Run the installation package of the printing software, , and click the " Next" button to continue on the installation wizard window,. In the window to select the Installation Path, please use the program default path.

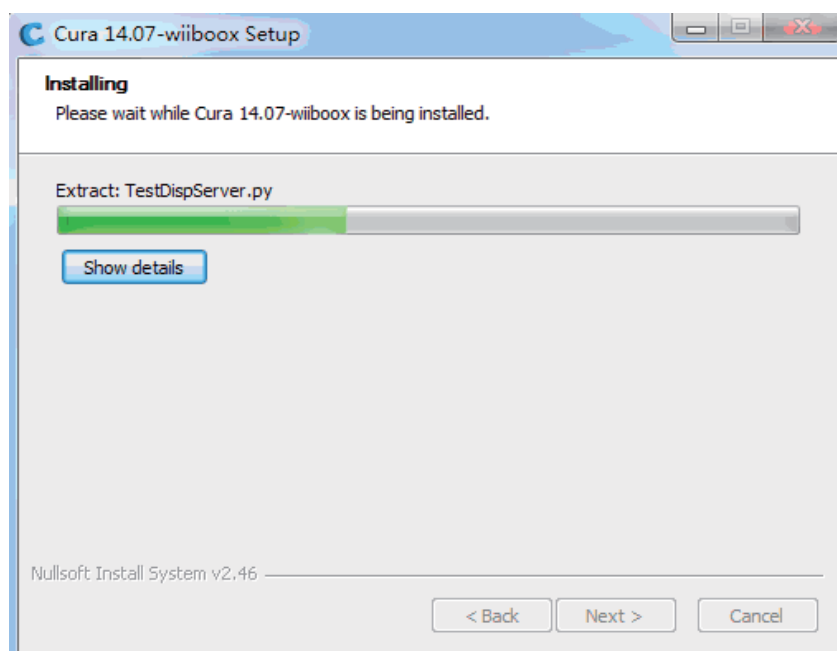
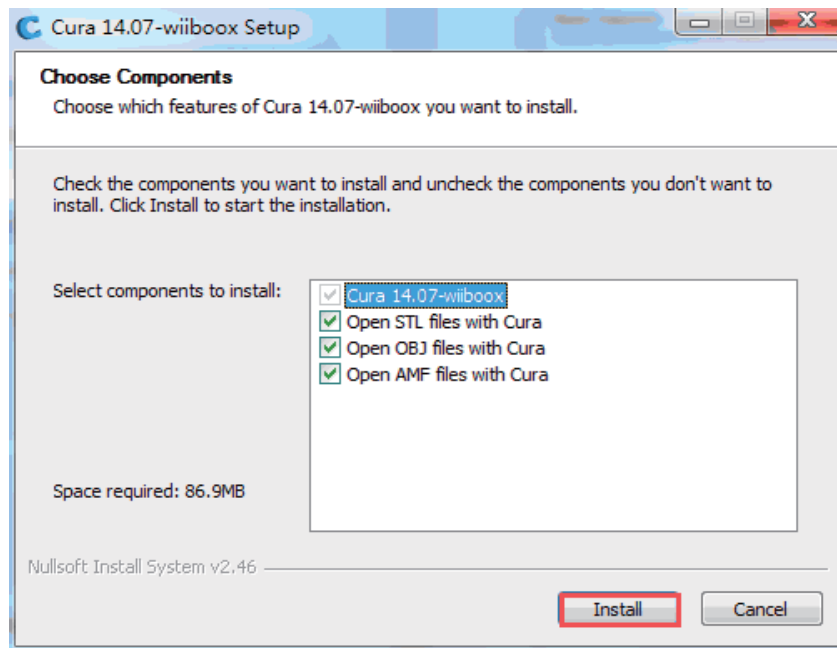


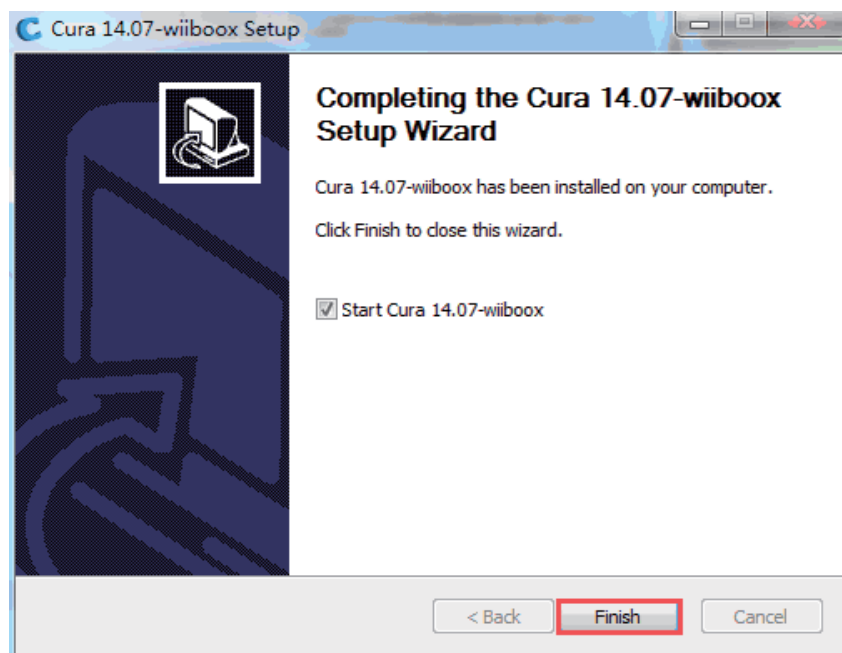
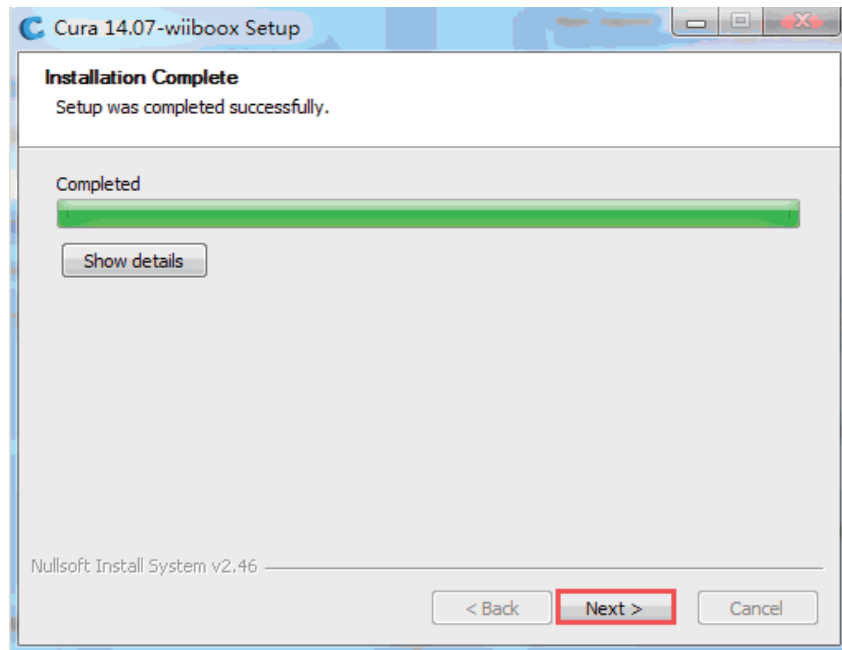
When the installation interface of the printer driver pops up, click on the "Next " button to continue. After the installation of the printer driver is complete, click "Finish " to exit.



3.3 . Install the Cura Software

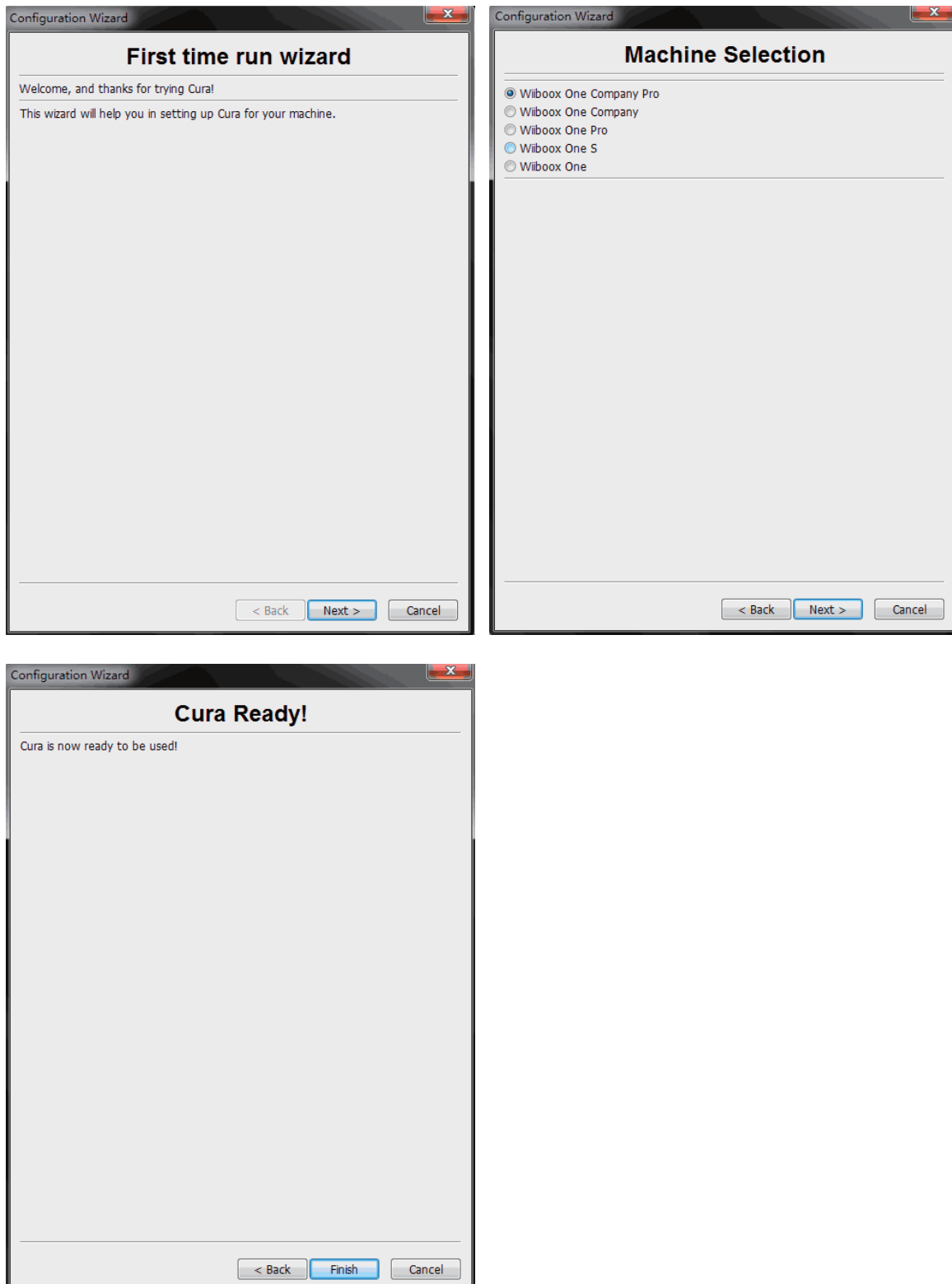
Run the software installation package, Cura-14.07-Wiiboox Setup, click "Install" → "Next" → "Finish" in the installation wizard window. In the window to select the installation path, use the program default path.





Note: The installation path for Cura is the root directory of Disc C

If you use the Cura software for the first time, you need to enter the wizard screen first and click "Next" to enter the model selection screen, then select the machine to match yours, and click on "Next" to enter the Ready screen, and then click "Finish" to complete the installation.





Print the first model

4.1. Connect the power and data lines

Built-in 24V power supply

Pick up the power cord from the accessory box, put the male head into the power outlet and female head into the power input socket at the back of the printer. Press the switch on the power input socket to put the vertical sign downward, as is shown below.



External 24V power supply

Pick up the power cord from the accessory box, put the male head into the power outlet and female head into the 24V external power wide-mouth

adapter; connect the 24V external power round port to the power input jack at the back of the printer.



Connect the printer to computer

Pick up the blue USB cable from the accessory box and put the square head into USB jack on the right side of the printer (the side with USB pattern should be upward). The other side of the USB wire should be connected to the computer USB port.

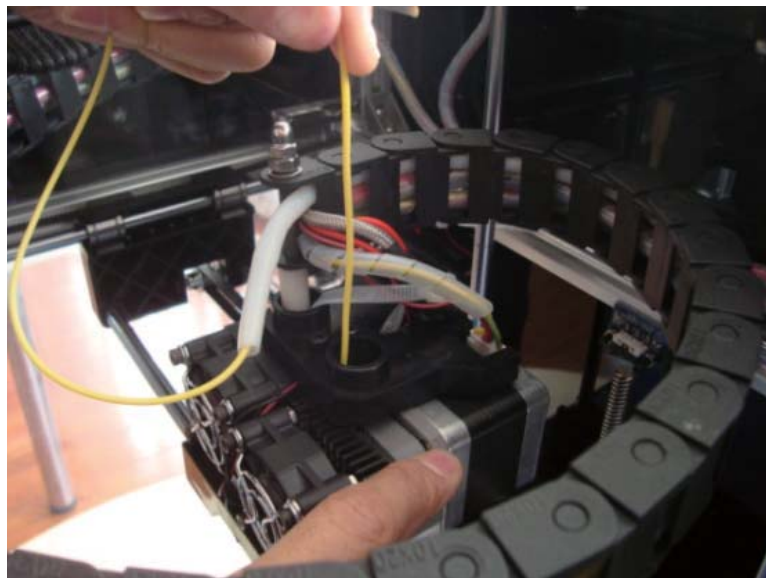


4.2 Feed wire assembly

Take out the feed tray and rack, put the rack shaft into the feed tray, and then put them into the rack together. Sort out one end of the feed wire from the feed tray and send it into the feed tube at the back of the printer until the feed wire coming out of the other end of the feed tube.



Open the printer cover and pull the feed wire out of the feed tube for 20cm. Straighten the end of the feed wire, press the handle of the extruder with your right hand and send the feed wire into the inlet for about 5cm with your left hand.

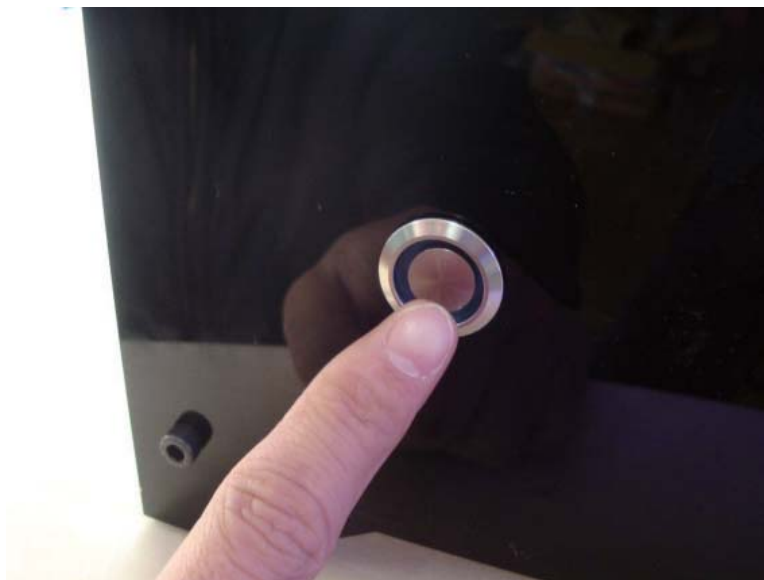


Send the excessive feed wire back to the feed tube, and put the feed tube in the feeding mouth.



4.3 Printing preparation

Press the power button to turn on the printer.



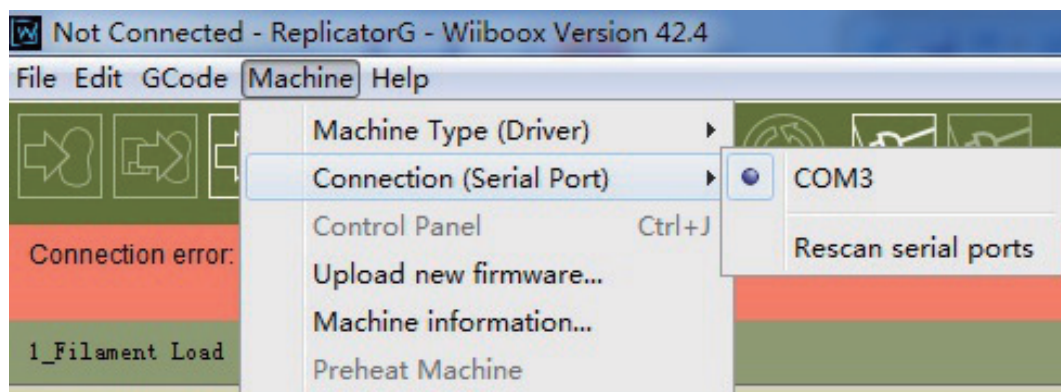
When the printer is connected to the computer for the first time, a message of successful serial port driver installation will pop up at the corner of the computer screen; please write down the serial port name (in this case, it is COM3).



Double-click on the desktop icon to start the printing software.



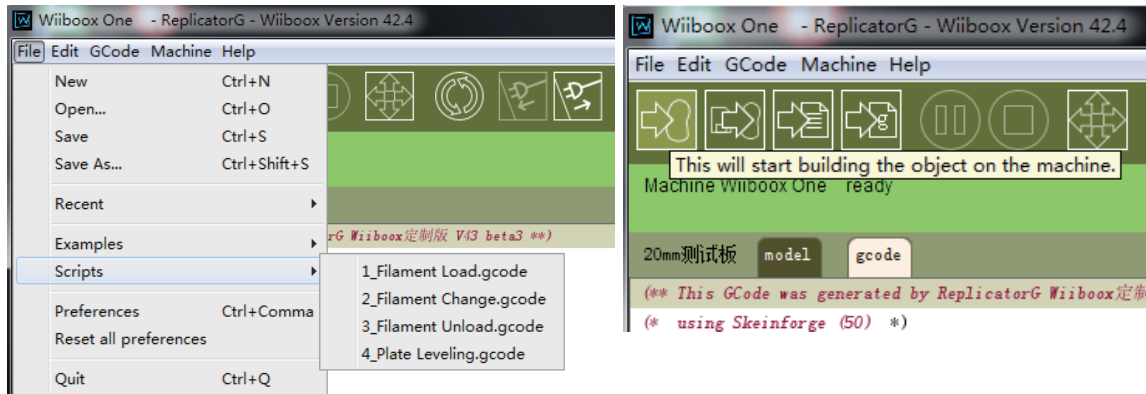
Click on the "print" menu on the menu bar, and select the printer port from the "connection port "; in this case, it is "COM3".



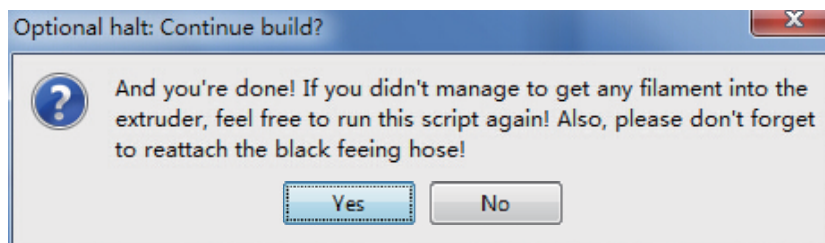
Click on the second button "connected to the printer" in toolbar from right. If the connection is successful, the status bar at the bottom of the toolbar will turn from pink to green.



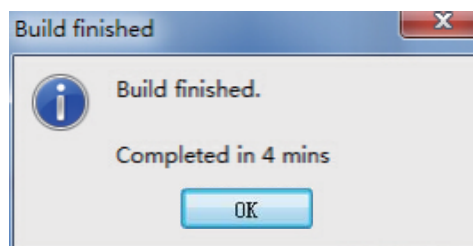
Click on the "File" in the menu bar and select the "1_ extruder into the wire .gcode" script from the " Script" menu. Then click on the first button on the toolbar "Start Printing" to execute the script.



After the script is started, the following window will pop up; click on the "Yes" button to start heating the extruder, and then it will feed the wire automatically.

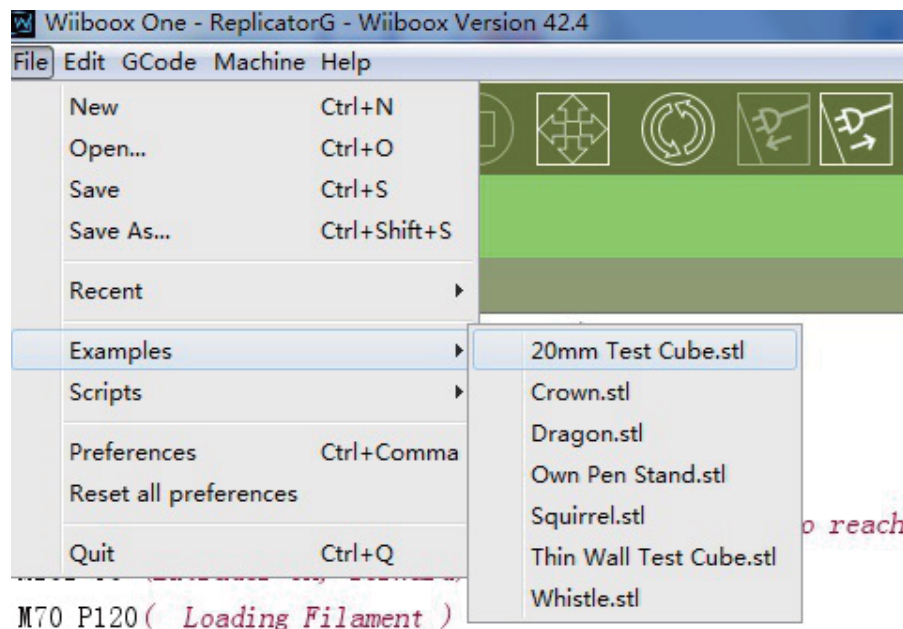


3 minutes later, the wire feeding will be complete and the script will pop up the following window. If the wire is not extruded from the extruder, please re-run this script, or go to the control panel to feed wire manually.

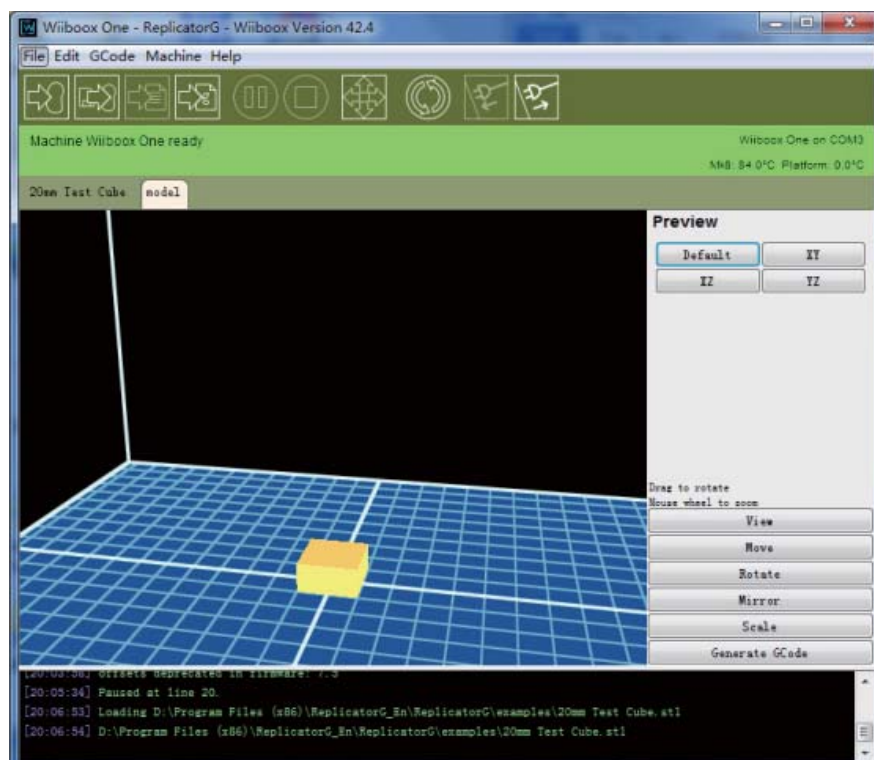



4.4 . Print the Model


Click on the "File" menu on the menu bar and choose "20mm Test Cube.stl" from the "Examples" menu.

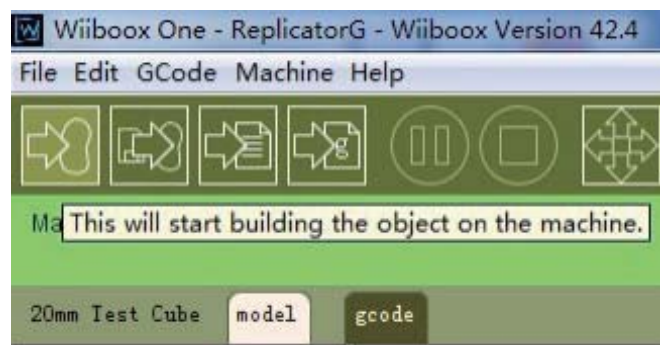
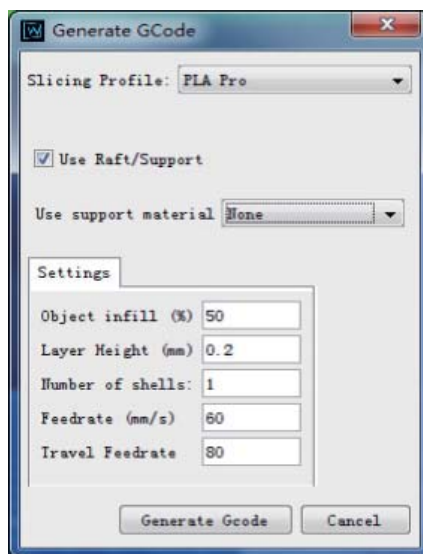


After the file is loaded, the software window will display the three-dimensional appearance of the model.

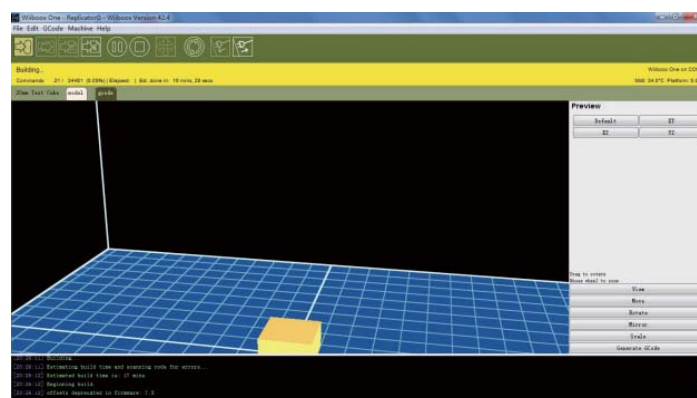


Click on the fourth button  at the toolbar, or the "Generate GCode Data" button at the bottom right of the software window, then the software will pop up the "Generate GCode Data" dialog box where you can set the printing parameters of the model. If it is printing for the first time, please use the default parameters in the dialog box. Click on "Generate GCode" button, and the ReplicatorG will convert the stl model file to Gcode code, while the conversion time depends on the model size.

When the GCode code conversion is complete, click on the first button  in the toolbar to start printing.



After the printing is started, the printer will preheat first. When the heating plate and the extruder reach the set temperature, the printing will start. At this time, the printing progress and the temperature will be displayed on the software interface.



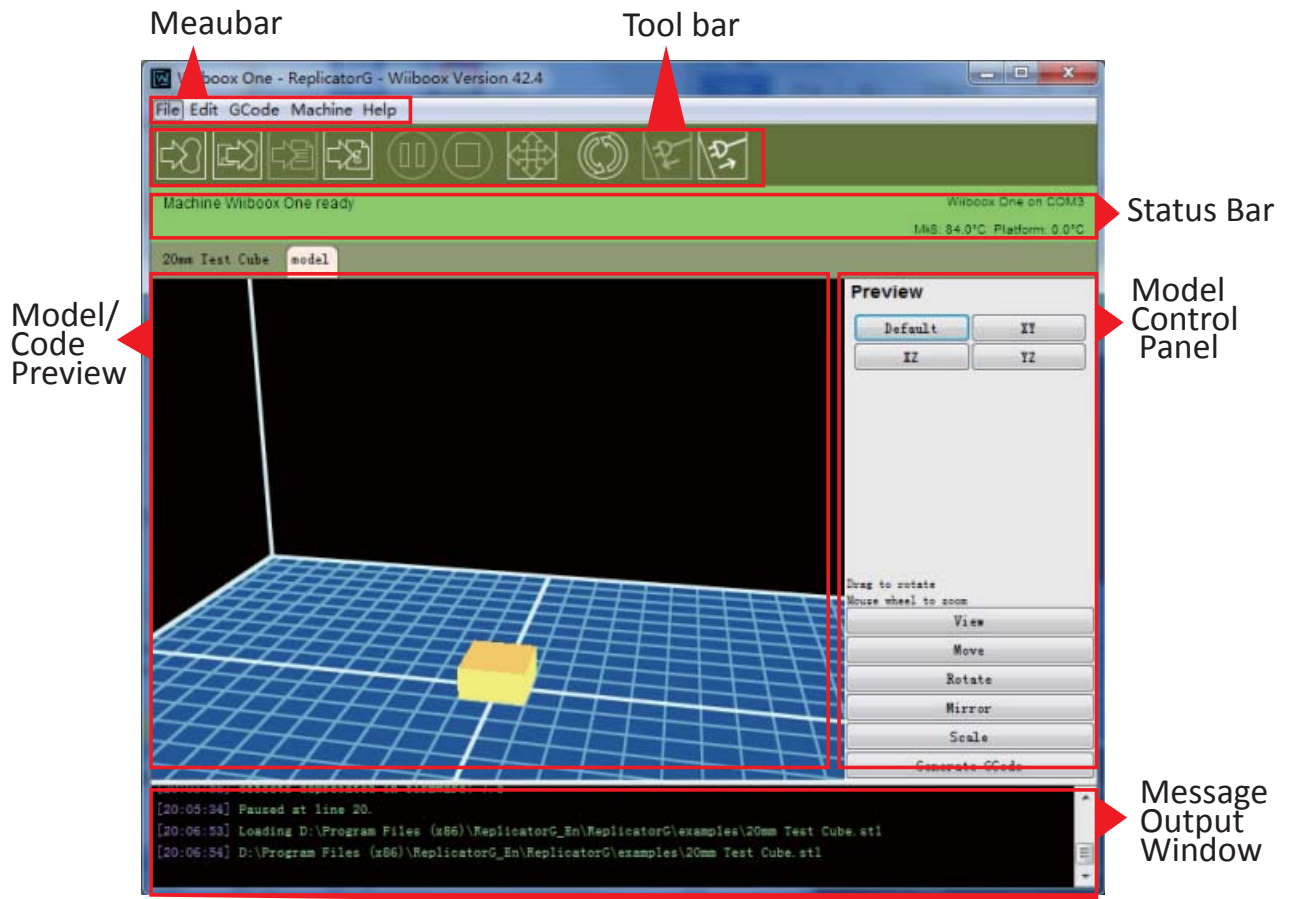
About 19 minutes later, printing of the first model will be complete. Pick up the blade from the accessory box to carefully remove the model from the printing platform.



Details of the ReplicatorG software

5.1 Introduction of the Software Interface

ReplicatorG software interface is shown as below



1. Menu Bar: ReplicatorG's menu is divided into five items: File, Edit, Gocde, printers, and help.
2. Toolbar: there are 10 of the most commonly used function buttons on the ReplicatorG toolbar.
3. Status bar: it shows the connection status and real-time temperature of the printer, and the progress of the printing.
4. Model / code preview window: after the loading of the model, ReplicatorG will open a label called "model" to display the three -dimensional preview of the model, while the gocde code of the model is shown on the label page called "gcode".
5. Model Control panel: it includes the operation instructions such as the moving, rotating , scaling of the model.
6. Message Output window: it displays the output information of ReplicatorG and backstage skeinforge when they are at runtime.

1)Menu bar

1.File

New:	Create a new GCode file
Open	Load STL model or GCode code
Save	Allows you to save the current STL model or GCode file
Save as	Allows you to save the modified STL model or GCode files as specified file name
Recent	Open the recent file list.
Examples	Open the sample model list
Scripts	Open the script file list
Preferences	Open the parameter setting window(if you are not clear about the specific function of some settings, do not change them).
Reset all	
Preferences	Reset all software parameters to the default settings
Quit	Exit the software environment

New	Ctrl+N
Open...	Ctrl+O
Save	Ctrl+S
Save As...	Ctrl+Shift+S
Recent	▶
Examples	▶
Scripts	▶
Preferences	Ctrl+Comma
Reset all preferences	
Quit	Ctrl+Q

2.Edit

Undo	Cancel or modify your previous actions
Redo	Redo or modify your previous actions
Cut	Cut code (only effective in the GCode tab)
Copy	Copy code (only effective in the GCode tab)
Paste	Paste code (only effective in the GCode tab)
Select All	Select code (only effective in the GCode tab)
Find	Find code (only effective in the GCode tab)
Find next	Find next code (only effective in the GCode tab)

Undo	Ctrl+Z
Redo	Ctrl+Y
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Select All	Ctrl+A
Find...	Ctrl+F
Find Next	Ctrl+G

3.GCode

Estimate	Estimate the build time
Simulate	Simulation build
Convert toGCode	Convert STL model to GCode
Build	Build the object from Gcode file
Pause	Pause a print
Stop	Stop a print

Estimate	Ctrl+E
Simulate	Ctrl+L
Generate	Ctrl+Shift+G
Convert to x3g	Ctrl+Shift+X
Build	Ctrl+B
Pause	Ctrl+E
Stop	Ctrl+Period
GCode Generator	▶
Edit Slicing Profiles...	Ctrl+R
Swap Toolhead in .gcode	▶
Merge .stl for DualExtrusion	Ctrl+D

GCode Generator	Choose the Gcode Generation tool
Edit Slicing Profiles	Edit Gcode Generation Profiles

4.Machine

Machine Type (Driver)	Choose the machine type
Connection(Serial Port)	Choose the serial port to connect the machine to the computer
Control Panel	Open the manual control panel
Upload new firmware	Update the firmware online
Machine information	Display the machine information
Preheat Machine	Preheat the heat plate and the extruder

Machine Type (Driver)	▶
Connection (Serial Port)	▶
Control Panel	Ctrl+J
Upload new firmware...	
Machine information...	
Preheat Machine	

wiiibox.com
Online Support
Offline Documentation
Supported GCodes

5.Help

wiiibox.com	Visit our web site http://www.wiiibox.com/ for support.
Online Support	Visit http://www.wiiibox.com/support.php for support
Offline Documentation	Click it for offline documents for help
Supported GCodes	Display all the supported GCodes

2) Toolbar



Start printing the Gcode code. If you have not yet converted the STL model to Gcode code, the software will first use the conversion parameters of last time to convert the model and then start printing.



Select the data files of the SD card inserted in the printer and print.



Generate x3g formatted data file that can be copied to an SD card, and then print the data files on the SD card.



Generate Gcode data file according to the model.



Pause printing.



Stop printing



Open the manual control panel



Reset the printer




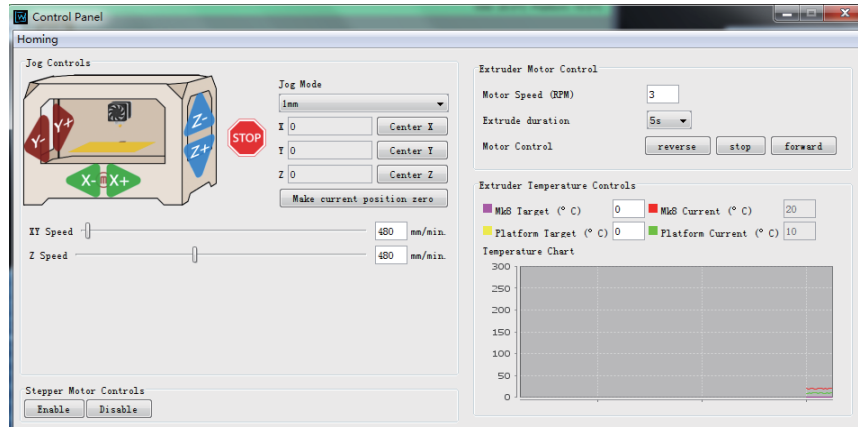
Connect the printer port



Disconnect the printer port

3) Manual control panel

Click the  button on the toolbar and open the Control Panel, as is shown below. Here, you can jog control the running track of XYZ axis of the printer, adjust the print platform and the extruder temperature.



On the left side of the interface is the jog control of XYZ axis of the printer; click the direction button of each axis on the printer schematic diagram, and the motor on the printer will make the appropriate movement. The movement distance of each click on the motor can be selected on the right side of the printer schematic diagram. The movement speeds of the shaft of each motor can be adjusted at the bottom of the printer schematic diagram. The up right part of the interface is the extruder motor of the printer where you can set the operating speed of the motor, the running time and the direction of rotation. **Please note that if there is feed wire in the extruder, only when the printer head is heated to a certain temperature, the extruder motor can move in forward or backward direction. Otherwise, the gear on the extruder motor could be damaged because it cannot drive the feed wire, seriously affecting the life of the printing extruders.**

The bottom right part of the interface is the temperature control for the extruder and print platform. Press Enter after inputting numbers in the temperature Input Box and the temperature of the print platform or extruder can be changed. If the temperature of the print platform and extruder are changed at the same time, the printer will first heat the print platform; the extruder begins heating only after the platform reaches the set temperature.

Click the "LED light strip color " at the bottom left corner of the interface, then you can enter the LED light strip color control interface.

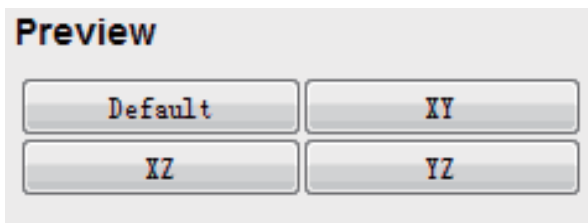
4) Operation panel of the model

Click on the control panel buttons at right side of the software interface, then you can open perspective, move, rotation, mirroring and zoom panel in turn.

1.1. View

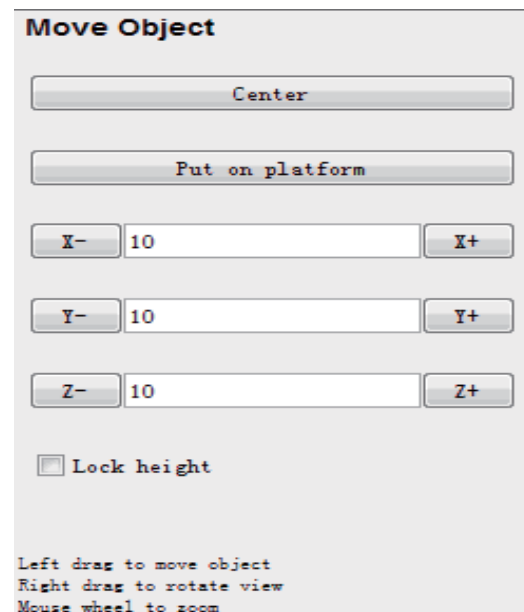
After entering the viewing angle panel, press and hold the mouse left or right and drag it in the three-dimensional model of the preview window to rotate the viewing angle of the model. Use the buttons in the Perspective panel, you can restore the default viewing angle or view the model from a particular perspective.

Default	Restore the default perspective
XY	Top perspective
XZ	Front perspective
YZ	Side perspective



2. Move

After entering the move panel, press and hold the mouse left and drag it in the three-dimensional model of the preview window, then you can drag the model in a plane parallel to the screen; press and hold the mouse left and drag it, you can rotate the viewing angle. The buttons in the move panel can change the coordinates of the model quantifiably.



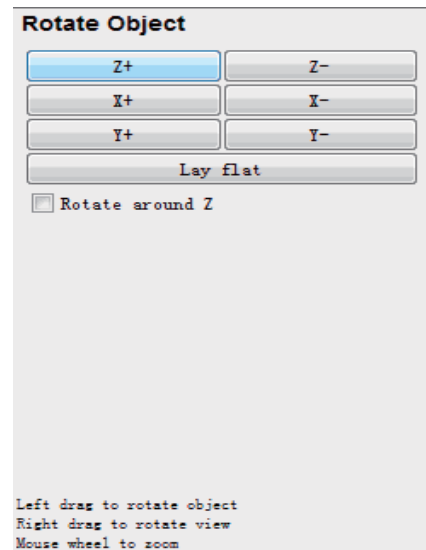
Center	Place the model in the center of the printing platform
Put on platform	Align the bottom surface with the print platform model

When the Gcode code is converted, please be sure to use the above two commands to place the model at the center of the printing platform, as it may damage the extruder

Lock height	Lock the Z coordinate in the preview window of the 3-dimensional model, and drag the model with the left mouse button at this time and will only change the XY coordinates of the model
-------------	---

3. Rotation

After entering the rotation panel, press and hold the mouse left and drag it in the three-dimensional model of the preview window, then you can rotate the model in an arbitrary way; press and hold the mouse right and drag it, you can rotate the viewing angle. The buttons in the rotation panel can rotate the model around the XYZ axis by 90 degrees.



Lay flat

Make the bottom of the object oriented correctly in relation to the platform

Rotate around Z

If check thecheckbox, you can only rotates the object in the Preview window around the Z axis.

4. Mirroring

After entering the mirroring panel, click the buttons in the panel to allow the model do mirror transformation around the XYZ axis.



5. Zooming

After entering the zoom panel, press and hold the left mouse button in the three-dimensional model of the preview window and drag it to change the size of the model. The scaling the model is displayed in the zoom box.

inches-> mm size unit of the model converts from inches to millimeters, zoom in by 25.4 times

mm-> inches size unit of the model converts from millimeters to inches, zoom out by 25.4 times.

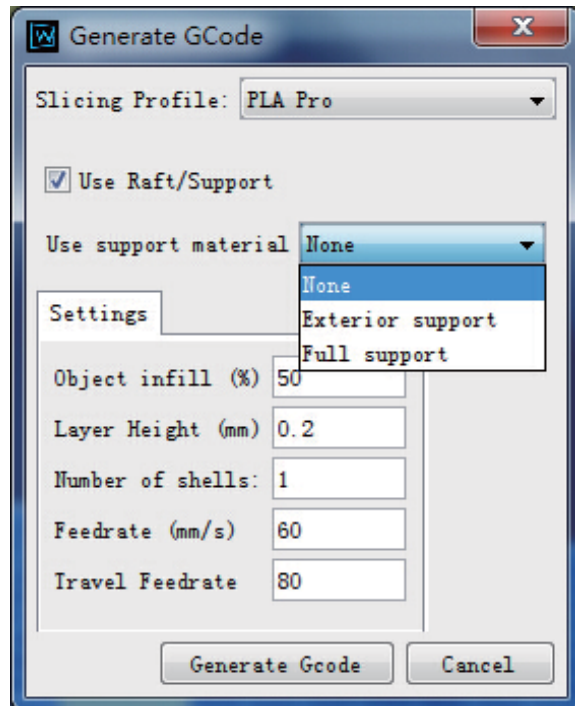


Fill in the construction space to enlarged the model to the maximum size that can be printed

5) Model transformation interface

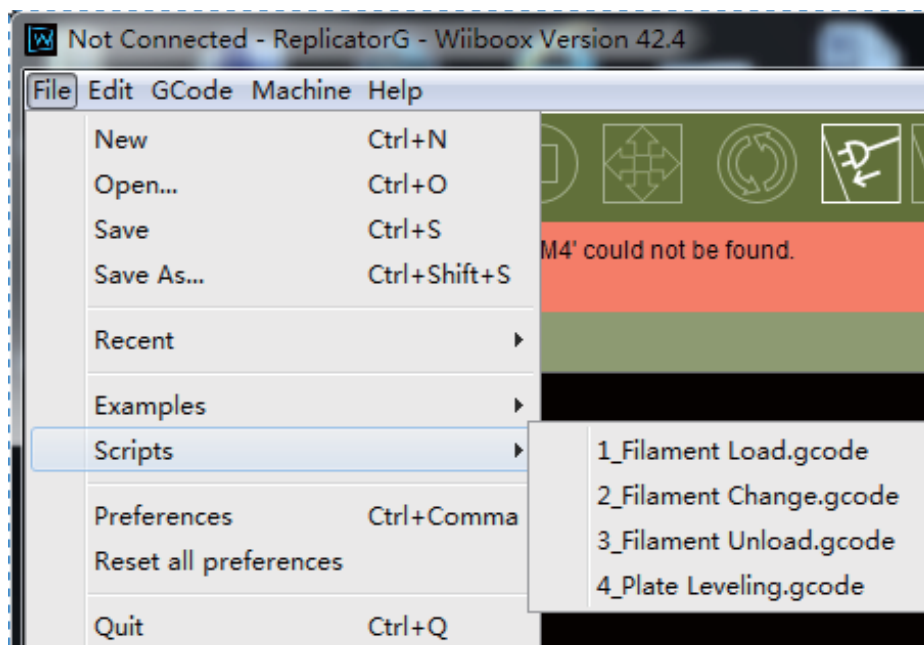
Click to generate Gcode data, and the following parameter setting window will pop up.

1. Hierarchical configuration; ABS and PLA material are optional in the drop-down box.
2. Use the bottom liner and structural support to choose whether to use the bottom liner or use what kind of structural support.
3. Printing parameter settings; set the layer height, filling rate and speed of printing.



5.2. Commonly used script

The software comes with the wire replacement, platform calibration and other common functions. Click the script item in the File Menu, and click on the first icon after opening the toolbar to run the script.

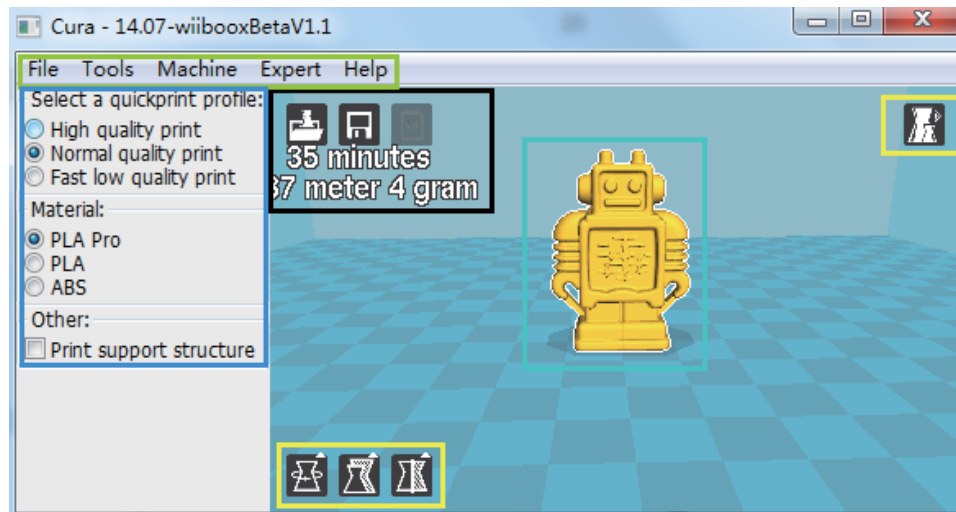




Details of the Cura Software

6.1 Basic Interfaces

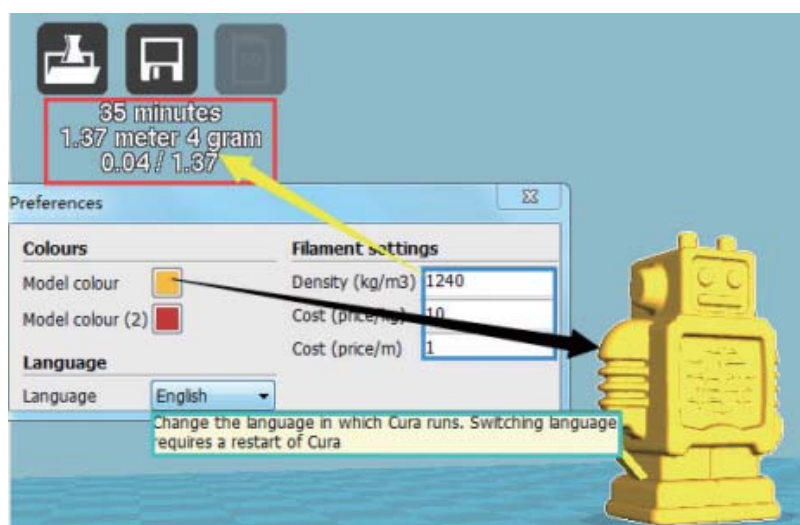
The following figure shows a typical interface of the Cura.



- ◆ Green box is for the menu bar
- ◆ Blue box is for the print parameter setting bar
- ◆ Yellow box is used to adjust the model, view the model
- ◆ Black Box is a print-related operation; gray button indicates it is temporarily unavailable in the current state.
- ◆ Blue box is for model preview

1) Preferences menu

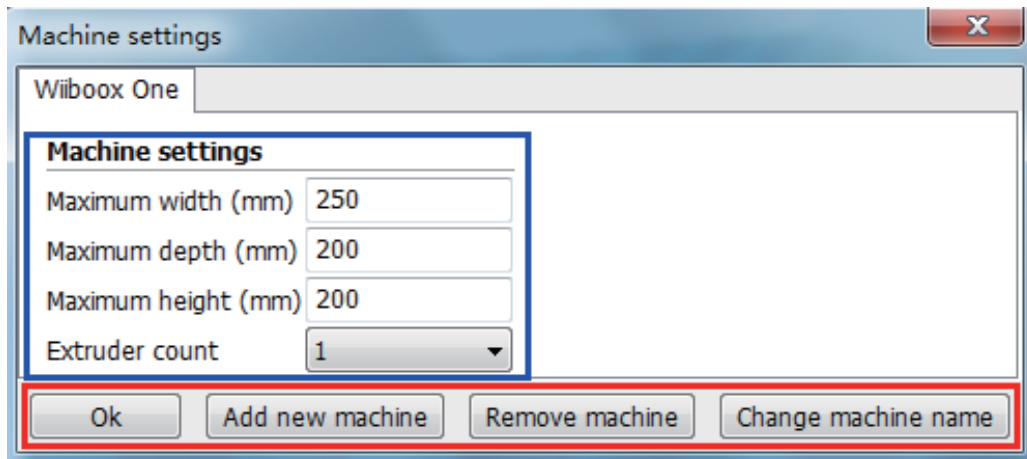
Click on "File" → "Preferences" of the menu bar to enter the Preference menu, as is shown below; it can be set as follows:



Please note: you need to restart for Cura to take effect after changing the language

2) Machine Settings

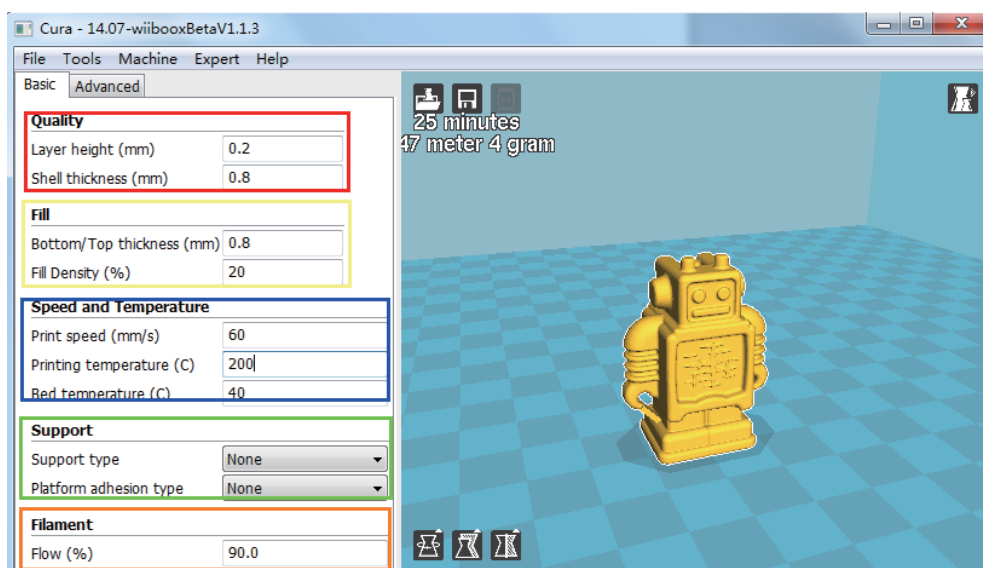
Click on "machine " → "Machine Settings" of the menu bar to enter the machine setting interface, as is shown below.



- ◆ Blue box indicates the size of the printing platform; we have already pre-set the size based on your model, so please do not change these data.
- ◆ Red box indicates the settings of the machine, including adding new models you need and deleting unwanted models; you can also modify the name of the model, which will not change any parameters.

3) Printing parameter setting

Click on the "Expert" → "Switch to full settings" from the menu bar to enter the interface of the full setting mode, as is shown below.



◆ Red box is for the printing quality parameters.

Layer height: it refers to the printing accuracy which is generally between 0.1-0.25; the smaller the number, the higher the model fineness will be.

Shell thickness : it refers to the thickness of the outermost surface; it can improve the quality of the surface, and it generally a multiple of the size of the extruder (that is, multiples of 0.4).

◆ Yellow box is for the filling parameters

bottom top thickness: for the thickness of the bottom and top of the model, it is recommended to use the same parameters of the shell.

Fill density: it refers to the filling factor of the model. The internal of the model is not completely filled, which will not affect the surface quality, but only affect the strength.

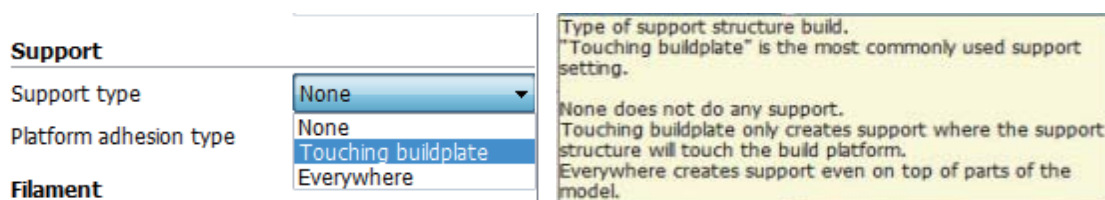
◆ Blue box is for the speed and temperature parameters

Print speed: If the printing object is relatively small, please use a lower speed.

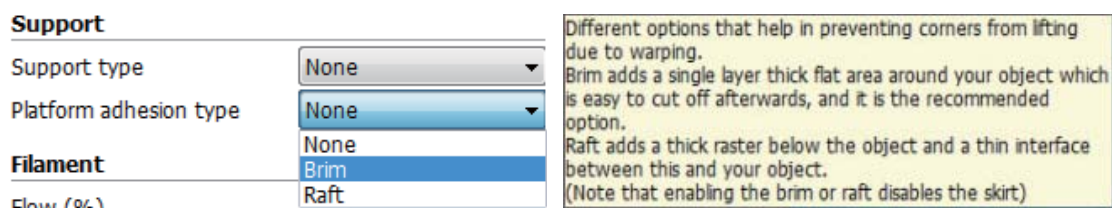
Printing temperature: it refers to the temperature of the printing extruder; the temperature to print PLA / PLA pro consumables is 195-210 degrees; the temperature to print ABS consumables is 230 degrees.

◆ Green box is for the support parameters

Support type: as is shown below, "None" refers to not use support; "Touching buildplate" refers to external support; "Everywhere" refers to full support; the support type can be chosen according to the vacant situation of the model.



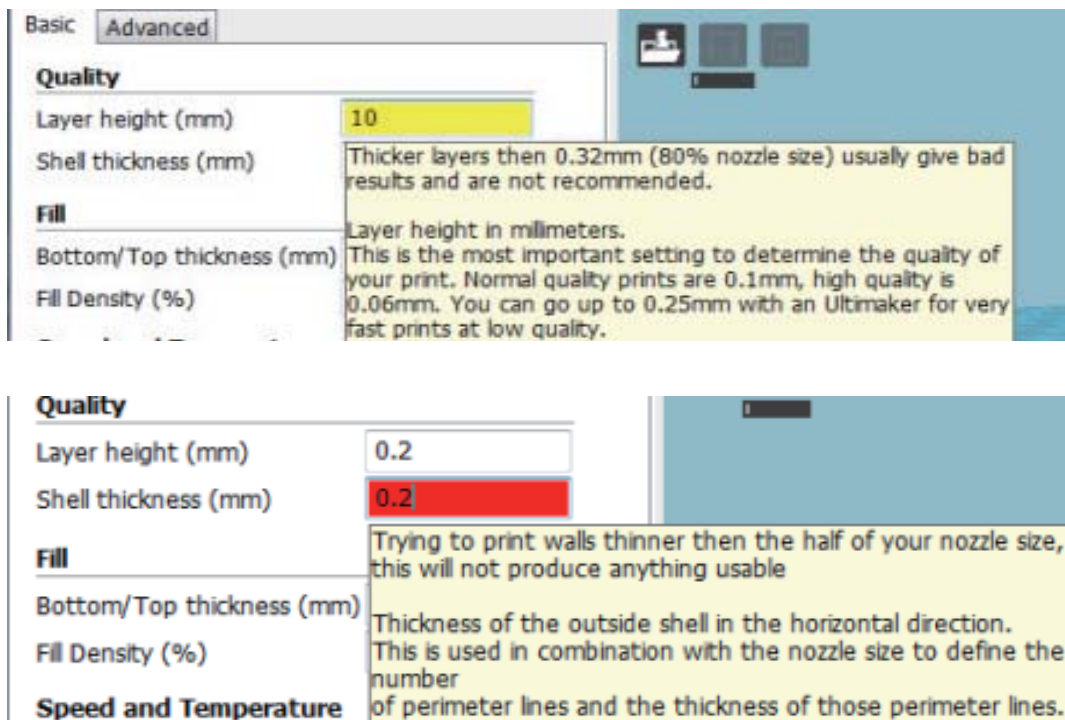
Type of the printing platform adhering to the base: As is shown below, "None" refers to not use the liner; "Brim" refers to edge liner; "Raft" refers to the bottom of the mesh liner.



◆ Orange Box is for the flow rate parameters of the feed wire.

Flow rate parameters of feed wire are generally 85-90.

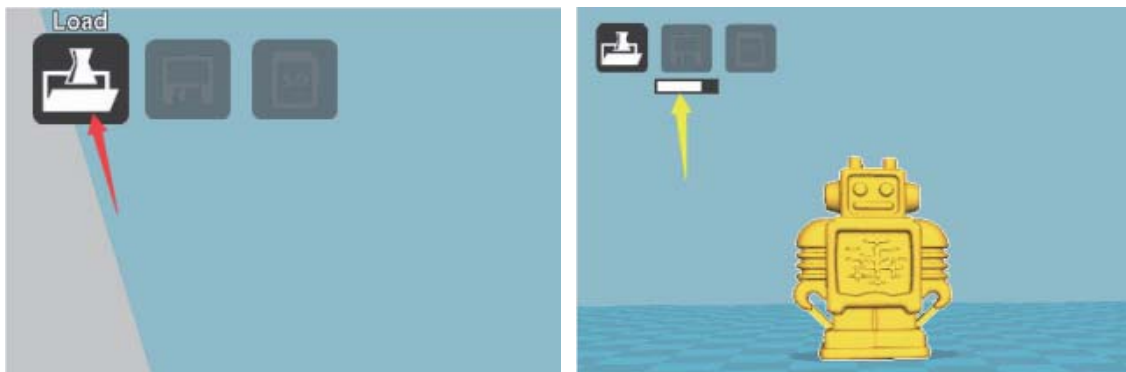
Note: When the input parameters are incorrect or invalid, the software will prompt with yellow and red color; yellow refers to warning; red indicates an error; you can see the prompt when the mouse hovers over it, as is shown below.



6.2. Model Transformation

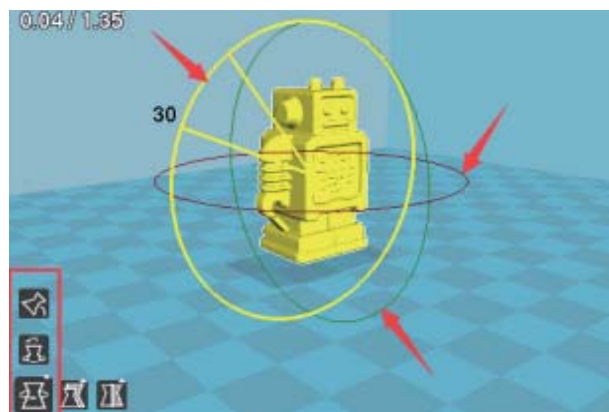
1) Model loading



Start the Cura Software, as is shown below, click on the loading button of "Load" pointed by the red arrow on the interface; select the model you want to print from the pop-up window. Please note: the yellow arrow points to the progress bar; the slicing engine of Cura is always on automatically; when the model or the parameter changes, the engine will re-start slicing. For computers with lower configuration, changing the parameters or modifying the model frequently will cause halt when the engine is started, so the operation speed cannot be too fast.

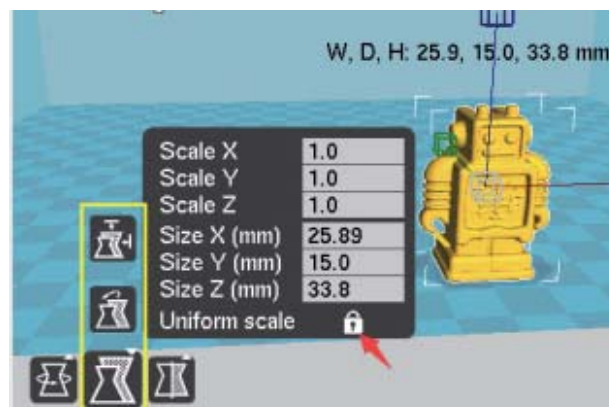


2) Model adjustment

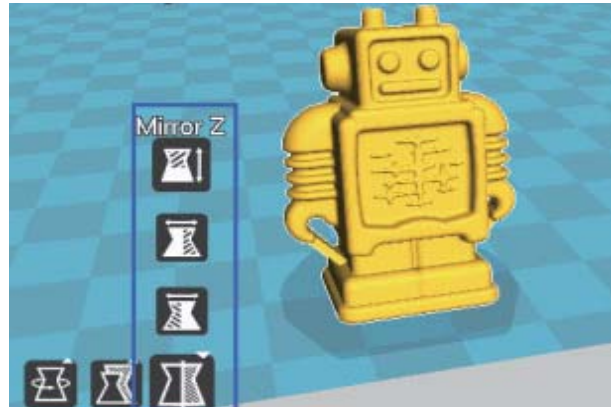
Red box is for the model rotation settings. Click the Rotation button, press and hold the left mouse button, and drag the ring frame around the model to adjust the model; the model can be rotated to adjust the three directions of X, Y, Z.



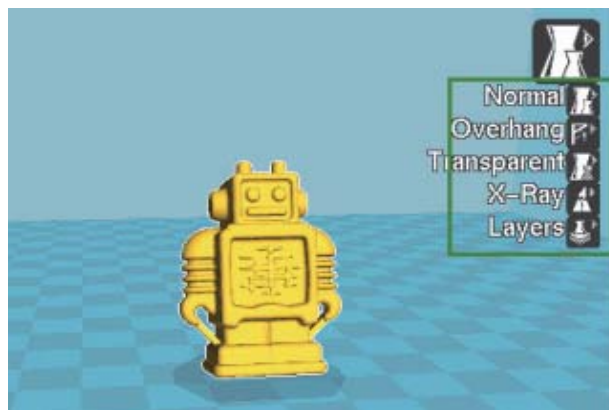
Yellow Box is for model scale settings. Click on the scale button, a dialog box for the model scaling and model size will pop up; input the needed scale factor in the "Scale" key to adjust the model size. When the  icon pointed by the red arrow is in the state of being locked, scale in any direction is to scale the overall model; When the  icon is being unlocked, the model can be scaled in one direction.



Blue box is for the model mirror image; click on the mirror image button, three buttons will pop up, representing the mirror image of three directions of Z, Y, X respectively.



Green box is to view model options.



Click the button, and five mode buttons will pop up:

"Normal" is for normal mode which only displays the model appearance, and this is the default mode.



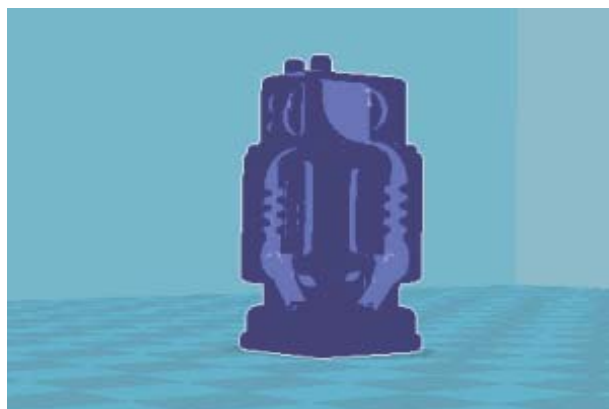
"Overhang" is for the hanging mode which indicates the hanging part of the model; these hanging part will sag without support. As are the red regions pointed by the blue arrow in below FIG.



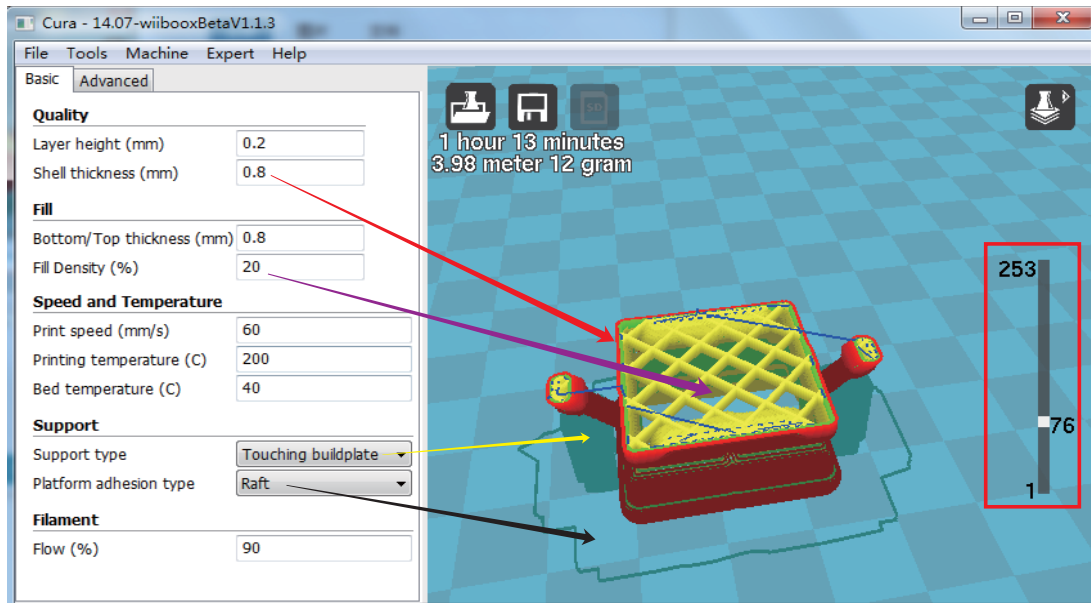
"Transparent" is for the Transparent mode where you can see the internal structure of the model.




"X-Ray" is for X light pattern which is similar to the transparent mode but ignores the surface.

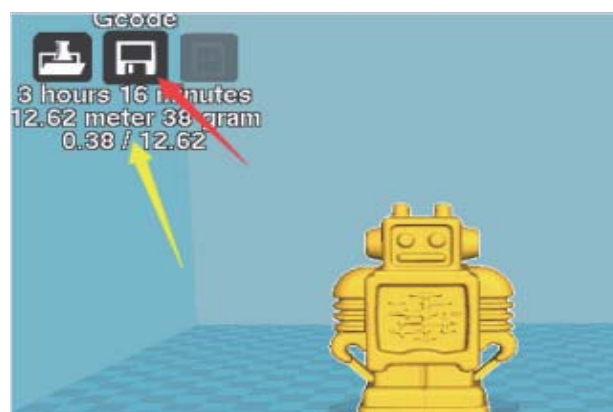



"Layers" is for hierarchical model where you can see the movement path of the extruder and the support structure; as is shown below:

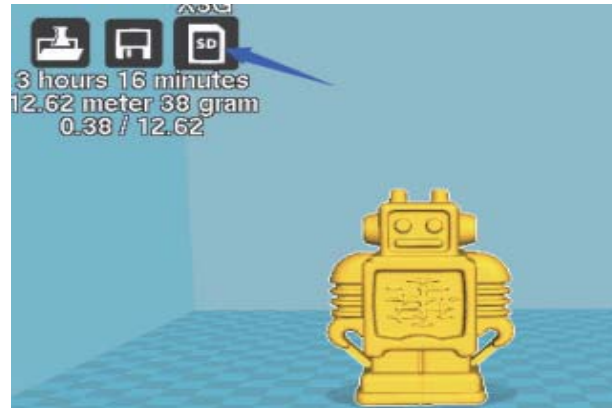


3) Generate Gcode code and X3G file

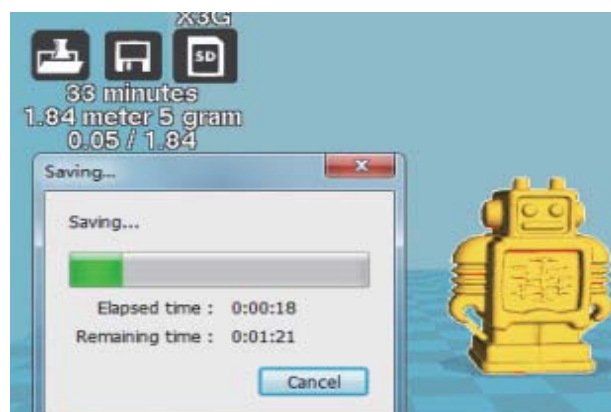
The data pointed by the yellow arrow is the result of model transformation, including the time and feed wire consumption by the printing; if you set the wire feed costs, the cost of the model will be displayed. At this moment, the Save button "  " can be used; click on the button pointed by the red arrow to generate Gcode code.



When the model generates Gcode code, the  icon pointed by the blue arrow will turn from gray to white, indicating that the button can be used; click on the button to generate X3G file.



When the model generates x3g file, the progress bar will pop up as is shown in the above Fig.



After the save of x3g file is complete, a prompt as is shown above will pop up and that is the storage path of x3g file.



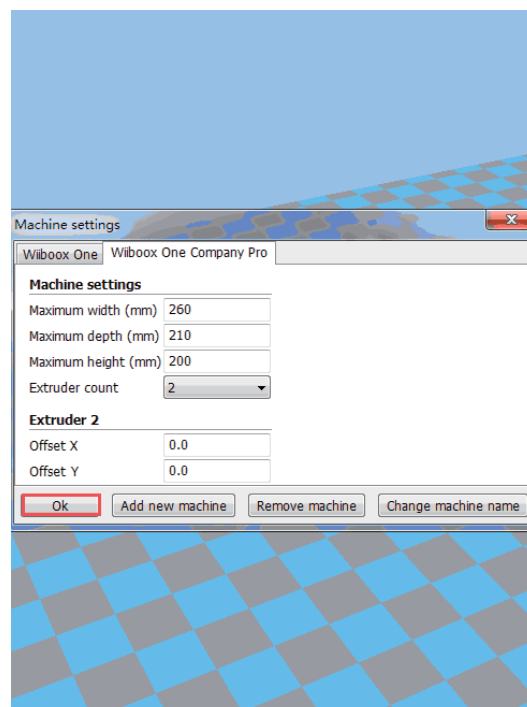
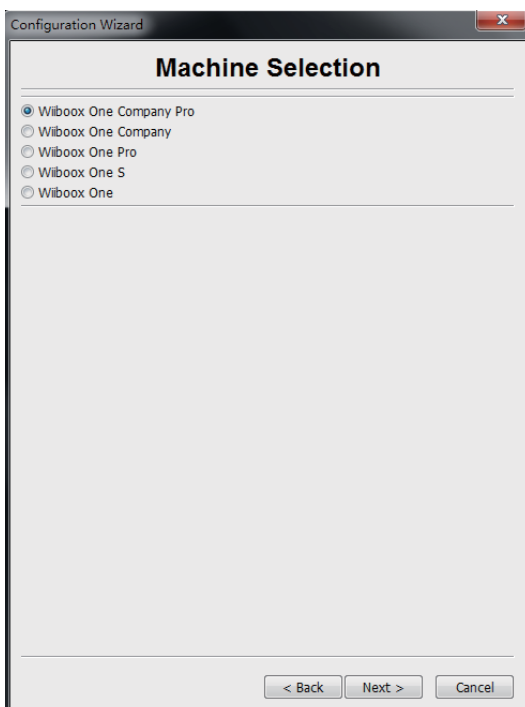
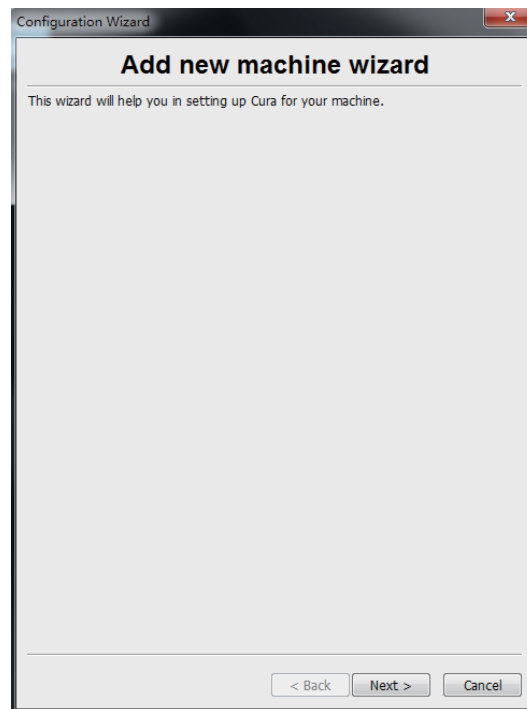
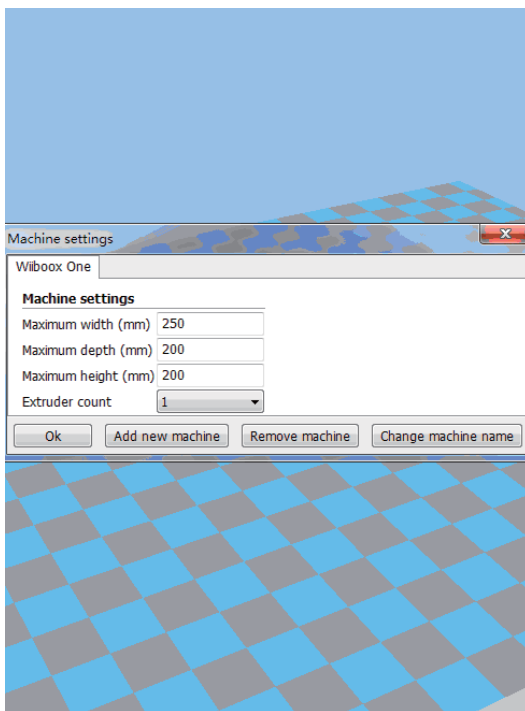


The print settings for dual-extruder printer

The Cura Software is suitable for the print parameter settings of single and dual- extruder printer. Contrast to the single extruder printer, the parameter settings for the second printing extruder is added to the print settings for dual-extruder printer. When you set the parameters of the dual-extruder printing model, please read the parameter settings related to Cura software in Chapter 6.

7.1. Machine settings

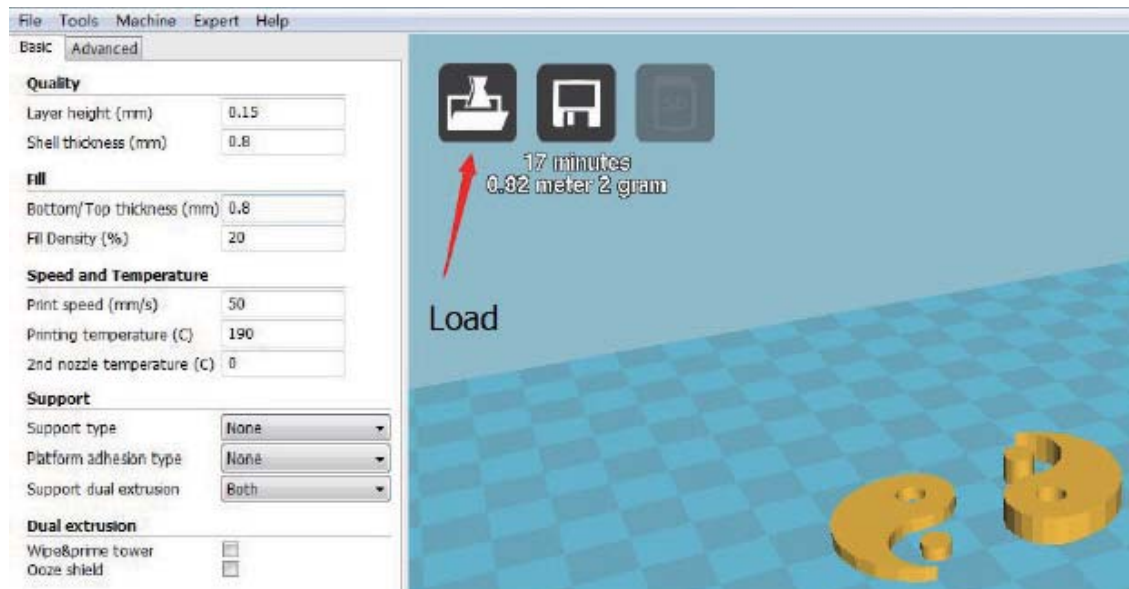
Start the Cura software, click on "Machine" → "Machine Setting" from the menu bar to enter the machine settings interface, as is shown below; click on the "Add New machine" to enter the wizard interface; click on the "Next" to enter the machine selection interface, as is shown below; select the machine that matches your model, click on "Next", and the machine settings interface will pop up; click "OK" to complete machine adding.



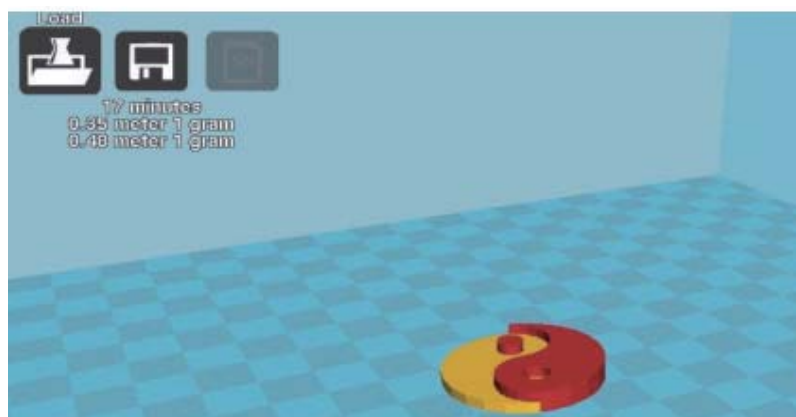
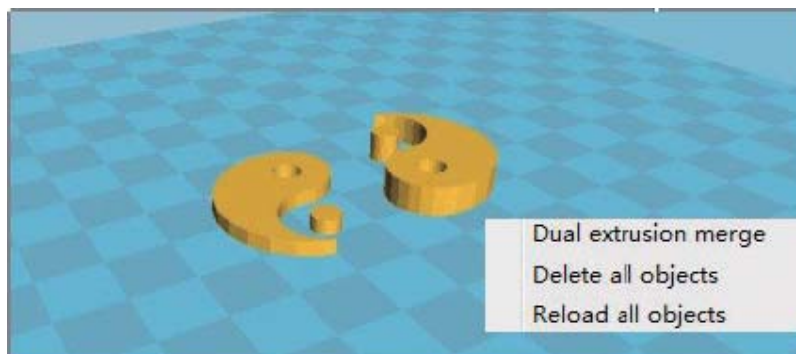
7.2. Two-color print settings

7.2.1. Model Loading

Prepare for two-color printing model and load the model. The model can be directly dragged into the Cura Software (or use the Load button to load)

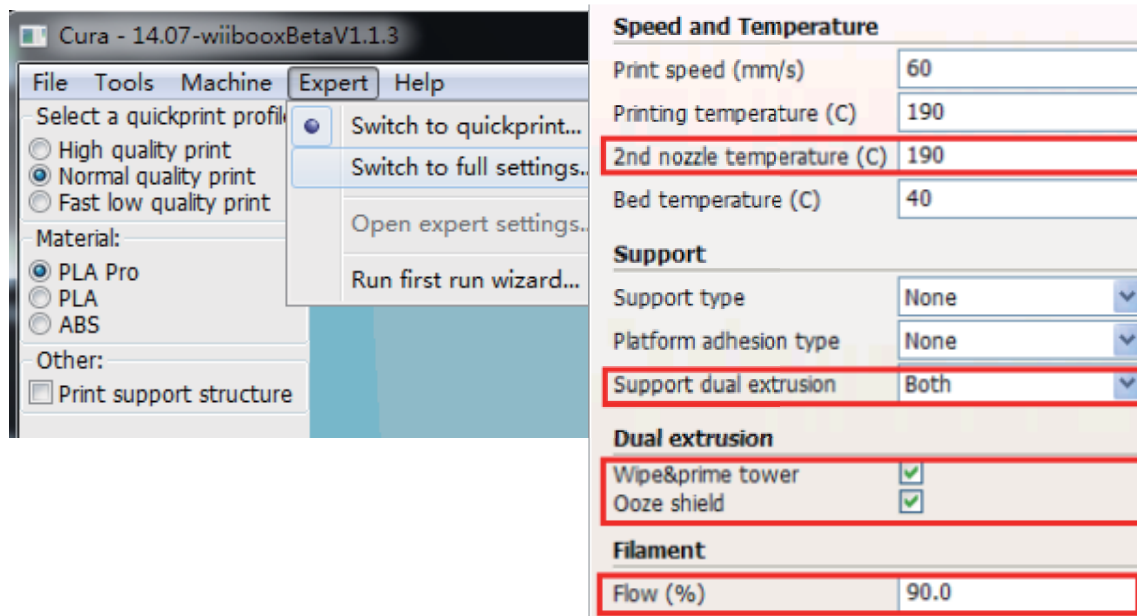


After right-click the printing platform and select "Dual extrusion merge" from the window that pops up, then the model merger is complete.



7.2.2. Parameter settings of two-color printing

Click on "Expert" from the menu bar and select "Switch to full settings ..." in the pop-up dialog box.



In the full settings mode interface, you need to pay attention to the following parameters:

◆ 2nd extruder temperature (C)

For two-color printing, you can set this value directly according to the printing temperature.

◆ Support dual extrusion

Select "Both"


◆ Wipe & prime tower and Ooze shield

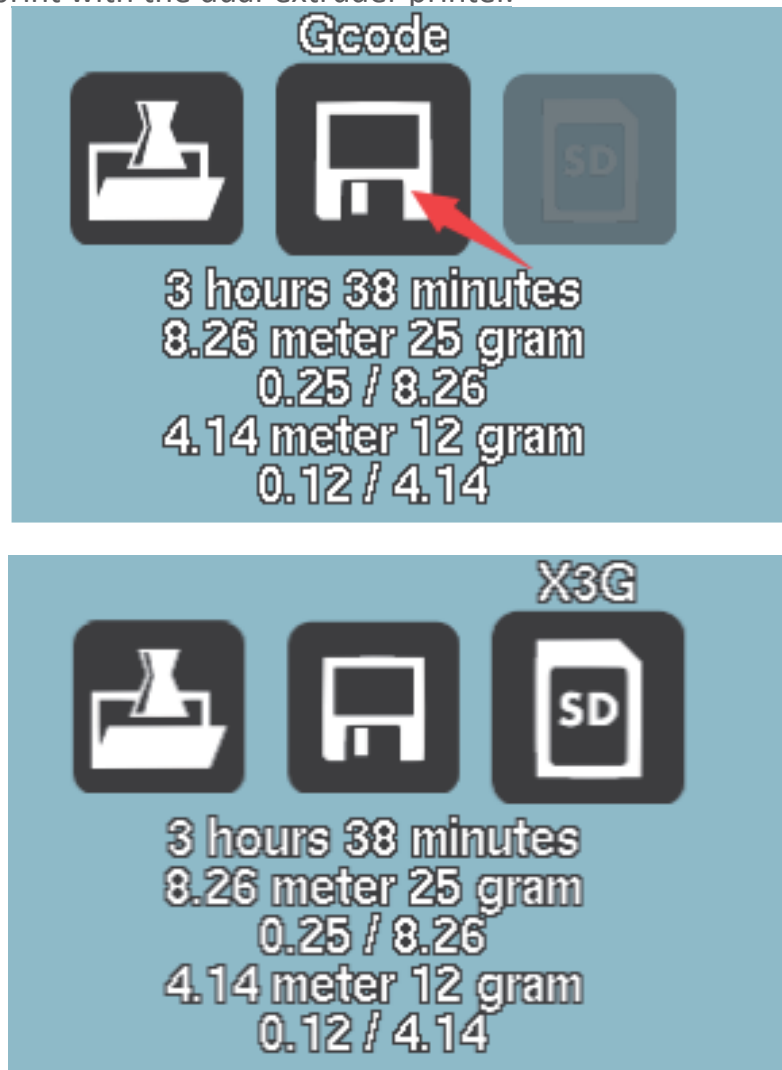
Please tick the box to select

◆ Filament

The flow rate is set between 85% -90 %.

After setting up the parameters, the Cura engine will slice the model and generate Gcode code. Click the "  " button to save the Gcode code, and

then click the "  " button to generate x3g file; copy the x3g file to the SD card and then print with the dual-extruder printer.



7.3 One extruder print supports one extruder print model

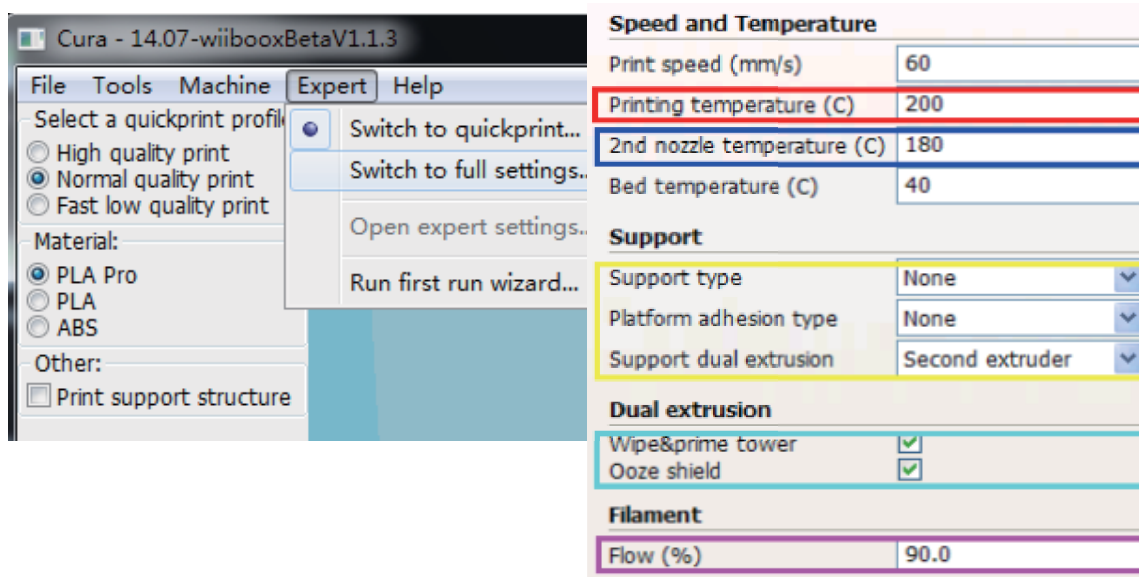
If you need a extruder printing support (water-soluble feed wire can be used) and a extruder print model, please follow the following steps:

7.3.1. Model Loading

Drag the model into the Cura Software (or use the Load button to load).

7.3.2 . Set the print model and the support parameters

click the "Advanced Settings" from the menu bar, and select "Switch to the full setting mode" in the pop-up dialog box.



In the full settings mode interface, you need to pay attention to the following parameters:

◆ Temperature

Print temperature (Celsius degrees): the temperature of the extruder used to print the model.

Temperature of the second extruder (Celsius degrees): one extruder prints the model and one extruder prints the support; the second extruder is to print the support and the temperature of this extruder depends on the material used for the wire; if it is PVA material, the set temperature will be 180 or lower. What is the minimum value?

◆ Support

Support type. Generally it is "Touching buildplate" external support or "Everywhere" full support.

Adhesion base type of the printing platform. Usually select "Brim"

Select the extruder for print support. Select "Second extruder" the second extruder.

◆Support dual extrusion

Please tick the box to select

◆Filament

The flow rate is set between 85% -90 %.


After setting up the parameters, click on the "Save" button to save Gcode code, and then click on the "SD" button to generate x3g file; copy the x3g file to the SD card and then print with the dual-extruder printer.



Off-line Print

There are LCD display and control buttons on the front panel of the 3D printer; there is a SD card slot on the right side of the printer and you can print the model file on the SD card without connecting a computer directly, or you can change the wire, debug and do other operations. When you print large models, you can store the model file into the SD card, and then print them from the SD card. This can prevent the problem of printing disruption caused by the instability of the computer operating system.

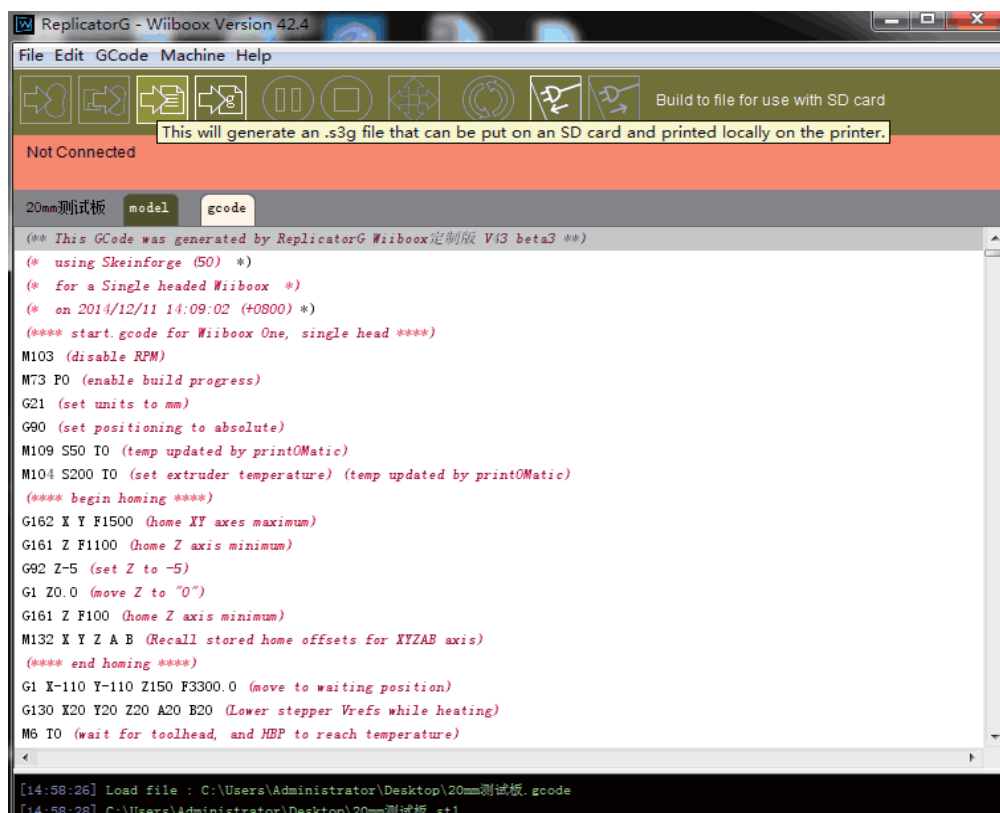
8.1. Replicator G software generates x3g file and print

Start the Replicator G software, and convert the 3D model file to be printed to gcode; for detailed process , please refer to Chapter 5. Then click on the third button  from the left on the toolbar to export the x3g format files for offline use.




Select the file name and save path in the pop-up window, and then click Save.

Please note that the file name cannot use Chinese, and the length of the file name cannot be more than 19 characters; otherwise, it cannot be recognized by the printer.



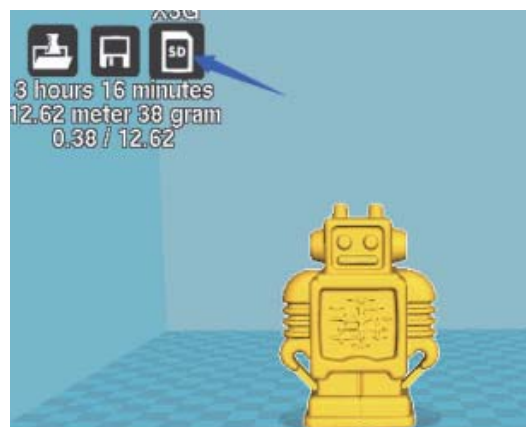
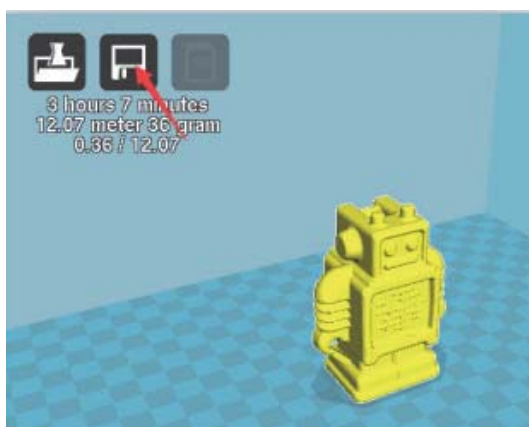
It takes 15-30 seconds to export the x3g file, depending on the size of the Gcode file. After the file is successfully converted, insert the SD card to the card reader and connect to the computer's USB port; then copy the successfully converted x3g files to the root directory of the SD memory card; then pop-up the reader and put the SD card into the printer's card slot to print.

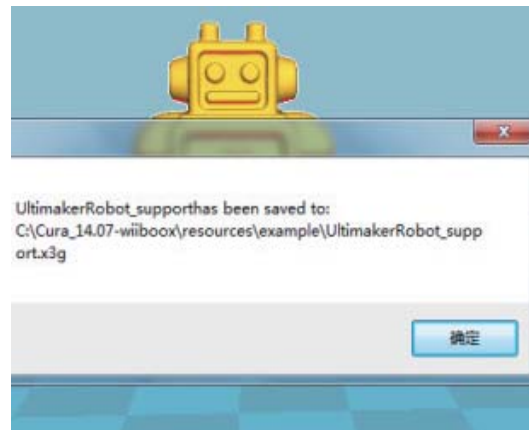
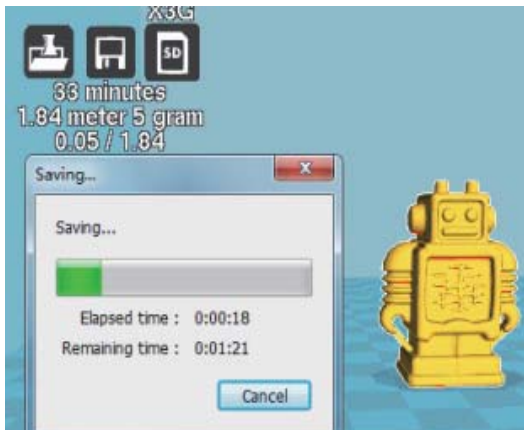
In addition, you can also print the 3D model file which is in the SD card when the printer is connected to the computer. Click on the second button  from the left of the toolbar, all the x3g files saved in the SD card will be listed in the pop-up window. Select the file to print and click OK. Using this mode to print, the ReplicatorG software can monitor the real-time progress and temperature of the printer.



8.2. Cura software generates Gcode code, x3g file and print

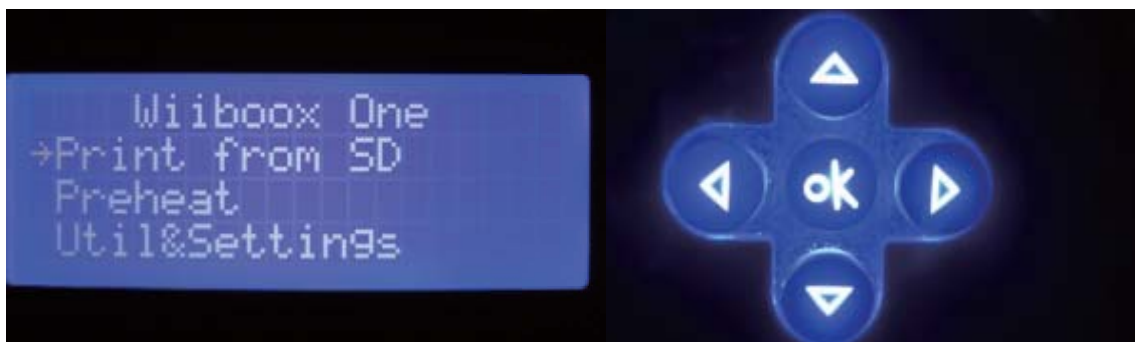
Start the Cura software, and set the related parameter for the 3D model file that you want to print; for detailed process, please refer to Chapters 6 and 7. Then click on the Save button pointed by the red arrow to generate Gcode code. When the "SD" icon pointed by the blue arrow turns from gray to white, indicating that the button can be used; then click the button to generate X3G files, and a progress bar to save the x3G file will pop up; the save path will pop up when it is finished. Copy the successfully converted x3g files to the root directory of the SD card for offline printing.





8.3 control panel settings of the English display

8.3.1 Introduction of the Operation Panel



The control panel of the 3D printer is composed by the LCD display and 5-dimensional key. When it is not connected to the computer, you can use the control panel to print the data file on the SD card, display the printer information, do the parameter settings and other operations.

5-dimensional button is composed by 5 buttons: top, bottom, left, right and OK. Common features of the key are as follows:

Top key: In the menu operation, the cursor will scroll up ; in the setting operation, choose the previous parameter.

Bottom key: In the menu operation, the cursor will scroll down; in the setting operation, choose the next parameter.

Left key: In the menu operation, return to the previous menu; in the jog mode, switch the operating shaft.

Right key: In the jog mode, switch the operating shaft.

OK key: In the menu operation, enter the next menu; in the setting operation, enter or exit from the parameter settings; in the jog mode, exit from the jog mode.

8.3.2 Operation Panel Menu

The menu tree of the control panel is shown as below, and the menu is divided into three levels: the leftmost is the Start menu, and those on the right side is its submenu. Click on OK to enter the submenu of a menu item. Click on the left button to return to the previous menu. The menu items in black font are prohibited to use.



8.3.3 Common operations of the control panel

Print the file on the SD card



Select the first item of "Build from SD" from the Start menu to enter the file list of the SD card. This list gives all the x3g format files in the SD card root directory in reverse chronological order. Use the arrow keys to select the file you want to print, and then click the OK button to start printing.

Please note that the file name cannot use Chinese, and the length of the file name cannot be more than 19 characters; otherwise, it cannot be recognized by the printer.

During the printing process, press and hold the left button, the Print Options menu will pop up, where you can do the operations like pause the printing, stop the printing or replace feed wire.

Printer Preheat

When you are printing ABS model, the temperature of the heating plate needs to rise to 100 degrees; it will take 5-10 minutes or longer, depending on the ambient temperature. We can do the gcode transcoding model in the ReplicatorG software and preheat the printer manually at the same time to shorten the preparation time for print.



Select the second item of "Preheat" in the Start menu to enter the printer preheat menu. The first line of "Start Preheat!" in the menu is for start heating; the third line of "Extruder" is for the printing extruder; the fourth line of "Platform" is for the heating plate. After entering this menu, the cursor default points to the first line; click the OK button, and the printer will first raise the temperature of the heating plate to the set temperature, and then heat the extruder to the set temperature; the set temperature can be changed in the preheating setting options.

If you only need to heat the extruder or the heating plate, you can use the arrow keys to move the cursor to the extruder or heating plate, click the OK button to switch ON / OFF option; then move the cursor to return the first line, and click the OK button to start heating.

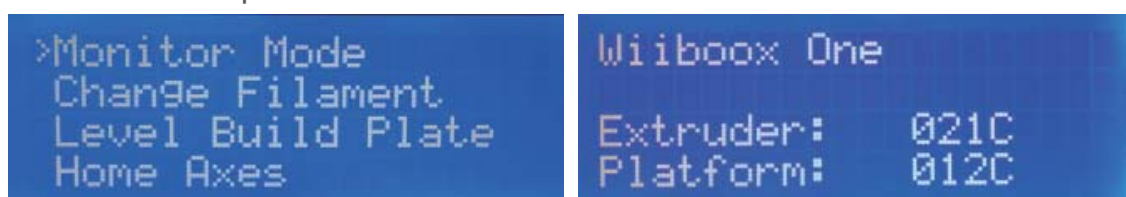


After the printer starts heating, the LCD will display the real-time temperature of the extruder and the heating plate. At this point, if you want to carry out other operations, you can press the left button to return to the start menu, and the heating process will continue in the background. If you want to stop the preheating of the printer, you can re-enter the preheat menu, select "Cool!" and turn off heating.

If the printing does not start or it is manually stopped within a certain period after the extruder and the heating plate is heated to the set temperature, the system will automatically turn off the preheating.

Check the temperature of the printer

select the third item of "Utilities" from the Start menu to enter the second menu of printer debugging; select the first item of "Monitor Mode" to enter the real-time printer temperature monitoring interface. Press the left button to return to the previous menu.



Replace the feed wire

select the third item of "Utilities" from the Start menu to enter the second menu of printer debugging; select the second item of "Change Filament" to enter the interface of manually replacing the wire. The first line "Load" is to load wire, and the second line "Unload" is to unload wire.

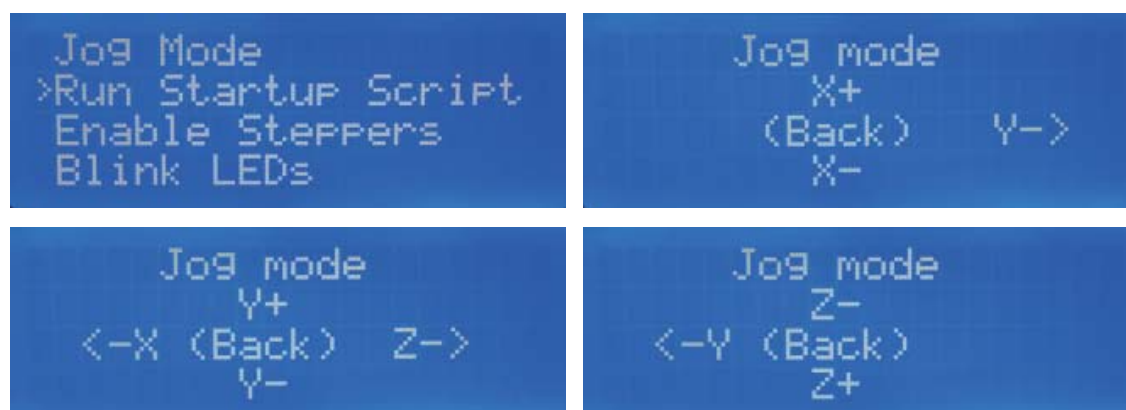


Press OK on the "Load" to enter the wire loading program; the printer will first heat the extruder to 230 degrees, and then start the extruder motor to move forward to load wire. To stop the wire loading program, press the left button and select "Yes".

Press OK on the "Unload" to enter the wire unloading program; the printer will first heat the extruder to 230 degrees, and then start the extruder motor to move backward to unload wire. To stop the wire unloading program, press the left button and select "Yes".

Jog debugging of the printer

select the third item of "Utilities" from the Start menu to enter the second menu of printer debugging; select the fifth item of "Jog Mode" to enter the jog debugging interface of the printer.



Jog debugging interface is divided into three screens, corresponding to the X axis, Y axis and Z axis, and they can be switched using the left and right keys. In the debugging interface for each axis, press the up and down keys to control the bi-directional movement of the motor shaft of the printer. Click on OK to return to the previous menu.

View total running time

Select the fourth item of "Printer parameter information " from the Start menu to enter the next menu; select the first item of "Printer Information" to enter the running time statistics interface of the printer. Here, it will show the cumulative printing time, the time and wire length consumed by the previous printing.



8.3.4 Common parameter settings during printing

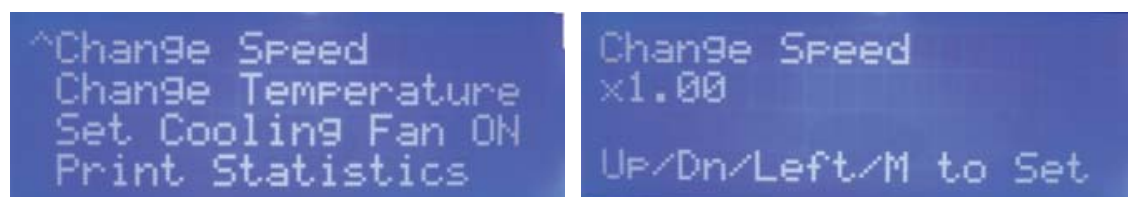
Modify the temperature of the printing extruder

Press the left button on the control panel to pop up the option menu, turn down and select "Change Temperature" to enter the temperature reset interface of the printing extruder; press the arrow keys to adjust the temperature and press the left button to return to the printing interface.



Modify the printing speed

Press the left button on the control panel to pop up the option menu, turn down and select " Speed Reset" to enter the printing speed reset interface; press the arrow keys to adjust the speed and press the left button to return to the printing interface.



Turn on/Turn off the left fan over the extruder

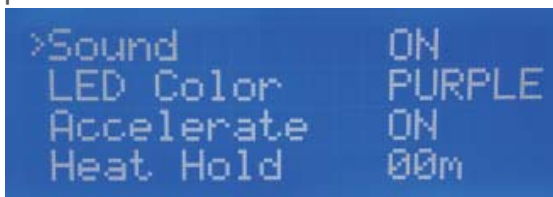
Press the left button on the control panel to pop up the option menu, turn down and select "turn on the fan" / " turn off the fan".



8.3.5 Printer Settings

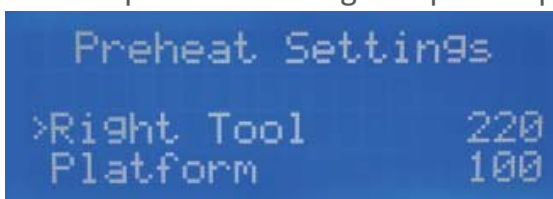
Printer parameter settings

Select the fourth item of "Info and Settings" from the Start menu to enter the second menu of printer settings; select the second item of "General Settings" to enter the printer parameter interface where you can set to turn on the device sound / help info. or not, to change equipment lighting color and other parameters or not.



Preheat temperature settings

Select the fourth item of "Info and Settings" from the Start menu to enter the second menu of printer settings; select the third item of "Preheat Settings" to enter the printer preheat temperature settings interface where you can change the temperature settings for printer preheat.



8.3.6. Prohibited commands

Each 3D printer has been debugged and optimized before coming out of the factory; some commands on the control panel of the 3D printer will override the optimized operating parameters in the printer memory. So please do not run the following commands on your own. If you run the following command accidentally resulting in device malfunction, please contact our after-sale service.

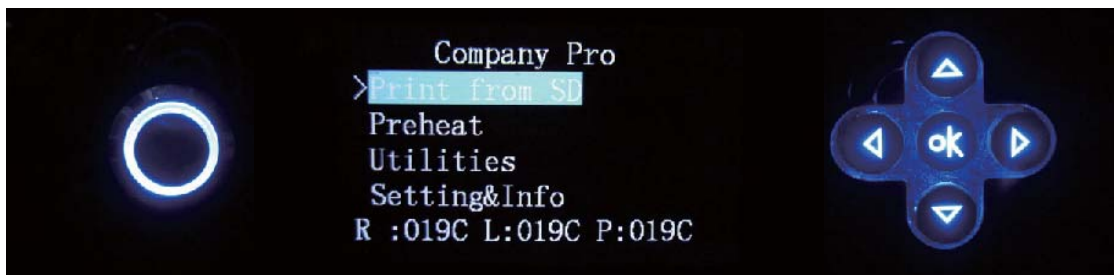
Run Startup Script	Restore Defaults
Accelerate	Heat Hold
Tool Count	Heated Plate

8.4 control panel settings of the TFT display

The 3D printer can carry out the wire replacement, debugging and other operations when it is printing off line.

8.4.1 Introduction of the Operation Panel

The control panel of the 3D printer is composed by the LCD display and 5-dimensional key. When it is not connected to the computer, you can use the control panel to print the data file on the SD card, display the printer information, do the parameter settings and other operations.



5-dimensional button is composed by 5 buttons: top, bottom, left, right and OK. Common features of the key are as follows:

Top key: In the menu operation, the cursor will scroll up ; in the setting operation, choose the previous parameter.

Bottom key: In the menu operation, the cursor will scroll down; in the setting operation, choose the next parameter.

Left key: In the menu operation, return to the previous menu; in the jog mode, switch the operating shaft.

Right key: In the jog mode, switch the operating shaft.

OK key: In the menu operation, enter the next menu; in the setting operation, enter or exit from the parameter settings; in the jog mode, exit from the jog mode.

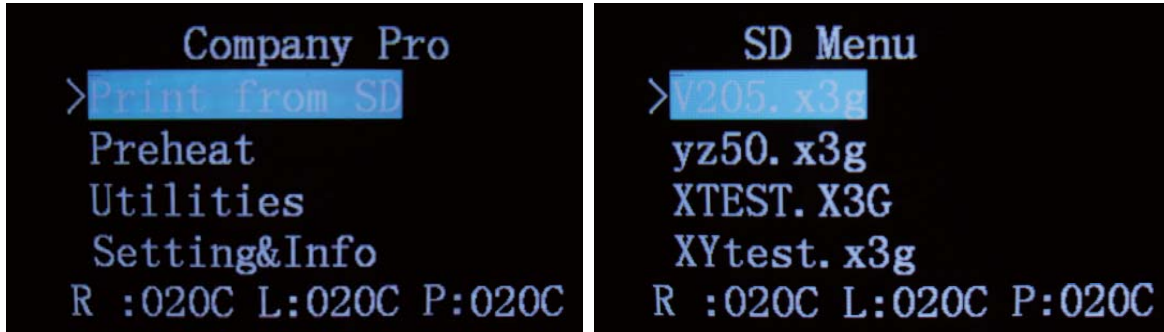
8.4.2 Operation Panel Menu

The menu tree of the control panel is shown as below, and the menu is divided into three levels: the leftmost is the Start menu, and those on the right side is its submenu. Click on OK to enter the submenu of a menu item. Click on the left button to return to the previous menu. The menu items in black font are prohibited to use.



8.4.3 Common operations of the control panel

Print the file on the SD card

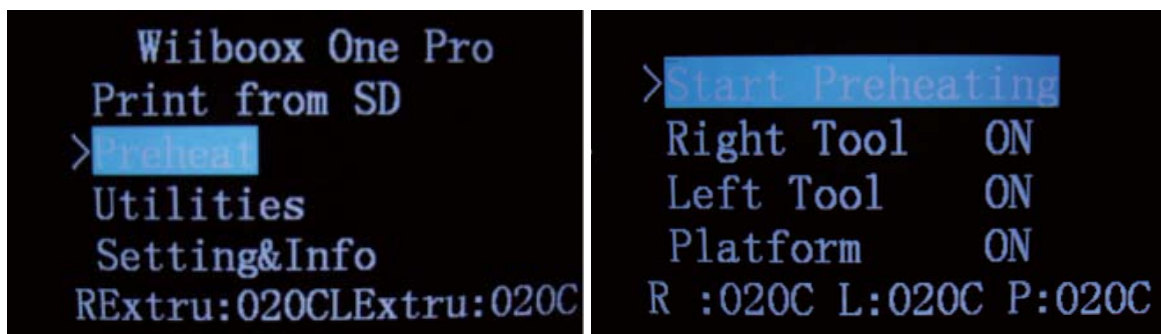


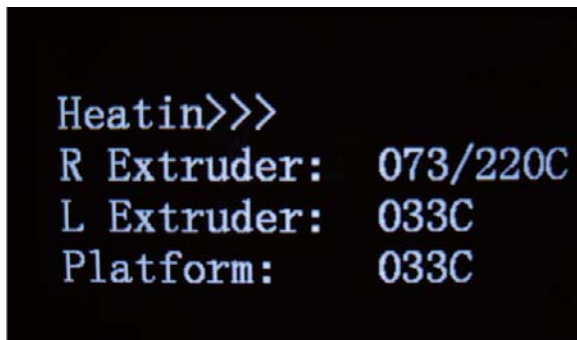
Select the first item of "Print from SD" from the Start menu to enter the file list of the SD card. This list gives all the x3g format files in the SD card root directory in reverse chronological order. Use the arrow keys to select the file you want to print, and then click the OK button to start printing.

Please note that the file name cannot use Chinese, and the length of the file name cannot be more than 14 characters; otherwise, it cannot be recognized by the printer or they would be displayed in messy code.

Printer Preheat

Select the second item of "Preheat" in the Start menu to enter the printer preheat menu. There are printing extruder preheat and heating plate preheat items in this interface. Press the up and down key to move the cursor to select the preheat item and press the OK key to switch the ON/OFF status; then select "start Preheating"; the printer will first raise the temperature of the heating plate to the set temperature, and then heat the extruder to the set temperature; the set temperature of preheat can be changed in the setting options.



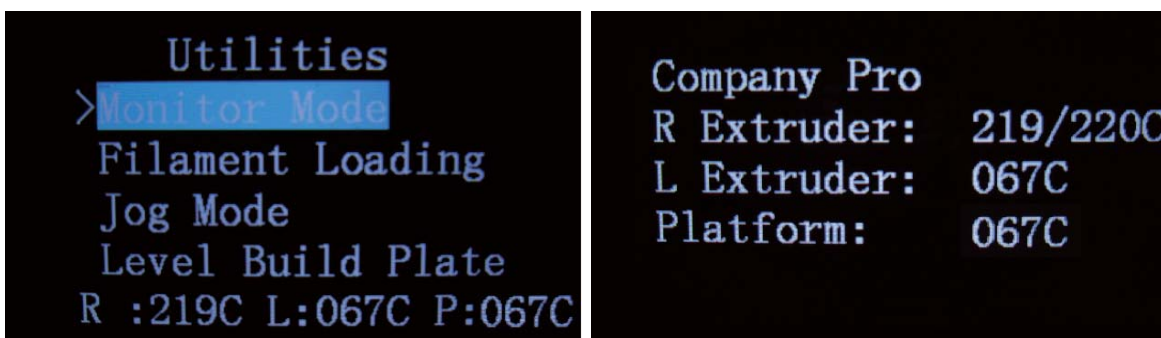


After the printer starts heating, the LCD will display the real-time temperature of the extruder and the heating plate. At this point, if you want to carry out other operations, you can press the left button to return to the start menu, and the heating process will continue in the background. If you want to stop the preheating of the printer, you can re-enter the preheat menu, select "Cool!" to turn off heating.

8.4.4. Function debugging of the printer

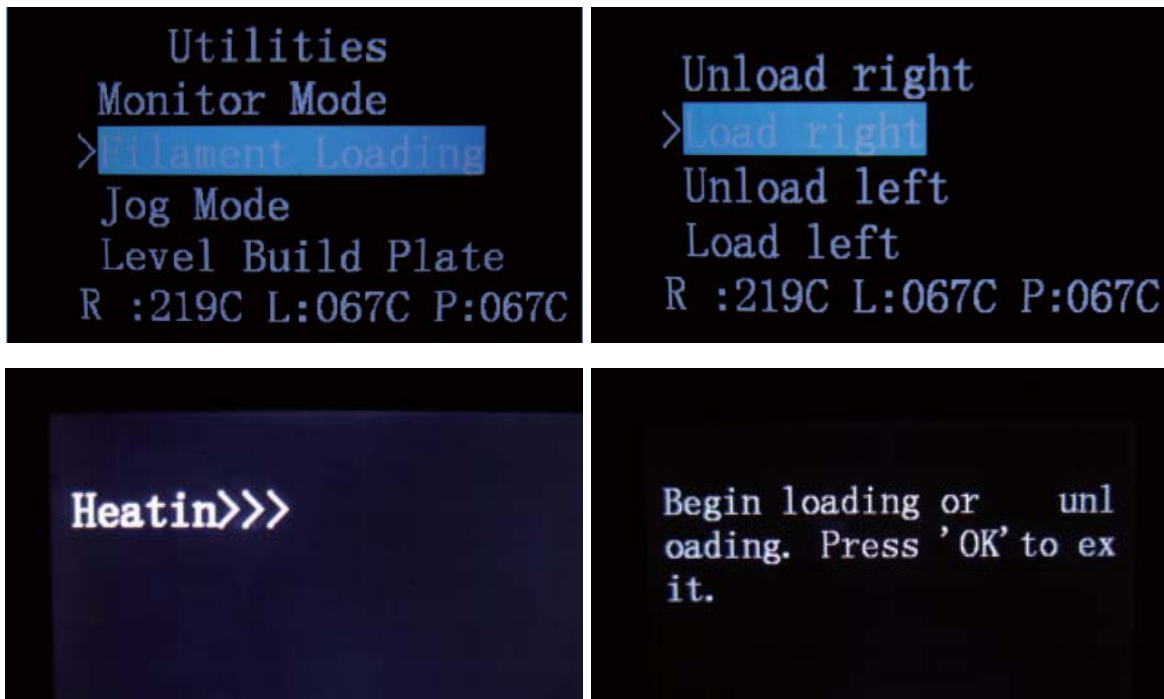
Printer temperature

Select the third item of "Utilities" from the Start menu to enter the second menu; select the first item of "monitor mode " to enter the real-time temperature monitoring interface of the printer. Press the left button to return to the previous menu.



Change Filament

Select the third item of "Utilities" from the Start menu to enter the second menu; select the second item of "Filament Loading" to enter the interface of manually replacing the Filament

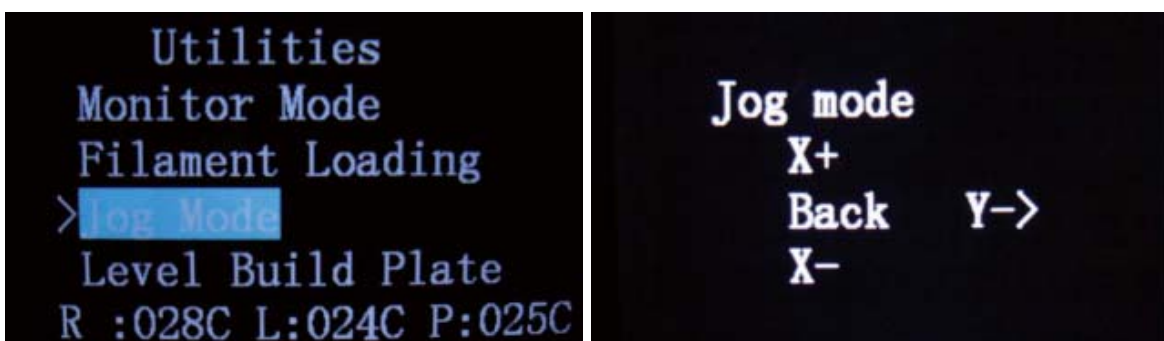


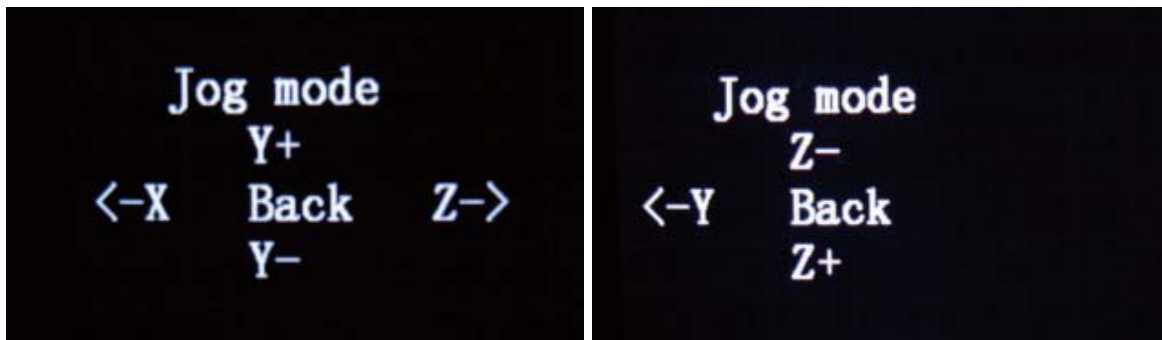
Select "Unload right", click on OK button to enter the process of Unloading the filament. Heat the extruder to a preset temperature, and then start the extruder motor to move backward. To stop the process of Unloading the filament, click the left button and select "OK".

Select "Load right", click on OK button to enter the process of loading the filament. Heat the extruder to a preset temperature, and then start the extruder motor to move backward. To stop the process of loading the filament, click the left button and select "OK".

Jog debugging of the printer

Select the third item of "Utilities" from the Start menu to enter the second menu; select the third item of "Jog Mode" to enter the jog debugging interface of the printer.



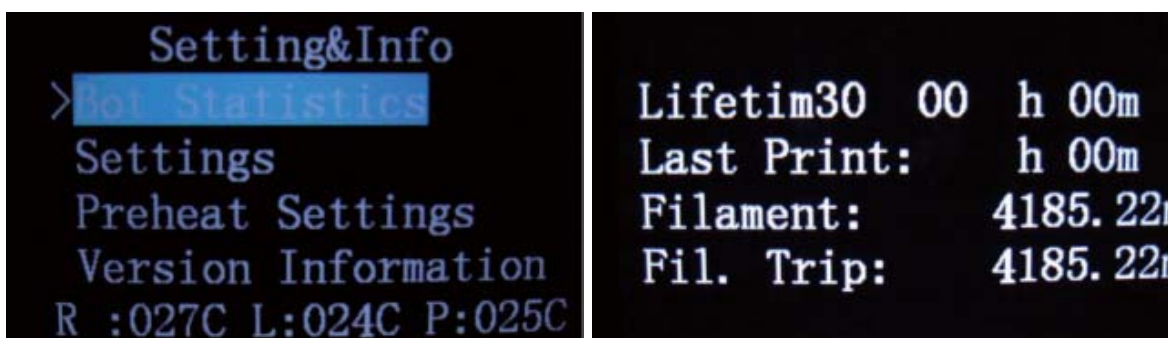


Jog debugging interface is divided into three screens, corresponding to the X axis, Y axis and Z axis, and they can be switched using the left and right keys. In the debugging interface for each axis, press the up and down keys to control the bi-directional movement of the motor shaft of the printer. Click on OK to return to the previous menu.

8.4.5. Parameter information of the printer

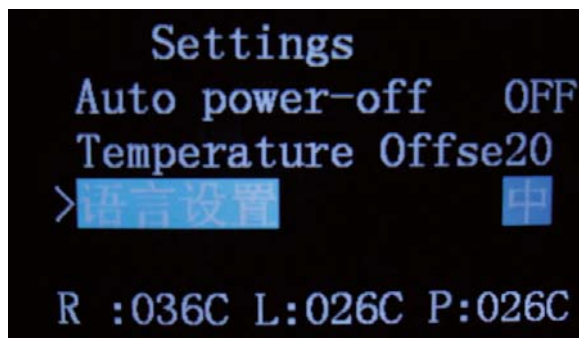
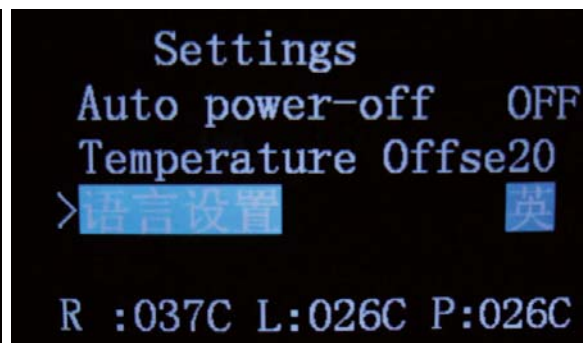
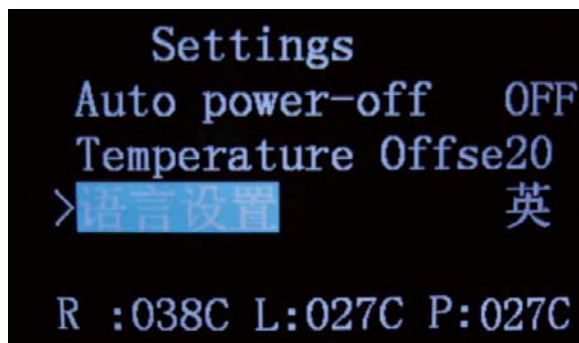
View total running time

Select the fourth item of "Setting&Info" from the Start menu to enter the next menu; select the first item of "Bot Statistics" to enter the running time statistics interface of the printer. Here, it will show the cumulative printing time, the time and wire length consumed by the previous printing.



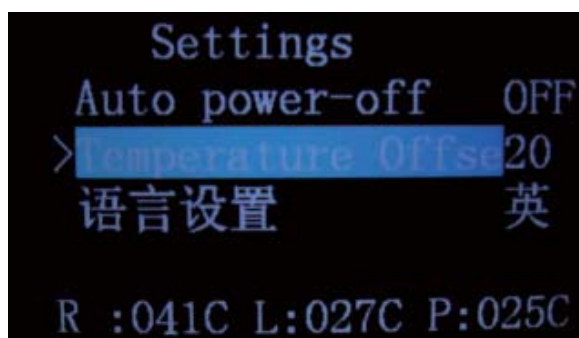
Switch between English and Chinese interface

Select the fourth item of "Setting&Info" from the Start menu to enter the second menu; select the second item of "Settings" to enter the third menu; select "语言设置" and click on the OK button to select the item; press the arrow keys to switch between English and Chinese subtitles; return to the previous menu, click on the OK button → left button.



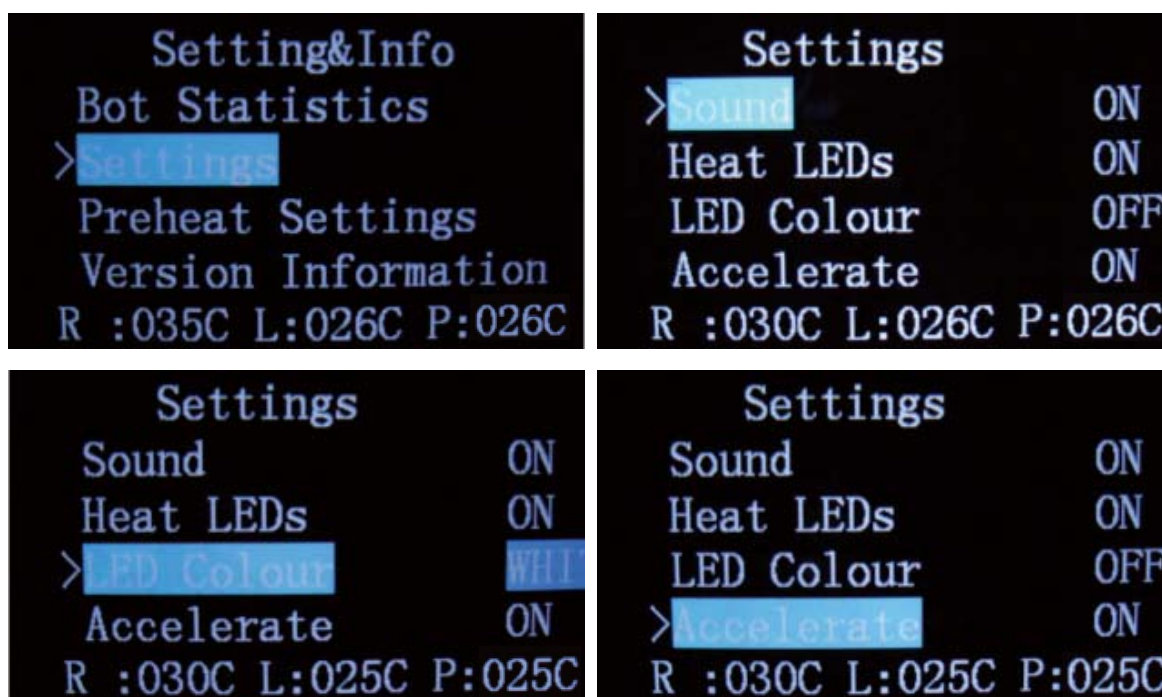
Temperature offset setting

When the actual printing temperature and set temperature of the extruder does not match, the printing temperature can be adjusted via the "temperature offset". Select the fourth item of "Setting&Info" from the start menu to enter the second menu; select the second item of "Settings" to enter the third menu; select the "temperature offset" and click on the OK button to select the item; press the arrow keys to change the numerical value of the temperature offset settings. The actual printing temperature will decrease if the number increases; the actual printing temperature will increase if the number decreases. Click on the OK button → left button to return to the previous menu.



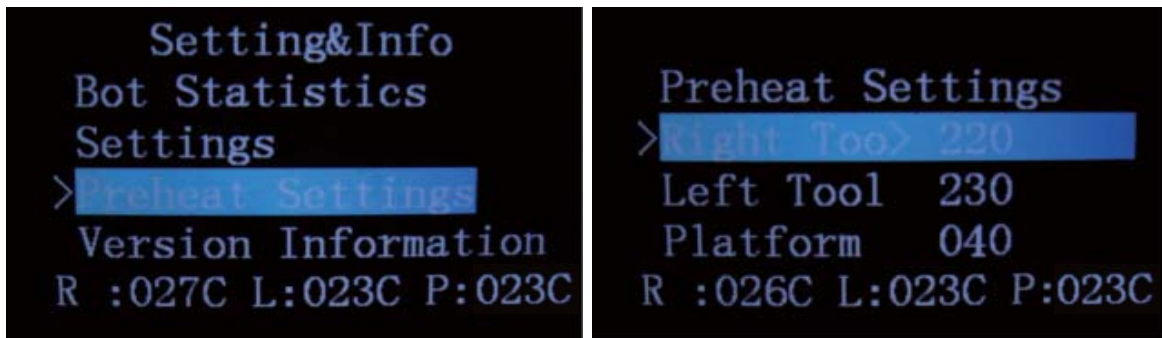
Common parameter settings of the printing

Select the fourth item of "Setting&Info" from the Start menu to enter the second menu; select the second item of "Settings" to enter the printer parameter setting interface. The commonly used items in this interface are: "sound ", "LED color ", "Accelerate" and so on, and they are default as Turn On when they are out of the factory. If there is no sound, the LED light bar is not bright or print resistance grows, the extruder movement becomes slow after booting, please check the corresponding parameter settings have been turned on or not.



Pre-heating temperature setting

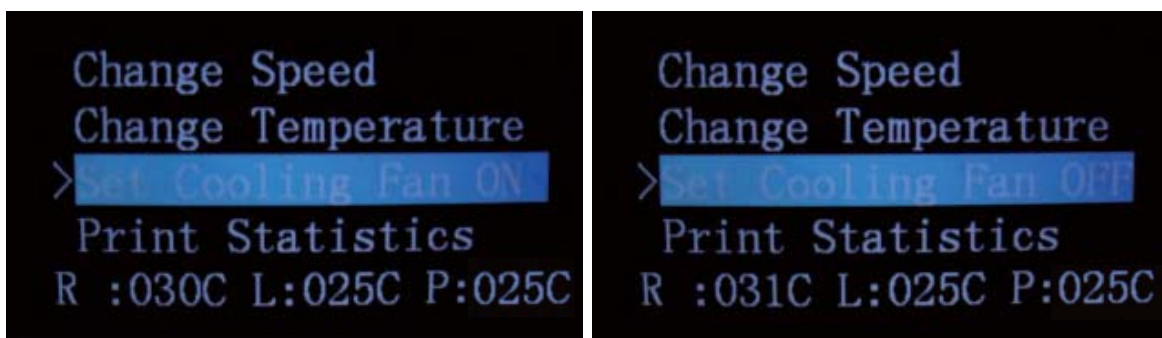
Select the fourth item of "Setting&Info" from the Start menu to enter the second menu; select the third item of "preheat settings" to enter the interface for preheat temperature settings where you can be set the preheating temperature of the extruder/platform. Click on "OK" to select the extruder or platform, and press the arrow keys to adjust the temperature. Press the OK button → left button to return to the previous menu.



8.4.6 Common parameter settings during printing

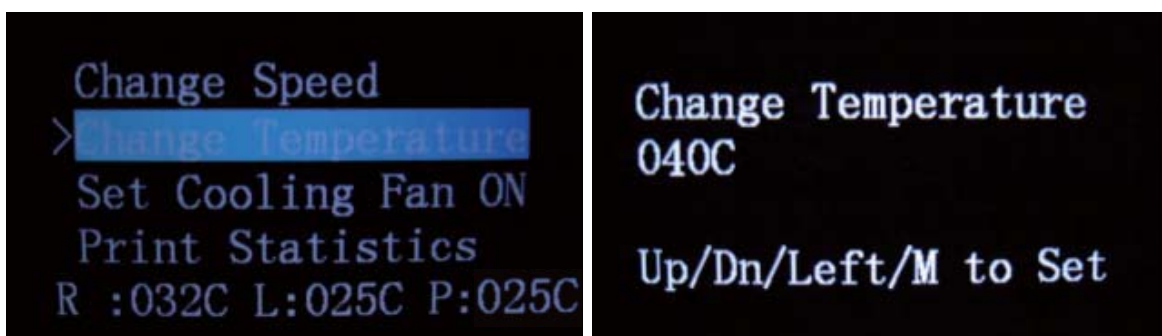
Turn on/Turn off the left fan over the extruder

Press the left button on the control panel to pop up the option menu, turn down and select "Set Cooling Fan ON /Set Cooling Fan OFF"



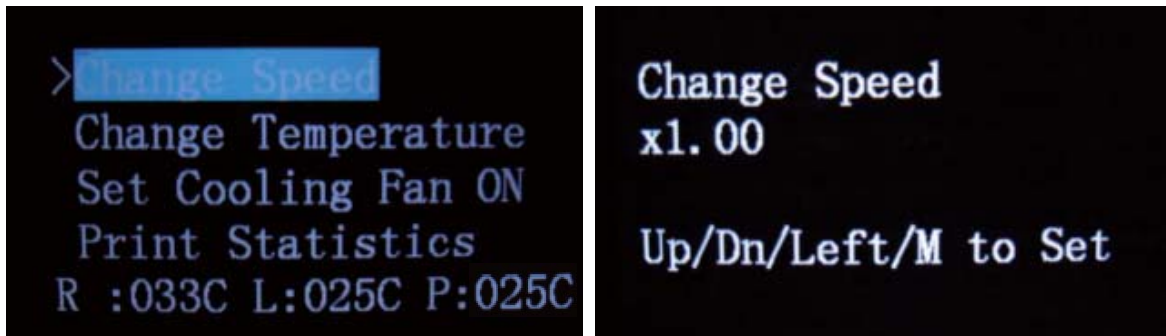
Modify the temperature of the printing extruder

Press the left button on the control panel to pop up the option menu, turn down and select " Change Temperature " to enter the temperature reset interface of the printing extruder; press the arrow keys to adjust the temperature and press the left button to return to the printing interface.



Modify the printing speed

Press the left button on the control panel to pop up the option menu, turn down and select "Change Speed " to enter the printing speed reset interface; press the arrow keys to adjust the speed and press the left button to return to the printing interface.



8.4.7. Prohibited commands

Each 3D printer has been debugged and optimized before coming out of the factory; some commands on the control panel of the 3D printer will override the optimized operating parameters in the printer memory.

So please do not run the following commands on your own. If you run the following command accidentally resulting in device malfunction, please contact our after-sale service.

- Blink LEDs
- Enabled Steppers
- Restore settings
- Accelerate
- Extruder hold
- P-stop control
- Auto power-off



Daily Maintenance

The 3D printer requires regular maintenance, as well as routine maintenance of some aspects to ensure the stable operation of the printer and maintain high performance.

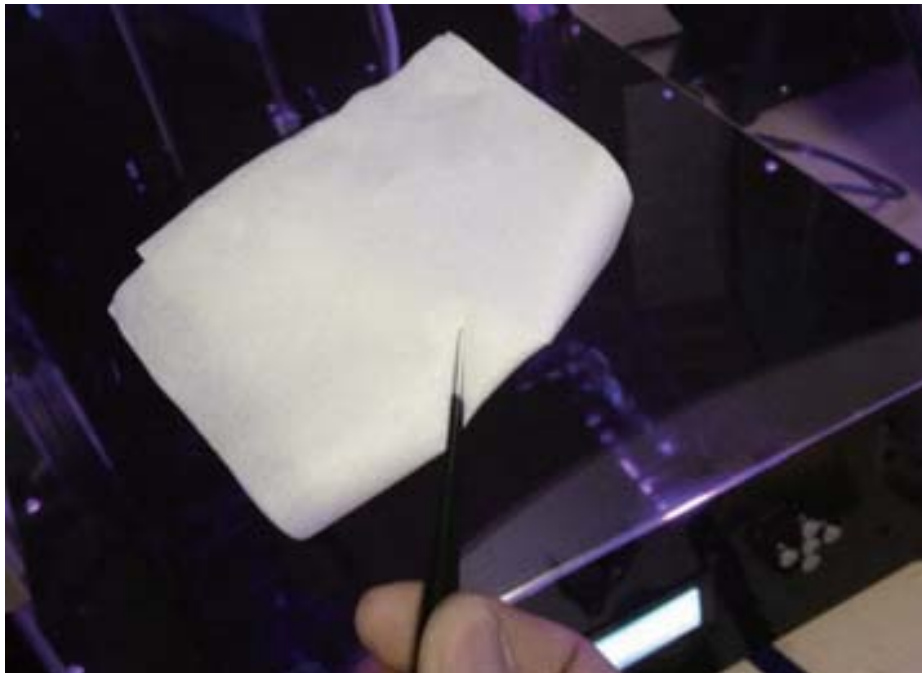
9.1 Routine Maintenance Guide of the Printer

Routine maintenance includes: clean the printing heads, replace the blue 3M sticker of the heating plate, regular check and leveling of the printing platform, replace the air filter chip, maintenance of the optical axis and screw rod.

9.1.1 Clean the printing Nozzle

In the three-dimensional printing process, parts of debris and dust particles of the consumables can accumulate around the printing head. Over time , this buildup can cause print accuracy deterioration or Nozzle clogging, etc. Therefore, each time before printing, the printing Nozzle needs to be checked for clogging and cleaning.

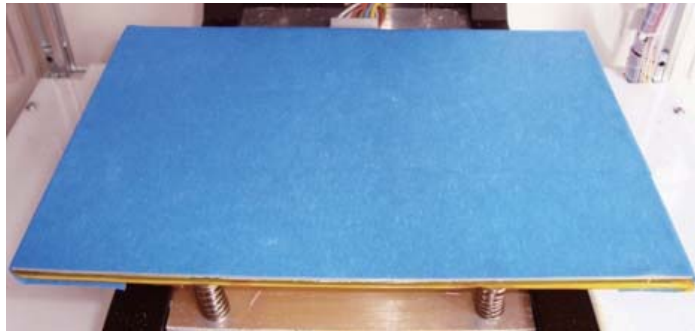
Maintenance method: to clean the printing Nozzle, it general uses tweezers, wipes to remove impurities around the Nozzle .



9.1.2 Replacing the 3M sticker of the heating plate

Check the surface of blue 3M sticker on the heating plate for wear and unevenness; if the sticker has been worn, it must be replaced to ensure that the model can be firmly attached to the heating plate.

Maintenance method: start with finding a roll of blue 3M sticker tape included in the accessory box



Tear the blue tape sticker from the bottom left of the heating plate, strip it slowly, do not leave any residue, and then paste the new stickers. Be careful not to leave a gap between the stickers.

9.1.3 Replace the air filter chip set

For the air filter chip set, it is suggested to be replaced after 500 hours use; otherwise, it will lead to significant failing effect of dust particles filtering.

Maintenance methods:

First, remove the whole fan cover directly from the back of the printer, and find a filter chip set cover from the supplied accessory box, then you can install it directly.



9.1.4 periodic inspection and leveling of the printing platform

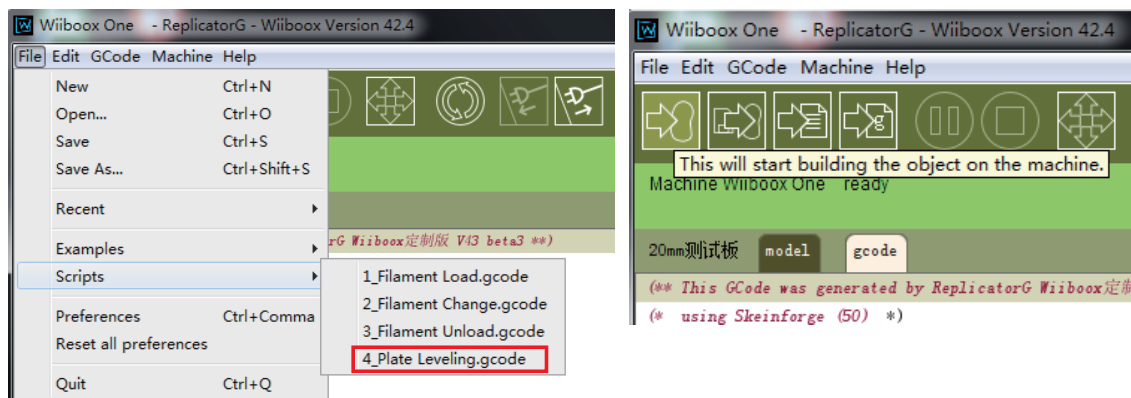
It is very important to regularly check and level the printing platform, for the leveling of the printing platform will seriously affect the model 's shape.

Leveling Method:

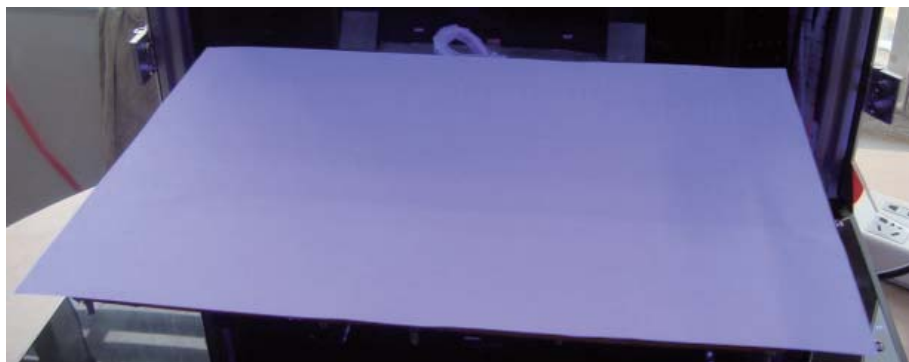
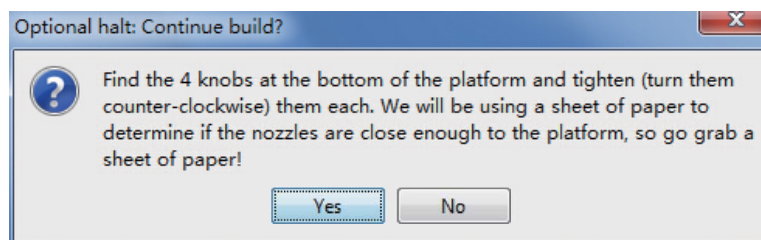
Turn on the printer to connect it to the computer; open the ReplicatorG software to display that the printer is connected.

Select "File" in the menu bar, find the "scripts", click " 4_ plate Leveling.gcode"

Then click the Start printing button  , as is shown below in Figure

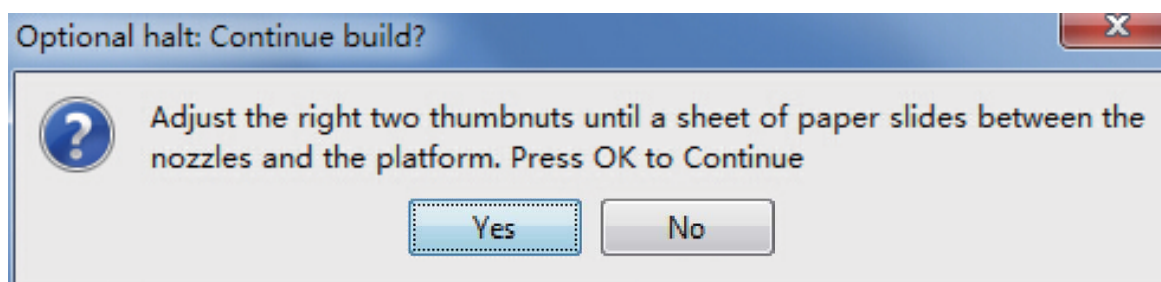
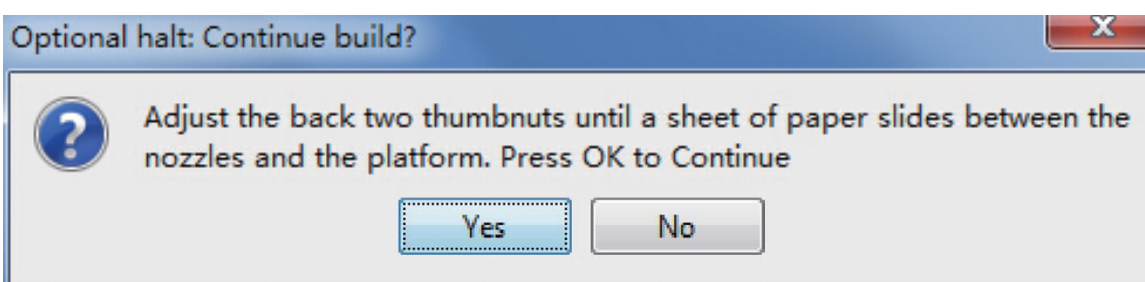
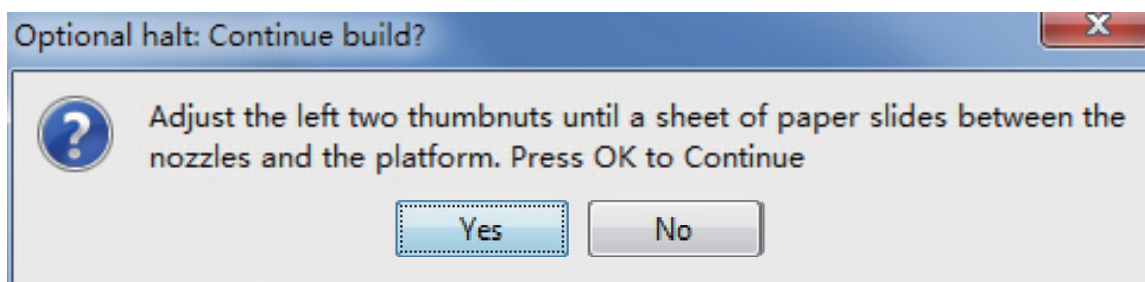
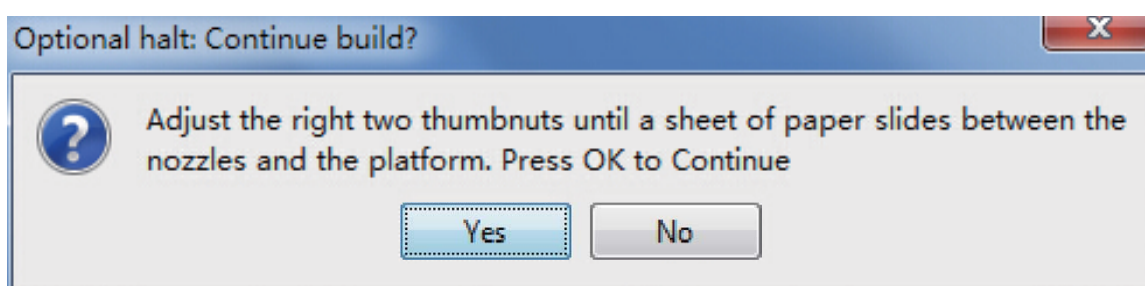


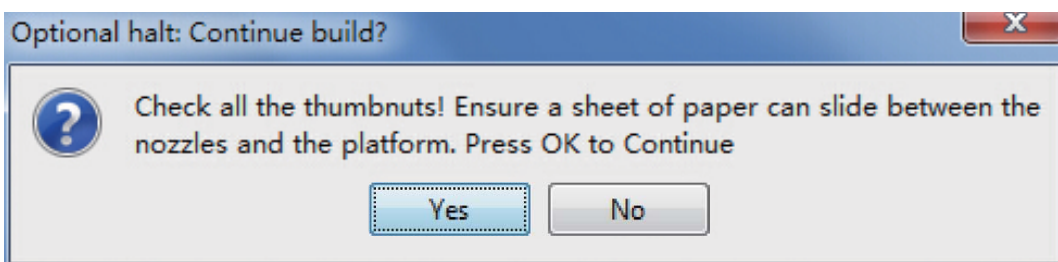
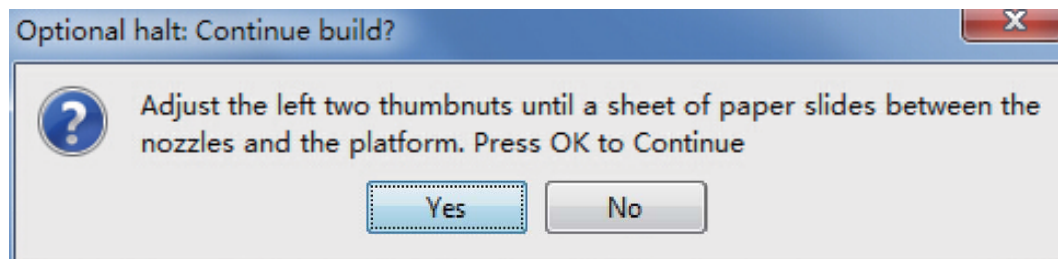
Then the software interface will pop up the following dialog box; please place a piece of white A4 paper on the printing platform, and then click "Yes"



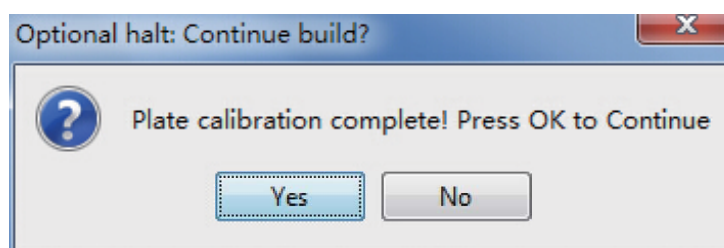
An optional halt window will pop-up, at the same time, the printing head will move to a fixed point; then begin to adjust the two nuts in front of the lower part of the printing platform to adjust the gap between the platform and the Nozzle until A4 paper can just slide in between the platform and the Nozzle; to have a good control over the gap; not too loose nor too tight, then press "Yes " .

Adjust the other six positions relating to the gap between Nozzle and build plate in turn as follows.

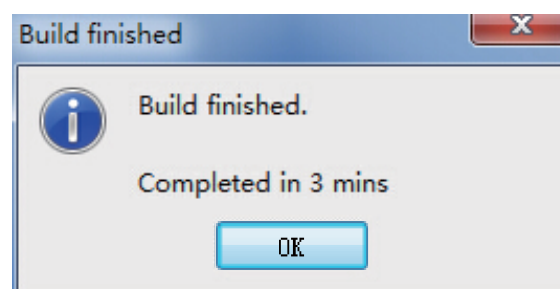




After the adjustment is completed, click "Yes". If the gap between the platform and the Nozzle is inappropriate, you can click "No" to re-calibrate each location .



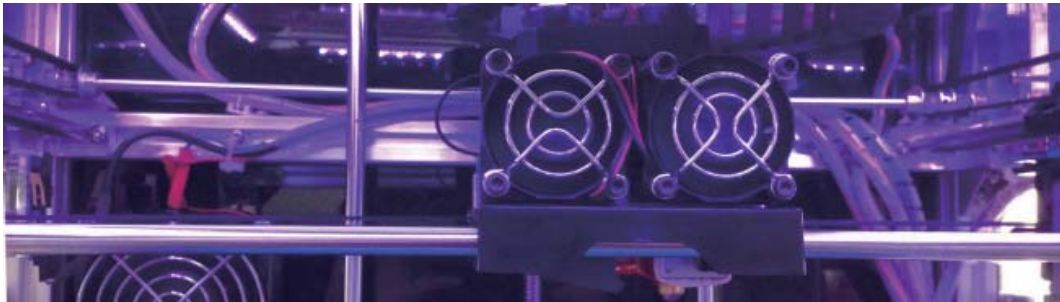
This pop-up will appear, showing the time spent for leveling, then click "OK " to end leveling.



9.1.5 Maintenance of the optical axis and screw rod

When the printer is in use, both directions of X, Y rely on precision guide and Z-axis screw rod to ensure a smooth and precise linear motion. After the addition of lubricating grease, it reduce friction and wear of the mechanical moving parts; therefore, it must be regularly maintained. It is recommended to be maintained once every 1000 hours use.

Maintenance methods: take out the lubricating grease from the accessory box to apply it evenly on the screw rod or the optical axis, and then start the device to let each axis walk several times of the whole trip, so that the lubricating grease will be evenly distributed throughout the shaft surface.

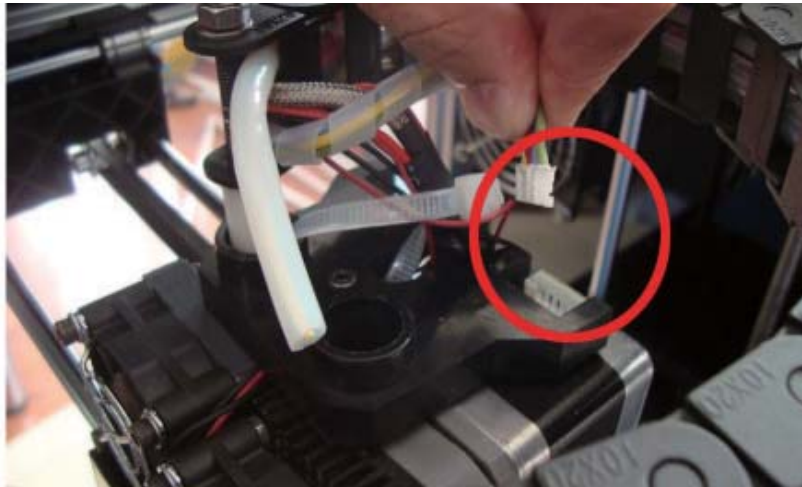


9.2 Maintenance and replacement of the printing head

After prolonged use of the printer, the feeding gear will continually transfer and rub the feed wire and the powder of the feed wire will stick to the gear, resulting in weakened gear grip and affecting the transmission effect. Periodic disassembly and cleaning of the Nozzle set will keep the machine running smoothly. It is recommended to completely clean up the Nozzle set after 500 hours printing.

9.2.1. Nozzle and motor gear cleaning

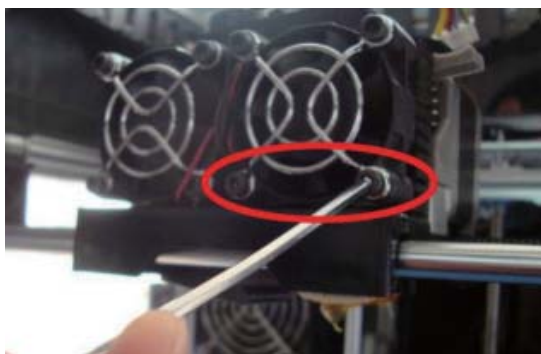
In ensuring a shutdown, open the door of the printer, unplug the connection cable plug of extruder motor



Loosen the top two hex screws by five laps of counterclockwise unscrewing.



Completely unscrew the two hex screws at the bottom right of the fan to remove the fan and heat sink



Then remove the whole motor and feeding gear from the back.



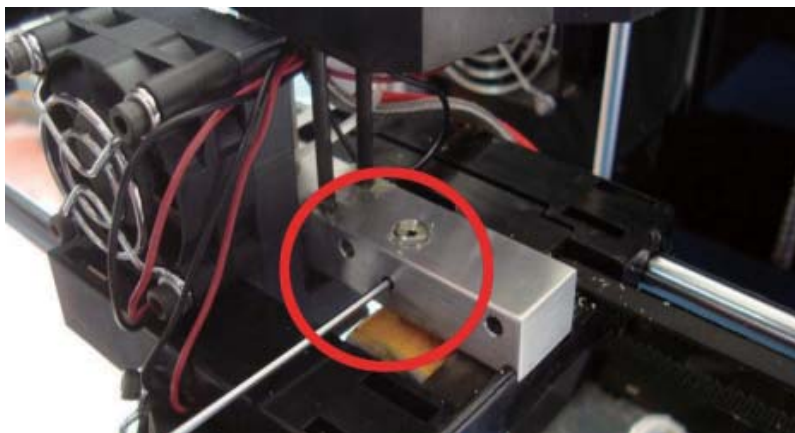
Clean up the debris of the feed wire on the motor gear with tweezers; and install it according to inverse operation steps after the cleaning.

Notes: plug in the motor cable in the end.

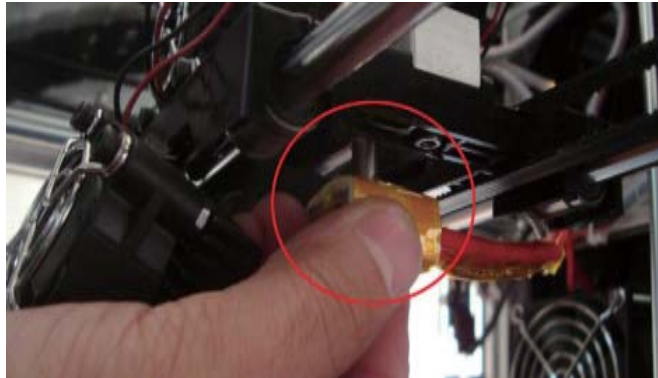
9.2.2 Replacement of the printing Nozzle

Improper operation or poor selection of the material of the feed wire can lead to Nozzle clogging. And the Nozzle will need to be replaced, if necessary.

Demolition process:



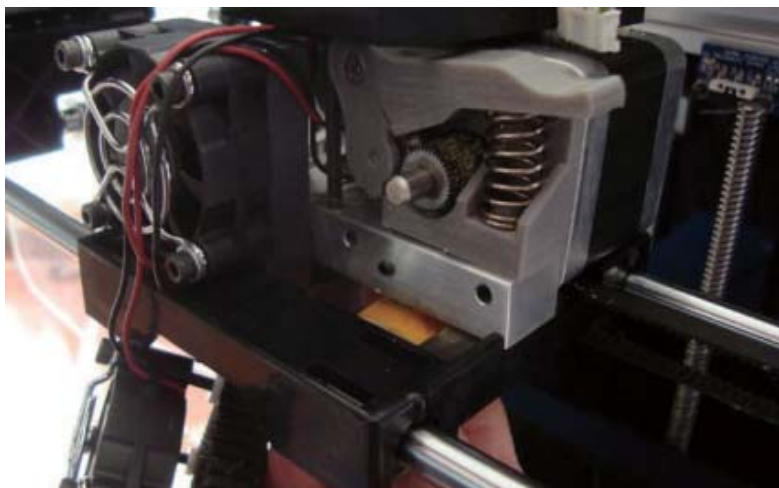
Remove the integral part of the Nozzle from the bottom and unplug the connection cable of the plug Nozzle .



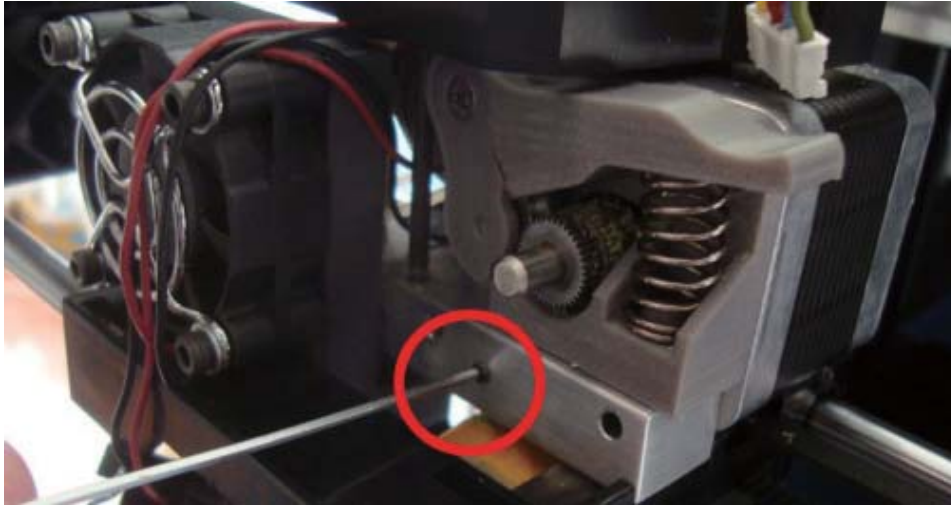
The demolition process of the extruder ends here.

New Nozzle set installing process:

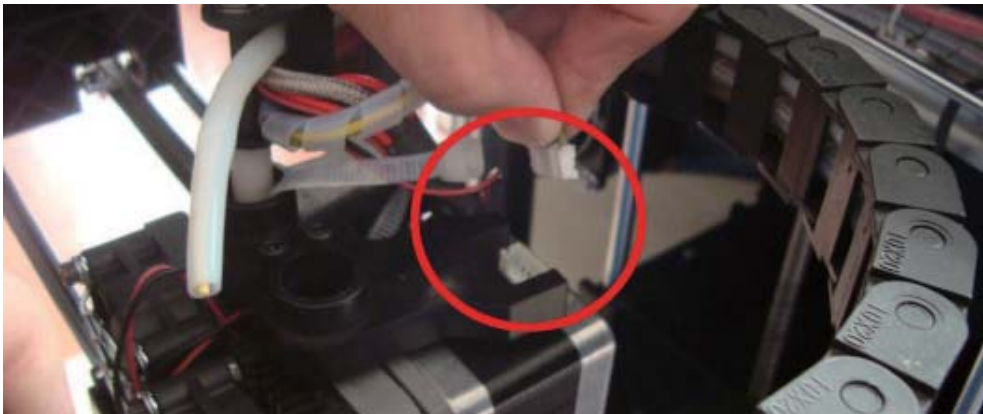
First, place the motor gear set in situ to determine the stretching length of the Nozzle throat over the aluminum block.



Insert the throat section of the new Nozzle from the bottom to the aluminum block and let the top of the throat be in close contact with the bottom of the motor gear (notes: the location of the motor cannot move); then tighten the screws fixing the pipes.



Next, install the fan, heat sink and the motor, tighten the two hex screws at the top, and finally plug in the motor cable.



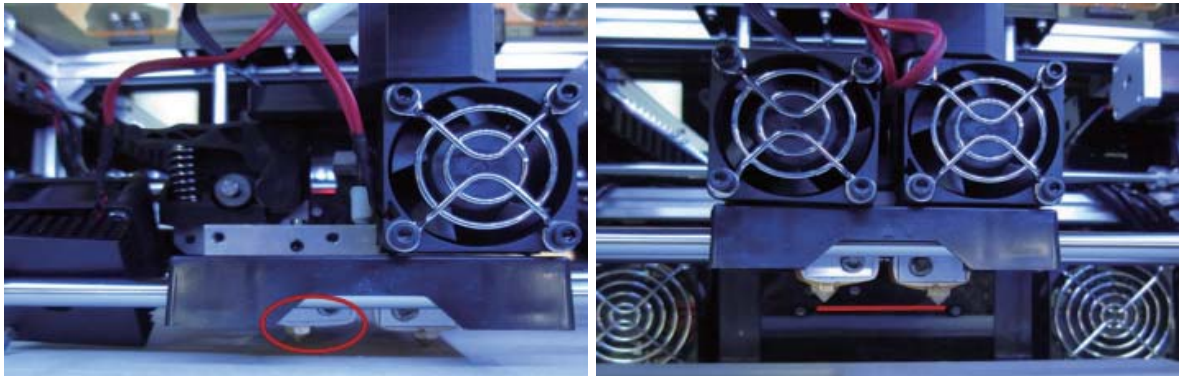
The entire process is completed now. After replacing the Nozzle, you need to realign the printing platform to begin printing models.

9.3 Precautions after the replacement of printing head for dual-Nozzle machine

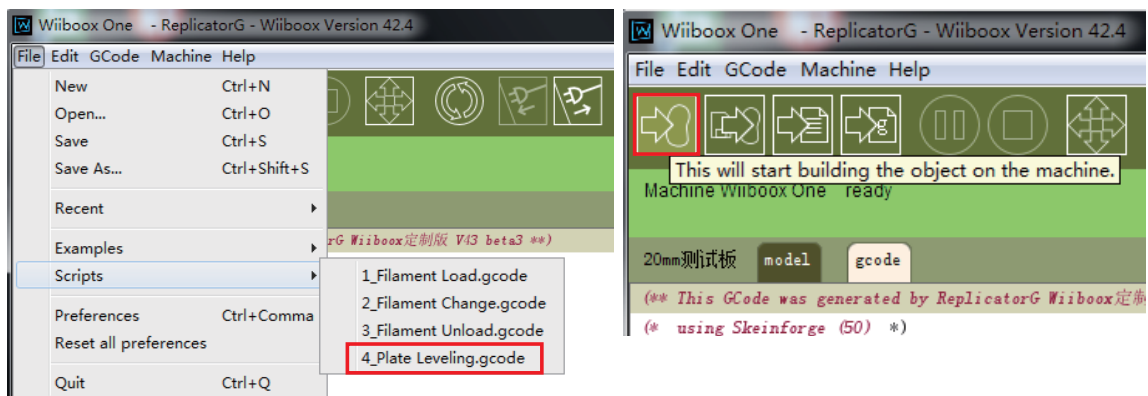
For Wiiibox one Pro / Company Pro dual-Nozzle machine, after replacing the printing Nozzles, you need to calibrate the level height of the sprinklers and the gap between the printing platform and the Nozzle, then adjust the offset value of the X / Y Nozzle, and then you can begin printing.

9.3.1 Platform calibration

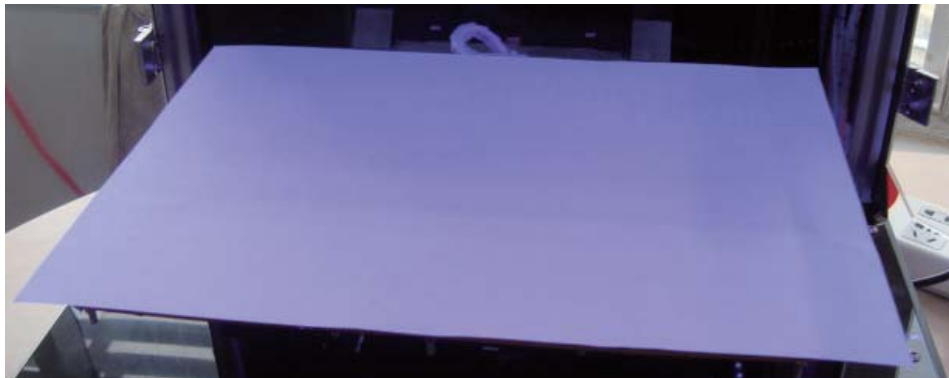
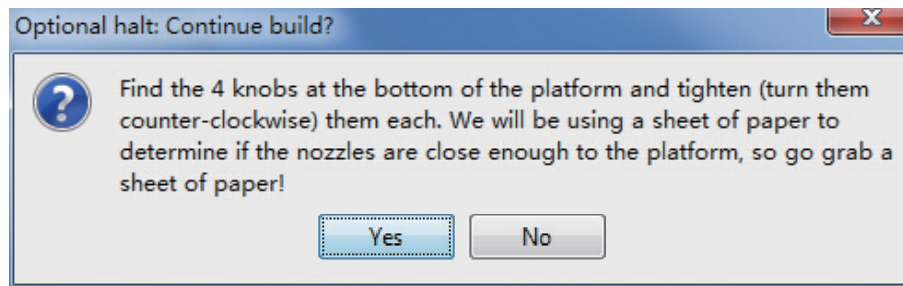
Take the example of replacing the Nozzle on the left side, to remove the old Nozzle and replace it with a new Nozzle. At this moment, the level height of the left Nozzle should be slightly higher than the right Nozzle, as shown in the Fig.; then place the motor gear set in situ to install the fan and heat sink (to not tighten the fan screws for disassembly later).



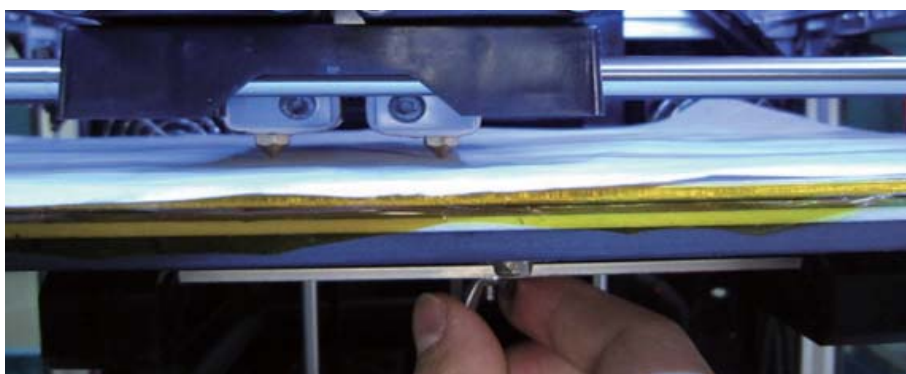
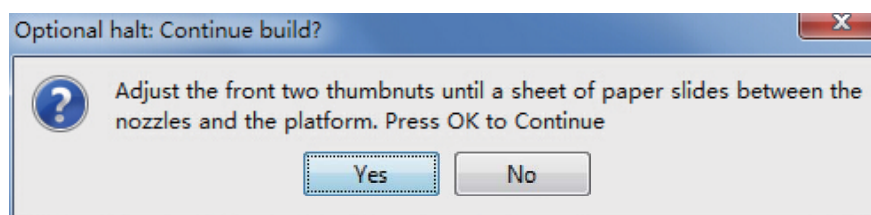
Turn on the printer to connect to the computer, and open ReplicatorG software to display that the printer is connected. Select " File" in the menu bar, find the "scripts", click " 4_ plate Leveling.gcode", then click the Start Print button, as is shown below



Then the software interface will pop up the following dialog box; please place a piece of white A4 paper on the printing platform, and then click "Yes"

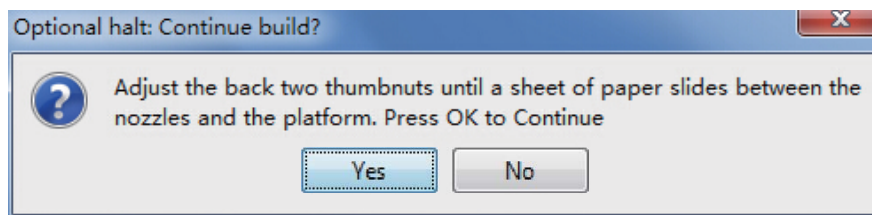


Take the right Nozzle as a benchmark to align the printing platform. At this moment, An optional halt window comes up; at the same time, the printing head will move to a fixed point, then you can begin adjusting the nut in front of the lower part of the platform and adjusting the gap between the platform and the Nozzle until the A4 paper can just slide in between the platform and the Nozzle. To have a good control of the gap, not too loose nor too tight. Click "Yes" after the adjustment.

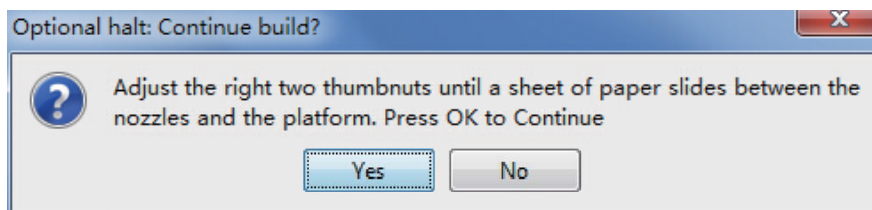


Skip "position 2" and "position 3", Adjust the other four positions relating to the gap between Nozzle and build plate in turn as follows.

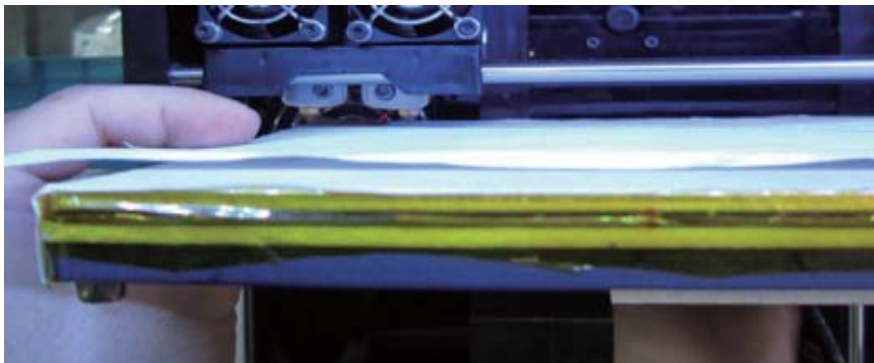
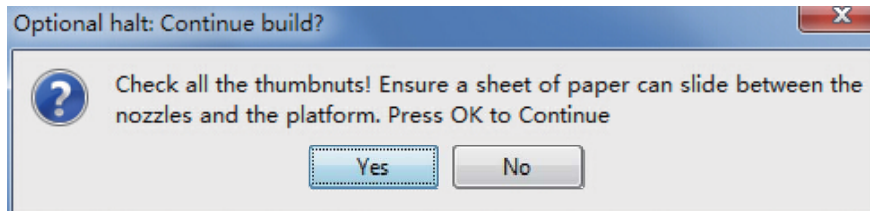
Synchronously adjust the two nuts at the lower part of the back of the platform, adjust the gap between the platform and the Nozzle until there is a little friction to slide in an A4 paper. Click "Yes" after the adjustment.



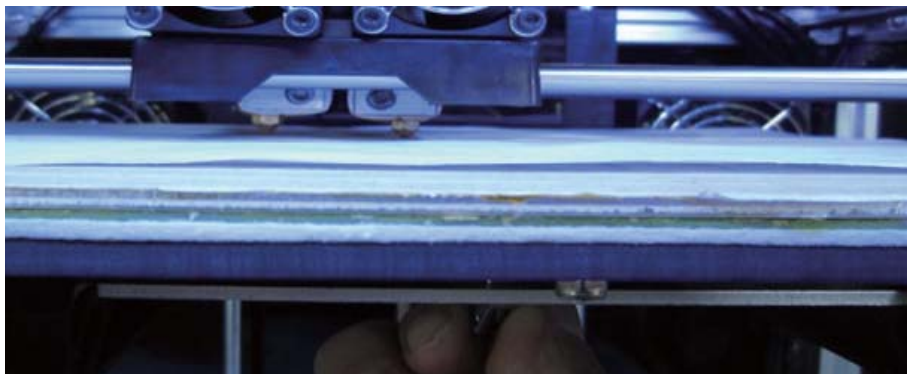
Adjust the nut at the lower right part of the back of the platform, adjust the gap between the platform and the Nozzle until there is a little friction to slide in an A4 paper. Click "Yes" after the adjustment.



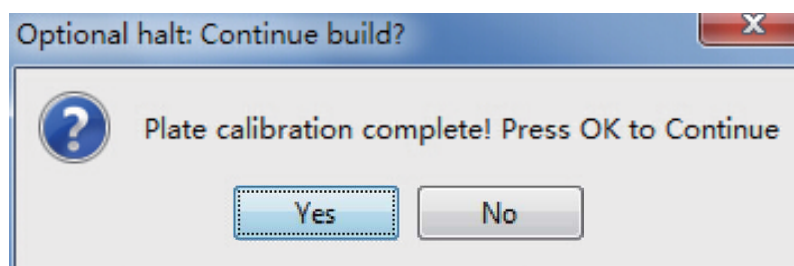
Adjust the nut at the lower left part of the back of the platform, adjust the gap between the platform and the Nozzle until there is a little friction to slide in an A4 paper. Click "Yes" after the adjustment.



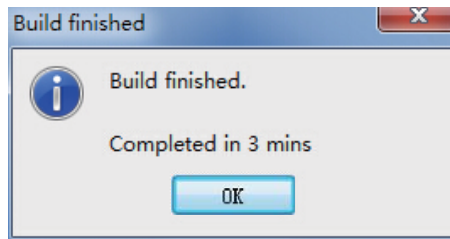
Synchronously adjust the three nuts at the lower part of the platform, adjust the gap between the platform and the Nozzle until there is a little friction to slide in an A4 paper. Click "Yes" after the adjustment.



If the gap between the platform and the Nozzle is still inappropriate, you can click "No" to re-calibrate each location.

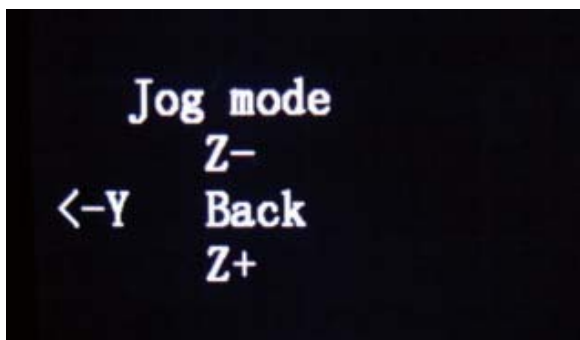


Then a popup will appear, showing the time spent for leveling; click "OK " to end the leveling.

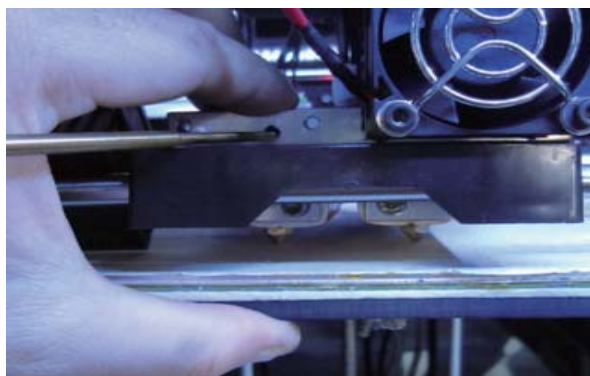
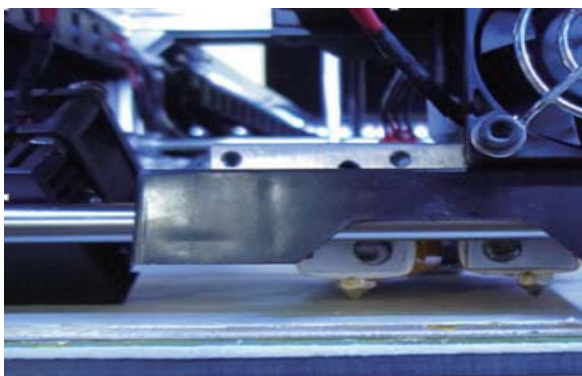


9.3.2 level height adjustment of the right and left Nozzles

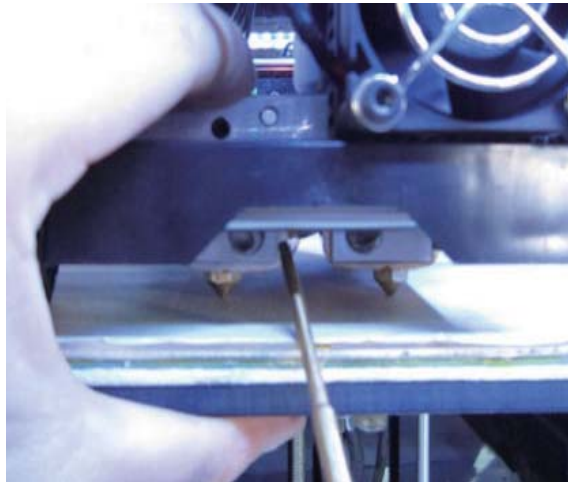
After the calibration of the printing platform, from the Start menu on the operation panel, select the third item of "Printer function debug" to enter the secondary menu, and select the third item of "Jog Mode" to enter the printer jog debugging interface. Press the right button to enter the Z-axis jog interface. Press the top button to rise the printing platform to the highest point and remain unchanged.



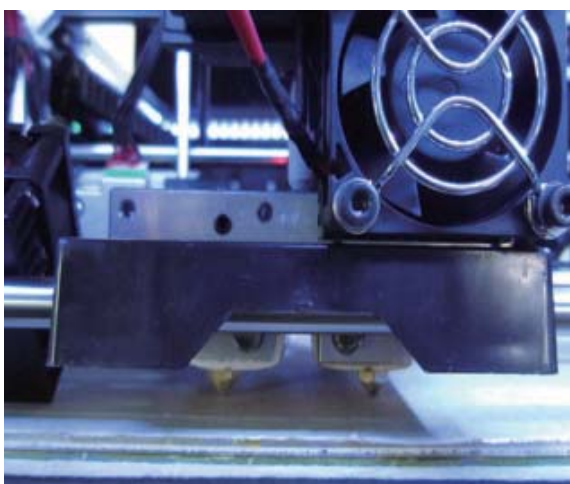
Move the Nozzle set forward, and remove the fan and motor gear set. Use your left thumb to firmly hold up the printing platform to the top of the right Nozzle. Use your left index finger to hold down the Nozzle throat above the aluminum block; loosen the screws on the aluminum block with a 1.5mm screwdriver, then the left Nozzle will automatically move down to the top of the printing platform.



If the Nozzle is slanting, please adjust to the left or right with a screwdriver, and then tighten the screws on the aluminum block. Please note: your left thumb should always firmly hold the top platform to the right Nozzle throughout the entire operation to make sure the left and right Nozzle are on the same horizontal plane.



After tightening the screws, you should carefully observe the left and right Nozzles to see they are in the same line or not; if they are in the same line, please install the motor gear set and the fan; if they are not in the same line, please calibrate again following the above steps.



After the calibration of the right and left Nozzle, please connect the ReplicatorG printing software to align the printing platform again.

9.3.3 . X / Y offset adjustment of the right and left Nozzle

Print the rectangular test block file dualtest.x3g on the SD card, and the file model is a four-layer rectangular block as below



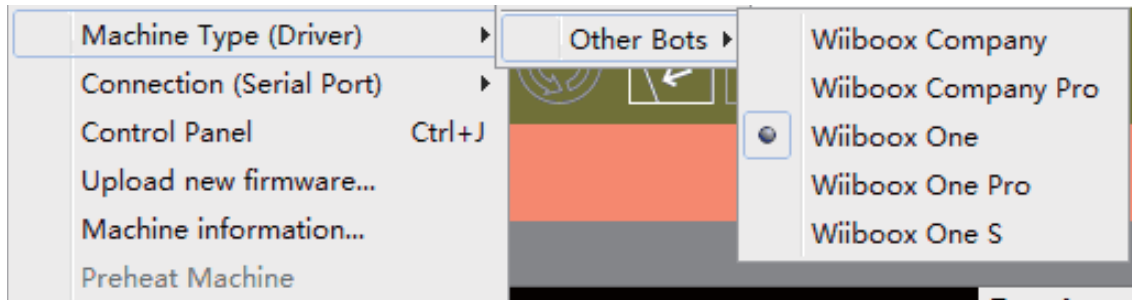
Among them, the first and the third layer from the bottom (the yellow part) will be printed by the left Nozzle; the second and the fourth layer (the red part) will be printed by the right Nozzle.

If there are separated parts printed by the left and right Nozzles in the printed block, which means that there is a deviation on the red and yellow part in the X, Y direction (as shown below), then you need to conduct Nozzle offset adjustment .

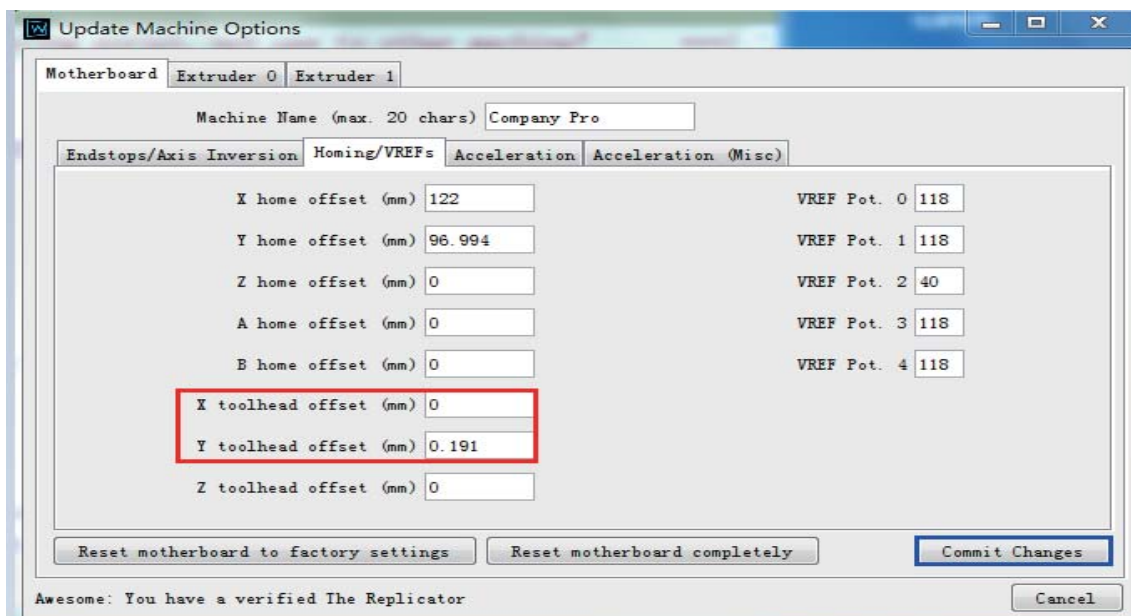


Offset adjustment steps:

Open the ReplicatorG printing software, select "Machine " → " Machine Type (Driver) " on the menu bar, then select a machine that matches your model.



Connect the printer to the ReplicatorG printing software, select "Machine " → " Onboard Preferences" on the menu bar, and enter the interface for printer parameter setting. Select "Homing / VREFs" option and adjust X toolhead offset and Y toolhead offset value.



Under normal circumstances, there will be corresponding predicted values in millimeters when it is going out of the factory for the X toolhead offset and Y toolhead offset value, and you only need to increase or decrease its value on this basis to adjust the offset.

Specific rules are as follows:

Front view of the four-layer rectangular model from the bottom

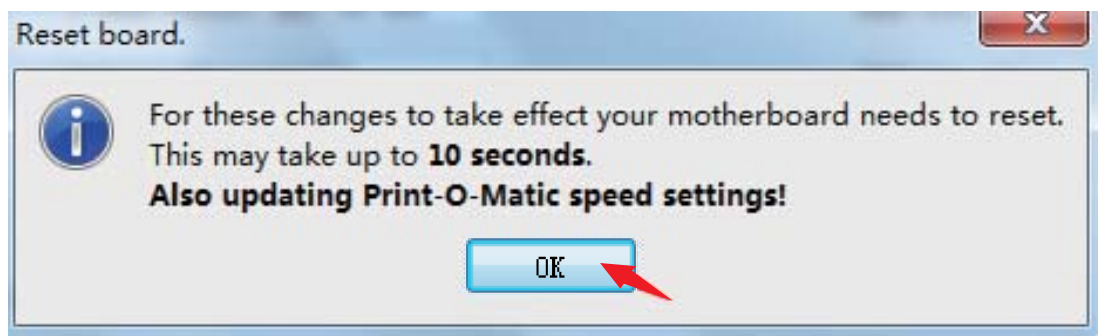
Increase X toolhead offset value, the printing portions (two, four) of the right Nozzle will shift to the right

Reduce X toolhead offset value, the printing portions (two, four) of the right Nozzle will shift to the left

Increase Y toolhead offset value, the printing portions (two, four) of the right Nozzle will shift backward

Reduce Y toolhead offset value, the printing portions (two, four) of the right Nozzle will shift forward

Click the "Commit Changes" at the bottom right after modification and click "OK" in the pop-up dialog box, as is shown below. Wait for a few seconds until the status bar turns red from green, indicating that the offset parameter modification is completed.



After the modification of the offset parameter, print the dualtest.x3g file again to confirm whether adjustments are in place; if there are deviations, please repeat the above steps to adjust once again until the printing part of the right and left Nozzle overlaps in the X, Y direction of the rectangular block.

10

Frequently Asked Questions and Troubleshooting (FAQ)

Q

Will the wire replacement script be running for every booting?

A

The wire replacement script will not run for every booting; it is only running when the wire is replaced.

Q

In the process of ReplicatorG software installation, what if the printing serial port driver cannot be installed?

A

Please check the computer's operation system; if the operation system is WIN7 32BIT, please right click to install with the administrator privilege.

Q

Can the finished model be picked up by hand immediately after the printing?

A

Please do not hand pick the model immediately, but wait for a moment to cool the model, and then gently shovel the model with a spatula; be careful to not damage the blue 3M sticker on the printing platform.

Q

What if the power light is off?

A

Please check the power switch at the front and the back, as well as the connection of the power cord at the back.

Q

What if the computer software cannot be connected to the printer?

A

Please check whether the USB interface is connected properly; turn off the ReplicatorG software on your computer and try printing again; If it does not work, please restart the computer and the printer.

Q

What if the bottom of the printed model cannot stand firmly or the model moves?

A

Please check the set temperature of the printing platform is correct or not; whether the printing platform has reached the set temperature.

If the temperature of the printing platform is correct, please check the printing platform (heating plate) is smooth or not, and adjust the printing platform.

Q

What if the printing Nozzle is clogged or the wire would not come out of the Nozzle?

A

Please check whether the feed wire on the feeding rack has run out.

1) feed wire runs out, indicating that there is feed wire segment left in the printing Nozzle.

Please remove the fan at the top of the printing Nozzle, remove the printing Nozzle, and then heat the printing Nozzle to 230 and carefully pull out the feed wire using pliers. Turn off the printer and reinstall the printing Nozzle when it is cool.

2) The feed wire does not run out, indicating that the print Nozzle is clogged. Remove the fan above the printing Nozzle to see whether the feeding gear is wound with the feed wire. If the wire is wound there, cut the wire from the top of the aluminum block, remove the printing Nozzle; then heat the print Nozzle to 230 , carefully pull off the feed wire section with pliers and remove the Nozzle at the same time; clean up the feed wire and debris in the feeding gear, turn off the printer and install the Nozzle and the printing Nozzle; if there is no wound fire, please hest the printing Nozzle to 230 , press the extrusion handle to feed the wire manually; push the wire a little harder to push out the wire section left in the Nozzle, and then pull out the wire manually, and then push the feed wire manually; repeat this process several times until the printing Nozzle is completely clear and clean.

Please be careful to clear the print extruders and avoid burns.

If the printing Nozzles cannot cleared, please contact our company to replace the printing Nozzle. After replacing the printing Nozzle, please re-level the printing platform before start printing.

Wiiibox

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SERVICE CALL

400 816 3066

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