

WEEDO F150S 3D Printer

User Manual

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1. 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 nozzle would be up to 200 °C during printing and after printing; therefore, it is prohibited to directly touch the printing nozzle during these time.
- 2) The temperature of the printing platform would be up to 100 °C during the printing of ABS consumables or after printing; therefore, it is prohibited to directly touch the printing platform during these time.
- 3) The 3D printer is equipped with active air filtration system which can handle most of the irritant gases exuding from the heated filaments during printing. For continuous printing of a long time, 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. 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 using the 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 socket complying with the international standard. The power cord cannot be forced into a two-hole socket. 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) The input voltage of the 3D printer is 100-220V. Please feel free to use it in or outside the mainland China.
- 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, 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 an 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 filaments will not be used for a long time, please store them in a 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 of the Printer

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

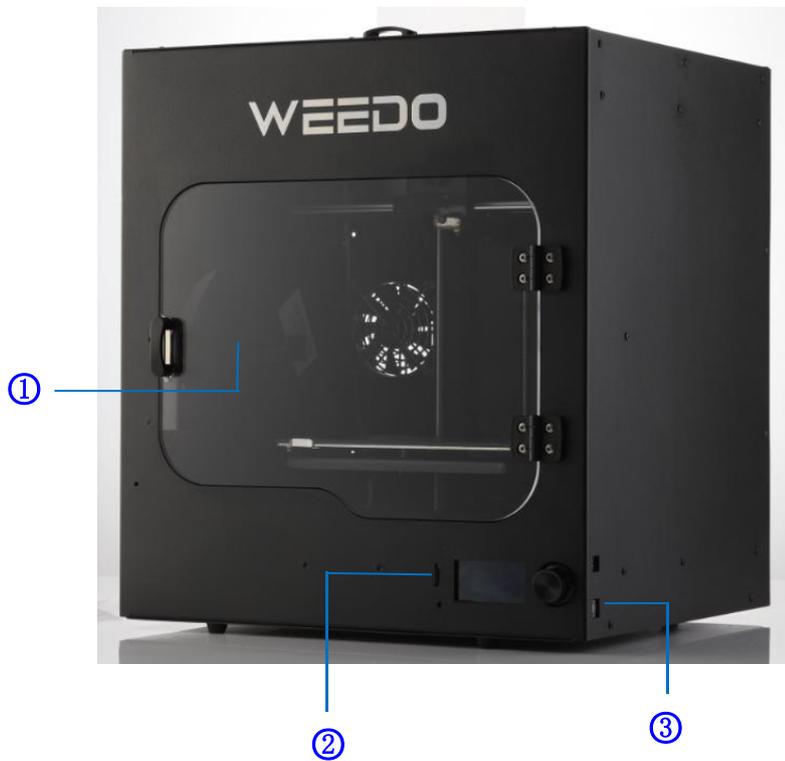
2.1 Appearance Introduction

Front view of the Printer



- ① Up Cover
- ② Front Door
- ③ Power socket
- ④ LCD display screen
- ⑤ Rotary Switch
- ⑥ Printing platform
- ⑦ Nozzle

Right view of the printer



① Filament holder

② SD card socket

③ USB socket for printer

2.2 Technical Parameters

Printing parameters		Machine parameters	
Printing Size	200*150*150mm	Display Type	English
Thickness of one layer	0.1-0.4mm	Machine Size	380*340*420mm
Nozzle Diameter	0.4mm	Machine Weight	15kg
Printing Speed	20-130mmmm/s	Input Voltage	100-240V , 120W
Positioning Accuracy	Z axis 0.0025mm XY axis 0.011mm	Maximum Power	24V,5A
Consumables parameters		Software parameters	
Consumables Type	ABS /PLA/PLA Pro	Printing software	Wiibuilder
Consumables Diameter	1.75mm	File Format	STL/GCODE/OBJ
Consumables Color	Optional for mufti-colors	Operating System	Windows/MacOS

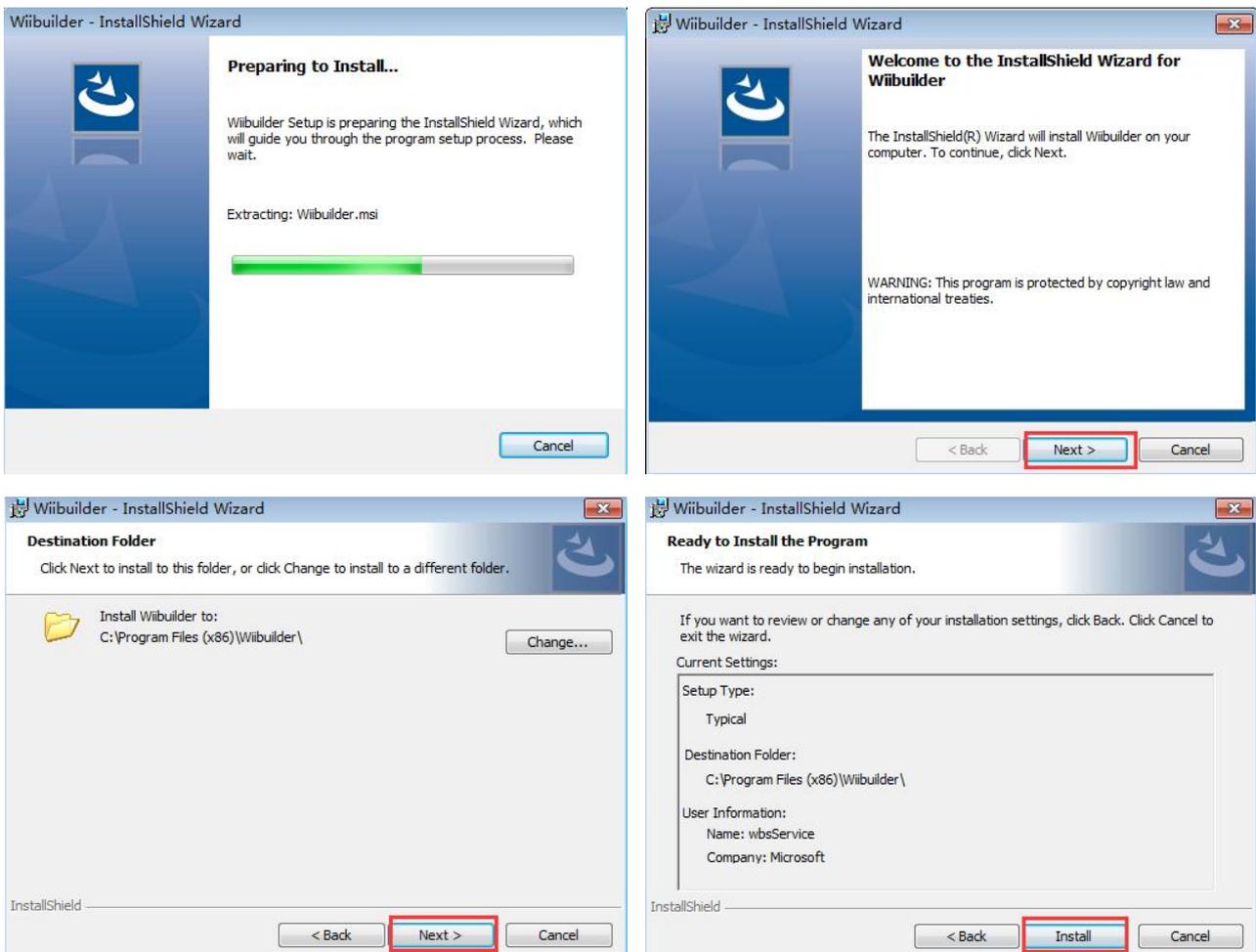
		Printing mode	USB/SD Card
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3. Install the Slicing Software of the Printer

Software	
Wiibuilder	Wiibuilder is a host computer software for 3D printers, which can be sliced to generate files for offline printing, online printing, 3D model editing, and management of 3D printers. Wiibuilder uses a multithreading slicing engine, including user interface and professional interface.

3.1 Install Wiibuilder software

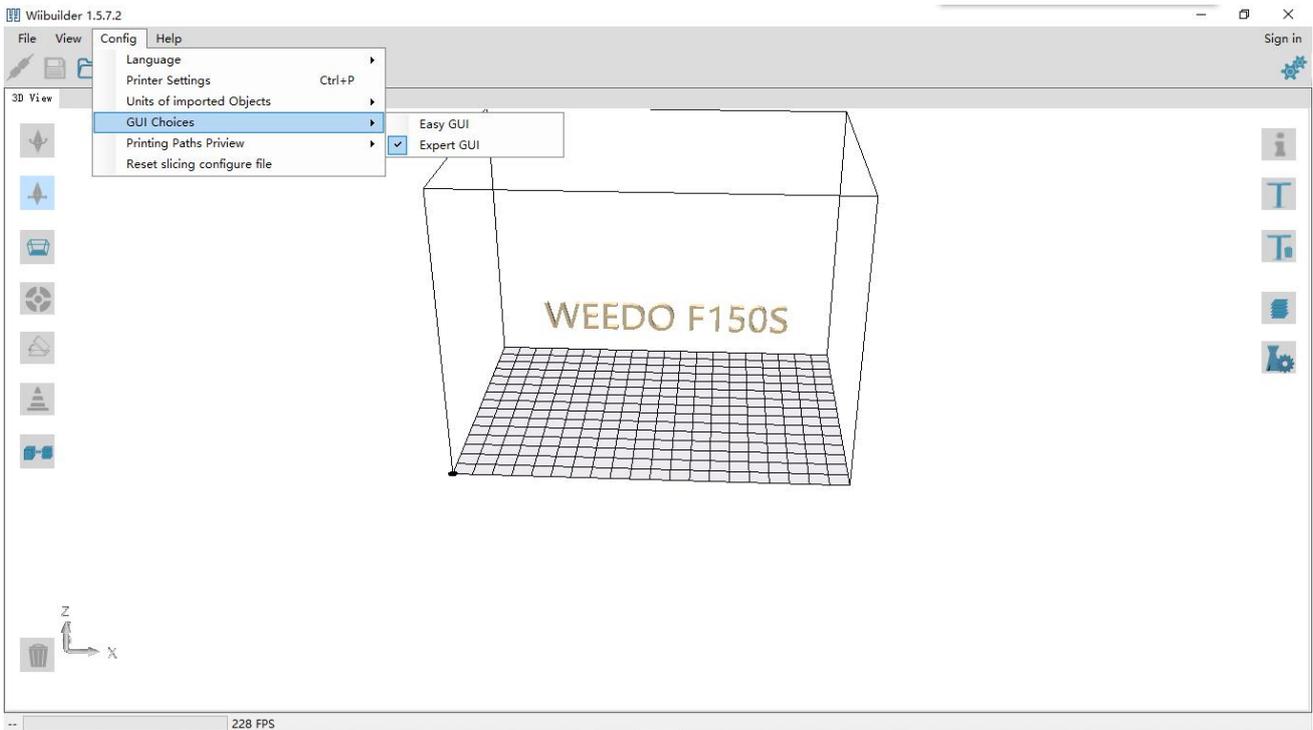
Run the software installation package, Wiibuilder in the installation wizard window, click "next"- "next"- "Install"- "finish". In the selection installation path window, use the default path of the program.





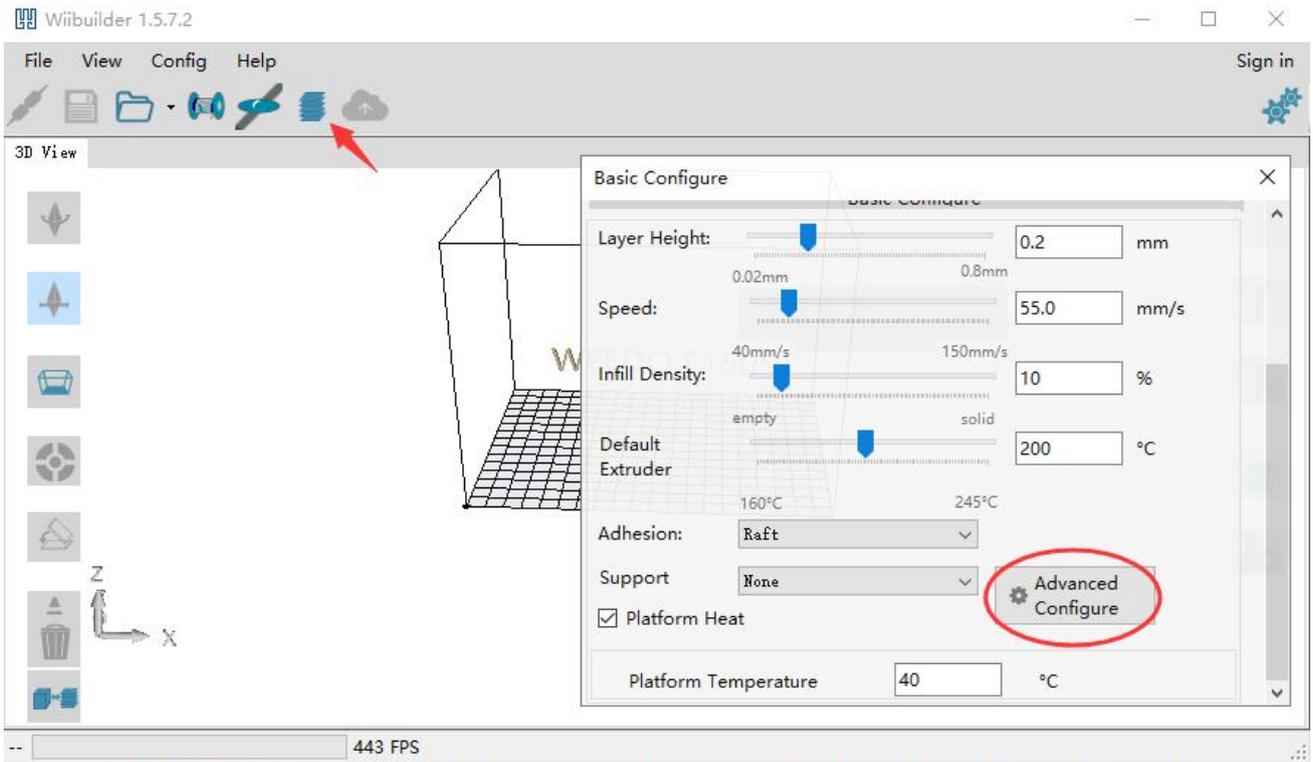
When you first time use Wiibuilder, you can set it up according to the software interface reminder.

When the software is started, parameters can be set up through the "configuration" menu in the upper left corner of the software, choose "GUI choices" , "Easy GUI" is user interface, "Expert GUI" is professional interface.

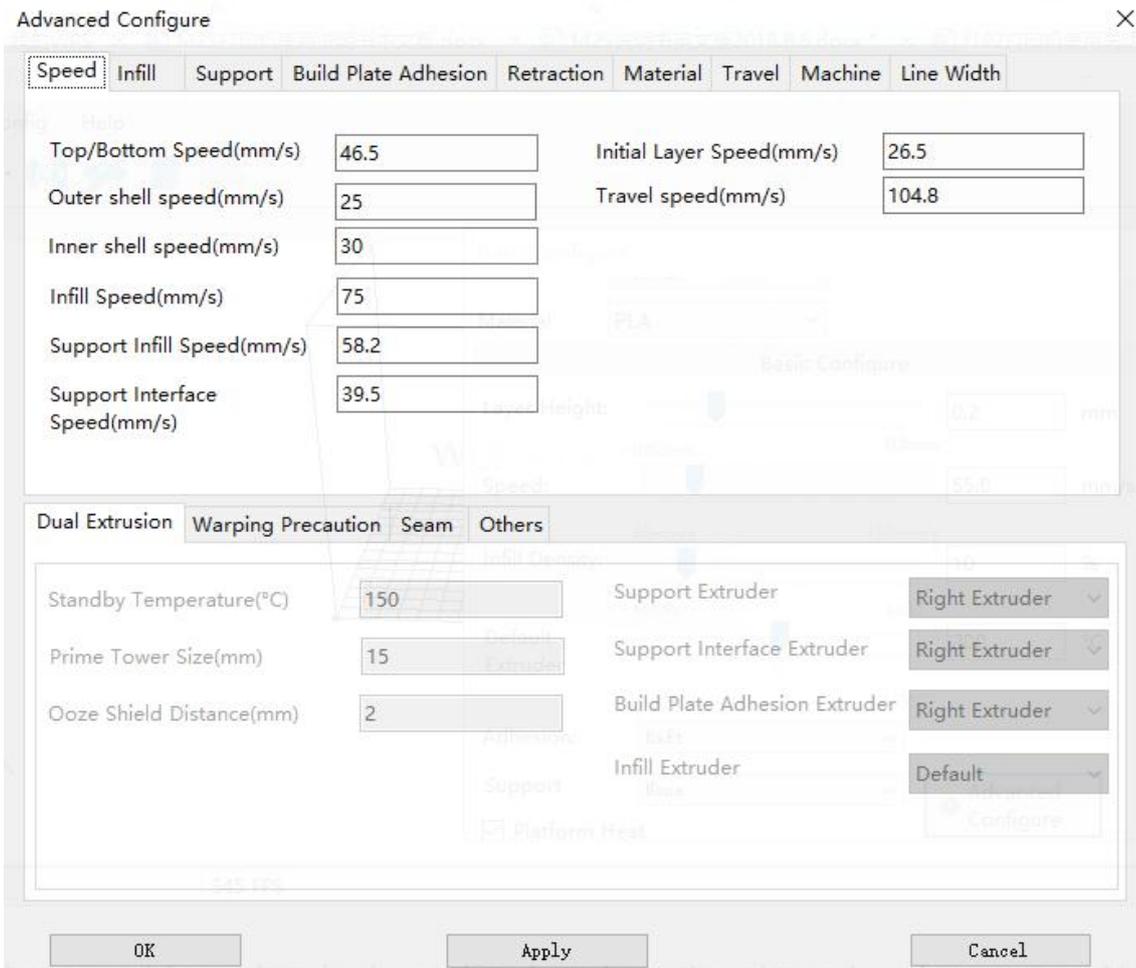


3.2 Wiibuilder Instructions for advanced settings

Open the Wiibuilder software, load the file that need to be printed, and click the "slicing" button in the function bar on the top right side of the software.



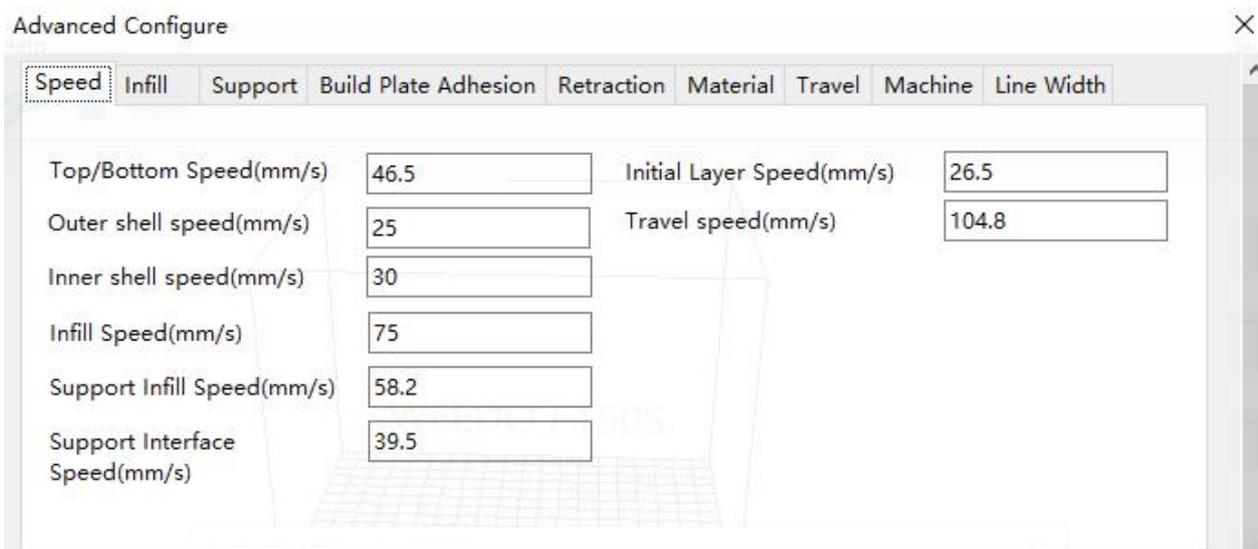
Click the "advanced configure" , you will see the following interface:



There are nine settings in the settings box above the advanced settings menu, which are "speed", "infill", "support", "build plate adhesion", "retraction", "material", "empty walk", "machine" and "line width".

In the settings box below the advanced settings menu, there are four settings, namely "dual extrusion", "warping prevention", "seam" and "others".

3.2.1、 "Speed" interface:



Top/bottom speed (mm/s): the printing speed of the upper and bottom surfaces of the model.

Outer shell speed (mm/s): the printing speed of the model shell.

Inner shell speed (mm/s): the printing speed of the shell in the model.

Infill speed (mm/s): the speed of infilling inside the printing model.

Support infill speed (mm/s): the printing speed of model support infilling;

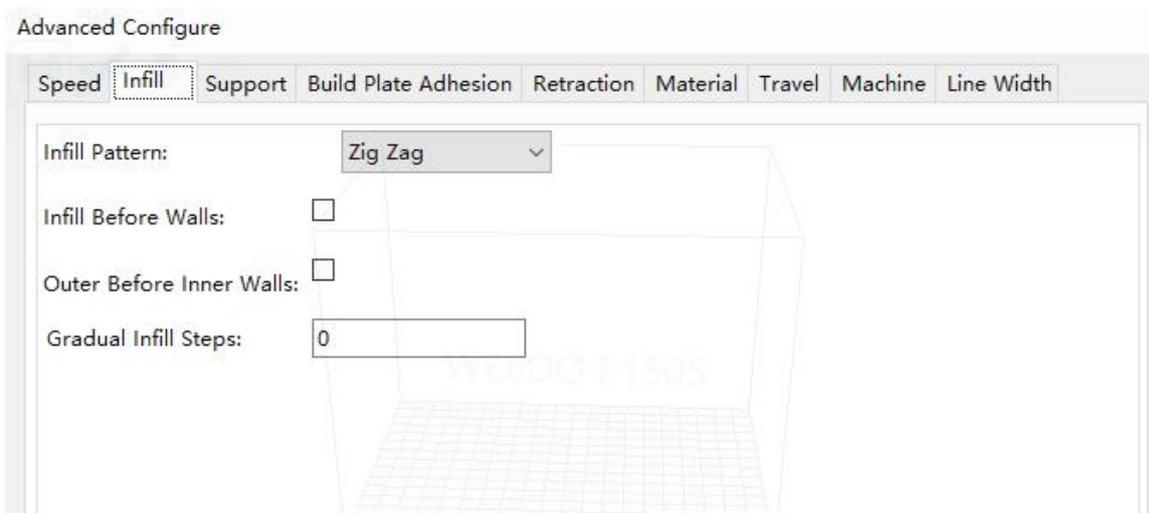
Supporting interface speed (mm/s): the printing speed of the upper and lower surfaces of the model support.

Initial layer speed (mm/s): the printing speed of the first layer of the model.

Travel speed (mm/s): the movement speed of the nozzle without entering the printing state.

The above parameter will be changed automatically when users change the speed in the basic interface, so it is generally not necessary to change these parameter; If the speed of some parts is specified, it can be set separately according to the demand.

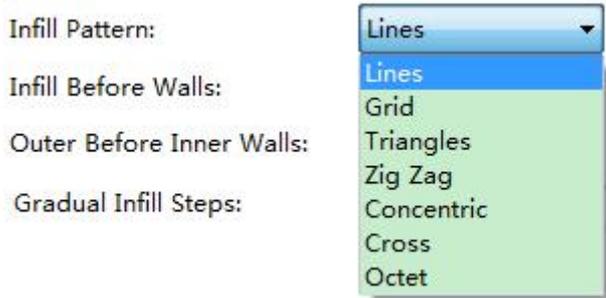
3.2.2、 "Infill" interface:



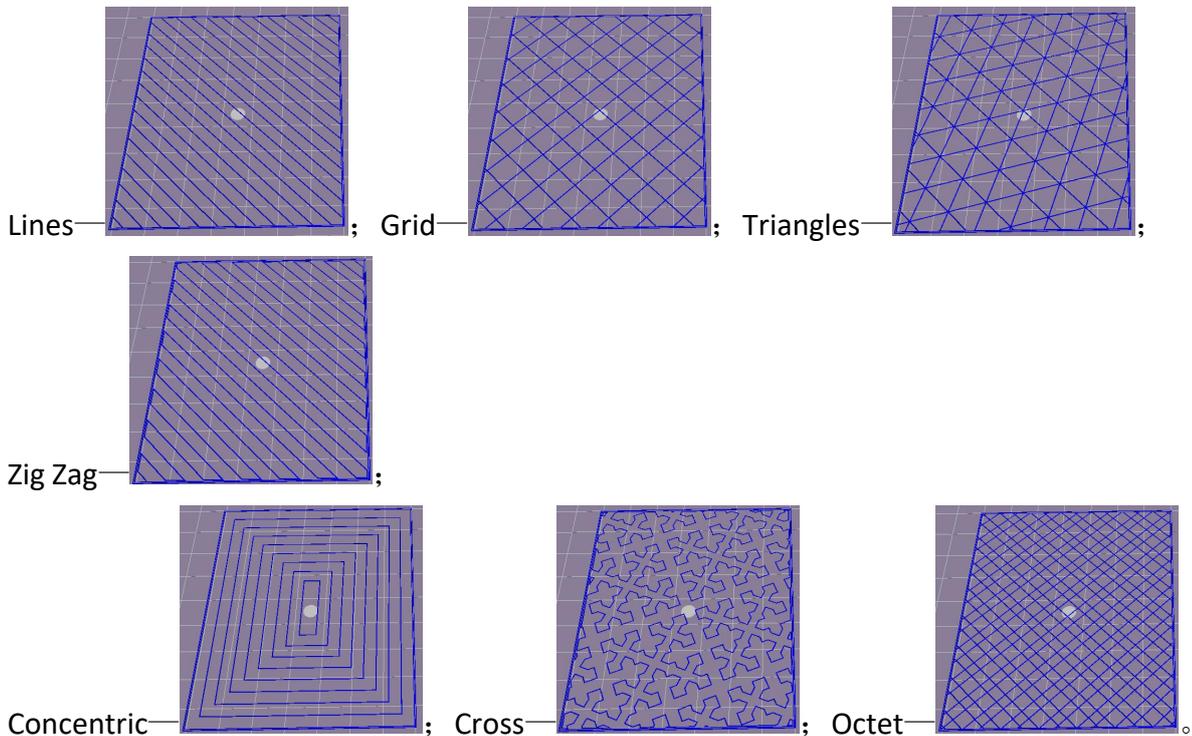
Infill pattern: the filling mode inside the model, the user can change the filling mode according to the requirements of the intensity and beauty of the model to be printed, that is, to change the filling shape inside the print model.

Click the "infill pattern" drop-down menu to select the filling mode, including lines, grid, triangle, zig

zag, concentric, cross and octet as follows:

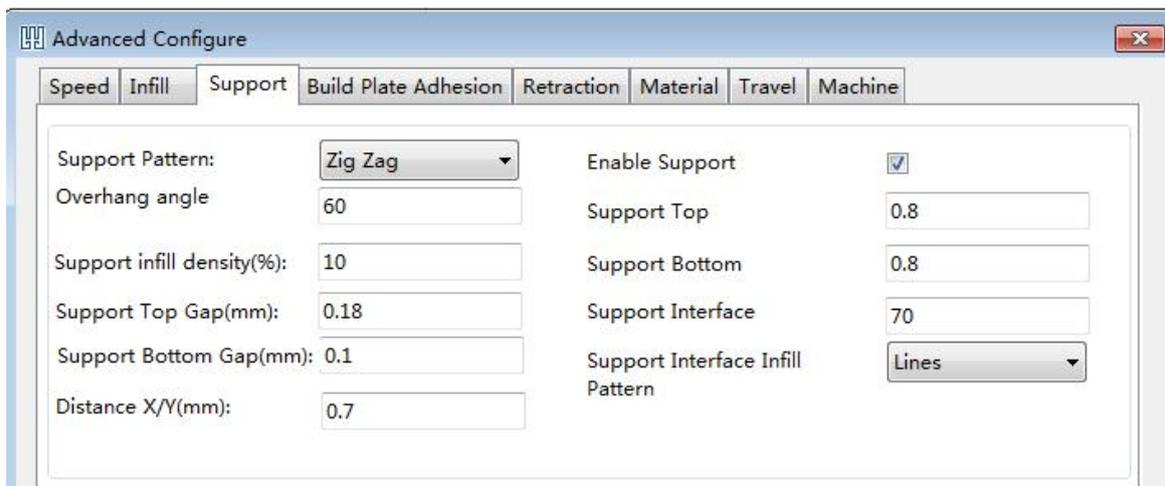


The shape of each filling method is as follows:



Infill before walls: that is to choose whether to print the model after filling and print the outline.
 Outer before inner: that is to choose whether to print the outline of the model before printing the internal walls.
 Gradual infill steps: that is, for the model that needs to gradually change the fill rate of the model, determine how many layers change the fill rate once.
 Generally, the above items do not need to be changed.

3.2.3、 "Support" interface:



Support pattern: the supporting shape of the model, including lines, grid, triangles, zig zag and concentric.



The drop down menu for the support mode is shown as follows: , Users can set different forms of support according to different models, so that support can be conveniently removed and better support and model contact surfaces can be obtained. Among them, lines, grid and zig zag shape support are mostly to be choose.

Lines support is applied to models which requiring more support, and it is easy easier to remove.

Grid support is applied to small models, which need fewer support models and support can be removed.

Zig zag support is applied to some models which are particularly difficult to remove. The support of this shape is stronger than that of the lines support and is better than the grid support.

Overhang angle: the angle between the support and the contact surface of the model, the size of the angle will affect the use effect of the support and the difficulty of the later stage to remove the support. The default setting is 60 degrees. The larger the angle is, the easier it is to remove the support. The smaller the angle, the better the support effect.

Support filling density (%): the filling density of the support. The higher the filling density, the higher the support strength; the lower the filling density, the lower the support strength.

Support top gap (mm): the distance between the top and the model surface, the larger the value and the larger the distance, the support effect may be poor. The model adds the prop up, the smaller the value and the smaller the distance, the surface will have residual material on the model surface when the support is stripped from the model surface, which affects the model surface. Smoothness; the user can print the test on the default value, up or down the parameter according to the actual printing situation, so that the model gets better support effect and is easily stripped from the model to get a better model surface.

Support bottom gap (mm): the spacing between the bottom of the support and the model surface, which is similar to the adjustment mode of the above "support top distance model gap (mm)" function.

Distance X/Y (mm): the spacing of the horizontal plane specified by the support distance model, which is similar to the above "support top distance model gap (mm)" function adjustment.

Enable support: when the surface of the model needs to be added, the support surface can be selected to obtain a better model surface.

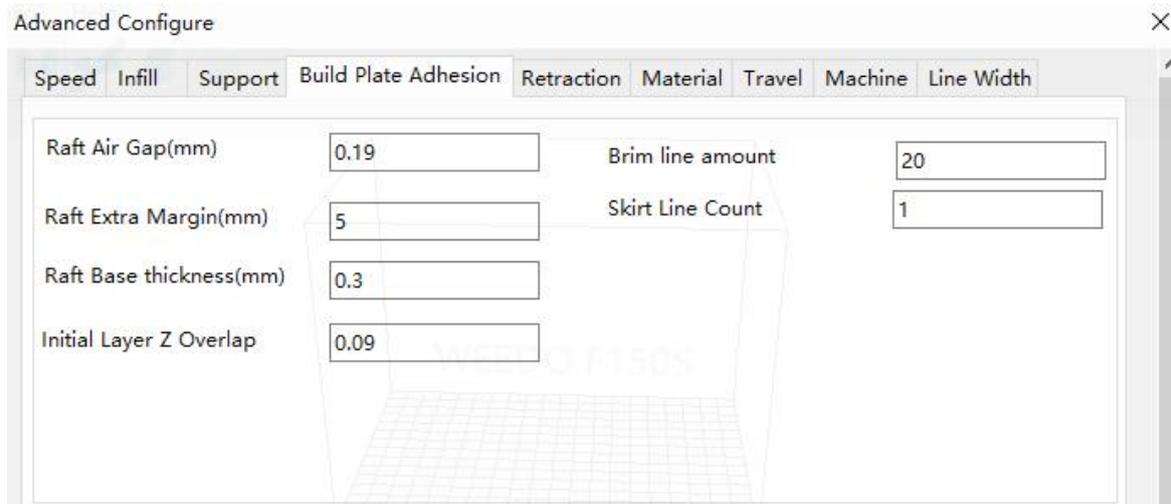
Support top (mm): that is to support the thickness of the top surface, generally set the default.

Support bottom (mm): that is to support the thickness of the bottom surface, generally set the default.

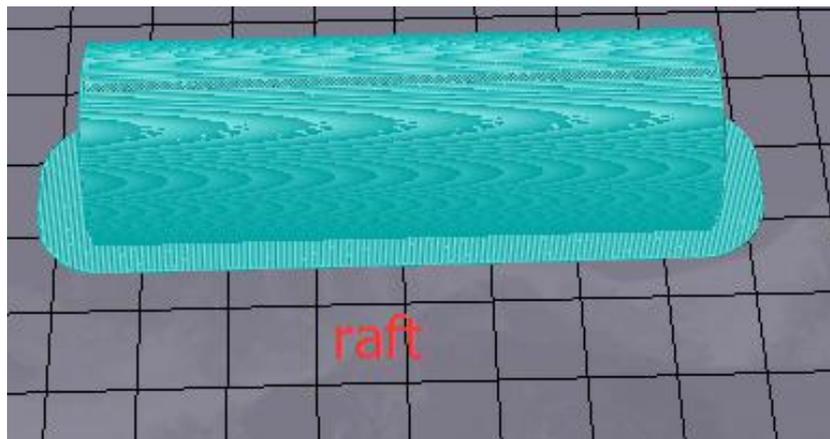
Support interface (%): that is, the filling rate of the supporting surface is generally set by default.

Support surface infill pattern: the filling mode of the supporting surface, including lines, mesh, triangles, zig zag and concentric.

3.2.4、 "Build plate adhesion" interface:



Raft air gap (mm): the space between the the adhesion and the model, the gap of the space determines the difficulty of removing it from the model. See the following figure:

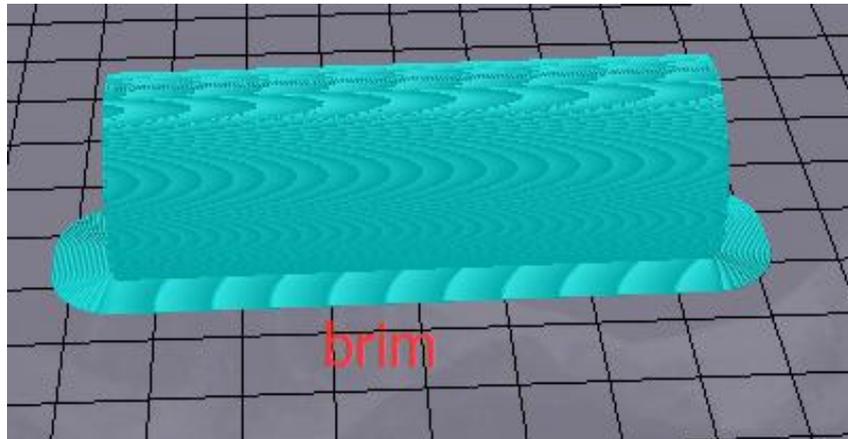


Raft extra margin (mm) : That is, the distance between the adhesion edge and the model, it is usually set by default.

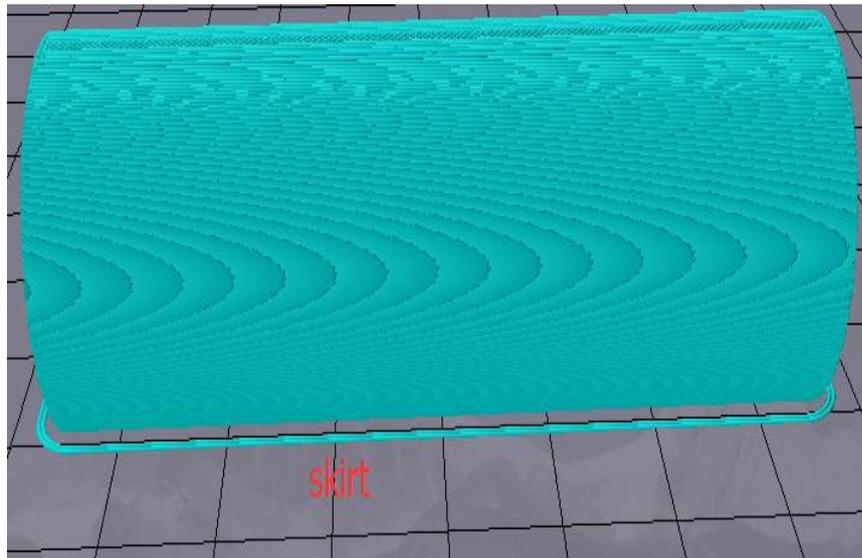
Raft base thickness (mm) : That is, the thickness of the model bottom adhesion, it is usually set by default.

Initial layer Z overlap: it is the overlap rate between the first and second layers of the model printing, and the default is generally set.

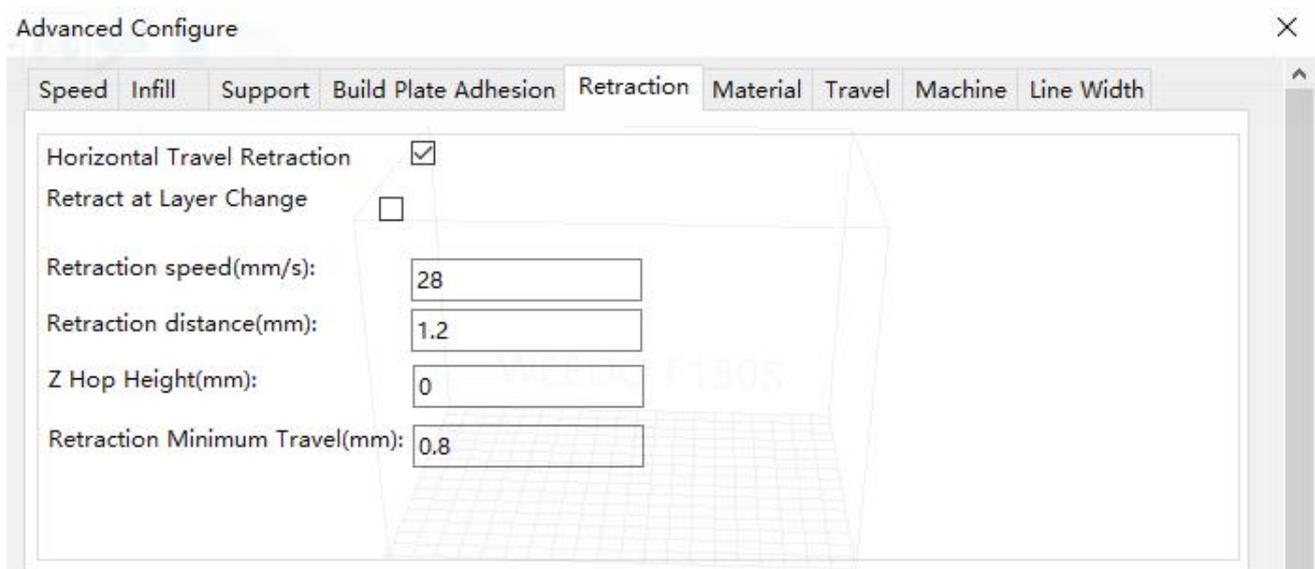
Brim line amount: that is the number of ring gaskets which added to the edge of the model contact with the platform, it is generally set to the default.



Skirt line count: that is to add the anti overflow line at the edge of the model contact with the platform, it is usually set by default.



3.2.5、 "Retraction" interface:



In order to prevent stringing during printing process, retraction setup is added in the software. Horizontal travel retraction: that is, when the nozzle is not printing, the nozzle will turn on the retraction setting when horizontal movement.

Retract at layer change: that is to say, the nozzle will turn on the retraction setting when printing different layers of the model.

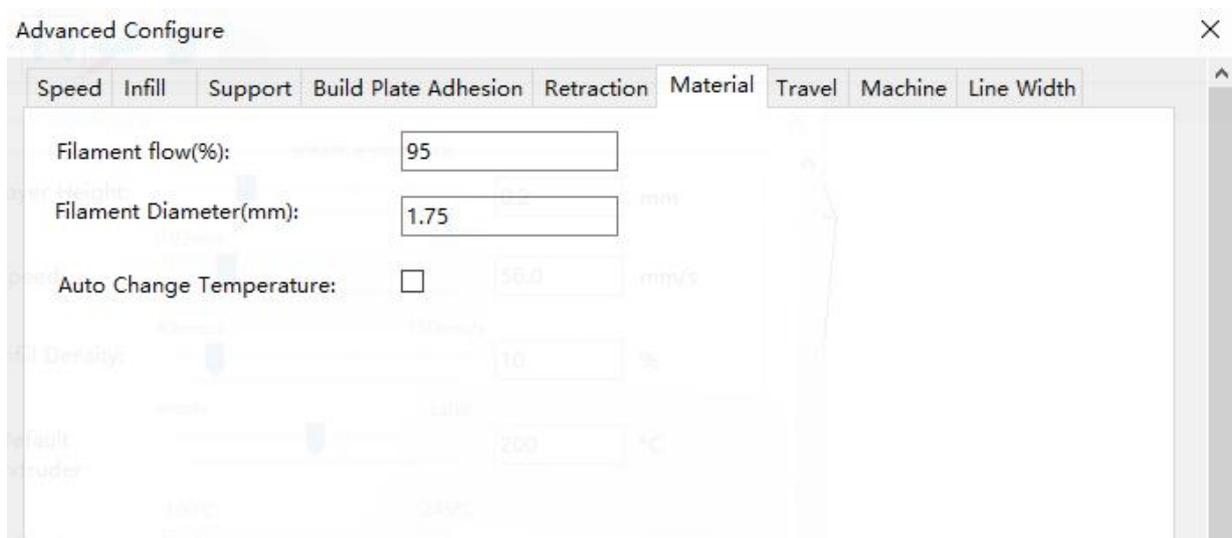
Retraction speed (mm/s): that is, the retraction speed of the nozzle, which is usually set by default.

Retraction distance (mm) : that is, the amount of material returned by the nozzle, which is usually set by default.

Z hop height (mm) : that is to say, when the nozzle returns material, the lifting amount of the nozzle , which is usually set by default.

Retraction Minimum travel (mm) : that is, the nozzle movement distance before printing and before the nozzle retracting filaments, which is usually set by default.

3.2.6、 "Material" interface:

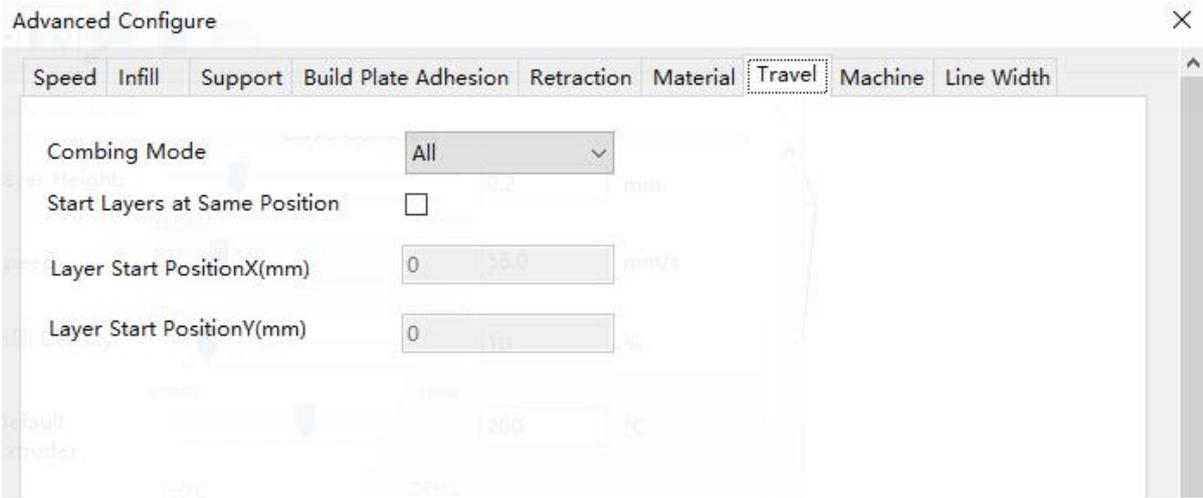


Filament flow (%) : that is, the flow rate of the consumables in the melting state, it is set according to the consumable material. In general, the flow rate of PLA and PLA Pro is set to 90, and the flow rate of ABS is set to 100.

Filament diameter (mm) : that is, the diameter of the consumable material, according to the nozzle diameter used by the printer and the line diameter of the consumable material, the diameter of the consumable material of the WEEDO series printer is 1.75mm at present.

Automatic change temperature : when printing, the nozzle will automatically change the printing temperature according to the temperature characteristics of the consumables, the general consumables are set by default, no need to select.

3.2.7、 "Travel" interface:



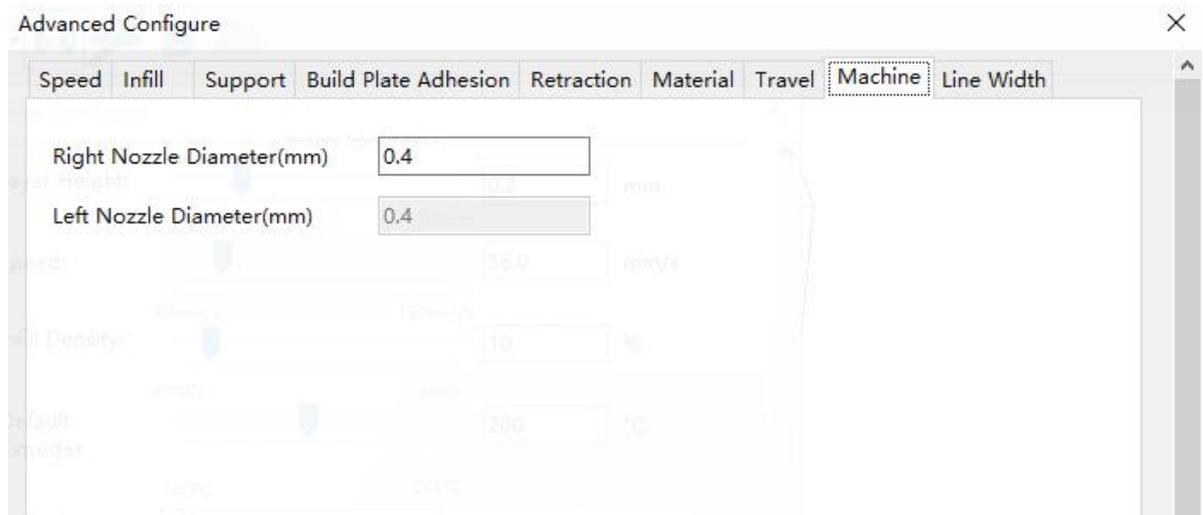
Combing Mode: when the nozzle is not printed, the way of the nozzle's running, including off, all and no skin, it is usually set by default.

Start layers at same position: that is to change the accuracy of the model in the same plane, and it is generally set the default.

Layer start position X (mm): that is, you want to change the X axis coordinates of the position of the model layer.

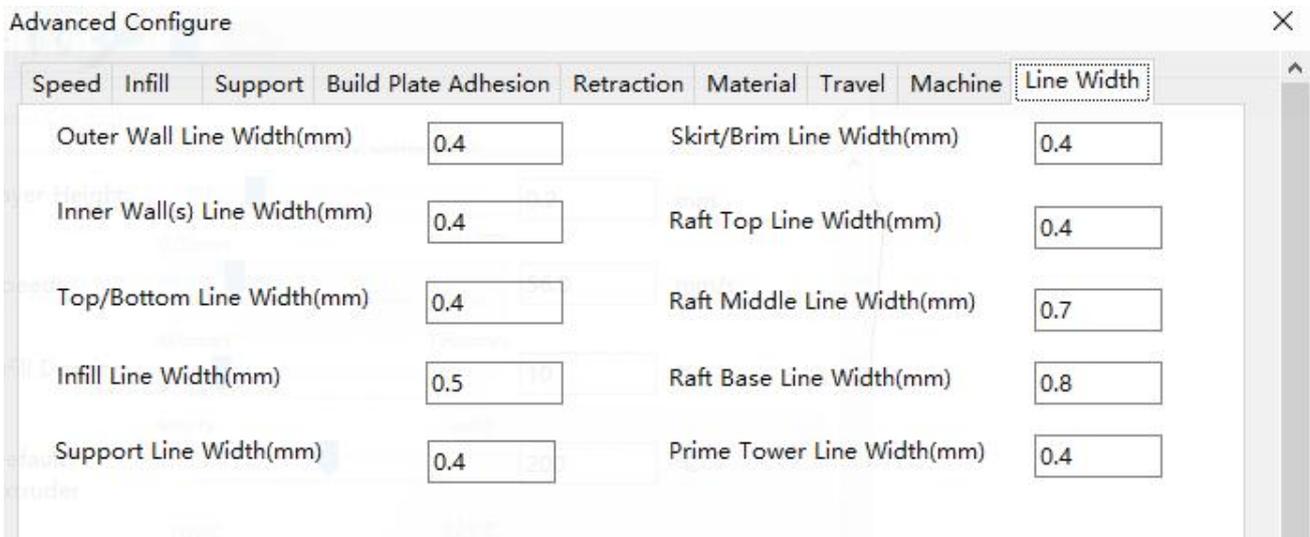
Layer start position Y (mm): that is, you want to change the Y axis coordinates of the position of the model layer.

3.2.8、 "Machine" interface:



WEEDO series 3D printers include single nozzle and double nozzle machines. At present, the WEEDO series 3D printers use the 0.4mm diameter nozzle.

3.2.9、 "Line Width" interface



Outer Wall Line Width(mm): Width of the outermost wall line. By lowering this value, higher levels of detail can be printed.

Inner Wall(s) Line Width(mm): Width of a single wall line for all wall lines except the outermost one.

Top/bottom Surface Skin Line Width(mm): Width of a single top/bottom line.

Infill Line Width(mm): Width of a single infill line.

Support Line Width(mm): Width of a single support structure line.

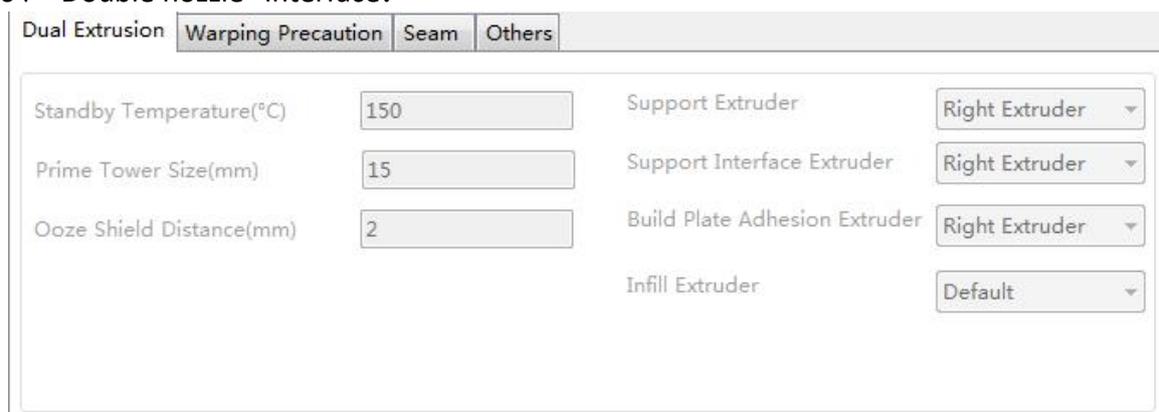
Skirt/Brim Line Width(mm): Width of a single skirt or brim line.

Raft Top Line Width(mm): Width of the lines in the top surface of the raft. These can be thin lines so that the top of the raft becomes smooth.

Raft Middle Line Width(mm): Width of the lines in the middle raft layer. Making the second layer extrude more causes the lines to stick to the build plate.

Raft Base Line Width(mm): Width of the lines in the base raft layer. These should be thick lines to assist in build plate adhesion.

3.2.10、 "Double nozzle" interface:



The interface is the parameter setting of WEEDO double nozzle series.

Standby temperature: that is when a double nozzle machine is printing, one of the nozzles stays at the temperature waiting to be printed.

Prime tower: when the double nozzle model is printed, one of the nozzles is waiting to be printed. The residual temperature of the nozzle leads to the overflow of the consumable material from the nozzle. The erasing tower can erase the spillover of the nozzle, which is located on the side of the print model, that is, the length of the side length of the waiting nozzle printing and erasing tower.

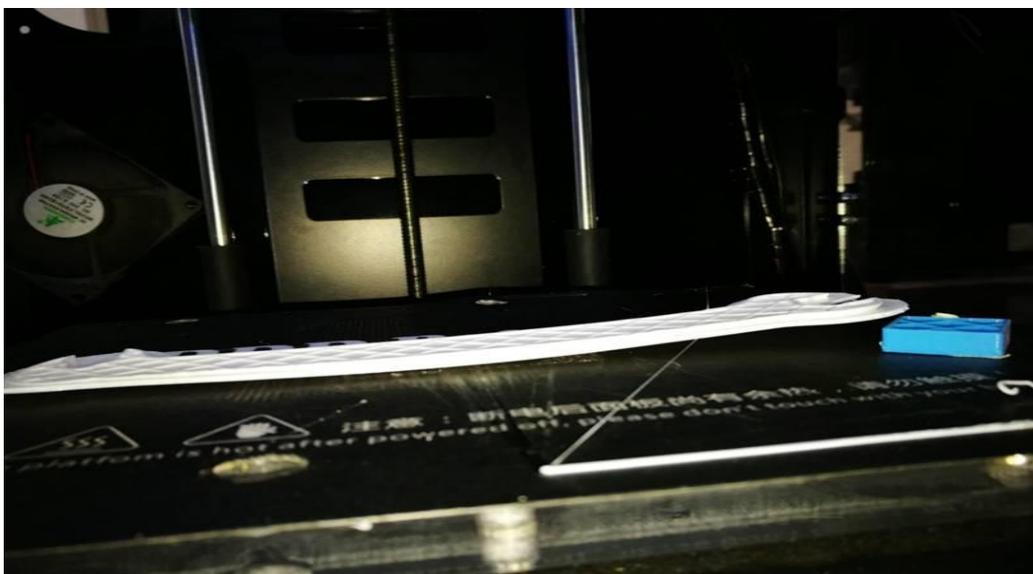
Ooze shield distance: when a double nozzle is printed, one of the nozzles is waiting to be printed. The residual temperature of the nozzle leads to the overflow of the nozzle from the nozzle or prevents the print head from touching the model and damages the model surface. Therefore, a circle of protection layers is printed on the edge of the model, which refers to the protection layer and the mode's distance.

Support extruder, support interface extruder, build plate adhesion extruder and infill extruder: that is to set up the printing support, the support surface, the bottom plate and the filled nozzle. In general, the main part of the printing is the right head, which is generally set by default.

3.2.11、 "Warping prevention" interface:

Dual Extrusion	Warping Precaution	Seam	Others
Z Offset(mm)	<input type="text" value="0"/>		
Extra Skin Wall Count	<input type="text" value="1"/>		
Initial layer Increment(°C)	<input type="text" value="20"/>		

When printing a large model, the model can not be stuck well and easy to warping edge.



Parameters can be set under this column to prevent warping; there are three main ways:

- ① Z axis offset: when the Z axis bias is changed to negative, the gap between the model and the print base plate is reduced, so that the model and the printing plate are pasted more tightly to prevent the warping.
- ② The extra contour of the surface layer is to increase the number of contour in the outer contour of the surface of the model and the printed plate, so that the contact surface of the model bottom and the print floor is greater, so as to prevent the warping edge.
- ③ the initial layer temperature increment: that is to set the model to print the first layer temperature higher than the later printing temperature, and the high temperature will make the bottom layer of the model stick more firmly and prevent the warping edge.

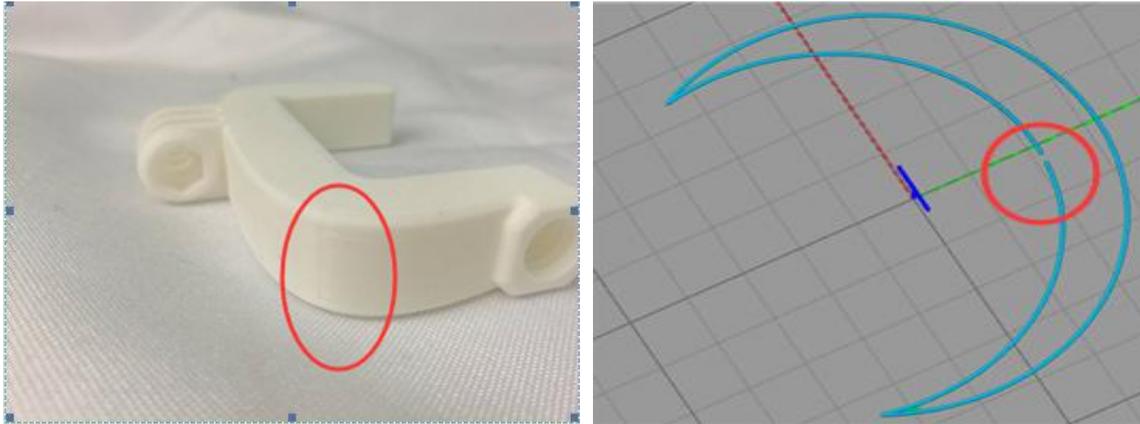
After changing the parameters, the printing results of the above models are as follows:



3.2.12、"Seams" interface:

Dual Extrusion	Warping Precaution	Seam	Others
Z Seam Type		Shortest	
Z Seam X(mm)		100	
Z Seam Y(mm)		300	
Hiding Seam Preference		Hide Seam	
Z Seam Relative		<input type="checkbox"/>	

If the general model is not set, there will be concave lines or dots after printing.



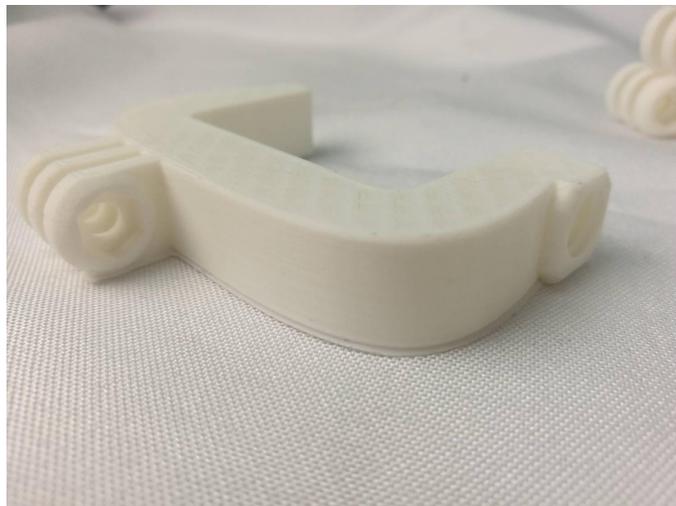
The right picture is the state of the model in the software, that is, the concave line or point on the solid model is a blank joint.

Therefore, when the model is sliced, the "seam" should be set.



Joint type: As a picture

The position of the seams in the printing model is the nearest position. The printing model effect is as follows:



Set the seam position of the printing model as the specified position. The printing model effect is as follows:



The joint position of the printing model is set at random, and the printing model effect is as follows:



The setting of the printing model is the sharp corner position. The printing model effect is as follows:



Joint position X coordinates: determine the X axis coordinates of the specified joint position.

Joint position Y coordinates: determine the Y axis coordinates of the specified joint position.

The seam concealment: the seam will be hidden, and there will be no concave lines or dots on the surface of the printing model.

The relative position of the seams is determined by determining whether the joint position is relatively set or not.

3.2.13、"Other" interface:

Dual Extrusion	Warping Precaution	Seam	Others
Skin Layers Thickness(mm)	<input type="text" value="0.8"/>	Wall Line Count	<input type="text" value="2"/>
Horizontal Expansion(mm)	<input type="text" value="0"/>		
Skin Alternate Rotation	<input type="checkbox"/>		
Enable Print Cooling	<input checked="" type="checkbox"/>		
Enable Draft Shield	<input type="checkbox"/>		

Skin layers thickness (mm): the thickness of the model surface layer is generally set by default.

Horizontal expansion(mm): when there is a deviation in the horizontal printing of the model, a certain parameter can be compensated.

Skin alternate rotation: General default settings;

Enable print cooling: the nozzle is printed with wire drawing phenomenon. When the temperature is too high, turn on the left fan and open the fan by default.

Enable draft shield: when the ambient temperature is low or ABS consumables are printed, a layer of insulation shell can be added to the outside of the model to prevent the printing from warping, the default is not opened, and the user can select the material according to the parameters of the consumable material.

Wall line count: the thickness of the printing wall of the model is generally set to two layers by default. Users can adjust the setting of the parameter according to the need.

Advanced Configure

Speed | Infill | Support | Build Plate Adhesion | Retraction | Material | Travel | Machine

Top/Bottom Speed(mm/s) Initial Layer Speed(mm/s)

Outer shell speed(mm/s) Travel speed(mm/s)

Inner shell speed(mm/s)

Infill Speed(mm/s)

Support Infill Speed(mm/s)

Support Interface Speed(mm/s)

Dual Extrusion | Warping Precaution | Seam | Others

Skin Layers Thickness(mm) Wall Line Count

Horizontal Expansion(mm)

Skin Alternate Rotation

Enable Print Cooling

Enable Draft Shield

OK Apply Cancel

As shown above, all the parameters in the "advanced function" are changed, and then click the "apply" and "OK" to complete all the settings.

4. Print the first model

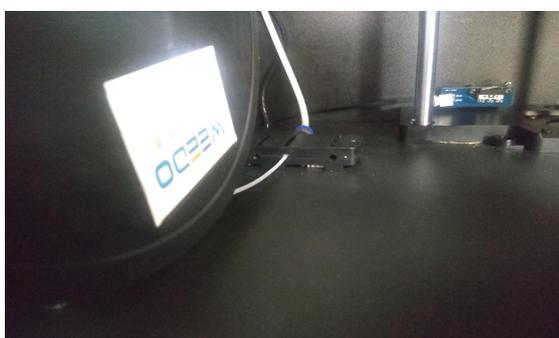
4.1. Connect the power supply

Take out the power cord from the accessory box, insert it the power socket on the left side of the printer and start the printer.



4.2 Loading the filament

Place the filament on the filament tray inside the printer.



Insert one end of the filament through the detection module in the printer chassis until it comes out of the other end of the material pipe. Pull out the filament out of the material pipe about 20cm, use right hand to press the extruder handle, and use left hand to insert the filament into the extruder for about 5cm depth.



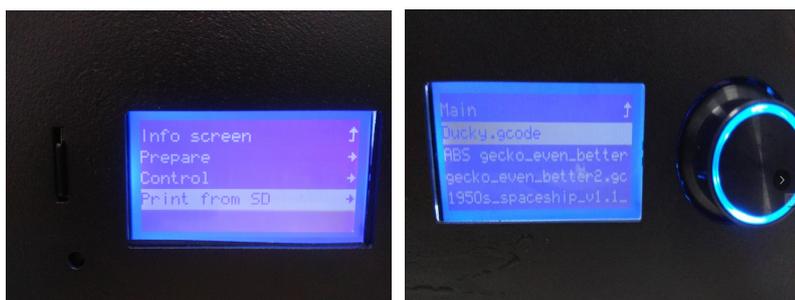
4.3 Printing preparation

4.3.1 Take out the TF card from the accessory box and plug it to the card slot.



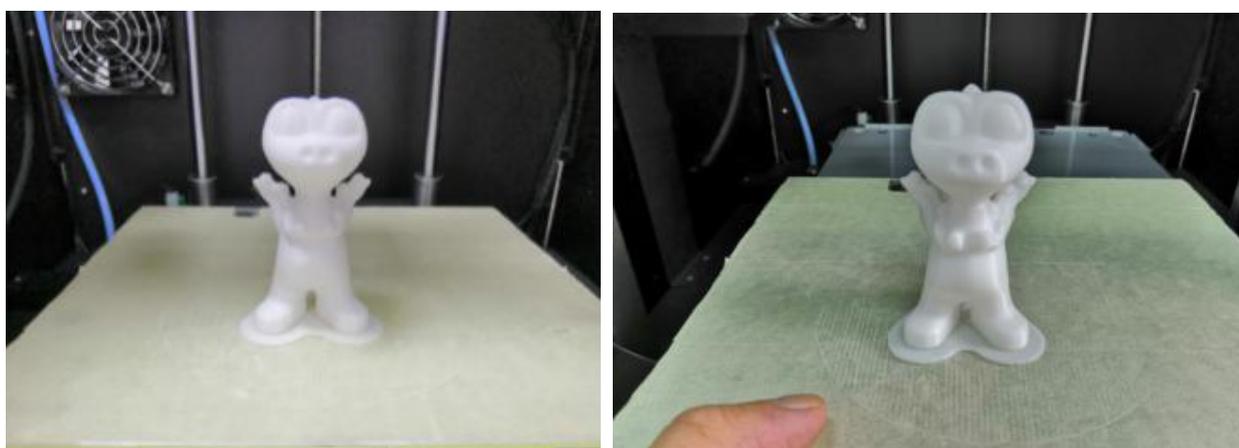
4.4 Printing Mode

On the operation panel, right turn the button to select "print the SD" - Ducky.gcode, press the button to start printing.



4.5 Removing Model

After model is completed with printing, it uses the presented plastic scraper in accompany with printer, to take it out along with the edge of model, or firstly disassemble the printing platform and take out model



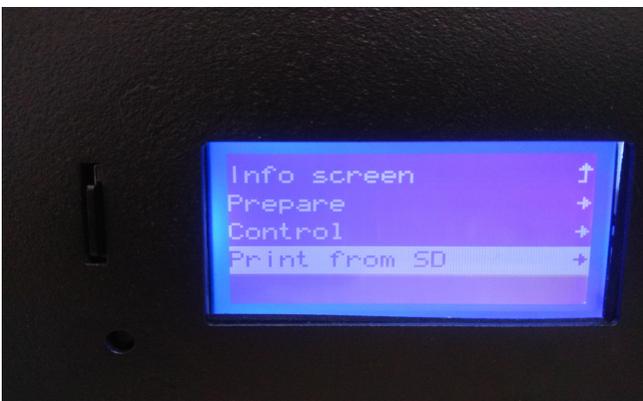


5. Details of the Printing Operation

5.1 Operation Panel Setting

There are TF card slots beside the 3D printer's display screen, which can be directly printed on the TF card. The LCD and the control keys can be used to replace and debug the machine's filament.

5.1.1 Introduction of the Operation Panel



The control panel of the 3D printer consists of a LCD display and a knob. When it is not connected to the computer, users can use the control panel to print data files on SD card, display printer information, do parameter settings and so on.

Turn the button to the right and twist the next menu. The middle button is for confirmation.

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

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

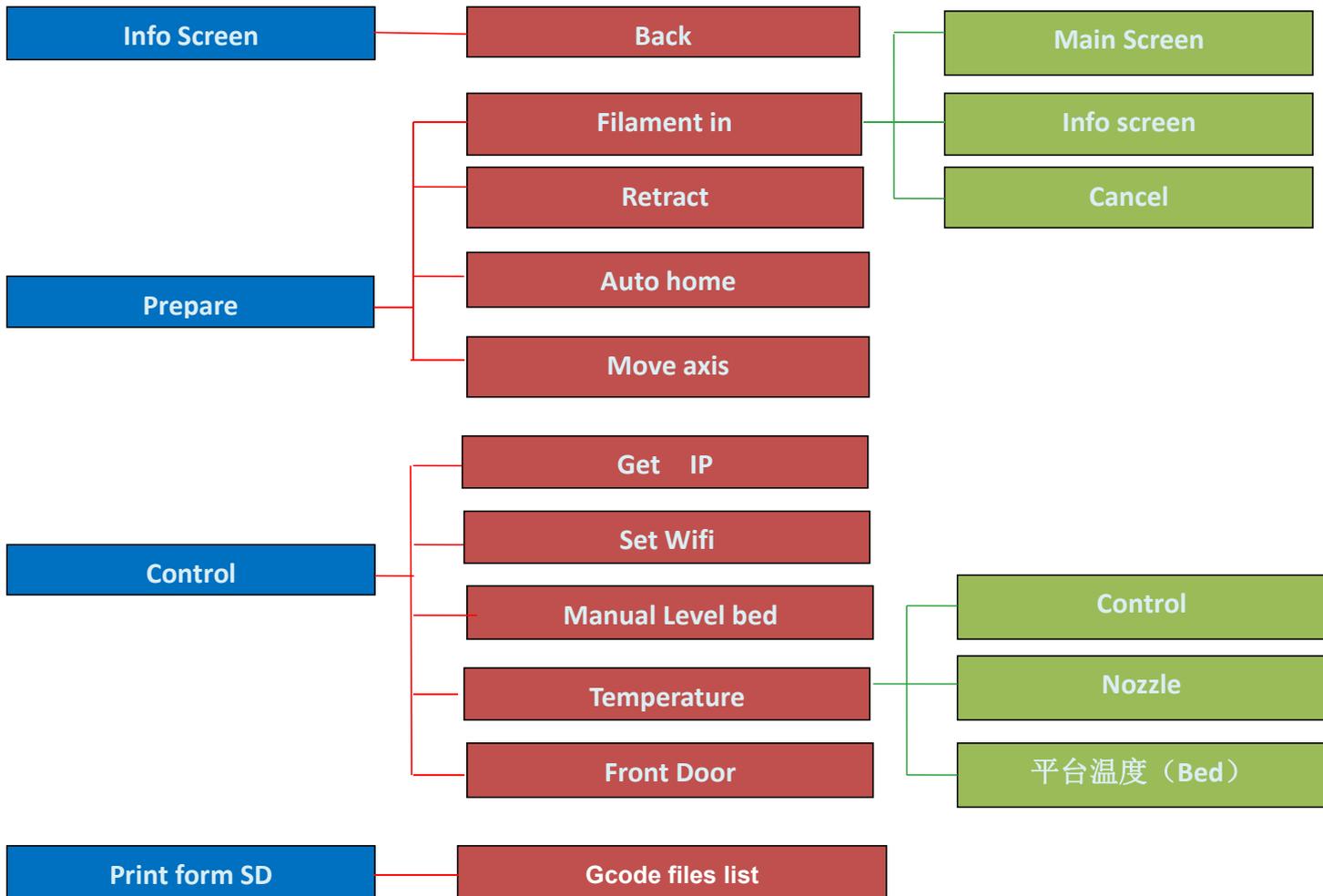
3: In the menu operation, return to the previous menu; in the jog mode, switch the operating shaft.

4: In the jog mode, switch the operating shaft.

5: 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.

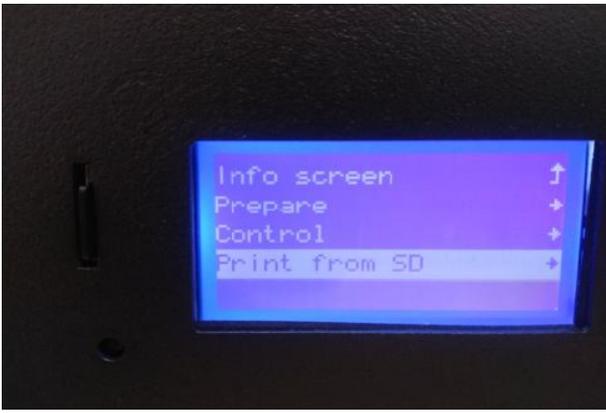
5.1.2 Operation Panel Menu

The menu tree of the control panel is shown below. The menu is divided into three levels: the left side is the start menu, and the right side is its submenu. Click the button to enter the submenu of the menu item. Click the button to return to the previous menu.



5.1.3 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 gcode format files in the SD card root directory in reverse chronological order. Select the file you want to print, and then click the OK button to start printing.

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

5.1.4 Printer Preheat

When you are printing PLA 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.

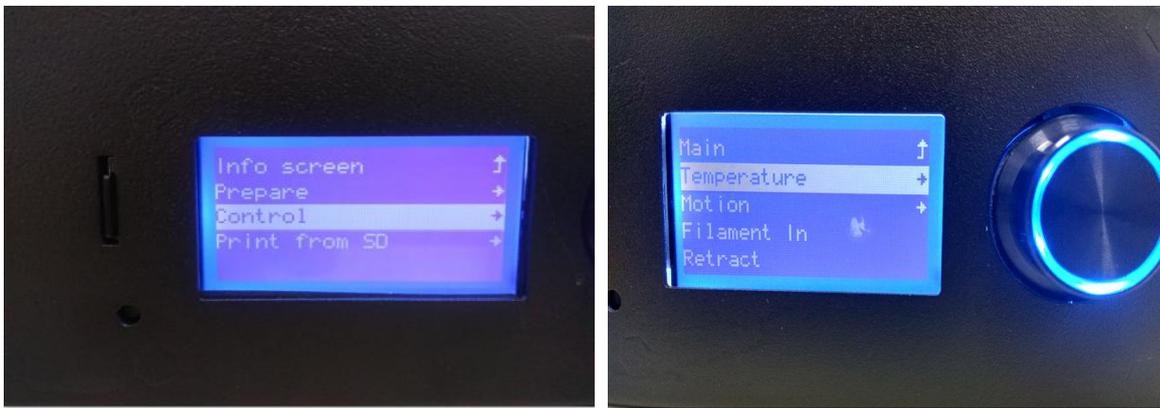


After printer starts heating, LCD would display the real temperature of nozzle and printing platform. At this moment, if needs to perform other operation, users can press the left button to return to stat menu, and heating process will continue at the backstage. If needs to stop the printer heating, users can enter to heating menu and choose "Stop-Heating" .

5.1.5 Debugging of Printer Function

Printer Temperature

In the start menu, choose the third item "Control" , enter to the secondary menu,choose the first item " Temperature " , and enter the real Control interface of printer temperature. Press the left button to return the last layer of menu.



5.1.6. Filament Replacement

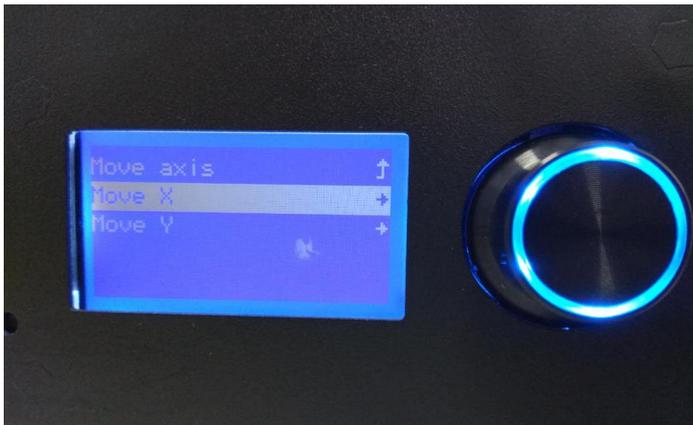
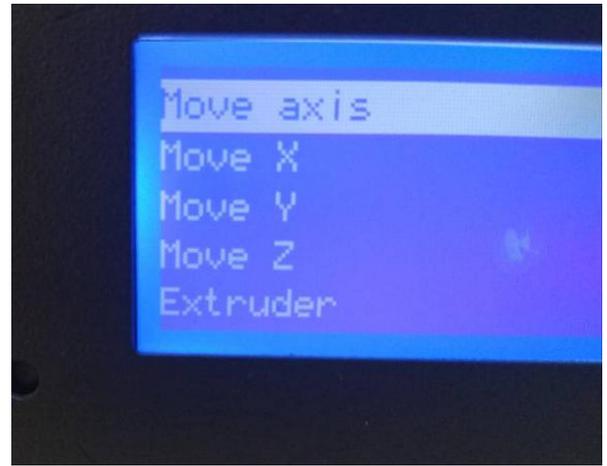
In the start menu, choose the second item " Prepare " ,enter to the secondary menu, choose the second item " Retract " to enter the filament replacement interface. Select "retreat", press the button to enter the filament unload program, heat the nozzle to the preset temperature, then start the nozzle motor to unload the filament.

In the start menu, choose the second item " Prepare " ,enter to the secondary menu, choose the item "Filament in" to load the filament.



5.1.7. Printer Jog Debugging

In the start menu, choose the second item " Prepare " ,enter to the secondary menu, choose " Move axis " to enter printer jog debugging interface.

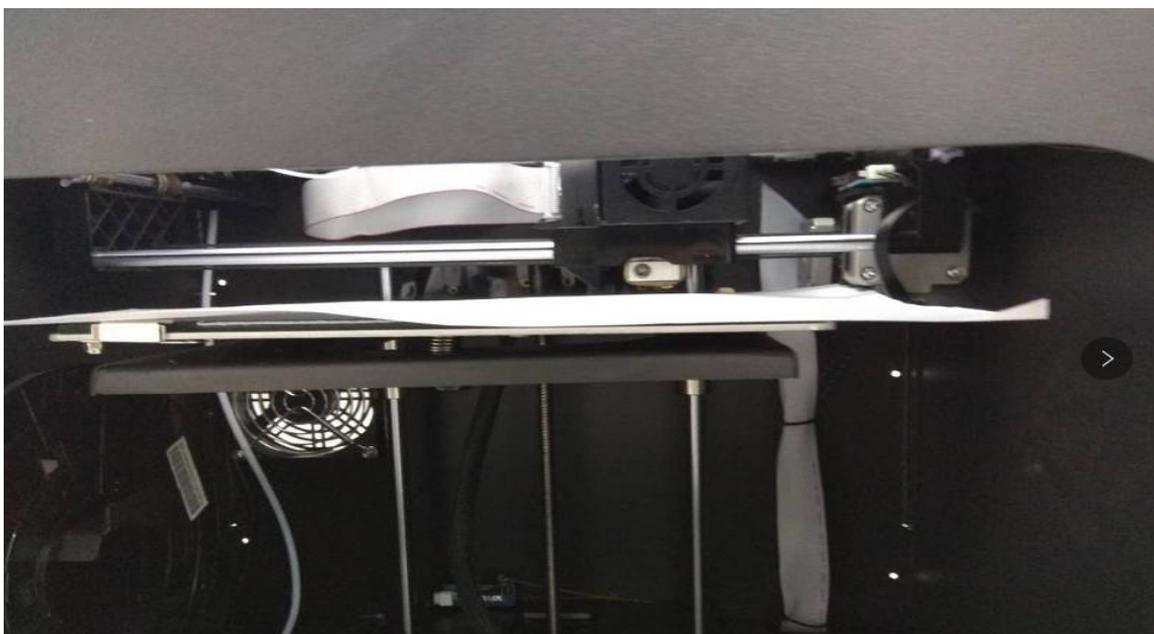


5.1.8 Level the build platform

Regular inspection and leveling the printing platform is very important for high quality molding.

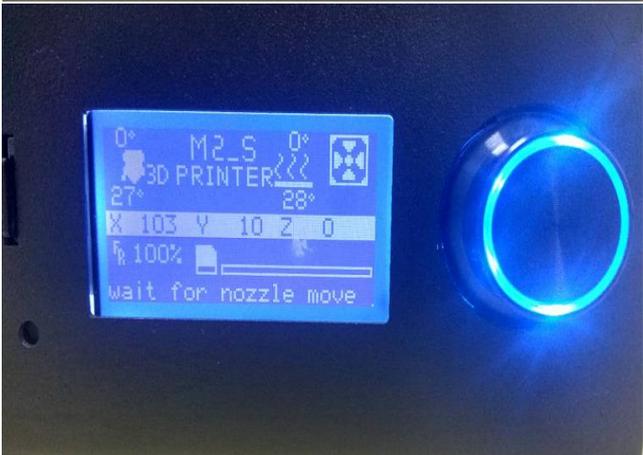
In the start menu, select the third item "Control", rotate the button and click to select "Manual Level bed" to enter the printer platform debugging interface.

Wait for the platform to rise to the highest point, the print head will move to the first measurement point, and insert an A4 paper under the nozzle.





At this point, the printer will enter the following interface. When the printer nozzle moves to a fixed point, start adjusting the spin button on the bottom of the platform and adjust the gap between the platform and the nozzle until the A4 paper has a slight frictional resistance when sliding. After adjustment, click the spin button to enter the next adjustment point until the four-point leveling is completed (the same level is used for each level).

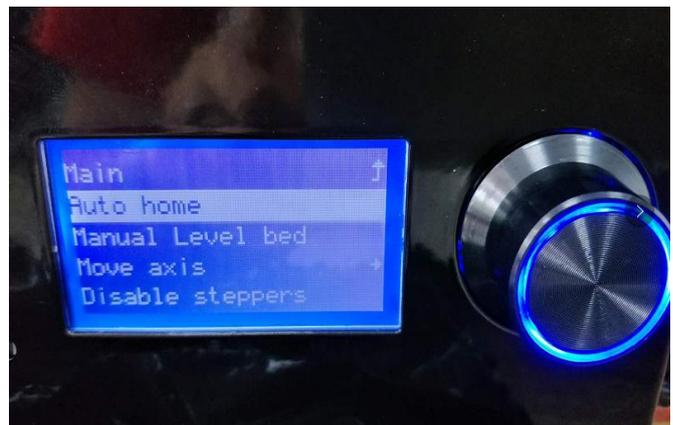
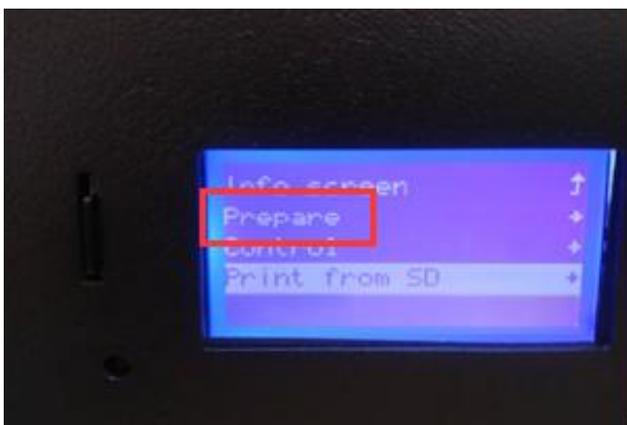




After adjust, if the gap between the nozzle and platform is not suitable, please repeat to adjust each point.

5.1.9 Auto Home.

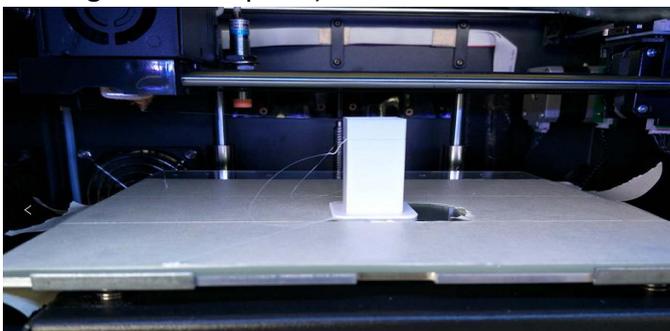
In the start menu, select item 2 "Prepare", rotate the button and click to select "Auto home", the printer nozzle and platform will automatically return to the home position.



5.1.10 Stop printing/ Pause printing

There are two ways to pause the printer.

1. Open the front door. To ensure safety during printing, the nozzle will automatically pause and back to the home position when the front door is open.(this function can be closed in the menu according to user's option)

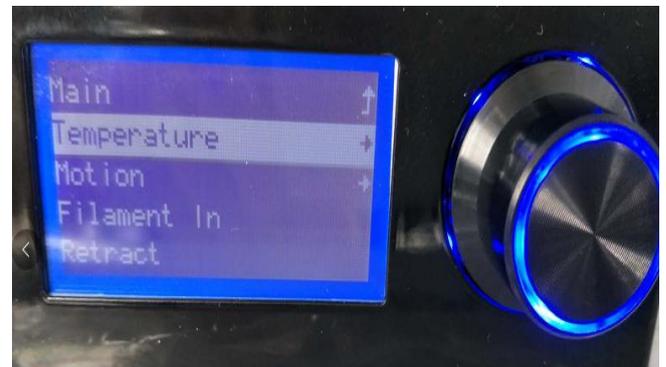


2. In the printing state, you can click the knob to enter the printer folder menu, and choose "Pause print" or "Stop print". After pausing the print, you can click "Resume print" to resume printing.



5.1.11 Adjust the temperature

In the start menu, select item 3 "Control", rotate the knob and click the button to select "Temperature", click the button to select the setting "Nozzle " and "bed" to enter the print head temperature reset interface, rotating button can increase or decrease temperature.





6. Daily Repair and Maintenance

3D Printer needs to perform the regular maintenance, as well as some daily maintenance, in order to ensure the printer can maintain the high performance to run stably.

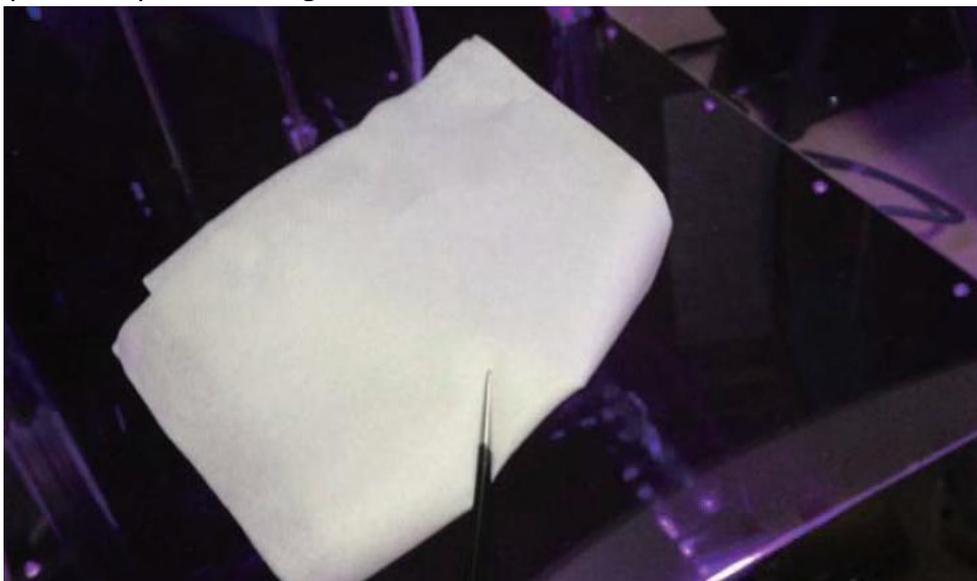
6.1. Printer Daily Maintenance Guide

The daily maintenance mainly contains: clean printer nozzle, replace the printer platform sticker and tape, printer platform regular check and leveling, replace air filtration core, optical shaft and screw rod maintenance and others.

6.1.1. Clean and replace the nozzle

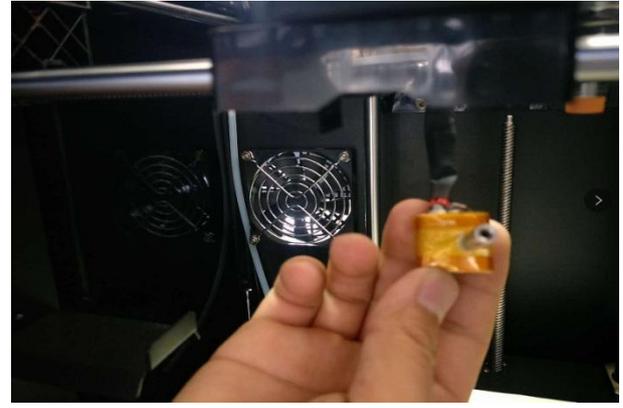
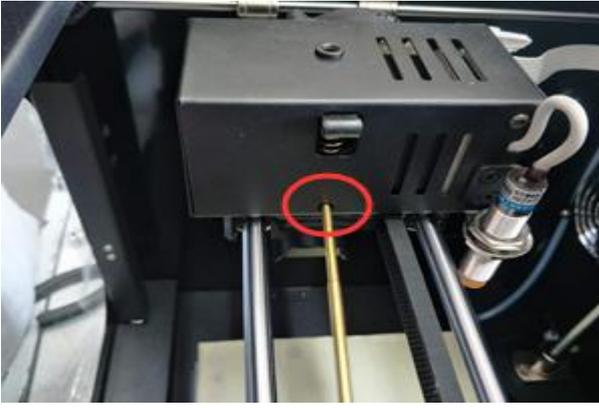
In the process of 3D printing, the part of consumable debris and dust particles is likely to accumulate around the printing nozzle. As time goes on, these accumulative materials can lead to that printing precision becomes poor or nozzle is block and others. Therefore, before printing for each time, it needs to observe whether the nozzle is blocked and perform the cleaning.

Maintenance method: The printing nozzle is usually cleaned by tweezers, and the impurities around nozzle are wiped out by the cleaning cloth.

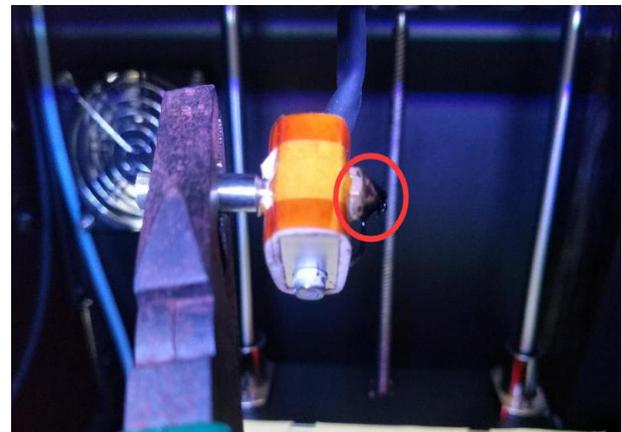
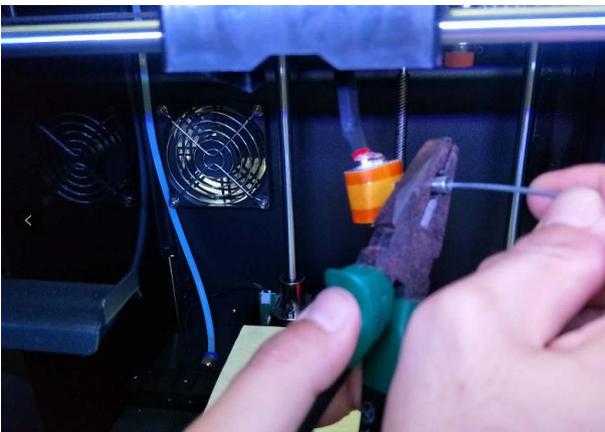


How to do if the nozzle is blocked:

Firstly, use a 2.5mm wrench to loose the screw in below photo, then unplug the nozzle.



After that, heat the nozzle to 200 degrees, fix the nozzle with a tool such as a pliers, and use a 1.5mm wrench to clear it until the blocked wire is completely cleaned.



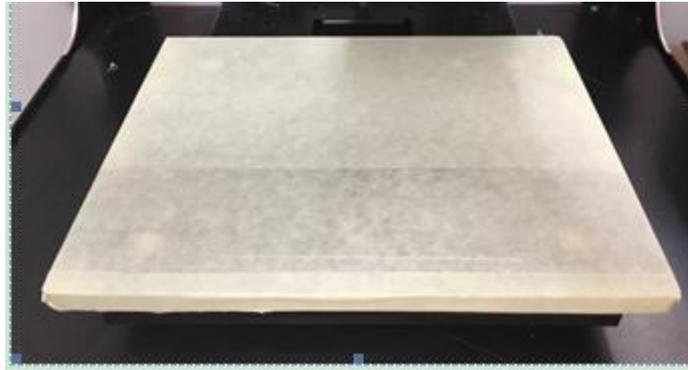
Then install the nozzle and fix it with the screw.

Note: after clean the nozzle, need to re-calibrate the platform level before printing.

6.1.2 Replacing the tape of the glass plate

Check the surface of tape on the glass 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 tape included in the accessory box

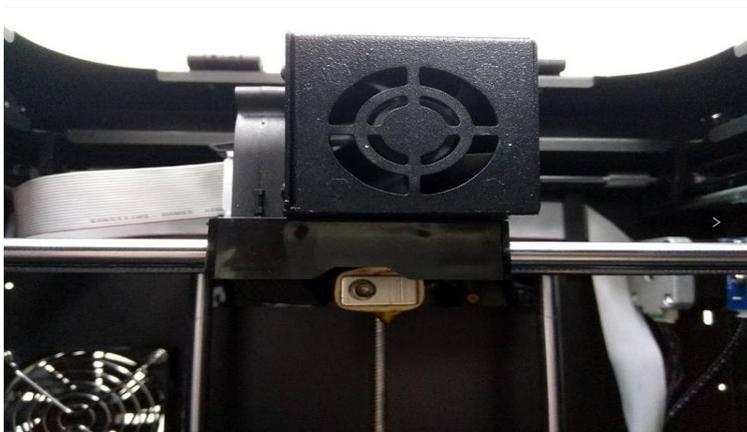


Tear the tape sticker from the bottom left of the glass plate, strip it slowly, do not leave any residue, and then paste the new stickers. Be careful not to leave a gap between the stickers.

7. Optical Shaft and Screw Rod Maintenance

In the process of using printer, the two directions of X and Y depends on the precise guide rail and shaft X screw rod to ensure stable and precise rectilinear motion. After add silicon grease lubrication, it can reduce the friction and lower the wear of mechanical moving parts, thus it must be performed with regular maintenance. It is suggested to perform once maintenance after use 1000 hours.

Maintenance method: take out the lubrication silicon grease from the accessories box in accompany with printer, and evenly paint them on the screw rod and optical shaft, and then start the equipment to make each shaft perform full trip for about several times and to make the silicon lubrication grease even distributed on the surface of each shaft.



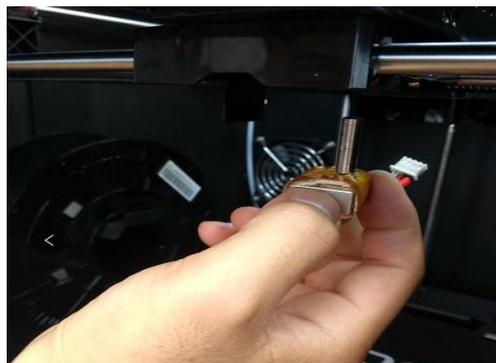
8. Printing Nozzle Maintenance and Replacement

After printer has been used for a long time, as feed gear continues to convey and rub the filament, on the gear would be pasted with filament powder, which leads to gear becomes weak in holding power and affect the transmission effect. Regular dis-assembly and cleaning nozzle components can maintain the machine work smoothly. It is suggested that it should be performed with nozzle component cleaning after print 500 hours.

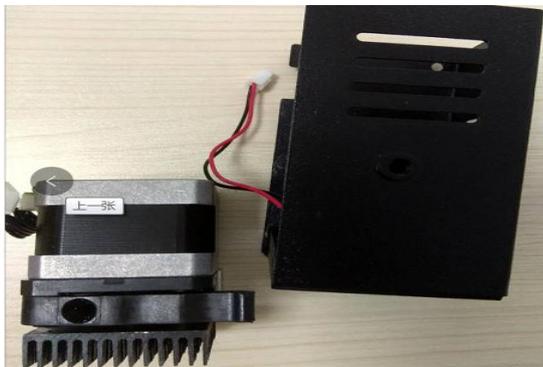
Firstly, make sure that printer is shutdown, pull out the plug of connecting cable from the nozzle motor.



Loose the screw and unplug the nozzle.



Completely unscrew the two hexagon socket head cap screw at right side, and take out fan and cooling fan.



Use a tweezers to clean the filament debris on the motor gear, and installation process is performed according reverse procedures after cleaning.

Note: Finally plug in the motor connection cable.

9. Frequently Asked Questions and Troubleshooting (FAQ)

1. Will the wire replacement script be running for every booting?

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

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

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.

3. What if the power light is off?

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

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

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.

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

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.

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

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 °C 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 °C, 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 heat the printing Nozzle to 230 °C, 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 scald.

If the printing nozzle cannot be cleaned, please contact our company to replace the nozzle. After changing the print nozzles, please readjust the platform before printing.