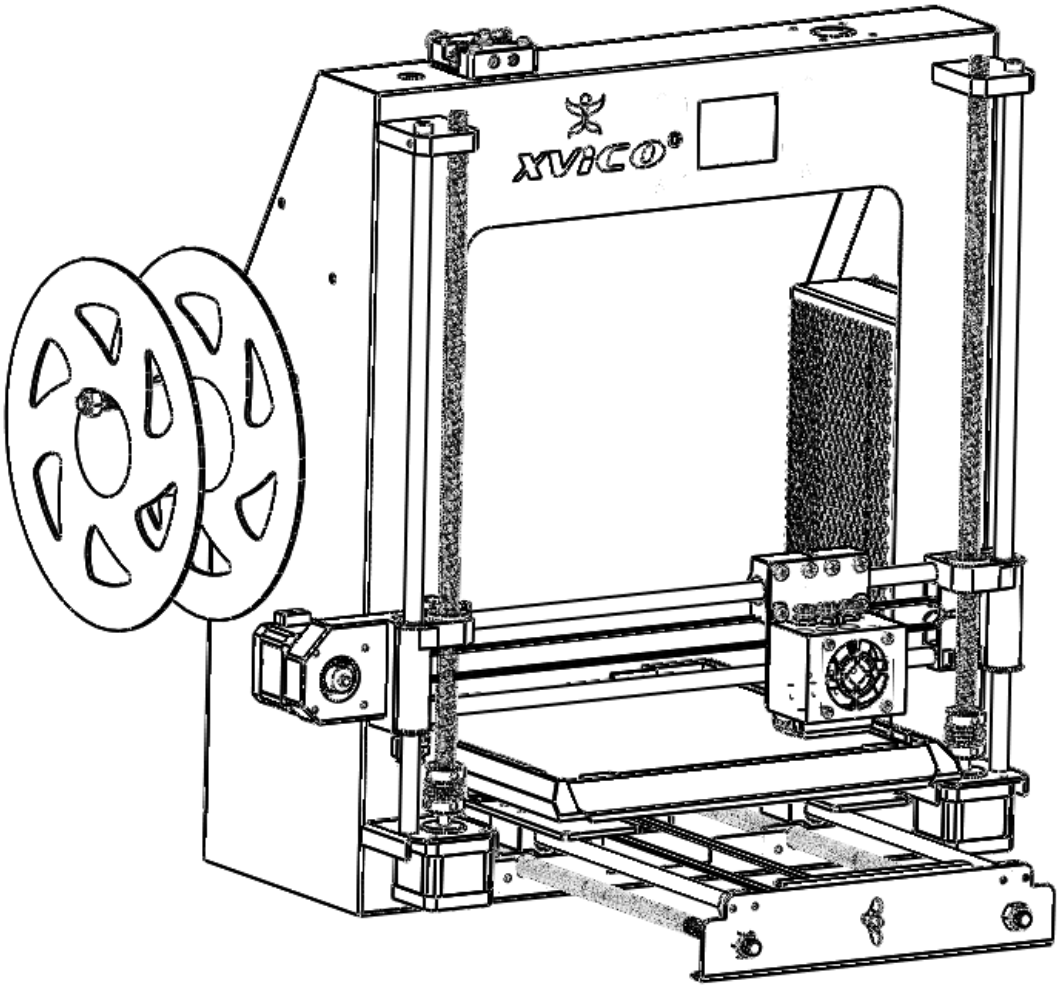
XvicoX1 Operation Instruction



Contents

INSTRUCTION

Xvico X1 The 3D printer adopts the principle of fused deposition molding and can print the designed three-dimensional model diagram into a real object.

Xvico X1 Features: Full metal frame structure; 2.4 inch touch screen operation; removable hot bed; high printing accuracy;low noise.

Special Note：

1. All statement included in this Instructions have been checked carefully , if any typographical errors or misunderstanding , we have the final interpretation .

2. No noification if any update .

Security Considerations

- To avoid danger when using 3D printer , please pay attention to precautions below !

1. During Operation , the maximum temeprature of nozzle can be 260 ℃ while hotbed can be 100 ℃ . For your safety , during printing or cooling down , do not touch the nozzle , hotbed and models under printing .

2. During the operation of the machine, it is forbidden to reach into the machine to prevent the injury.

3. Power works at 110V/220V 50HZ AC and supply ground needed . Do not use other power supply , or it may cause components damage , fire or electric shock .

4. We suggest wering protective goggles when removing auxiliary support materials .

5. Some filaments will emit slight irritant gases , so we suggest to use 3D printer in a ventilated environment .

6. ABS filament will emit a bit toxic gases when it melts .

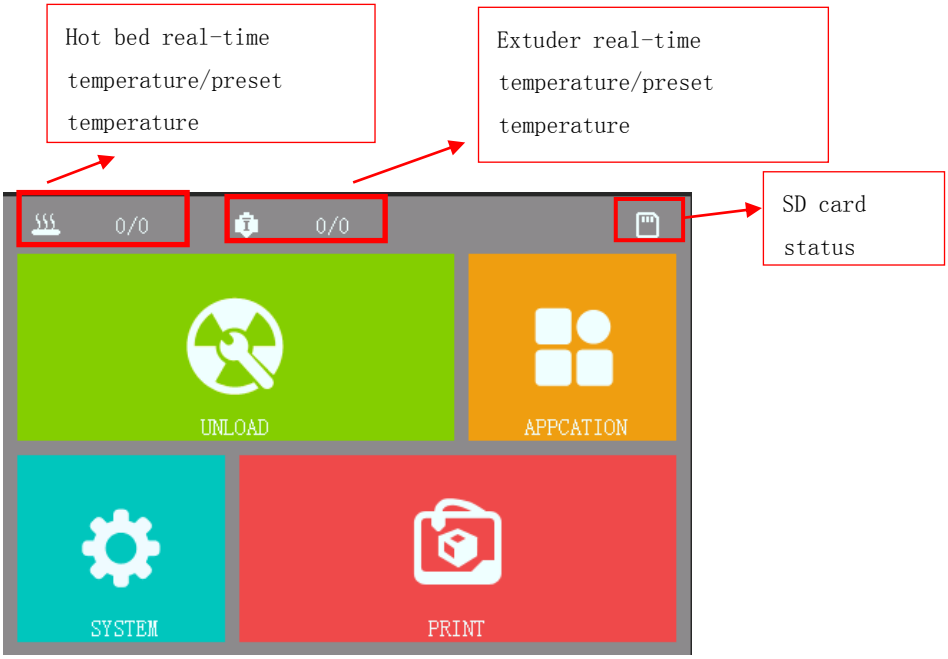
Product Details

Specification

Model：X1	Nozzle diameter： 0.4mm (Standar configuration)
Layer thickness：0.1-0.3mm	Machine size：390mm*400mm*450mm
Printing speed:10-120mm/s	Machine weight：8.7kg
X Y axis position accuracy：0.012mm	Packing size：510mm*450mm*220mm
Z axis position accuracy：0.004mm	Gross weight：10.5kg
Printing material： PLA,ABS	Build size：210mm*210mm*240mm
Material tendency：PLA	LCD screen：2.4 inch touch screen
Filament diameter：1.75mm	Offline printing：Yes
Software language：Chinese，English	File format：STL、G-Code、OBJ
Function of support：automatically	OS：windows(Linux、MAC)
Software：Cura	Working condition：10-30℃，Humidity 20-50%

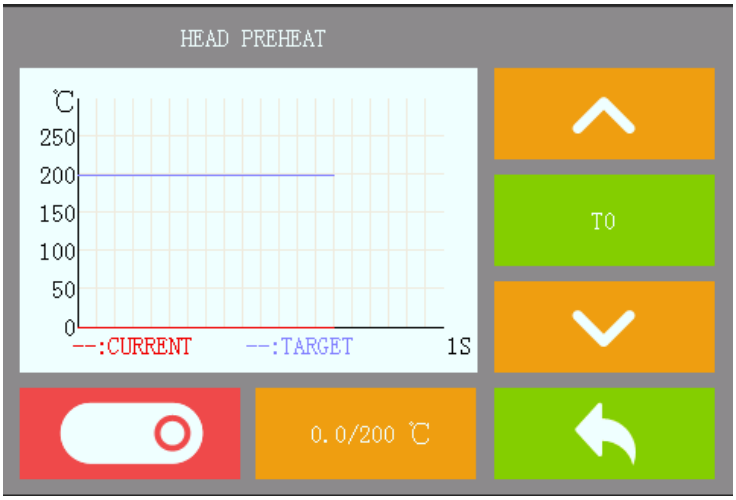
Printing Operation

1. Main interface（This interface is the main interface when it is not printed）



The Home page contains loading and unloading filament, applications, systems and prints, and displays temperature and SD card status in real time.

2.Extruder preheat interface



- On the Home page，click  enter into“loading and unloading filament”interface，allows manual control of print head temperature and extruder.
- **Nozzle heating：** real-time display  “current temperature”/ “target temperature”, touch to manually enter the target temperature value。

  Heating status touch  to turn off heating

  Unheated status  When the target temperature is not 0, touch to turn on heating.

- **Extruder operation**

Retraction button: The extruder performs a single retraction operation.

Extrude button： The extruder performs a single extrusion operation.

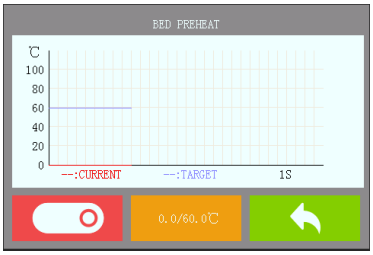
Note: If you do not reach 175°C, the inputs of the [Retraction button] and [Extruded button] are invalid. If the extruder moves in the opposite direction, you can modify the direction of the E-axis motor in the machine parameter configuration file and print it for modification.。

3.Keyboard input interface

Keyboard input can be used in many places, as long as there are values to be set, it will pop up the keyboard interface, such as the setting of the temperature target value under the loading and unloading filament interface, the debugging of the fan speed under the application interface, and the adjustment of the nozzle and the hot bed temperature under the printing interface all need the keyboard input interface.

4.Application interface

Application interface includes: hot bed preheating, manual operation, one-key leveling, interface update and fan speed five modules

- Hot bed preheating: 

Real-time display 

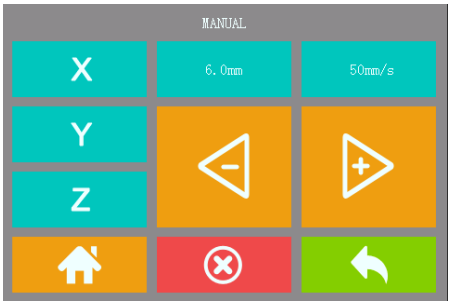
“current temperature”/ “target temperature”, touch to manually enter the target temperature value。

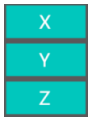
Heating status touch 

to turn off heating。

Unheated status 

When the target temperature is not 0, touch to turn on heating.

- manual operation: 

1) In the "System" interface, click  icon enter into“manual operation” interface, printer motion can be controlled manually.
2) click  machine can be automatically zeroed
3) 

is for manual control of XYZ motors, click  move in the opposite direction, click  move in positive direction
4) 

control moving distance of motor, click to set the moving distance.
5) 

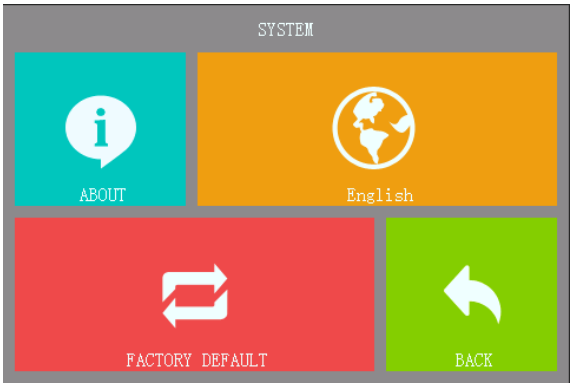
control moving speed od motor, click to set the moving speed.
6) click  emergency stop and motor unlock.

- One-key leveling: Leveling the print platform

-  Interface update：update interface ,before clicking this button, make sure that the new interface file "SYSTEM" folder is placed in the SD card.

-  **Fan PWM speed regulation：** Click this button will pop up the keyboard, enter the corresponding value, the fan will turn. Pwm range: 1-100 (100 means 100% full speed rotation)

5.System interface



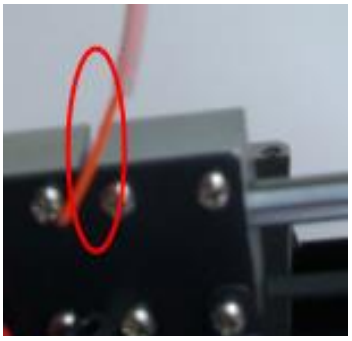
- “system”interface contains information，click  can see the current firmware version number。
- click  can switch System language。
- click  Can restore the system to the factory settings.

Filament installation

1.Extruder preheating： click on “loading and unloading filament” on the main interface  enter into extruder heating interface，click  setting extruder temperature，then click  heating the extruder。（Note: PLA filament temperature setting 190-240 °C; ABS filament temperature setting: 220-260 °C.）

2. Install filament：

Press the feeding handle and send the filament down until the filament come out of the back end of the Teflon tube and insert the filament into the extruder. When the size of the material coming out of the extruder is uniform, the filaments are installed successfully, and then the white Teflon tube is inserted into the rear of the black trachea connector until it cannot be pushed. (Note: The extruder needs to be heated to the filament print temperature)



3.Filament replacement： Retraction filament method (take PLA as an example)：

3.1. Please preheat the printer to 200°；

3.2. When the temperature reaches 200°, the thumb presses the feed handle, while the other hand first presses the filament downwards to feed a filament item, and then pulls out the filament at a constant speed.；

3.3. Then install the new filament according to the "Install filament" method。

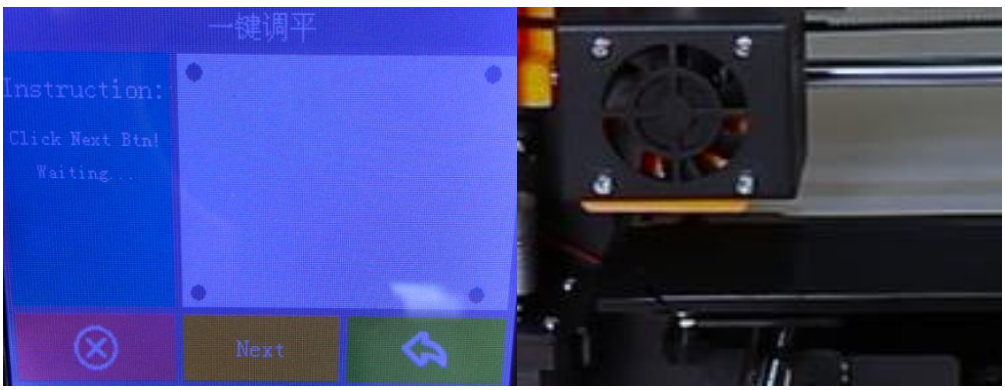
Caution:

1. In order to avoid filament to send too deep to pull out, causing secondary refeeding difficulties, when the filament approach the end of the printing, remember that the machine can not send all the filament into the feeding port, and it is necessary to replace the new filament in time;

2. When replacing a new filament, the printer needs to be preheated. Remember that it cannot be hard-drawn or cold drawn to avoid irreparable damage to the extruder.

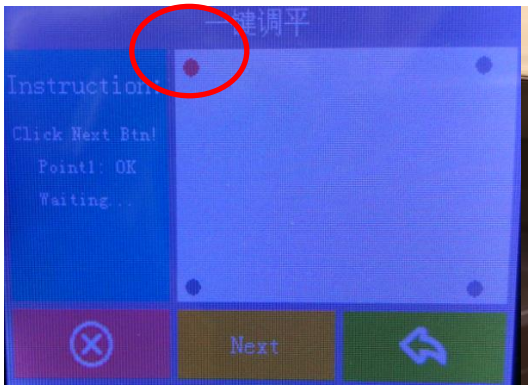
Print platform leveling

1. Click "one-key leveling" in the application interface, enter into leveling interface, The printer will automatically zeroing by this time。

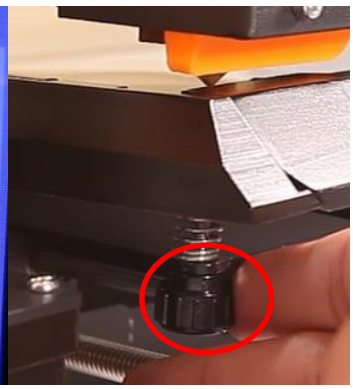


2. When the interface shows Click Next Btn, click “next” button, the printer will move the nozzle to the first point of the platform. Adjust the nut of the print platform so that the distance between the nozzle and the print platform is about 0.1mm (about the thickness of an A4 paper)；Adjust the first point and click” Next” to level the next point； Whenever a point is leveled, the blue dot on the leveling screen will be displayed as a red dot. After the four points on the platform are leveled, click “Finish” to finish the machine's print platform leveling.

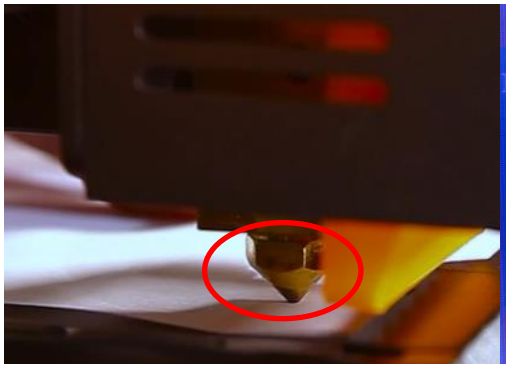
①



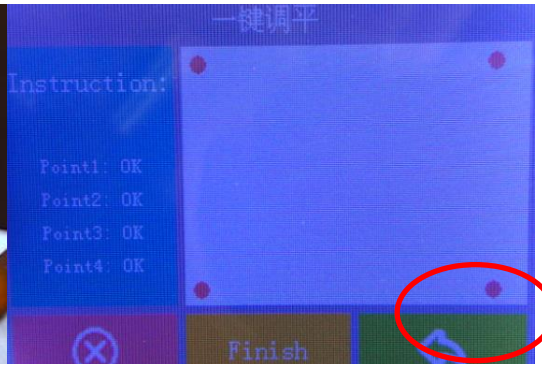
②



③



④



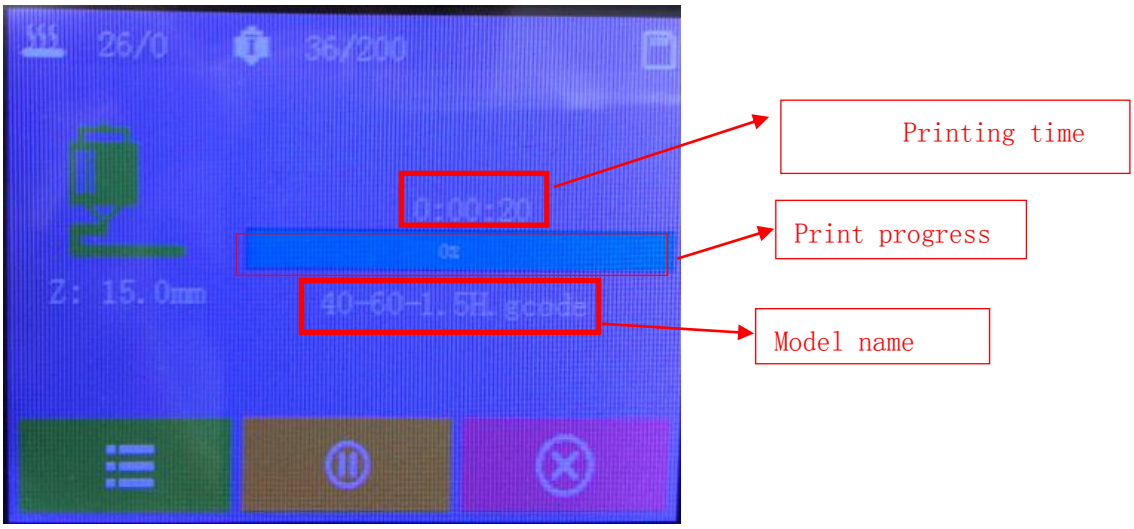
Printing

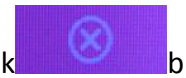
1. Printing operation

Click “Print” on the main interface  ，select the file you wan to print in the SD card file list，click to print the file，Then click OK to print. Touching the interface for a long time will reset the interface.（For the slicing operation of the print model, please refer to the KURA Software's operating instructions.）!

SD card file list

2.Printing interface



- click  button can pause to print
- click  button can stop printing
-  is print setting,touch to enter the interface as follows：

1)  is print platform temperature,click to set the print platform temperature

2)  is extruder temperature， click to set the extruder temperature

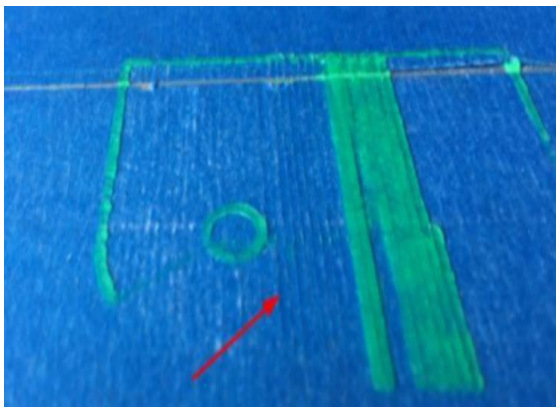
3)  is printing speed， click to set the pringting speed。

4)  is speed of fan， click to set speed of fan

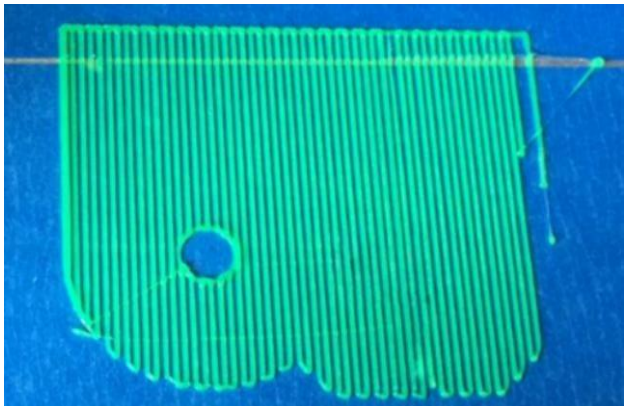
3. Judgment of the gap between nozzle and platform.

- When the nozzle is too close to the print platform：

  The printed model edge has irregular projections. It means the gap is too close to print normally. Sometimes it even cannot output filament

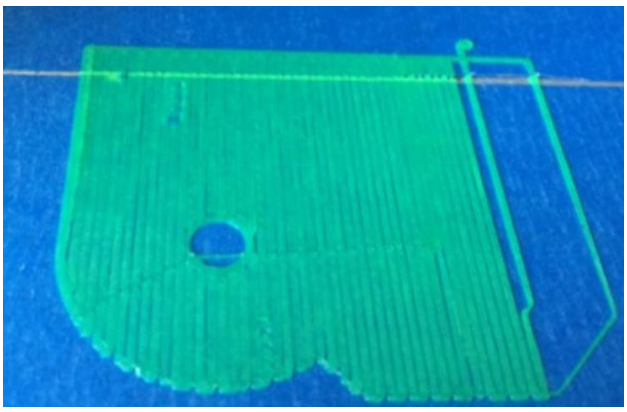


- When the nozzle is too far from the printing platform:
- The printed model is uneven, curled with gap. The consumables fall down to the hot bed by gravity and form a rounded strip. The adhesion effect is not good and the model is easy to move. making the printing effect so bad.



- Appropriate distance:

Printed model flat with no gap, no glitches,ensuring that the printed filaments are pressed against the hot bed to form a flat ribbon (flat)。



Warm tips : In order to make the printing model adhere to the printing platform better, it is recommended to apply solid glue to the glass before printing.

FAQ and Solutions

No.	Symptom	Reason	Method
1	Print model dislocation	Synchronous wheel/belt loose.	Tighten set screws or fasten belt
2	Glitch with the print model	Too high temp or slicing problem.	Extruder temp is too high and retracting speed & distanse is too small
3	Foamy print model	Low temp or not smooth filament entering.	Rise extruder temp or check if brass nut and bearing is good. Replace a nozzle if methods above can't solve the problem.

4	Printer model is warped	Filament and setting temperature do not match，Hotbed level isn't well adjusted.	Filaments match the corresponding temperature，Adjust hotbed
5	Changes in the zero position each printing, resulting in adjustments to each print level	Z-axis limit switch is loose, H-type hot bed bracket screw is loose, hot bed corner screw is loose	Check if the screws are loose, tighten and re-adjust the Z-axis left and right nut support height to the same

Maintenance

The 3D printer can continue to operate for a long time. For some long-time working parts, especially some moving parts, it needs to be maintained. Here are some instructions on how to care for your machine：

1. Maintenance of X,Y,Z axis: Add some lubricants on the rods to reduce friction when the machine works noisy and a little bit shake. Take a clean cloth, add some oil, and slide it back and forth on the slide bar.

2. Filament are not easily pulled out from the extruder after being melted at high temperatures and cooled, and use iron wire to dredge outlet. Of course, we still recommend that you empty the extruder as much as possible after the print job is finished. This is also the basic maintenance of the 3D printer.

3. Belt tightness: The tightness of the belt should be suitable, otherwise it will affect the service life of the belt. The belt is too tight and the radial force of the motor axis and the pulley is too large, which affects its service life. After the belt is installed, you can judge whether the belt is too tight by turning the pulley. When the belt is pulled, if the belt makes a loud sound, it means that the belt is too tight. If the belt is too loose, it will cause transmission error and affect the printing effect. Test the belt is too loose, you can

rotate the motor synchronous wheel in the opposite direction and positive direction. If the moving distance of extruder before and after is not equal, indicating too loose; you can also press the middle of the belt, if you gently press the belt arc is very large, indicating that the belt is too loose; there is a test method is to download cylindrical data, if one side is flat, it means that the shaft on this side is too loose.

Maintenance Service Regulations

1. This product executes regulations of “Product Warranty Card”.

2. Please contact supplier or customer service if the product have any problems . Do not repair it by yourself, otherwise you need to bear all the consequences.