EasyThreed®

K10 USER'S MANUAL

Please be sure to watch operation video

Video, Manuals, software inside TF card

русская версия в карточке

Die deutsche Version ist in der TF Karte

La versión en español está en la tarjeta TF

한국어 버전은 TF 카드에 있어요.

La version française est sur la carte TF

La versione italiana è nella scheda TF

A versão em português está no cartão TF

De Nederlandse versie staat in de TF kaart

Polska wersja znajduje się w karcie TF
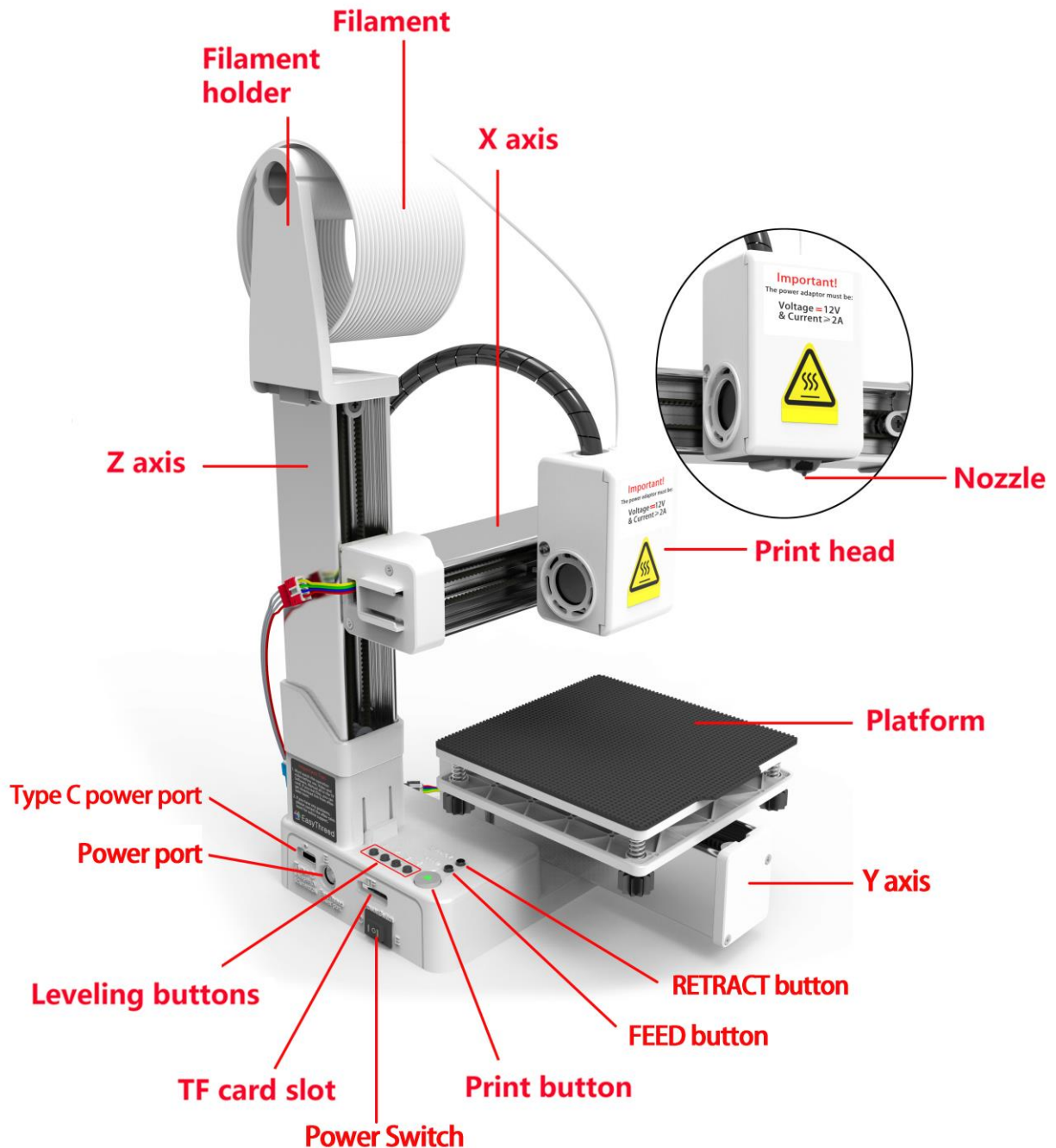
Wersja szwedzka jest w kartie TF

日本語版は TF カードに入っています

1，Printer Specifications

1.1 Main Part

filament holder can only hang 250g filament
If you want to hang 500g filament, you can print an extension bracket, (Contact after sales service team to get the Gcode file of the bracket)

Filament holder

Filament

X axis

Z axis

Important!
The power adaptor must be:
Voltage =12V
& Current ≥ 2A

Nozzle

Print head

Platform

Type C power port

Power port

Y axis

Leveling buttons

RETRACT button

FEED button

TF card slot

Print button

Power Switch

If printer not equipped with power adaptor， Your power adaptor must be:

Voltage=12V&Current≥2A，Port : Type C

1.2 **Basic Parameter**

Nozzle diameter: 0.4 mm

Compatible filament: PLA   TPU   1.75mm

Nozzle temperature: 180-230 ℃

Print speed: 40mm/s

Layer thickness: 0.05~0.3mm

Print size: 100 * 100 * 100mm

Print format: gcode

Slicer software: Easyware, CURA

(Very important: If you use CURA slicer,   you must do same as our CURA set teaching video!!!   add printer to CURA first , otherwise printer can't print it)

2, Un-Boxing and Install。

2.1 Inside is an 3d printer , 10M filament,, TF card, card reader, screw driver. Filament holder.

X Z Axis, same

Control box and print head

Y Axis and Platform

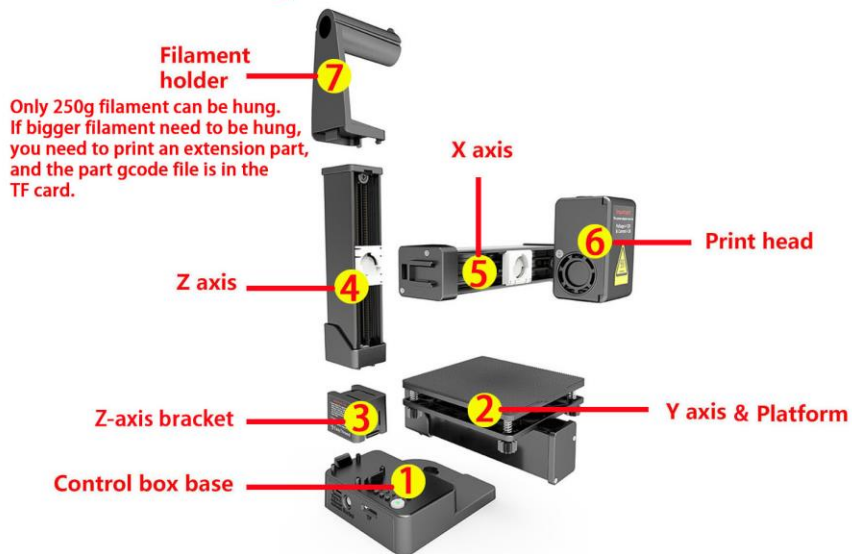**Z Axis support**

screwdriver

Filament holder

TF card, Card reader

10M PLA filament

## 2.2 Install the Printer (==Watching video is easier to operate==)

Installation sequence 1234567, Watch video

Filament holder — (7)

Only 250g filament can be hung. If bigger filament need to be hung, you need to print an extension part, and the part gcode file is in the TF card.

X axis — (5)

Z axis — (4)

Print head — (6)

Z-axis bracket — (3)
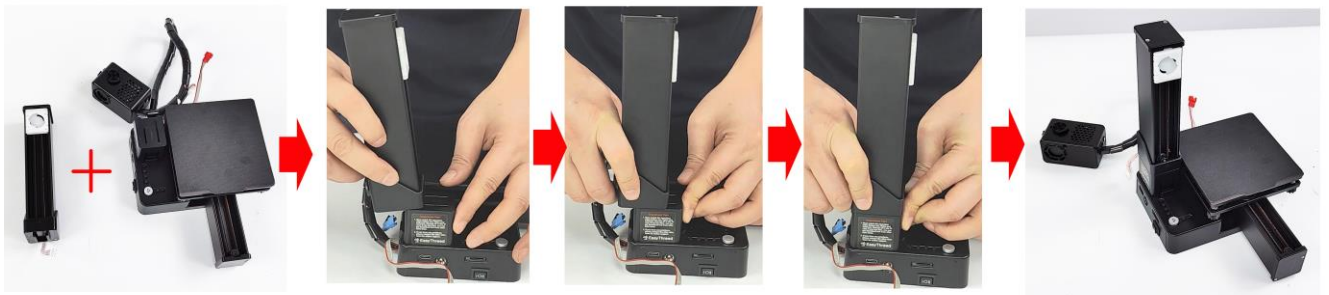
Y axis & Platform — (2)

Control box base — (1)

==Step1, Install Y axis&platform to Control box base,1&2.==

==Step2, install Z axis support 3.==
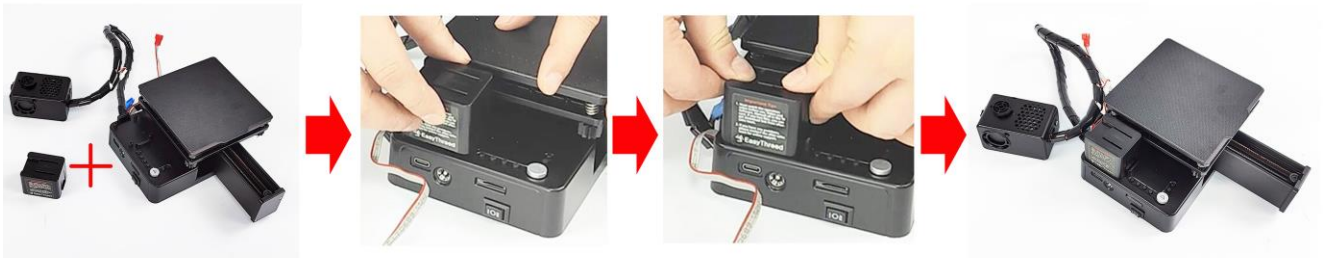
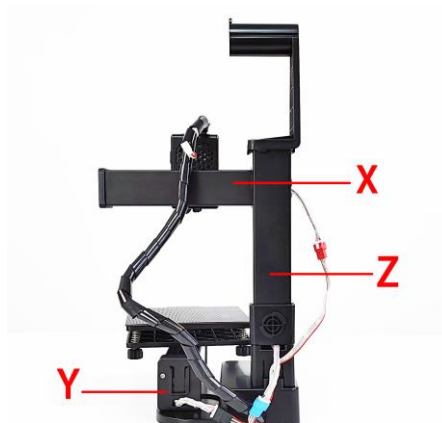==Step3, Install Z axis 4, push to end.==
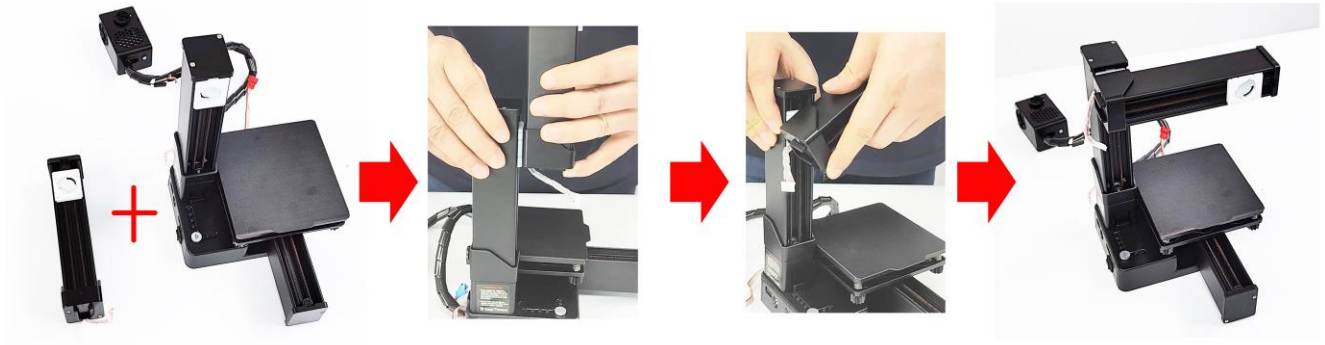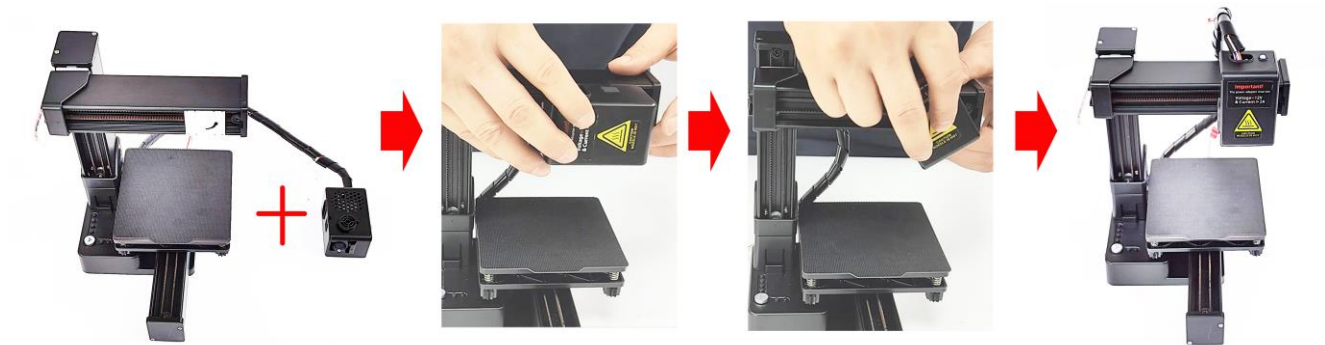
Step7，connect XYZ motor wires. Red is for X, Blue is for Z axis, Black is for Y axis
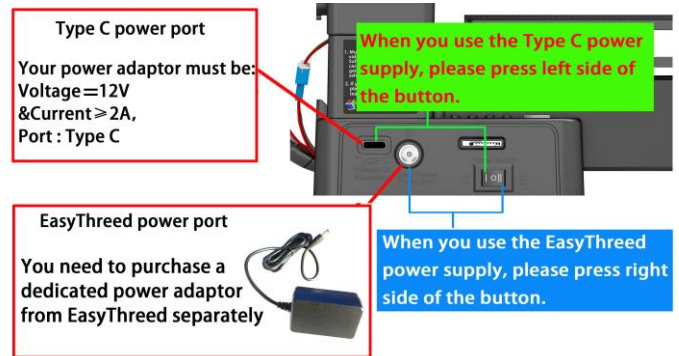

X

Z

Y

3 , Power on

(If printer not equipped with power adaptor，Your power adaptor must be:

Voltage=12V&Current≥2A，Port : Type C

Connect power，and press the switch， the light of print button ⏵ is on.

Do not move the XYZ axis by hand when the power is on

Type C power port

Your power adaptor must be:
Voltage=12V
&Current≥2A,
Port : Type C

When you use the Type C power supply, please press left side of the button.

EasyThreed power port

You need to purchase a dedicated power adaptor from EasyThreed separately

When you use the EasyThreed power supply, please press right side of the button.

4，Slicer software application (STL format 3D file need be sliced to gcode format that printer can recognize).

(1).This 3d printer runs with it's own developed slicing software named Easyware , it is in the TF card included , please copy it to your computer(no need installation) ,you can also download Easyware from official website， Slicer operation teach video inside TF card as well . Easyware slicer can recognize STL format 3D file. （if you want better printing effect, you can learn to use CURA slicer, we supply software and teach video inside TF card）

(2). STL format 3D file need be sliced to .gcode format， and save to TF card, and Insert TF card to printer, then can print 3D file. **(3D Printer will print the latest gcode file， gcode name can be only English or letters， without special symbols)**
Warm Notice: there is a initial test gcode file inside the TF card .

5，Print

（**1**）**Platform Leveling，** The first time to use this printer, you need leveling the platform
Please adjust the distance between the nozzle and the platform in

①②③④points， the distance should be just the thickness of

a sheet of paper, when you put a paper under the nozzle and pull the paper, **There is a feeling of friction when pulling the paper.**(Please do this leveling with the help of adults.)
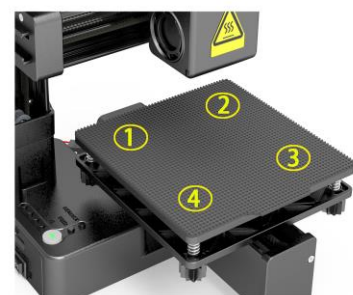
a), **Firstly put a piece of paper on the platform, the paper a little larger than the printing platform.**

b) Press the leveling buttons 1, and the print head will automatically move to the ① position of

the platform. The 1, 2, 3 and 4 on the leveling buttons will match the ①, ②, ③ and ④ on

the platform.
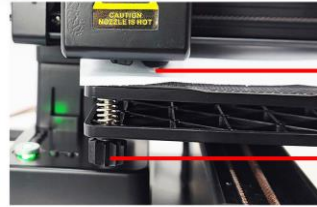
Nozzle

Screw nut

c) Adjust the screw nut at the bottom of the platform (as shown in the figure below ,loosen the nut, the platform rises, tighten the nut, and the platform falls). Adjust the height of the platform through the nut so that the gap between the nozzle and the platform is just one sheet of paper thickness (about 0.1mm). <mark>When the paper is gently pulled, there is obvious friction between the paper and the nozzle, the nozzle will not damage the paper.</mark>

Note: When adjusting the nut, do not press the platform with your hand to avoid affecting the accuracy of leveling.

Loosen and the platform rises

Tighten and lower the platform

d) After the ① point is adjusted, press the leveling buttons 2, and do the same steps above to complete the leveling of the ② position. After that, use the same method to continue to complete the leveling of ③ ④ points.

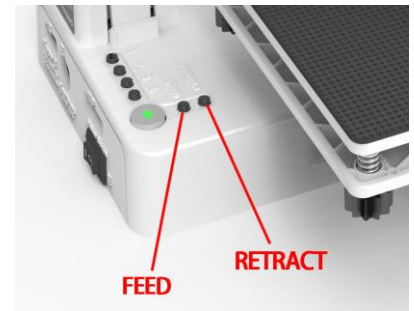e) If there are still print problems, you can repeat the whole leveling work 1-2 times.

Leveling completed！

（2）Load Filament , feed

before feed, you need make sure there is at least 3cm space between the nozzle and the platform(Press print button hold for 3 seconds and release, the printer head will raise 1cm each time).

●Straighten the front end of the filament about 2cm ,Insert filament into the insert tube until it can not go further, and press the filament with a little force to keep it.

●Press the button "FEED" on the printer, and the light of the print button will start to flash. At the beginning, it will flash quickly to indicate that the nozzle of the printer is heating. When the temperature reaches, the light will flash slowly. After the slow flash, the feeding gear will start to turn and roll the filament into the nozzle. The whole process needs to be pressed by hand to ensure that the filament can be caught and rolled in by the gear. When the nozzle mouth has uniform filaments come out, it means that the feeding is successful, The whole feeding process takes about one minute. After the feeding is successful, you can press the button "FEED" again to end the feeding.

Feeding failure reason normally :
(1) The front end of the filament is not straight;
(2) Didn't keep pressing the filament with a little force during the whole process.

● The front end of the filament must be straight.
● During the whole process of feeding, please press the filament down with a little force by hand, so that the gear can catch the filament until the nozzle starts spinning and then let go.
● The print button light is blinking fast means nozzle heating up, When the light blinking slow. The gear starts to turn and draw the filament into the nozzle.

Feeding failure reason:
1. The front end of the filament is not straight.
2. Didn't keep pressing the filament with a little force.

（3）Print

Insert the TF card with gcode file (the direction of the TF card should be correct as shown in the figure below), press the print button ⊙ , and the light on the print button will start flashing after the printer reads the gcode file, and the nozzle will start heating. **Please wait patiently for about one minute.** When the temperature reaches, the printer will start printing. (Note: The printer only prints the latest gcode.　The gcode file name can only use English letters or numbers.)
There is a gcode test file in the TF card, which is directly printed for the first time.
Don't press the print button repeatedly!!!

The TF card insert with right direction

If first time the initial gcode print good, means the printer is good,　if you can't print other gcode, then means your gcode has problem , you need get correct gcode according to your slice teach video.

You can contact our after-sales team to help you.

during printing, Click print button ▶ ,the button light stops flashing , then printing paused.

If need to continue print , Click print button ▶ again to restore, the button light flashes again , the printer will print again .

If you want to stop print during printing , press print button ▶ hold for 3 seconds then release , the machine will stop printing, then printing cancelled.

If you want to change a filament or do not print for a long time, you need to withdraw the filament from the nozzle, press the "RETRACT" button, the light of the print button will flash, pull the filament up gently by hand, please wait patiently, you will feel that the filament will enter a little before exiting, and the whole process will take more than one minute. After the material exits the print head, press the "RETRACT" button again to finish.

After print ,remove the platform, and easy to take off the object.
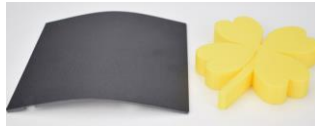
High quality filament which is preferred to be used.

Various of filament are available on the market , and quality is much different too. poor quality filament may cause broken or nozzle jam, Pls choose Easythreed high quality filament.

 Safety Warning

Burning , keep your fingers away from the NOZZLE and BLACK INSULATOR when the printer is working as temperature in this area reaches over 200 Celsius degree . Always be sure to keep your hands away from moving parts when it is working .

6. Maintenance

6.1   Do not use the methods that is not mentioned in this manual to disassemble or modify this machine , to avoid damage to this printer or may cause other serious accident .

6.2   When the power is off , regularly clean the machine with a piece of cloth to wipe off dust and residue , if the cloth is wet , do not use inflammable liquid to contact the inner circuit to avoid fire or electronic shock .

6.3   When printing finished, clean the residue in nozzle and extrude , to avoid nozzle choke for next printing , it is also basic maintenance.

6.4   Recommended temperature for working environment is 5℃-35℃, do not air the machine body with a fan

when the printer is working .

6.5   Recommended humidity for the working environment is 30%-90% .

7. FAQ

Q1:   Why is the printing model not adhesive to the printing bed?

A1: The nozzle is too far away from the bed, the proper distance between the nozzle and bed is the thickness of a piece of paper .

Q2: Why the filament do not come out from the nozzle?

A1: Check the filament feeder.If it's external gearfeeder, then to observe whether gear rotates or not. If it's built-in stepper motor feeder, then to observe if the motor is working with a little sound . Otherwise, check if filament feeder is connected to it's main board well.

A2, Check temperature.

Printing nozzle temperature of PLA material range s from 200-230℃.

A3, Check if the nozzle is blocked.

Heat the nozzle to 230℃ for PLA ,push the filament gently , if there is still no filament come out , then need to disassemble the nozzle, clean or replace it .

A4, Check if nozzle is too close to platform , if so, the filament can not come out ,so adjust the distance between nozzle and platform with a piece of paper .

Q3, The problem of print model misplaced

A1, The model did not slice properly, need to re-slice or change the model position to generate new Gcode file.

A2,The model file problem, if the model is still misplaced after re-slicing ,it's the original file problem .

A3, the nozzle is forced to stop printing Path:

First, make sure you have not touched the nozzle when the machine is printing .

Second , if there is filament residue on the top layer, the residue area will become larger gradually, when it's accumulate to a certain amount and become stiffer enough, the nozzle will be forced to move abnormally.

A4, Power supply is not stable

Check if large power electrical equipment is working while the machine is printing ,dislocation happens when some equipment turns off such as air conditioner , if so , you need to connect a voltage stabilizer to the printer power supply. Otherwise, observe if the nozzle is blocked at a certain position, if so , the power supply on X,Y,Z axles are not even, then need to adjust the X,Y, Z electric current on the main board.

A5 , If the above solution can not solve the misplace problem, the dislocation mostly happen at the same height for various models , then need to change the mother board .

Q4 , Why the printing accuracy is quite different from the real model

A1, There is a lot of filament piled up on the model surface

　　A1.1, Nozzle temperature is too high, filament melt too fast and caused overflowing .

　　A1.2, The filament flow is too large, there is filament flow setting in slice software , change the default value 100% to be 80%.

　　A1.3, Filament diameter setting problem , it's in slice software, the default settings are different , there are both 1.75mm and 3mm filament on the market, for 1.75mm, the diameter should be 1.75 , but for 3mm, the diameter should be 2.85 or 2.95 .

A2 , Poor surface after removing the support for FDM technology.

　　A2.1, The support density should be as lower as possible, 10% is proper, it's easy to remove.

　　A2.2, Trim the model with a grinding tool, rub gently with a towel and dip a little acetone, make sure to ware gloves before hand, and do not wipe too long to caused the appearance effected or dimension changed .

A3 , The inappropriate distance between the platform and nozzle.

　　A3.1, The first layer is not formed, or the models are without edges or corners if distance is too large .

A3.2, The nozzle will scratch the platform and no filament come out of the nozzle if distance is too close, the proper distance is the thickness of a paper.

A4, The inappropriate printing filament

With the maturity of 3d printing , various of filaments are available on the market , but the compatibility for filament and printers are particularly important.

After sales service contact：

email： info@easythreed.com

Website message board： www.easythreed.com

WhatsApp: +8613823704046