# QUICK START GUIDE

VERSION 1.4

## Mars（ET2000）3D PRINTER

EasyThreed®

Please read this User's Manual carefully before use.
Please keep this User's Manual properly for future reference.
Pictures are for reference only, subject to our available products.

# 1 Table of Contents

# 2 SAFETY INSTRUCTIONS

Before installing and using this machine, make sure to read the following contents. Please do not use this machine with the methods not described in this User's Manual. Try you best to avoid possible physical injury and property losses.

## 2.1 Machine placement

- When moving the machine, pay attention to handle it gently to avoid touching the interior structure of the printer.
- This machine is suitable for placed in a ventilated, cool, dry and dustless environment.
- When using the printer, pay attention to the heat dissipation of its surrounding environment and avoid placing it on thick carpeting or close to wall.
- Please do not put the machine near explosives and high heat sources.
- Please do not put this machine in an unstable working environment or a working environment with large vibration.
- Please do not pile weights on this machine.

## 2.2 Specification for use of power supply

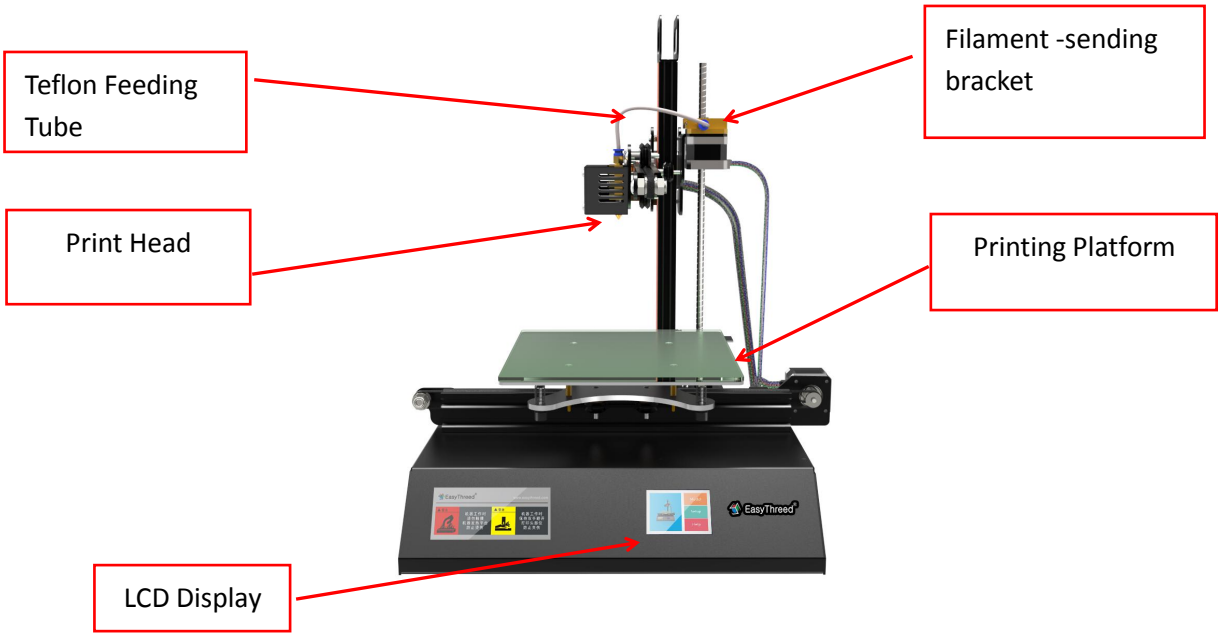
- Please use the power cord supplied with this machine.
- This machine applies to 220V power supply.
- Please do not plug and unplug the power connector with wet hands.
- Please make sure to insert the plug completely into the socket.
- Please do not deliberately pull and excessively bend the wire supplied with this machine to avoid open circuit or short circuit.

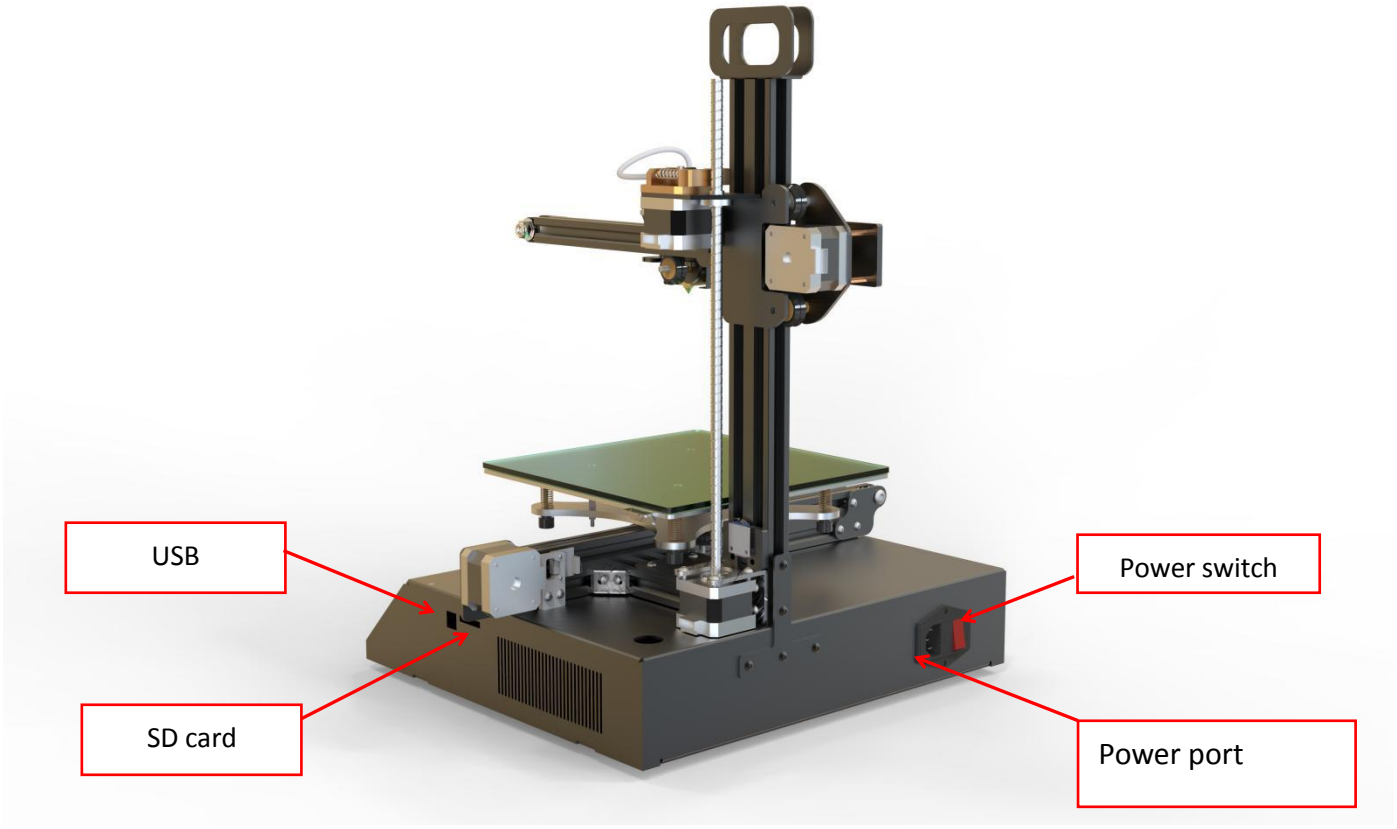
## 2.3 Instructions during printing

- Please do not operate this printer in the absence of personnel supervision.
- During the printing process and right after the printing process, please do not touch the interior structure and accessories of the printer to avoid scalding.
- If the printer discharges smoke when printing, please turn off power switch immediately to stop printing and contact the dealer.

## 3. PRODUCT INTRODUCTION

### 3.1 Name of main components



## 3.2 Basic Parameter

- **Print parameters**

  **Working environment** - Working temperature: 5 °C- 35°C, Relative humidity: 30%-90%

  **Electric parameters**

  Power input: 110-240V AC, 50/60Hz;

  Power output: 24V/DC, 12.5A

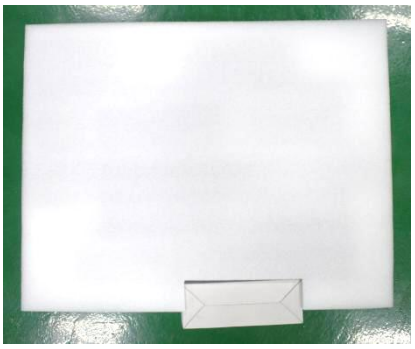
  Maximum power: 300W

| | | | |
|---|---|---|---|
| Nozzle diameter | 0.4mm | Print material | PLA,ABS |
| Extruder temperature | 180-230°C | Filament diameter | 1.75mm |
| Bed temperature | 0-100℃ | Hotbed | Yes |
| Print speed | 10-60 mm/S | Layer thickness | 0.05-0.3mm |
| Molding size | L190*W190*H190mm | Machine size | L420*D400*H500m |
| Compatible systems | Windows XP/7/8/10 (32 bit/64bit) | Connection | SD Card USB connection for printing |
| 3D format supported | STL | Print conversion software | CURA |
| Recognized file format | Gcode | Machine net weight | 10KG |

## 4. UNPACKING AND INSTALLATION

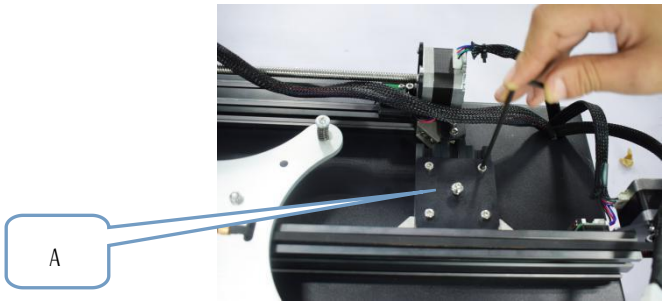
1. Open the packing box and check if it is sealed.

2. Unwrap the packing box to take out the foam and check if the accessories are complete.

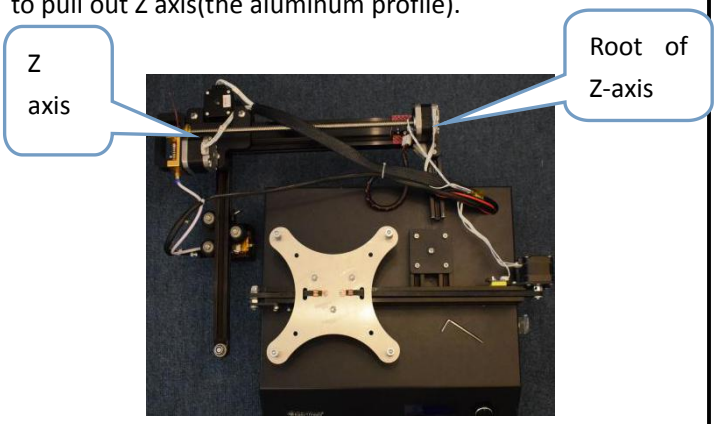


3. Take out the top accessory box and then take out platform. Then lift the 3d printer.

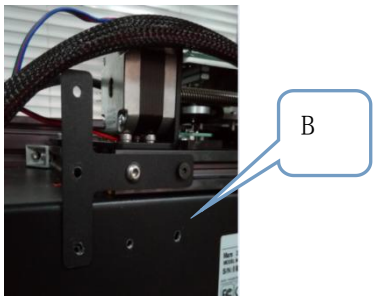
4. Put 3d printer to the table, then use the hexagon bar wrench(includein the accessories box) to drive the 5 screwss here

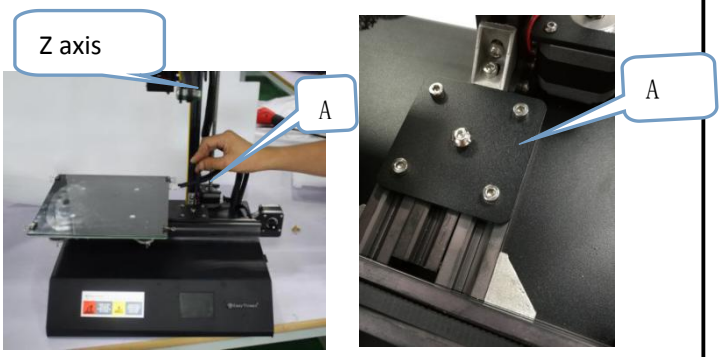


5. After loosen the screws, one hand to catch the root of Z axis, one hand to catch the Middle of Z axis, then use force to pull out Z axis(the aluminum profile).

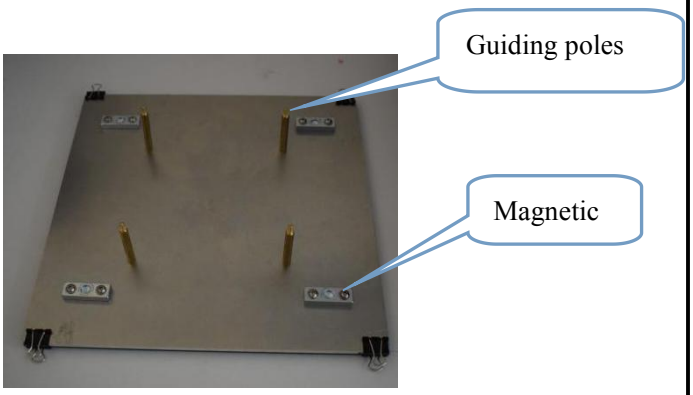



6. Turn Z axis to vertical and plug into the slots where pulled out just now, First tighten the 3 srcews in Area B. then to tighten the 5 screws close to Z axis in area A(belows).

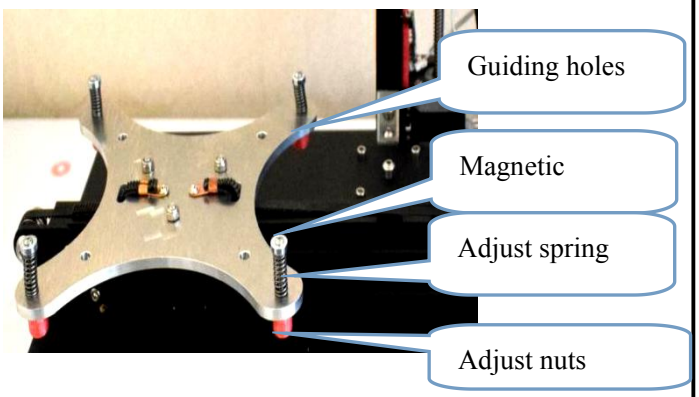


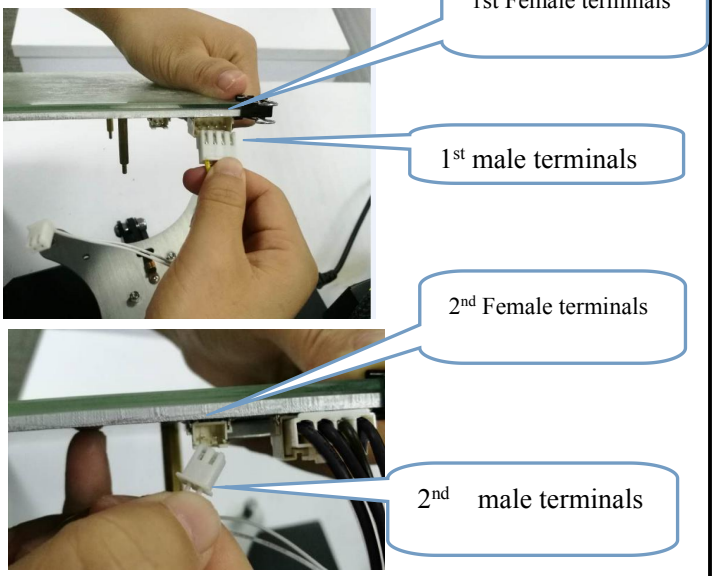

7. Take the platform out



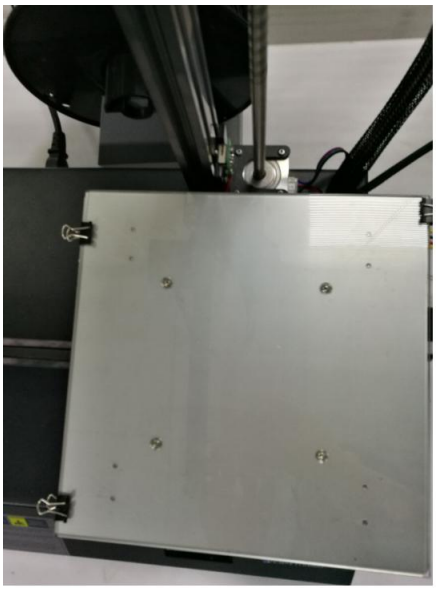

8. Platform fixture stands




9. Connect the 2 terminals of printers to the 2 female terminals of platform.




10. After connect well, then put the platform into the printer

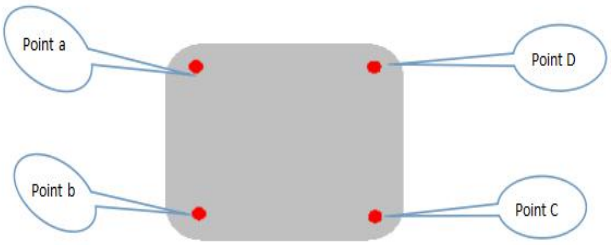


11. Get the handle parts from accessories box

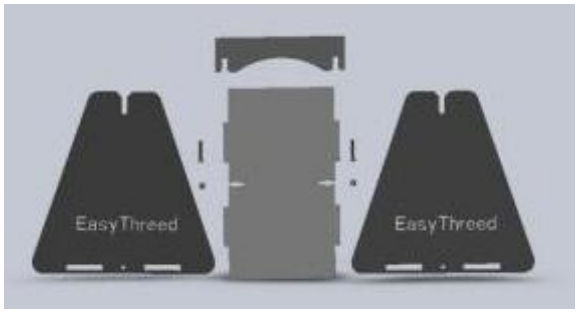
12.Put them to the end of Z axis then drive the screw tightly.

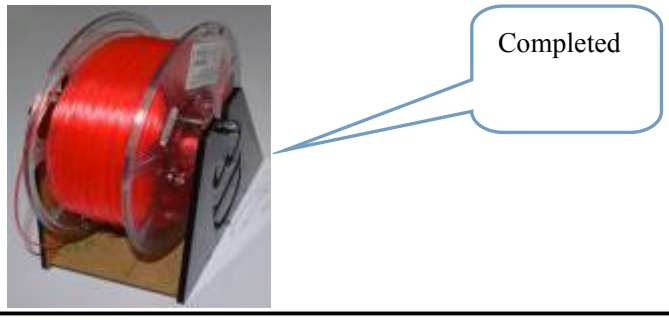

**13.**Put glue on the platform by PVP glue sticks to assure the models would not moved while printing, or to use the blue tape on the platform**. (please find the detailed way of step 11 in the below called- D11)**

14. Adjust the Platform to be leveled**(Please find the detailed way of step 14 below called -D12**)

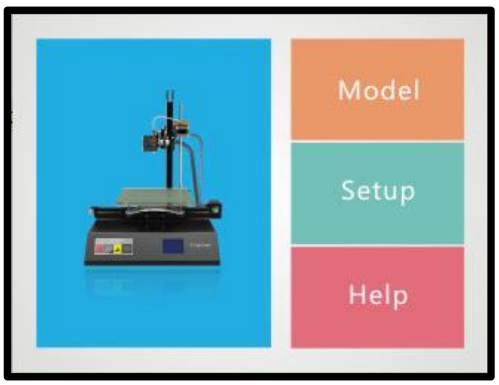



15. Assemble the filament holder by screws(its in the accessories box(**Please find the detailed way of step 13 in the below called- D13**)




16. Put filament into the hose of 3d printer machine**.(please find the detailed way of step 14 in the below-called D14)**

| 17. Turn on the power of 3d printer | 18. Then insert SD card and to choose one model to print. |
|---|---|
|  | |

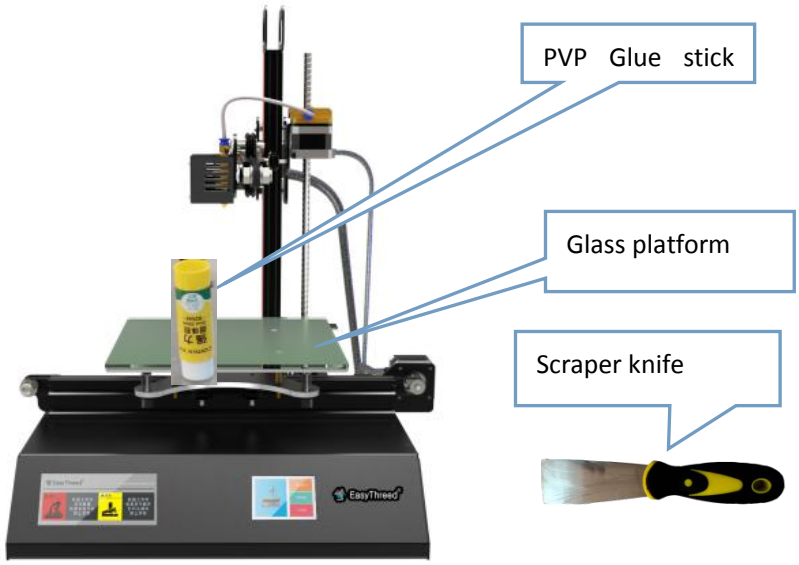
**D-11 : how to put glue and tape to the platform?**

（1）The way of putting PVP glue stick (as below images)

(a), use scraper knife to clean platform before putting stick, but if there are too much residue, please to wash it under the running water.

(b). Open the glue stick, rotate the end of the glue sticks until see some glues showed, then apply a thin layer of glues to the printing area

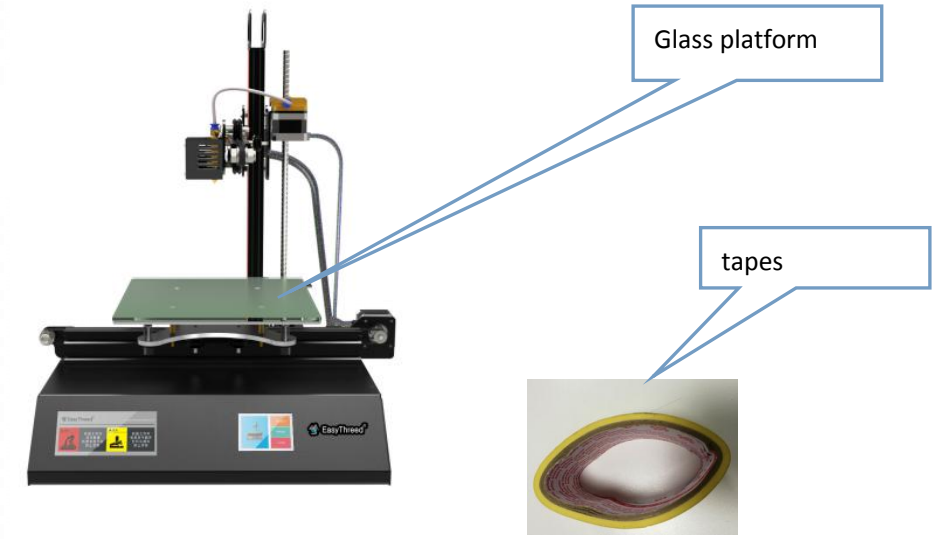
(c). This kind of glue belong to easily dried type, so can begin to print soon.




(2)The way of putting blue tape(as below images)

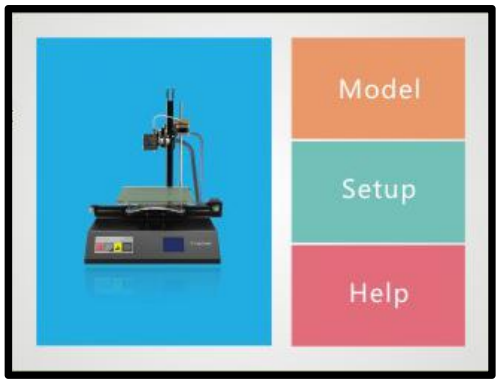
(a)To cut a piece of blue tapes as the similar same size of Blue tapes.

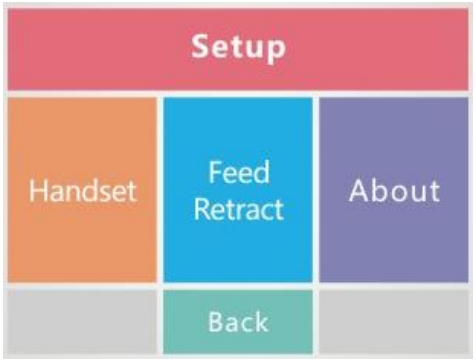
(b)To put the blue tapes gently and use eraser to press it to make sure they stick perfectly.




**D12: How to level the platform?**

(1) The 4 points A,B,C and D needs to be leveled, first put power on, comes to the auto page, click Setup button, then comes to setup page.



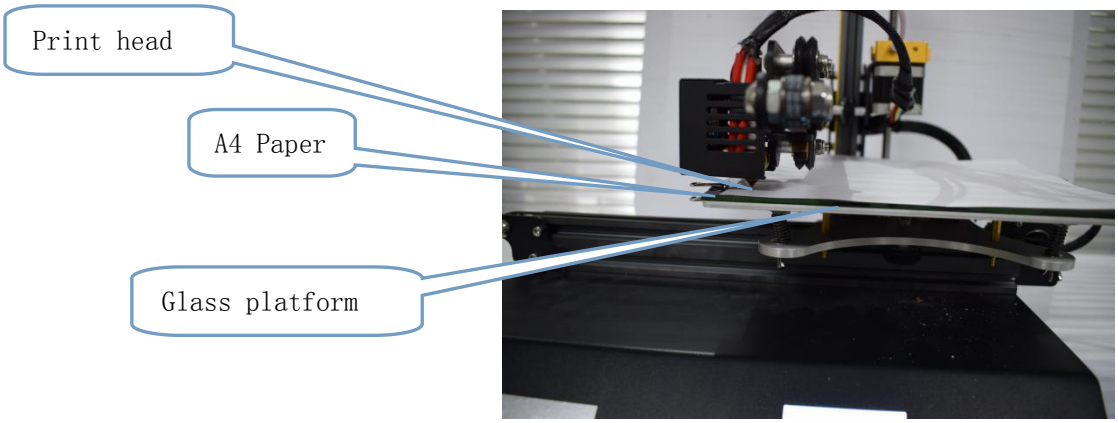




**(2)** Click handset button, then comes to the below image. Click "H", printer goes to Auto home. Then click "Unlock", the motor become unlock,

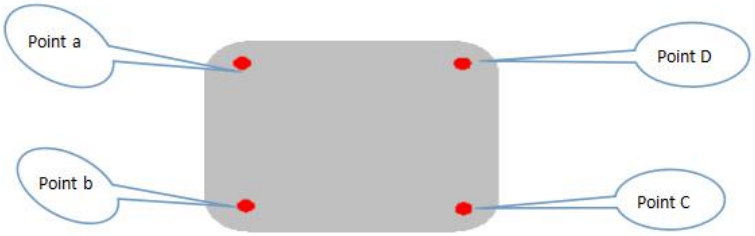

(3) Observe the distance between platform and nozzle:

The distance should be the thickness of one piece of A4 paper inserted into the platform and nozzle, the paper could be drawn easily when draw it. If the distance is too big or small, then needs to adjust screws under the platform( screw

clockwise then platform goes down, screw anti-clockwise then platform goes up),




(4)Choose the following 4 points to check and adiustment.




(4.1) Adjust Point A, pull the extruder gently in X axis to point A(above), then observe the distance between platform and nozzle, its the thickness of a piece of A4 paper, if the distance is too big, then needs to rotate (anti-clockwise) its below screws to make platform up, if the distance is too small, then needs to rotate(clockwise) its below screws to make platform down.

(4.2) Adjust Point B, After well adjust point A, then to pull the extruder gently in X axis to Pint B(above), then observe the distance between platform and nozzle, its the thickness of a piece of A4 paper, if the distance is too big, then needs to rotate (anti-clockwise) its below screws to make platform up, if the distance is too small, then needs to rotate(clockwise) its below screws to make platform down.

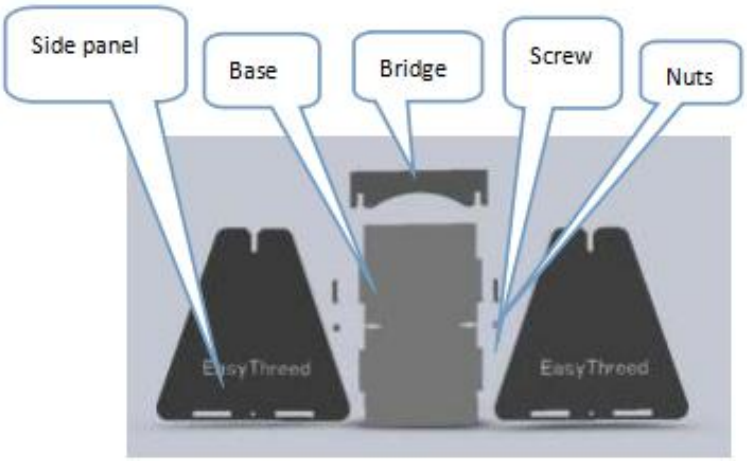
(4.3) Adjust Point C, After well adjust point A, then to pull the extruder gently in Y axis to point C(Above). then observe the distance between platform and nozzle, its the thickness of a piece of A4 paper, if the distance is too big, then needs to rotate (anti-clockwise) its below screws to make platform up, if the distance is too small, then needs to rotate(clockwise) its below screws to make platform down.

(4.4) Adjust Point D, After well adjust point D, then to pull the extruder gently in Y axis to point C(Above). then observe the distance between platform and nozzle, its the thickness of a piece of A4 paper, if the distance is too big, then needs to rotate (anti-clockwise) its below screws to make platform up, if the distance is too small, then needs to rotate(clockwise) its below screws to make platform down.

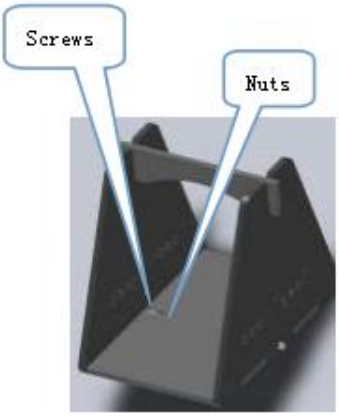
(4.5) After 4 points all well adjust, then to pull the exturder in X and Y axis to observe if the distance between platform and the nozzle is the same.

**D13. How to assemble the filament holder?**

(1) Takes the filament accessories out from the box to assemble the filament holder (as below,there are 2 side panels, 1 base, 2 M3 screws, 2 nuts, 1 bridge




(2)Put the Nuts insert into the slot of base, to Insert M3 screw from the side panel. Fasten the side panels and base, then get bridge through the center hole of filament holder, then finally to put the bridge insert the side panels.




**D14, How to put the filament into the hose of 3d printer?**

(1), Put the assembled filament holder at the back of the 3d printer.

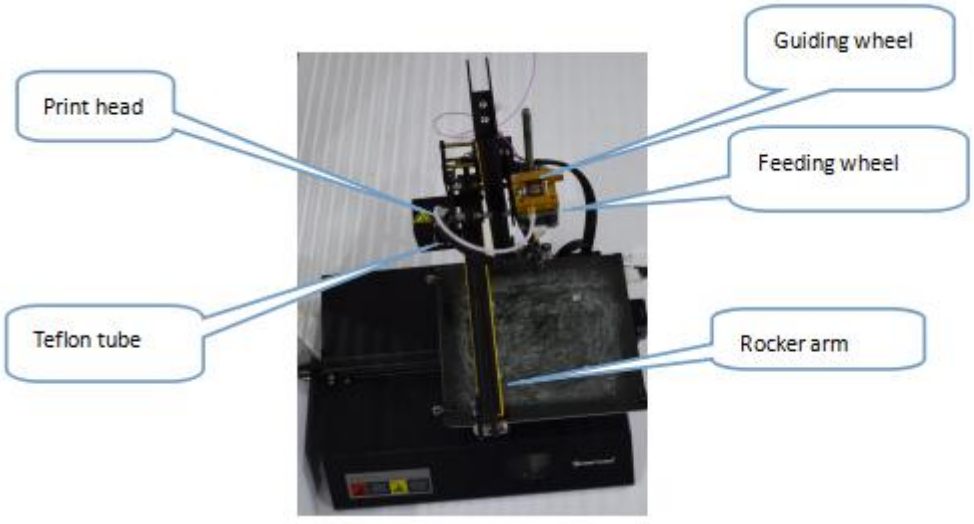
(2), Cut about 2-5mm filament end, to assure the end to be smooth.

(3), Straighten up the filament end(10-15mm) by hand.

(4), Get the filament through the hose besides the rocker arms.

(5), Press the rocker arm and put the filament through slots where feeding gears and guiding wheels formed then leads to the guiding tube.

(6), Use force to push the filament to get close to the print head then loose the rocker arm.

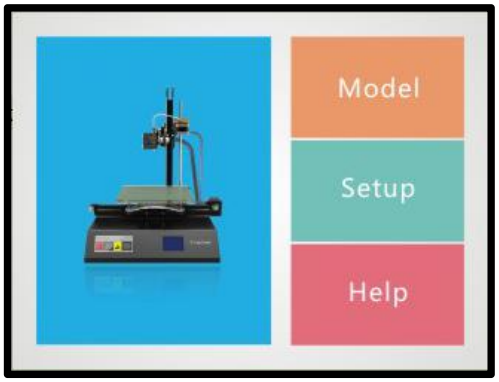


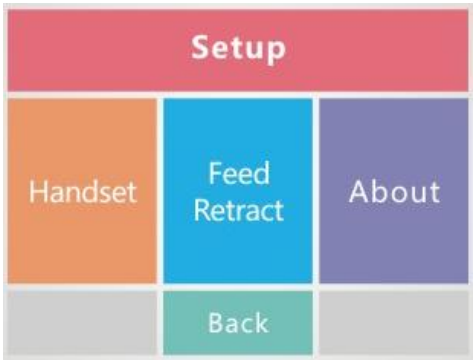
## 5. INTRODUCTION OF STARTING UP THE PRINTER

### 5.1 Power On

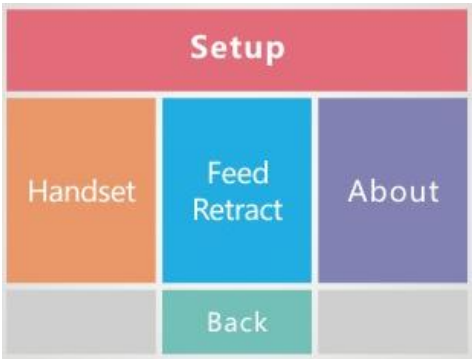
- Plug the power cord->Insert SD card->Power Switch on. The 3d printer starts up, as follows,


- Touch LCD Display, goes to operation page, click setup, it comes the following.



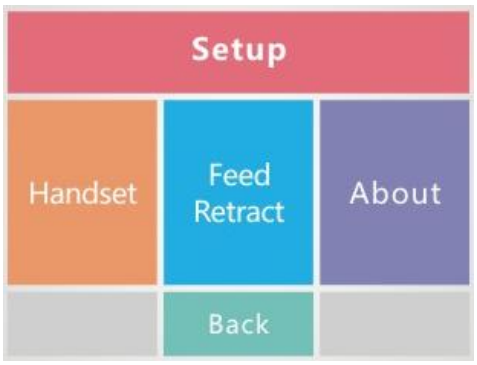

- Click handset, goes to XYZ adjustment operation page, click back after operation completed.

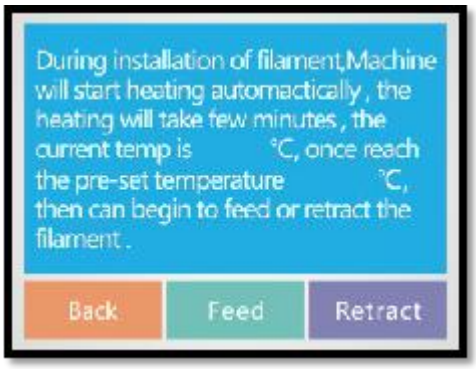




- Click Feed/Retract, goes to Filament operation page, operate per instruction, click back after operation completed.

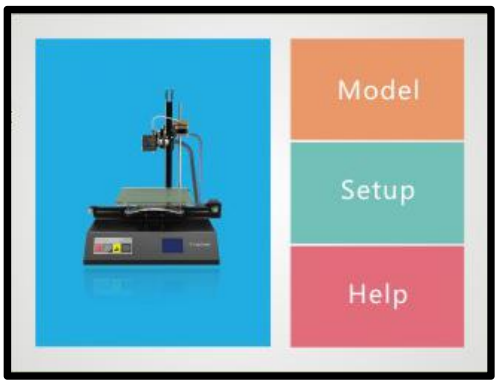
Put filament to the hose, Once reach to the preset temperature, then click Feed, filament comes out from nozzle, means feed successfully. Put filament to the hose, once reach to the preset temperature, then click retract, filament comes out form the hose, means retract successfully.

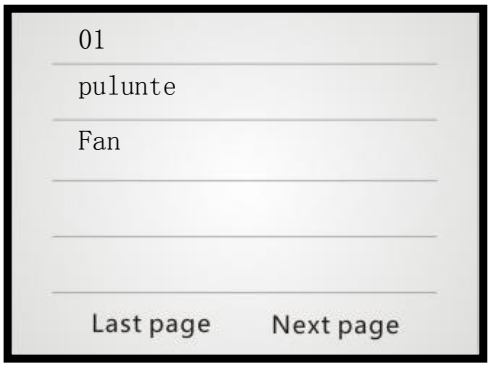



## 5.2 Printing

Select the Model icon to go to Model page, select the desired model to print from the list.




## 5.3 Instruction of LCD Display

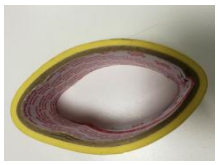
The above images shows the common control function, Customer could adjust per their own need, if any questions, please contact our after-sales department.

## 6. MAINTANANCE

- Do not try to use the methods those not described in this manual to disassembly or modify this machine, in order to avoid damage to the printer or other more serious accidents.
- When power is cut off, regularly clean the printer with a cloth to wipe off dust and residue. If a wet cloth is needed, do not use flammable solvents to touch the internal circuit of the printer to avoid fire or electric shock.
- After printing, try to discharge the residual print material in the nozzle and the extruder to avoid the nozzle from blockage when printing for the next time! This is the basic maintenance for a 3D printer.
- The guide rail can be added with engine oil for one time every half a year for anti-rusting and lubrication.
- Recommended temperature for the working environment: 5℃-30℃, do not air the machine body with a fan during the printing process.
- Recommended humidity for the working environment: 20%-80%.

## 7. LIST OF ACCESSORIES

| Directory | 1. Print material | 2. Tweezer | 3. Power cord | 4. Tapes |
|---|---|---|---|---|
| Quantity | 1 roll | 1 pcs | 1 pcs | 1 pcs |

| | | | | |
|---|---|---|---|---|
| **Remark** |  |  |  |  |
| **Directory** | **5. Flat head shovel** | **6. Plastic nippers** | **7. Card reader** | **8. SD card** |
| **Quantity** | 1 pcs | 1 pcs | 1 pcs | 1 pcs |
| **Remark** |  |  |  |  |
| **Directory** | **9. Data cable** | **10. Small wrench and tweezers** | **11.Filament holder** | **12、Instruction manual** |
| **Quantity** | 1 pcs | 1 set | 1 pcs | 1 pcs |
| **Remark** |  |  |  |  |

## 8. FAQ

**Q1: Why is the printing model not adhesive to the platform?**

A1: The nozzle is too far away from the platform, Adjust the distance between them to assure that the distance is just enough to get through a calibrated film.

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

A1: Check the filament feeder, heating and feeding filament, if there is external gear structure feeder, then to observe if gear rotates or not, if there is built-in stepper motor feeder, then to observe if the motor is vibrating and working sound or not, if no. Then check if the wire of filament feeder and motherboard is completed or not. Please repair timely if its in-completed.

A2, Check temperature.

Printing nozzle temperature of PLA material range s from 195℃-210℃.

A3, Check if the nozzle is blocked.

If PLA filament is already heated to then use force to push the filament, if it does not come out, then disassemble the nozzle and clean it or replace the nozzle.

A4, Check if nozzle is too close to the platform, if yes, then filament can not come out, so adjust the distance between platform and nozzle to assure it can just enough to get through a calibrated film.

**Q3, The problem of print model misplaced**

A1, Mistake of slicing, re-slice, Or the software to reproduce GCode printing.

A2,The model drawings problem. If the model still misplaced after re-slicing the models, then its drawing has problem.

A3, the nozzle is forced to stop printing Path:

First, You can not touch the moving nozzle with your hands during the printing process. S

A4, motherboard problem:

If the above problems can not solve the dislocation, and if all dislocation happens at the same height of any model then replace the motherboard. There is big gap between actual and theory printing accuracy

**Q4, There has lots of filament piled up on the model surface,**

A1, nozzle temperature is too high, consumables melt too fast to cause overflowing .

A2, The filament flow is too large, Software has filament flow settings, the general default value is 100%. Please down it to 80% printing.

**Q5, Poor surface after removing the support of FDM printing technology.**

A1, The support can be set up to the 10% density. Then its easy to remove the support.

A2, can be slightly trimmed with a grinding tool, and then rubbed with a towel which dipped into acetone. Note to Wear gloves, do not wipe too long so could avoid affecting the appearance and size of the model.

**Q6, The inappropriate distance between the platform and nozzle.**

The first layer is not formed because of large distance, if the distance is too small, the nozzle will scratch the platform, . The distance between the nozzle and the platform must be adjusted to get through a calibrate film.

**Q7. Printing supplies difference:**

With the maturity of 3D printing, FDM printing supplies on the market is rich and multiple color, But the compatibility of supplies and printers is particularly important.

**Thank you for choosing EasyThreed 3D Printer!**

**Shenzhen EasyThreed Technology Co., Ltd.**

**Website: http://www.easythreed.com**

**Tel: 86-755-89882011**

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No1034 of Longgang Road, Pingdi Street, Longgang District, ShenZhen,China