

TRONXY

XY-2 PRO 2E Installation Manual





When unpacking, please check the packing list to ensure that there is no loss or damage of parts. If any, please contact our after-sales personnel immediately, and we will sent replacement for you in the shortest time.



Please use the machine in a ventilated, dry, clean and flat environment.



This machine contains high-speed moving parts and high-temperature parts. Children are not allowed to use this machine alone.



Some accessories are Filament with different warranty time.



In case of emergency, the power can be turned off directly.



If the user modifies or disassembles the core components of the machine without authorization, this situation is not covered by the warranty.

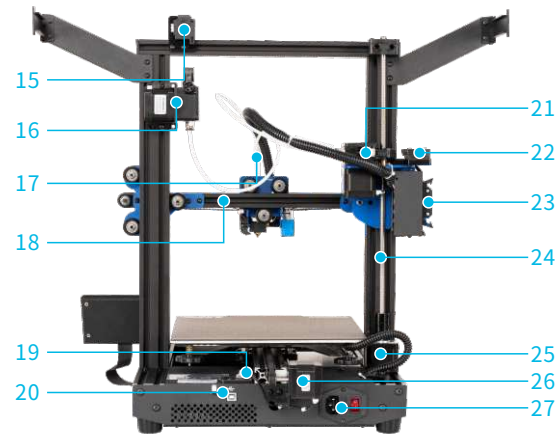
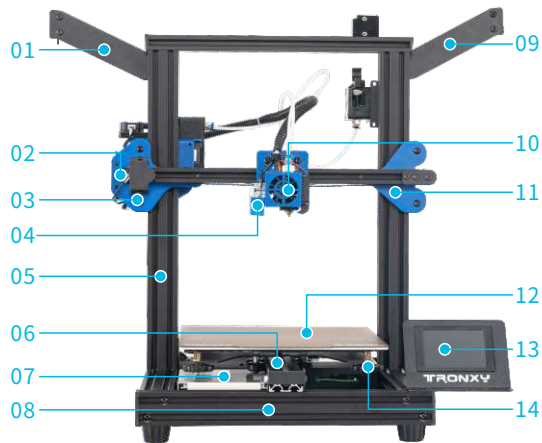


Video, software and other related information are stored in TF card.

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Machine details



01 Left filament rack

02 X-axis motor assembly

03 Z-axis left slider

04 Auto leveling detector

05 Gantry

06 Y-axis aluminum profile

07 Power supply

08 Base aluminum profile

09 Right filament rack

10 Print head component

11 Z-axis right slider

12 Printing Platform

13 Touch screen

14 Large leveling nut

15 E2 filament run-out detector

16 E2 extruder

17 Filament tube

18 X-axis aluminum profile

19 Y-axis limit switch

20 TF card and type-B to USB slot

21 E1 extruder

22 E1 filament run-out detector

23 30Pin cable socket

24 Screw rod

25 Z-axis motor

26 Y-axis motor

27 Power cord socket and power switch

Machine parameters

Print parameters	
Print size	255*255*260 (mm)
Print accuracy	0.1-0.3mm
Printing principle	FDM (Fused deposition molding)
Nozzle size	0.4mm
Nozzle quantity	1
Print speed	20-100mm/s (60mm/s is preferred)
Position accuracy	X/Y -0.00625mm, Z - 0.00125mm
Available filaments	PLA、ABS、PETG、···
Temperature parameters	
Printing environment temperature	8-40°C
Nozzle temperature	275°C (Max)
Power parameters	
AC 110/220V 50/60Hz DC 24V/360W	
Software Related	
Slicing software	Tronxy、Cura、Simplify3D
Input Format	.stl、.obj
Output Format	.gcode
Connection method	TF card, Type-B,Thumbdrive socket
Machine Parameters	
Machine size	478*455*520mm
Packing size	510*480*230mm
Machine weight	≈12kg

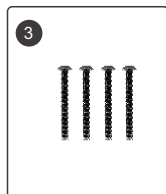
Packing list



Base



Gantry



M5*45 screw *4



Filament rack *2



E2 extruder



E2 filament run-out detector



Filament tube



PEI magnetic steel plate



0.25KG Filaments (Random color)



Power cord



Card reader and TF card



Type-B to USB Cable



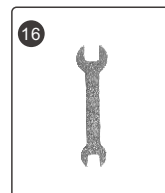
Shovel knife



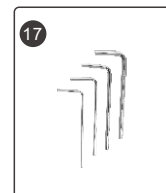
Hexagon wrench



Screwdriver



Wrench



L-shaped hexagonal wrench



Tie (Random color)



Limit switch (spare part)

Machine installation

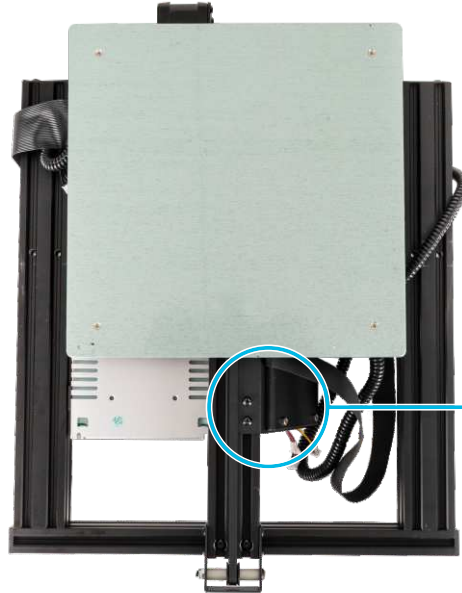
1. Remove the touch screen on the base



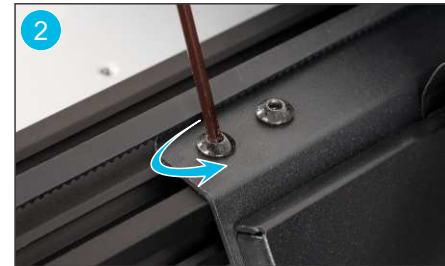
1
Base



14
Hexagon wrench



↓
Loosen the screw here



↓
Loosen the screw here



Remove the touch screen

Machine installation

2. As shown in the following figure, adjust the screws and boat nuts pre-installed on the touch screen



The touch screen just taken off



Remove screws and boat nuts



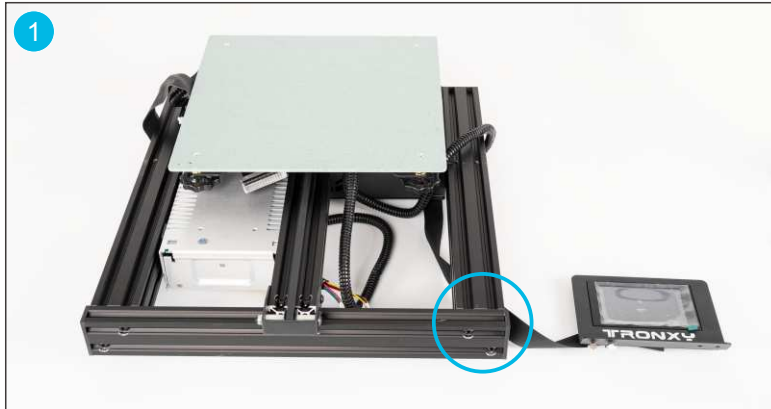
Install it back as shown in the figure



Installation completion diagram

Machine installation

3. Correctly install the touch screen on the base



Install the touch screen in the place of circle in the figure




Put the boat nut into the groove



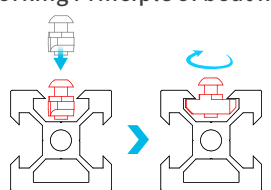
Tighten screws



Tear off the screen protective film

 **Tips**

Working Principle of boat nut



Loosen the boat nut on the filament rack slightly, pay attention not to take down the nut, then put it into the groove of aluminum profile in parallel direction, and tighten the screw clockwise quickly, making the boat nut stuck in the groove of aluminum profile at 90°.

Machine installation



1
Base



2
Gantry

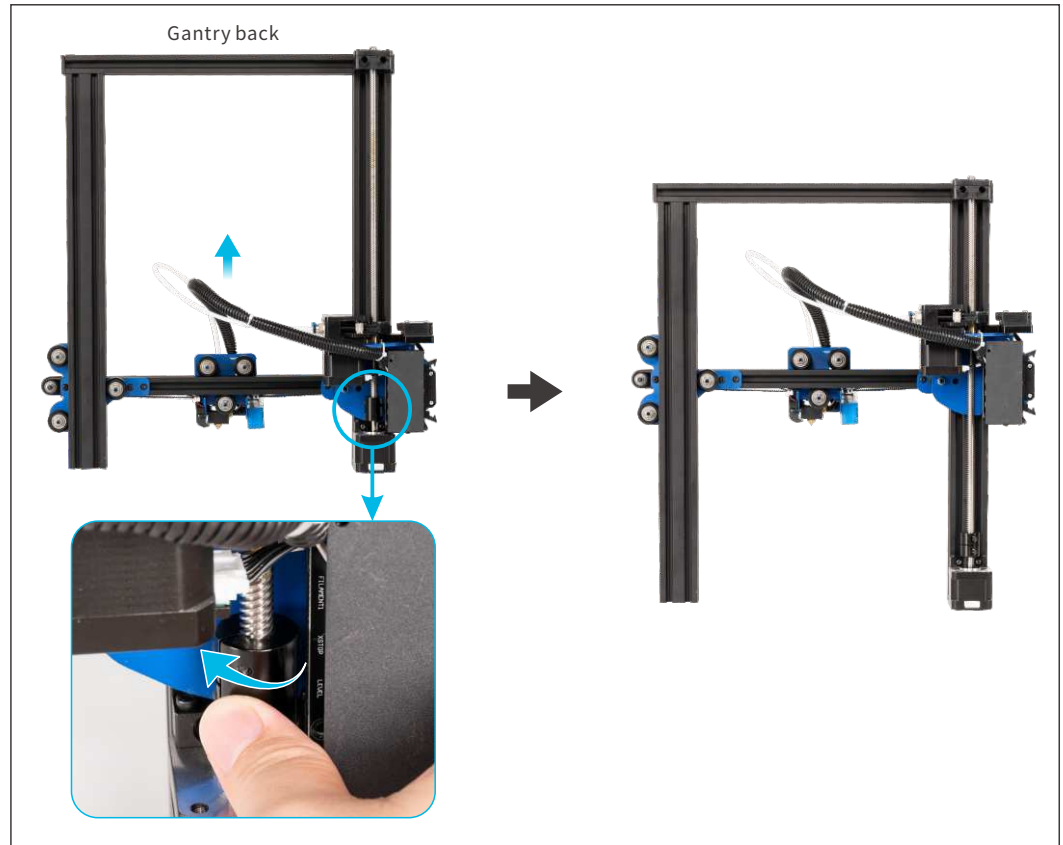


3
M5*45 screw *4



17
L-shaped hexagonal wrench

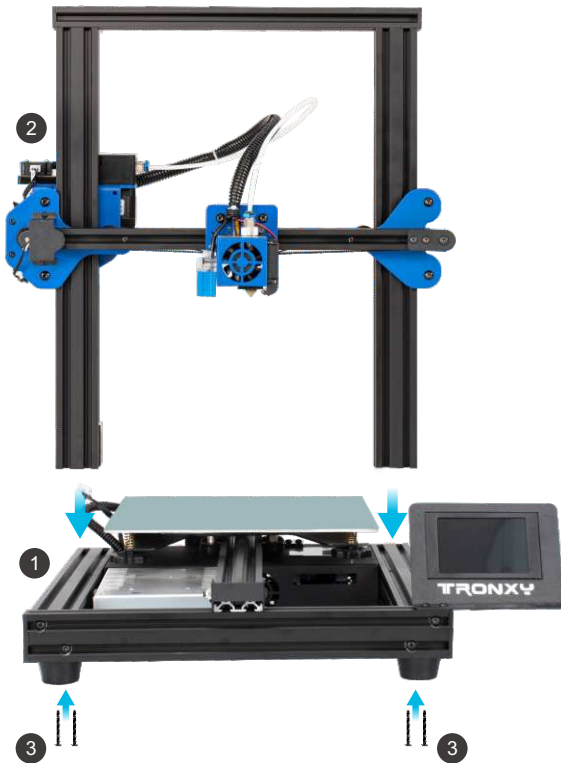
4. Rotate the screw coupling clockwise to raise the x axis above the middle



Machine installation

5. Install the gantry to the base

Installation diagram



Procedure



Lift the right side of the base to show the bottom

Machine installation

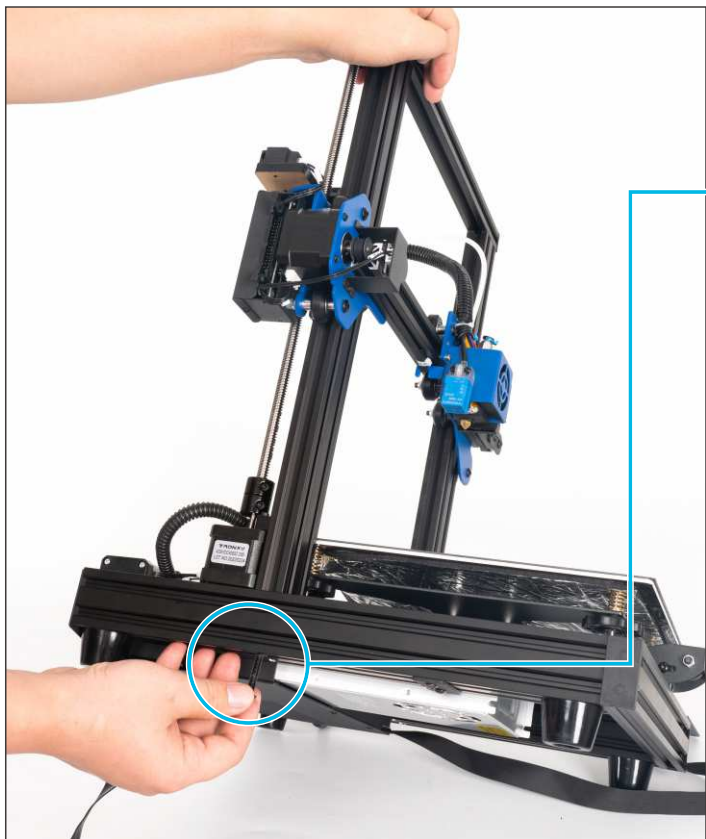


Insert the M5 * 45 screw into the screw hole



Insert the screw hole at the bottom of the gantry with the screw, and screw the screw into a little bit

Machine installation



Now come to the bottom on the left of the machine



Insert the M5 * 45 screw into the screw hole



Use an L-type wrench to tighten the screw clockwise

Machine installation



Insert the M5 * 45 screw into the screw hole next to it



Use an L-type wrench to tighten the screw clockwise



Back to the bottom on the right and insert the M5 * 45 screw into the screw hole next to it

Machine installation



Use an L-type wrench to tighten the screw clockwise



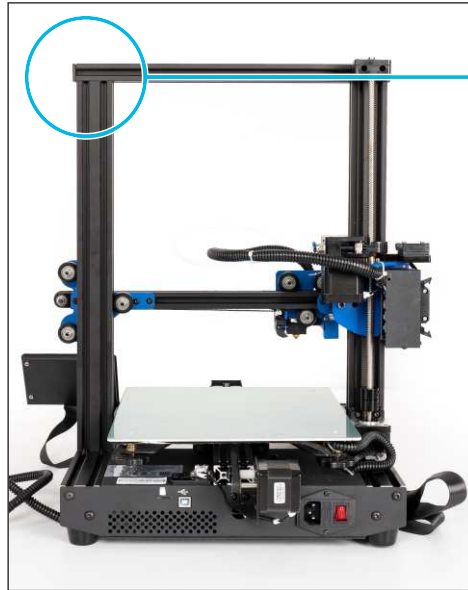
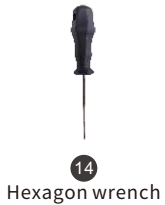
Finally, tighten the screw installed at the beginning



Framework installation completed

Machine installation

6. Install filament rack, E2 extruder and E2 filament run-out detector

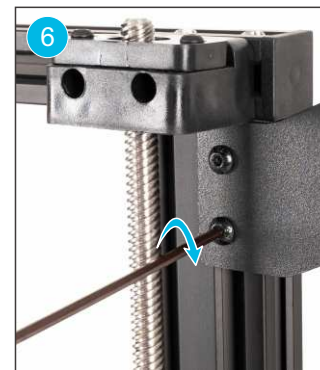
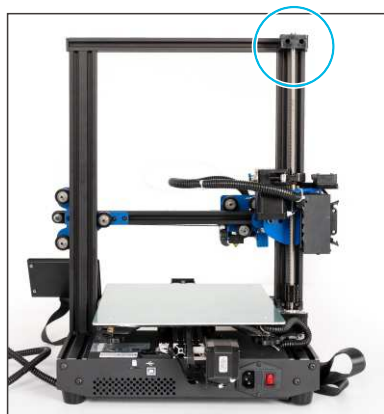
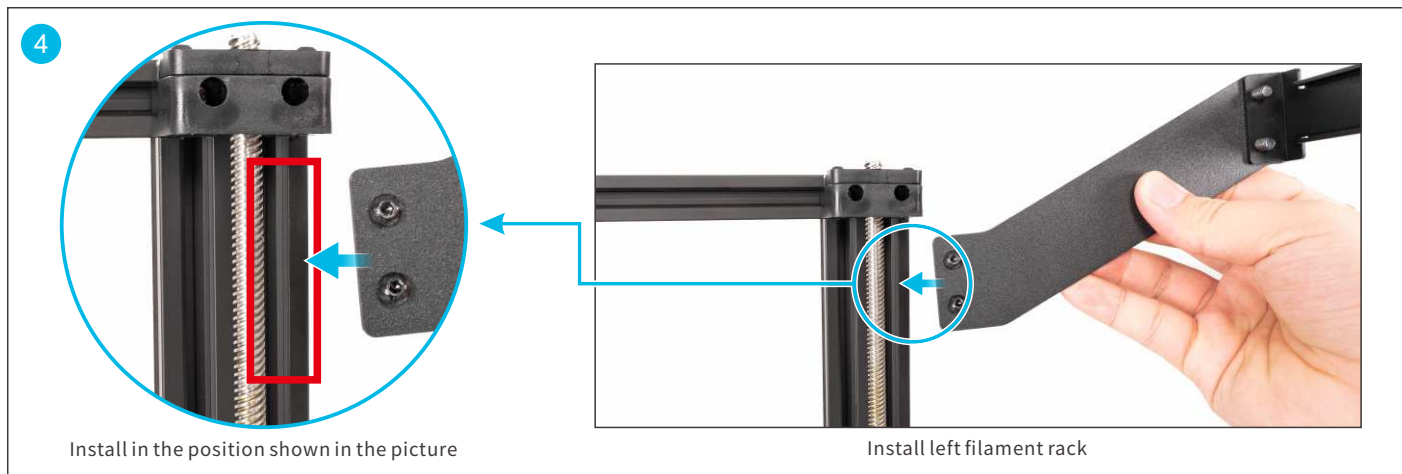


Install right filament rack



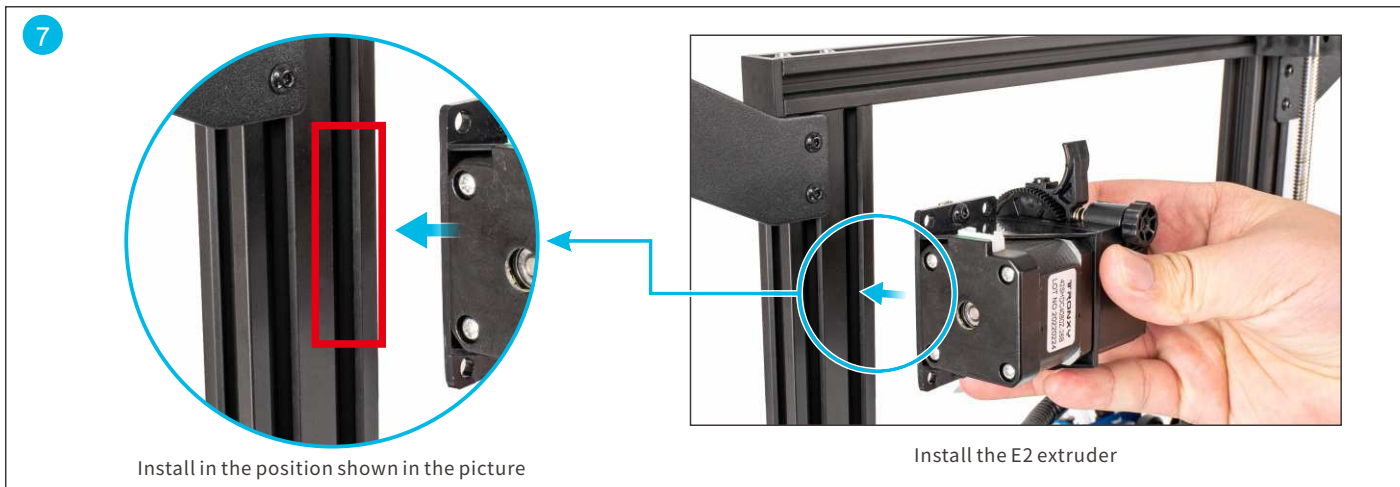
Use a hexagonal wrench to tighten the two screws clockwise

Machine installation



Use a hexagonal wrench to tighten the two screws clockwise

Machine installation

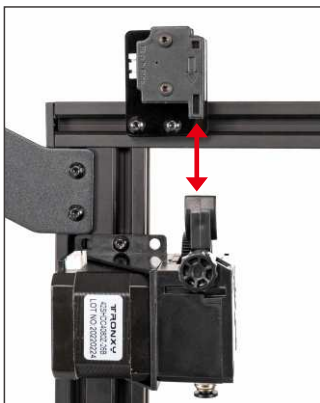


Use a hexagonal wrench to tighten the two screws clockwise

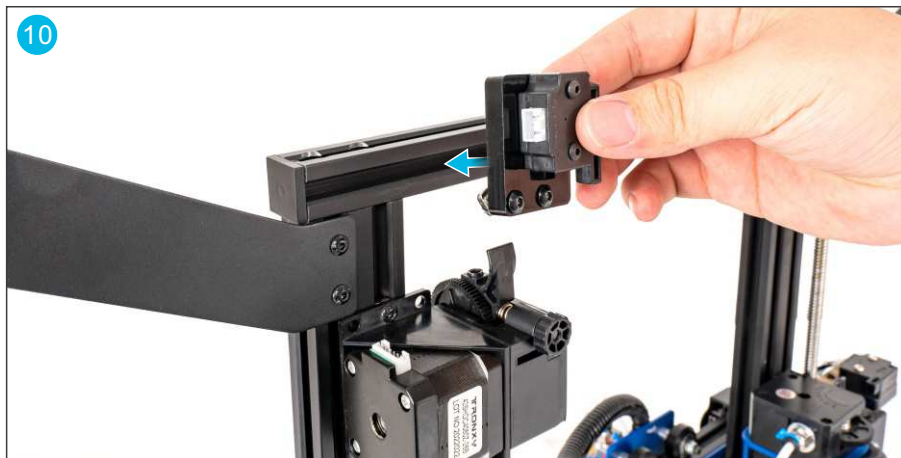
Machine installation



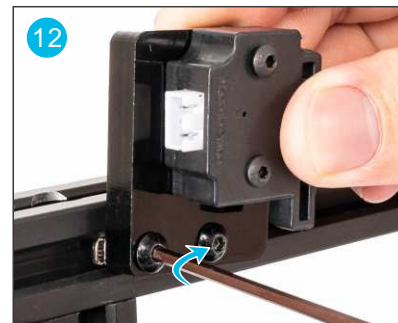
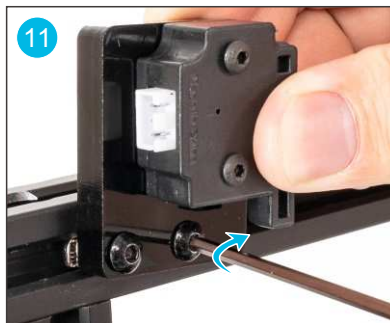
Tips



The filament run-out detector is installed right above the extruder, and the feeding hole of the detector is vertically aligned with the feeding hole of the extruder.



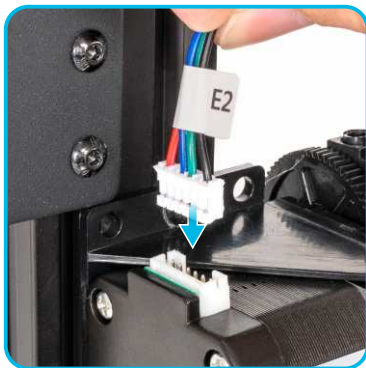
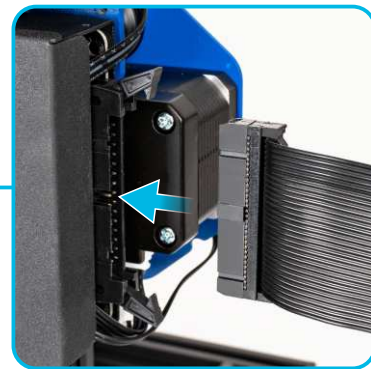
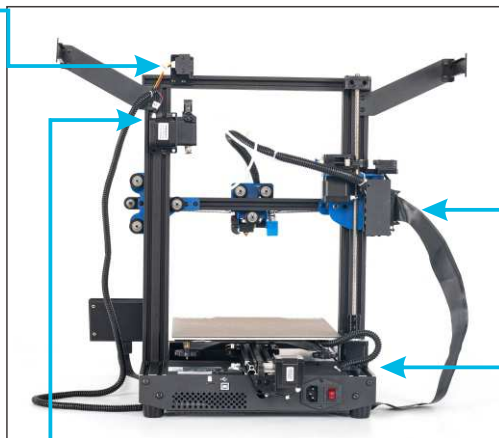
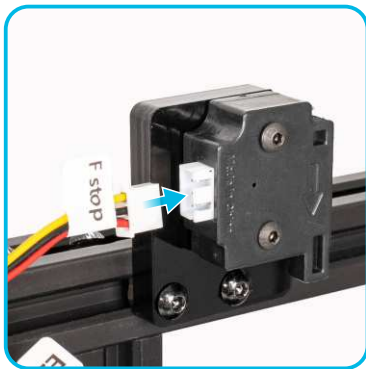
Install E2 filament run-out detector



Use a hexagonal wrench to tighten the two screws clockwise

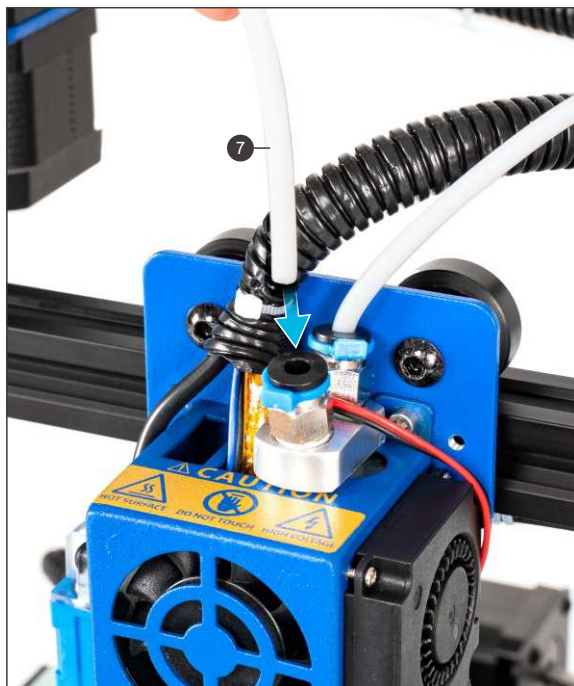
Machine installation

7. Insert the connection line

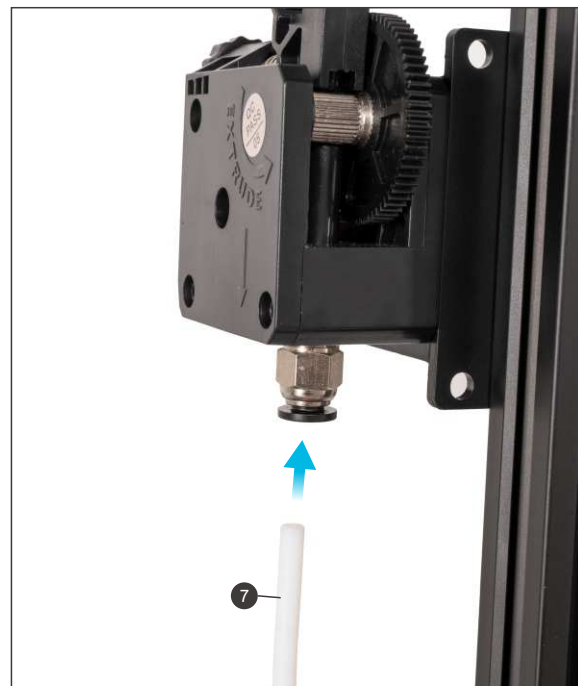


Machine installation

8. Insert the filament tube



Insert the filament tube into the print head until the push fails



Insert the other end of the filament tube into the E2 extruder until it cannot be pushed

Machine installation

9. Install the PEI magnetic steel plate



PEI magnetic steel plate
8



Tear off the protective film on the printing platform (hot bed)



The hot bed after the protective film is torn off



Take out PEI magnetic steel plate



Tear off the sticker on the back

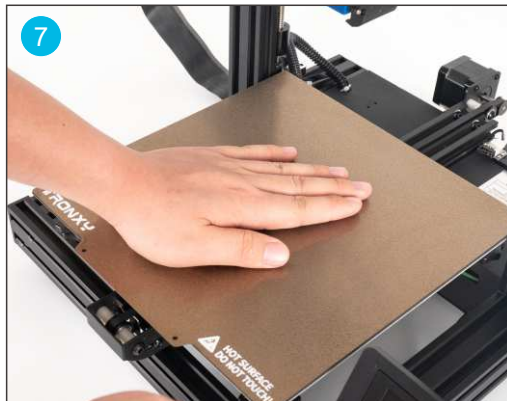
Machine installation



5 The sticky side appears after the sticker is torn off



6 Align the hot bed and paste it



7 Press it with your hand to make the sticker stick to the hot bed



8 PEI magnetic sticker installation completed

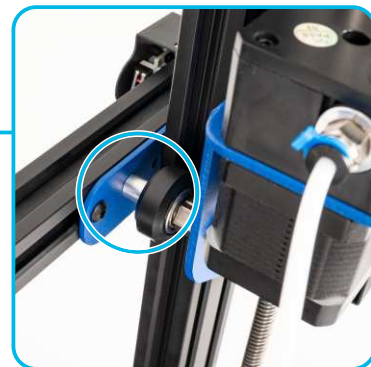
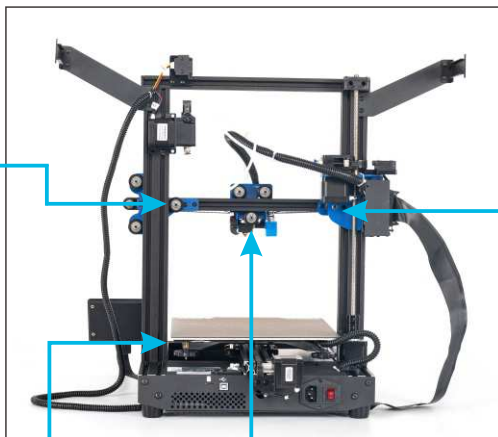
Machine structure inspection and adjustment



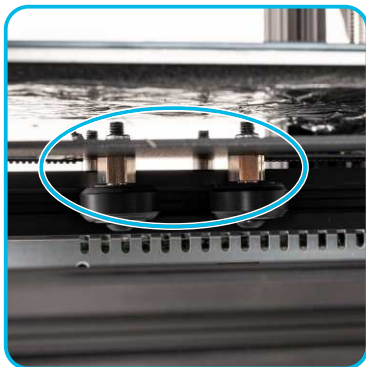
Tips After the installation is completed, move the x-axis and y-axis hot bed. If the pulley is loose or the movement is not smooth, it can be solved by adjusting the eccentric nut near the pulley.



Right slider



Left slider



Print platform bottom



Use wrench to adjust the tightness of eccentric nut

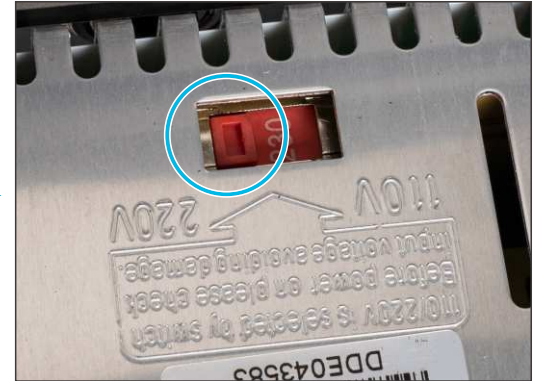
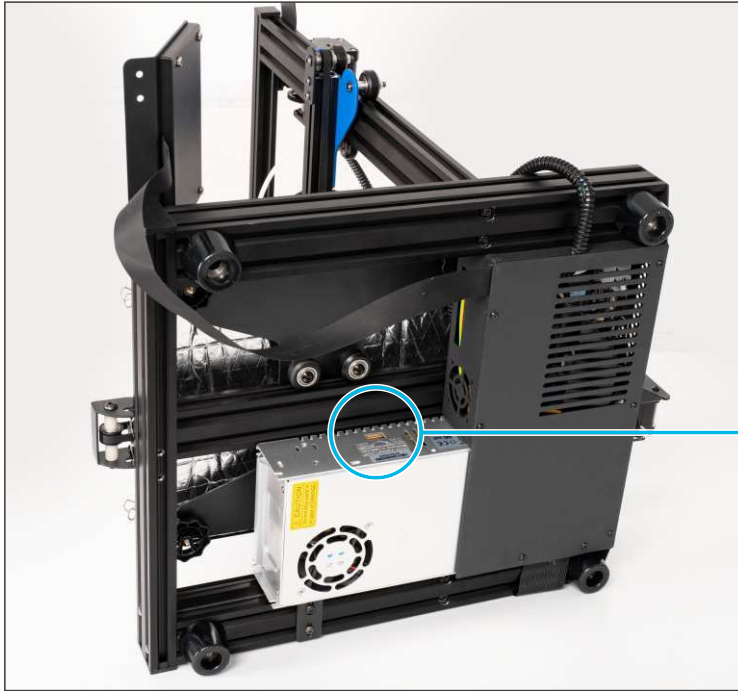


Pulley on the back of print head

Power supply voltage inspection and adjustment method

Important

Before starting the printer for the first time, you must check whether the power supply voltage of the printer meets the local standard. Generally, the default setting is enough. For adjustment, please refer to the following contents.



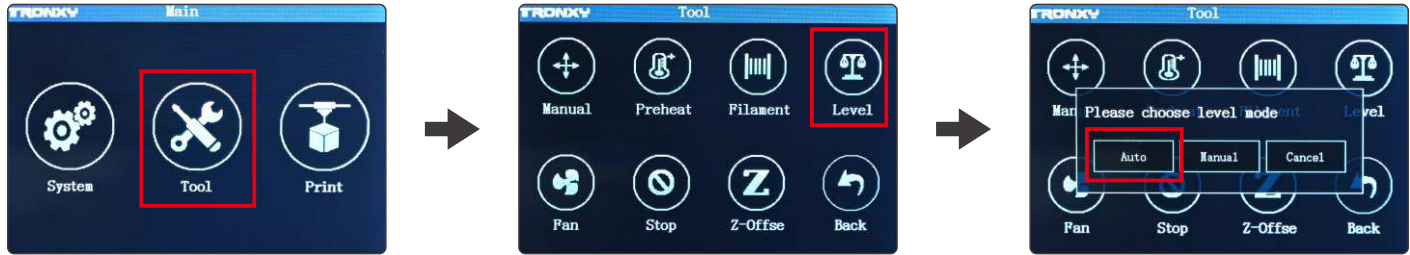
Turn left, the voltage changes to 220V



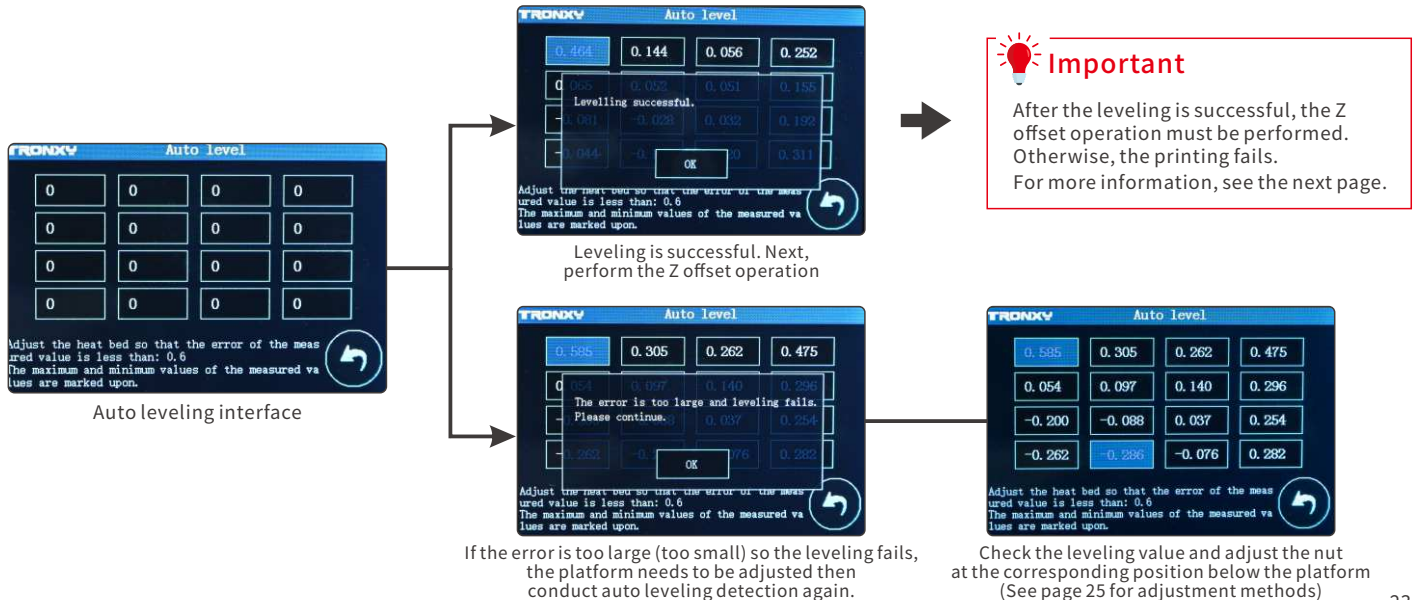
Turn right, the voltage changes to 110V

Build platform leveling-auto leveling detection

1. Enter the auto leveling detection interface



2. The system will automatically conduct leveling detection

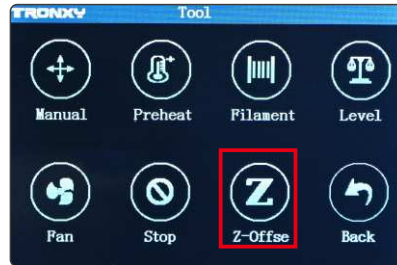


Build platform leveling-auto leveling detection

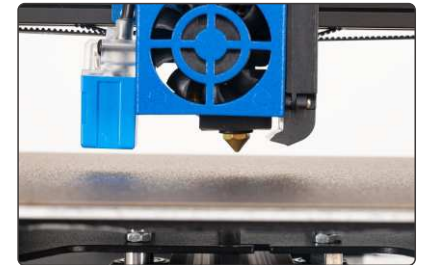
3. After the leveling is successful, perform the Z offset operation



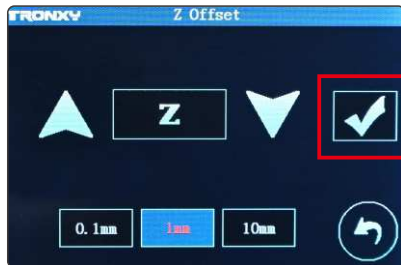
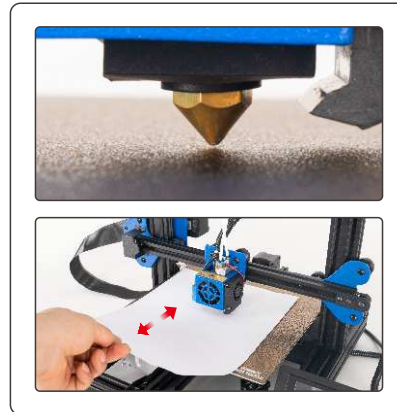
Click "Tools"



Click "Z-offset"



At this time, the print head will move to the middle of the hot bed,
Next, we need to manually lower the print head
About 0.1mm away from the hot bed
(equivalent to the thickness of A4 paper).



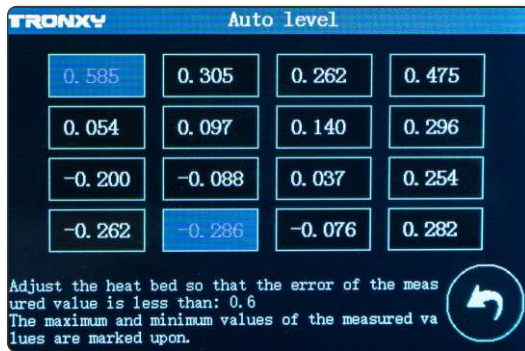
After the adjustment is completed,
click the "✓" icon.



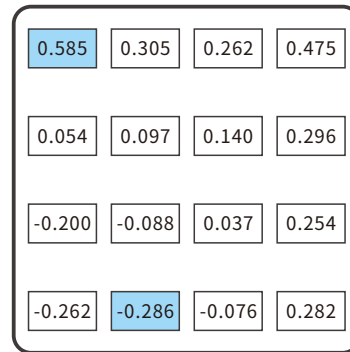
Select the distance to be moved.
We recommend that you start from "1mm"

Build platform leveling-auto leveling detection

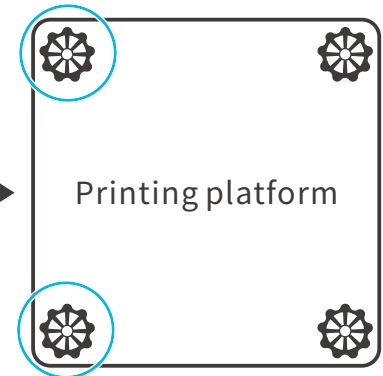
4. If the automatic leveling fails, refer to the following examples, use the leveling nut to level the printing platform




The number of failed leveling




The value corresponds to 16 points on the platform, View the positions of the highest and lowest values

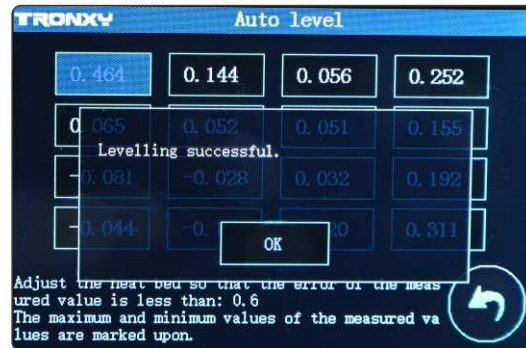


Adjust the corresponding big leveling nut under the platform according to the numerical value

 **Tips**

Rotate the leveling nut in a circle, The value of the corresponding position will vary by about ± 0.25 . If the value is too large, the counterclockwise rotation reduces the value; If the value is too small, rotate clockwise to increase the value.

Counterclockwise direction  Clockwise direction

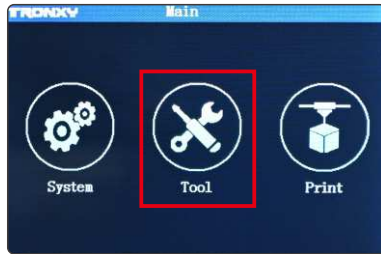


Leveled successfully



After the adjustment, perform auto leveling again

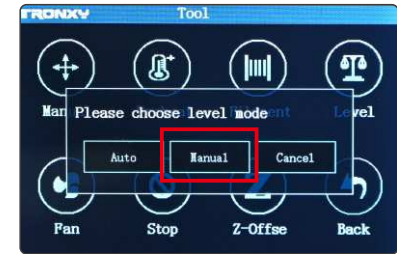
Build platform leveling-manual leveling



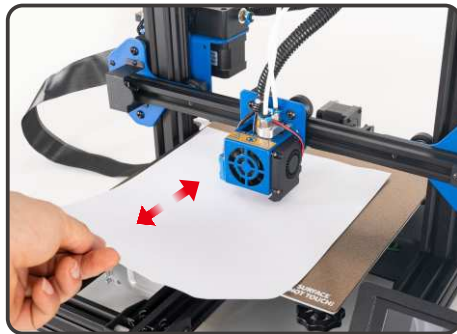
Click "Tools"



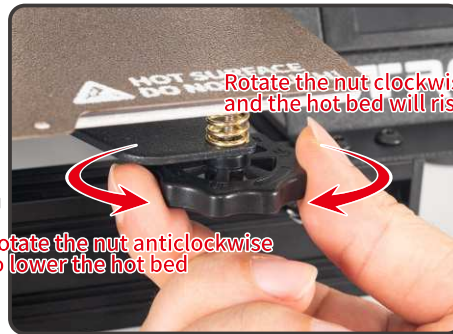
Click "Level"



Click "Manual"



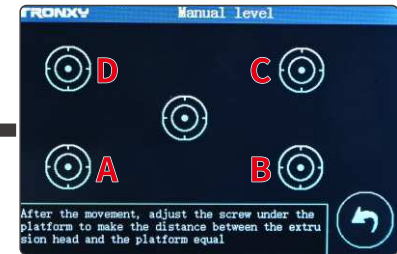
You can place a piece of A4 paper on the printing platform, adjust the nozzle to the position where it just touches the paper, and push the paper back and forth until you can feel slight resistance.



Rotate the nut anticlockwise to lower the hot bed

Rotate the nut clockwise, and the hot bed will rise

Observe the distance between the nozzle and A4 paper, and adjust the leveling nut under the platform.



Click four points of ABCD in sequence, the print head will move to the corresponding position, and then adjust the leveling nut, making the distance between the nozzle and the platform about 0.1mm (about A4 paper thickness).



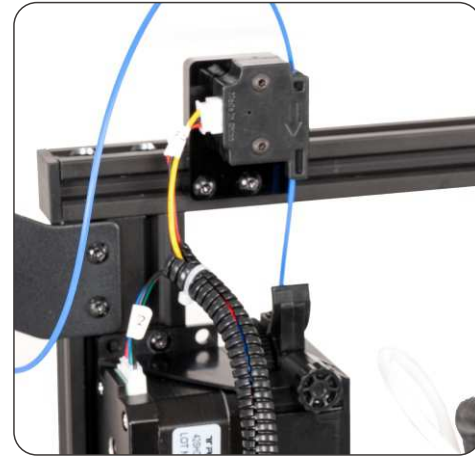
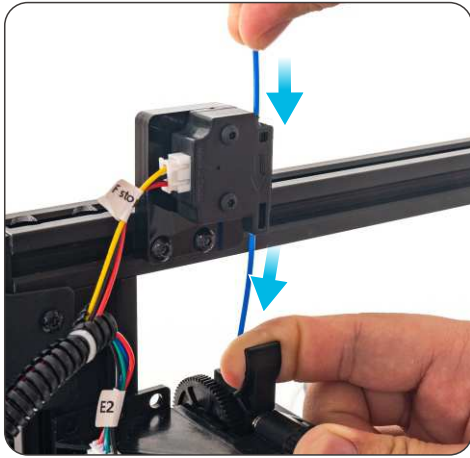
Important

After the leveling is successful, the Z offset operation must be performed. Otherwise, the printing fails.

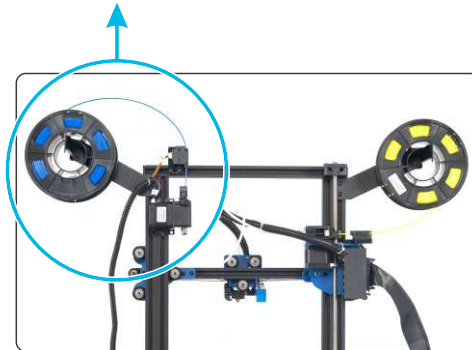
For details, see page 24.

Loading and removing filaments

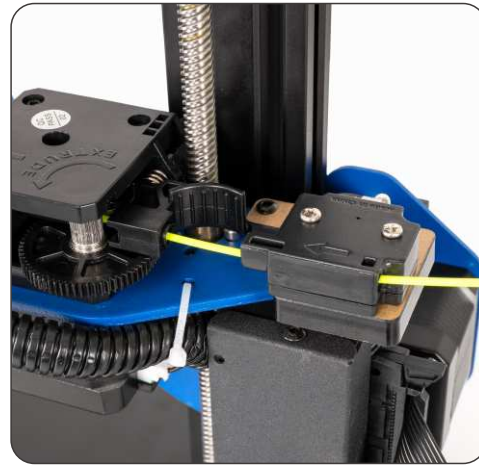
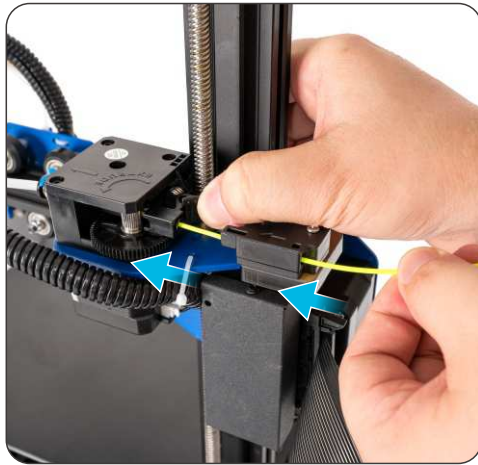
1. Loading filament



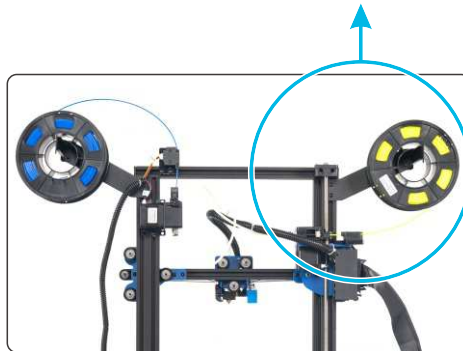
Insert it into the filament detector first, then press the elastic buckle of the extruder by hand to push the filament into the extruder.
(Just push the filament into the extruder, without pushing it to the print head)



Loading and removing filaments



Insert it into the filament detector first, then press the elastic buckle of the extruder by hand to push the filament into the extruder.
(Just push the filament into the extruder, without pushing it to the print head)



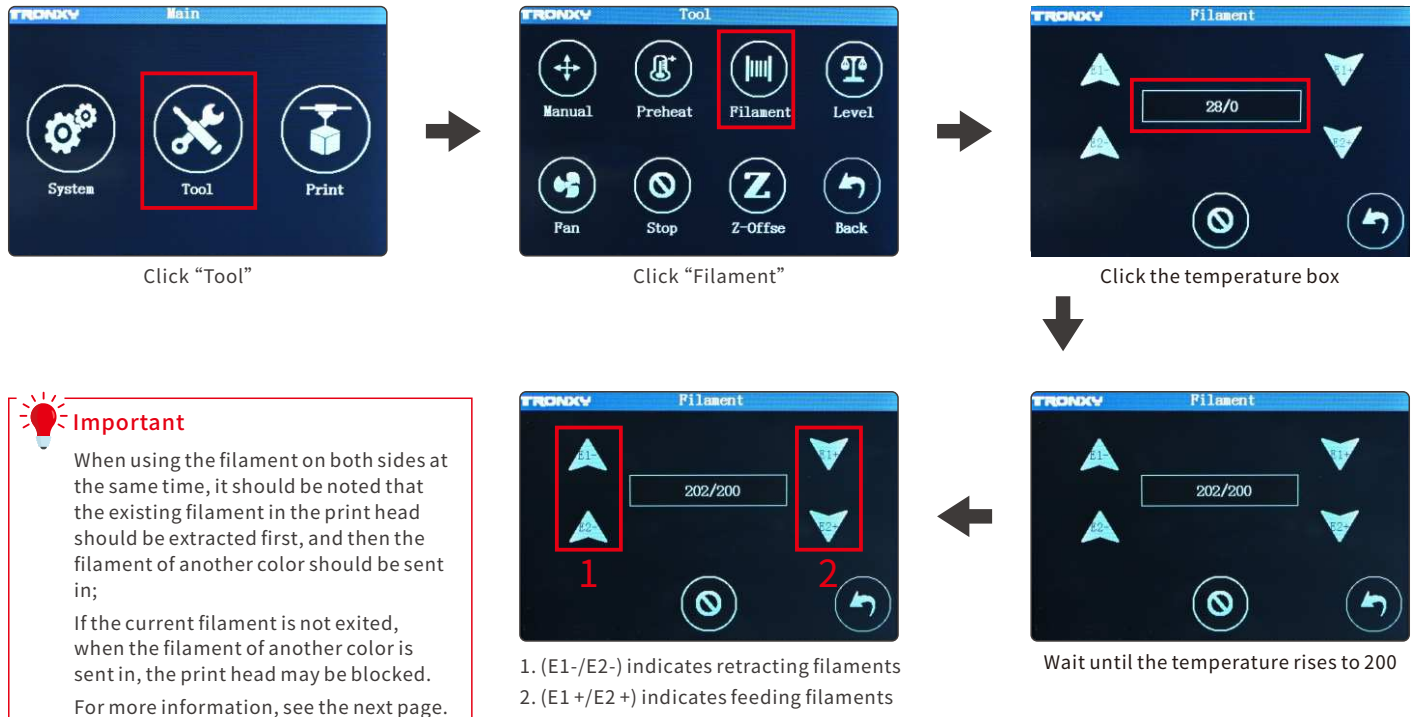
Tips

How to replace the filament?

After preheating the nozzle, push the filament forward for a while, quickly pull out the filament and send the new filament into the nozzle.

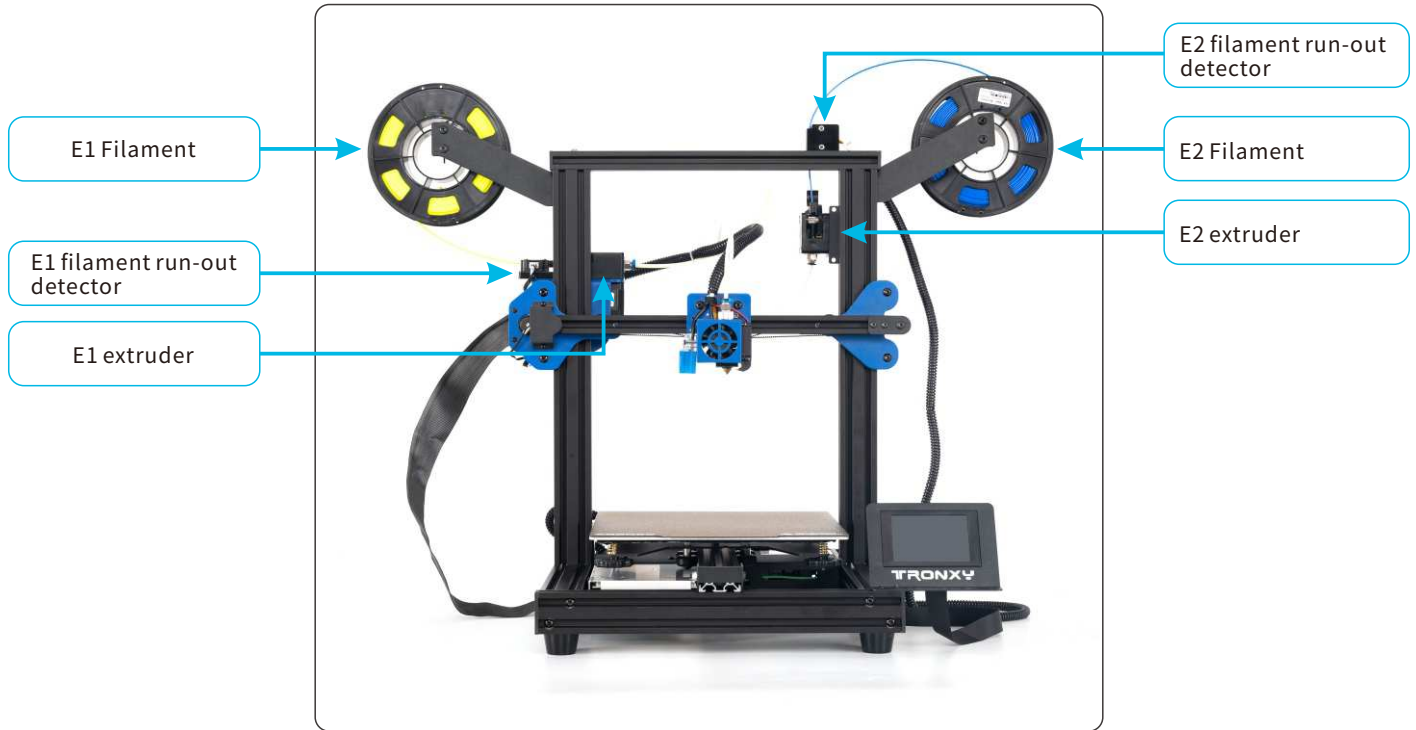
Loading and removing filaments

2. Preheating nozzle



Loading and removing filaments

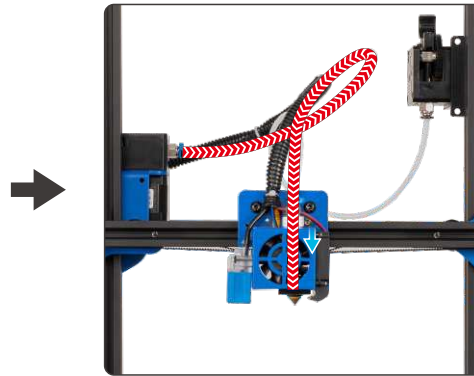
3. Extrusion and extraction of filament (double filament switching extrusion operation steps)



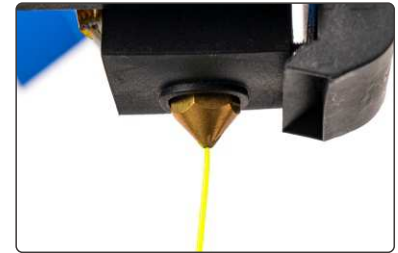
Loading and removing filaments



After preheating the nozzle, click "E1 +" to send E1 filament



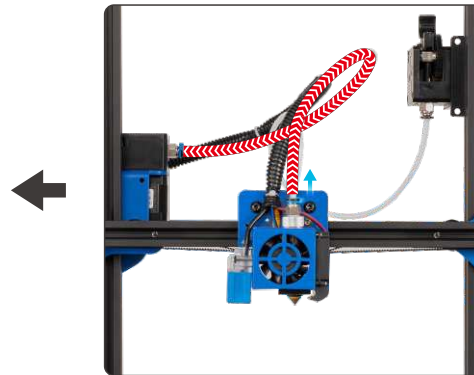
Wait for E1 filament to be sent to the print head



Until E1 filament flows out of the nozzle



Click the Stop icon to stop retracting



E1 filament can be pulled out from the print head, and it does not need to be pulled out from the filament tube

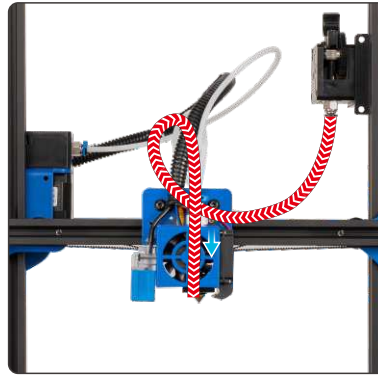


Click "E1-" to retract E1 filament

Loading and removing filaments



After preheating the nozzle,
click "E2 +" to send E1 filament



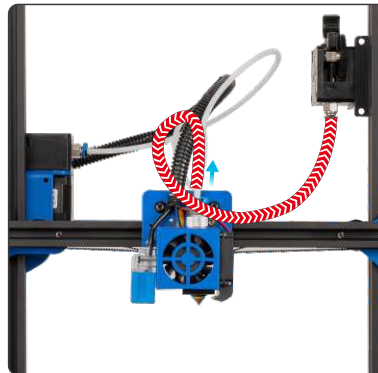
Wait for E2 filament to be sent to the print head



Until E2 filament flows out of the nozzle



Click the Stop icon to stop retracting



E2 filament can be pulled out from the print head,
and it does not need to be pulled out from the filament tube



Click "E2-" to retract E1 filament

Print test

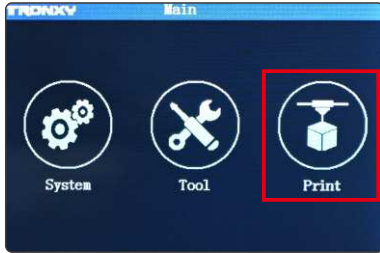


Tips

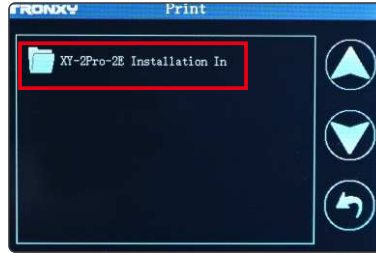


The metal side of TF card is inserted upwards

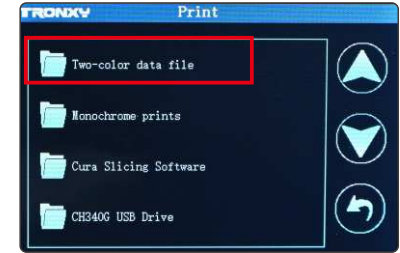
1. When inserting the memory card into the card slot of the desktop, make sure that the metal surface is facing up, and do not use too much force, which may cause the risk of damaging the TF card or the card slot of the motherboard;
2. If the content on the memory card cannot be read, format it with FAT32 and try again;
3. The printer is compatible with other memory cards of the same size;
4. Save the data to be printed in the root directory of the memory card. Do not save other folders or files in the memory card. It is better to name the G- CODE file name with a number.



Click "print"



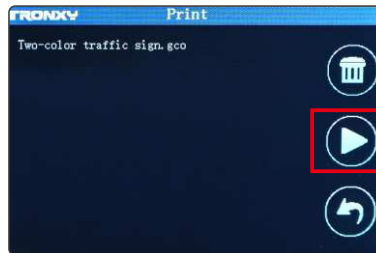
Click to enter the folder



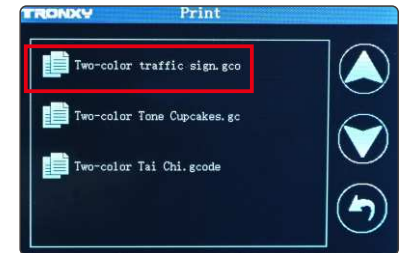
Select a two-color model folder
(or other folder)



Start printing



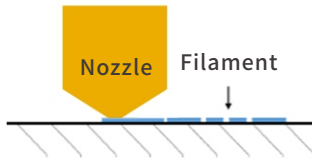
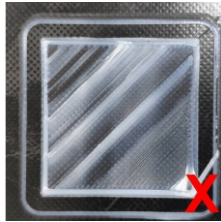
After confirming that the file is suffixed with .gcode,
click the "▶" icon



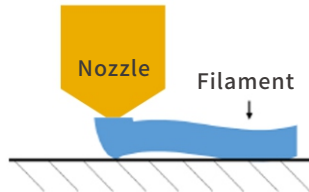
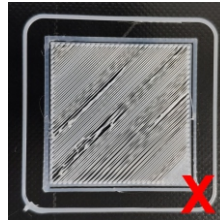
Select one of the files

Print test

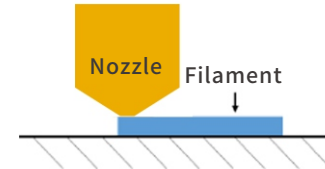
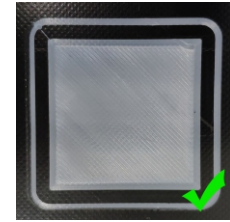
Possible situations and solutions in extrusion of filaments



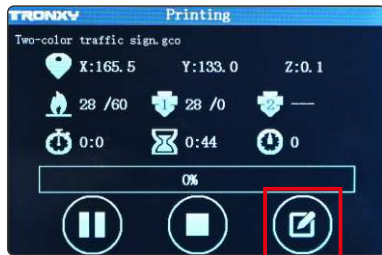
The distance between the hot bed and the nozzle is too close, and the Z OFFSET needs to be adjusted, Press the Arrow 1 in the figure to compensate the difference value.



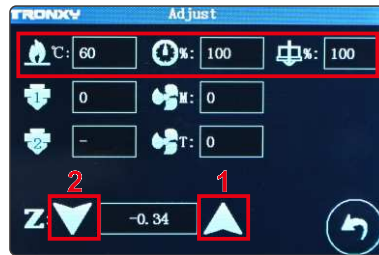
The distance between the hot bed and the nozzle is too far, and the Z OFFSET needs to be adjusted, Press the Arrow 2 in the figure to compensate the difference value.



Suitable nozzle high extrusion and adhesion



System screen during printing



System screen during print time adjustment

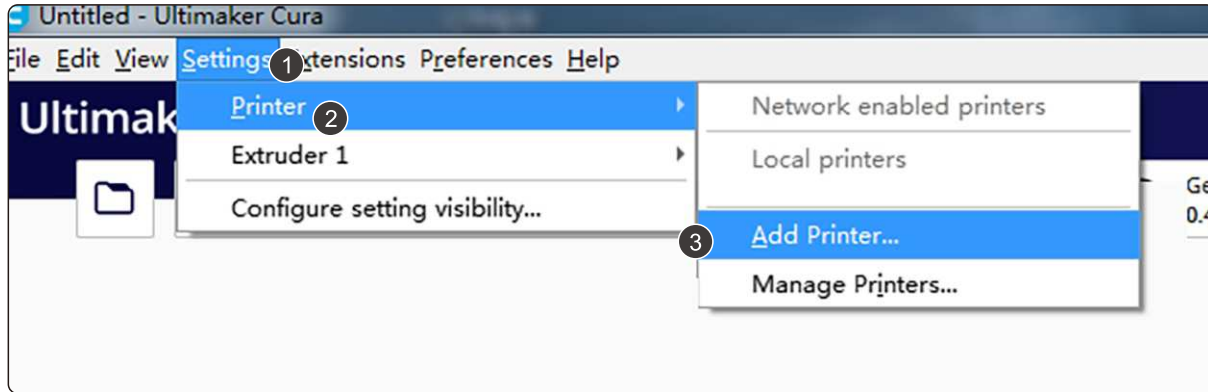


Can adjust hot bed temperature, printing speed and nozzle temperature in print time

Setting of slicing software

1. Install the "Ultimaker_Cura-4.13.1-amd64", double-click to install the software, and follow the instructions to complete the installation steps;

2. Add printer model;



① Settings → ② Printer → ③ Add Printer...

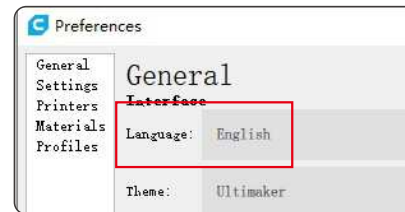


Tips

How to change the slicing software language

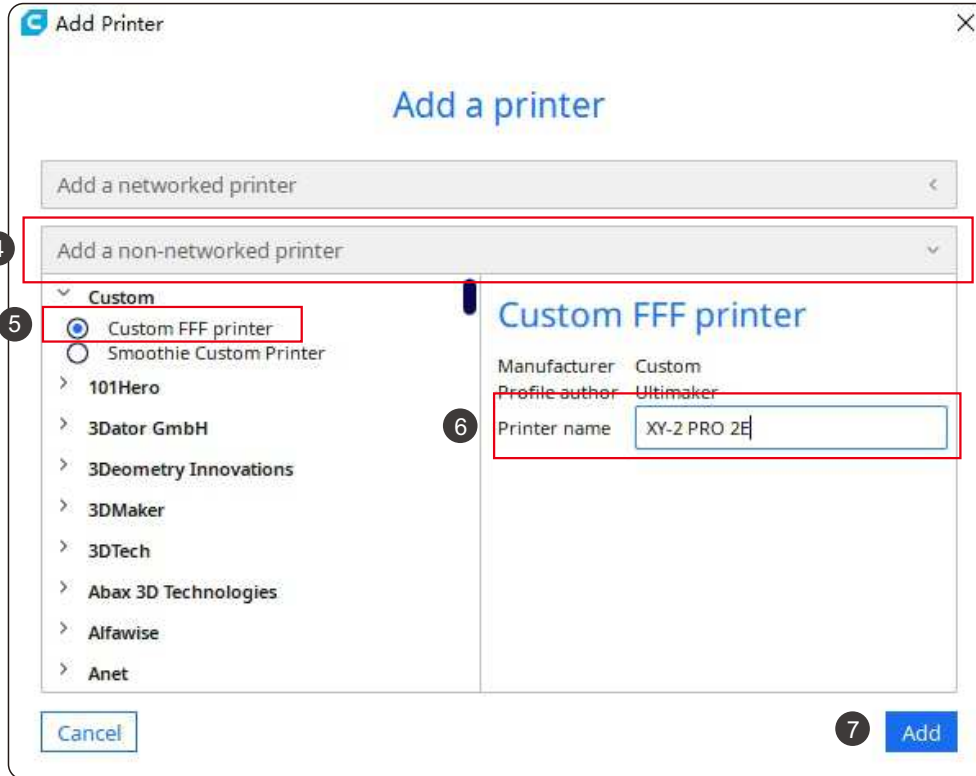


Preferences → Configure Cura...



After selecting the desired language, restart the software

Setting of slicing software



④ Add a non-networked printer → ⑤ Custom FFFprinter → ⑥ Enter “XY-2 Pro 2E” → ⑦ Add

Setting of slicing software

Add Printer

Machine Settings

XY-2 PRO 2E #3

Printer	Extruder 1	Extruder 2
Printer Settings	Printhead Settings	
X (Width)	255.0 mm	X min: -20 mm
Y (Depth)	255.0 mm	Y min: -10 mm
Z (Height)	260.0 mm	X max: 10 mm
Build plate shape	Rectangular	Y max: 10 mm
Origin at center	<input type="checkbox"/>	Gantry Height: 260.0 mm
Heated bed	<input checked="" type="checkbox"/>	Number of Extruders: 2
Heated build volume	<input type="checkbox"/>	Apply Extruder offsets to GCode: 2
G-code flavor	Marlin	3
Start G-code	End G-code	4
G28 :Home	M104 S0	5
		6
		7
		8

8 Enter the machine print size and select "heated bed" → 9 "Number of Extruders" select "2"

Setting of slicing software

Add Printer

Machine Settings

XY-2 PRO 2E #3

Printer | **Extruder 1** | Extruder 2

Nozzle Settings

Nozzle size: 0.4 mm

Compatible material diameter: 1.75 mm

Nozzle offset X: 0.0 mm

Nozzle offset Y: 0.0 mm

Cooling Fan Number: 0

Extruder Start G-code

Extruder End G-code

Next

10 Set E1 print head

Setting of slicing software

Add Printer

Machine Settings

XY-2 PRO 2E #3

Printer Extruder 1 **Extruder 2**

Nozzle Settings

Nozzle size: 0.4 mm

Compatible material diameter: 1.75 mm

Nozzle offset X: 0.0 mm

Nozzle offset Y: 0.0 mm

Cooling Fan Number: 0

Extruder Start G-code

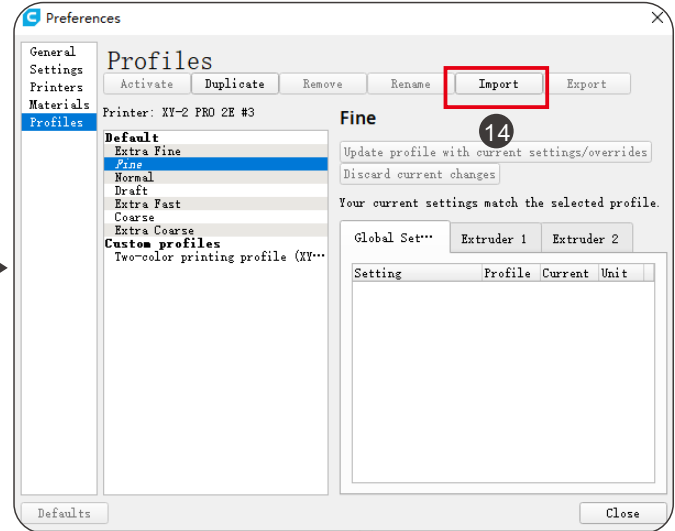
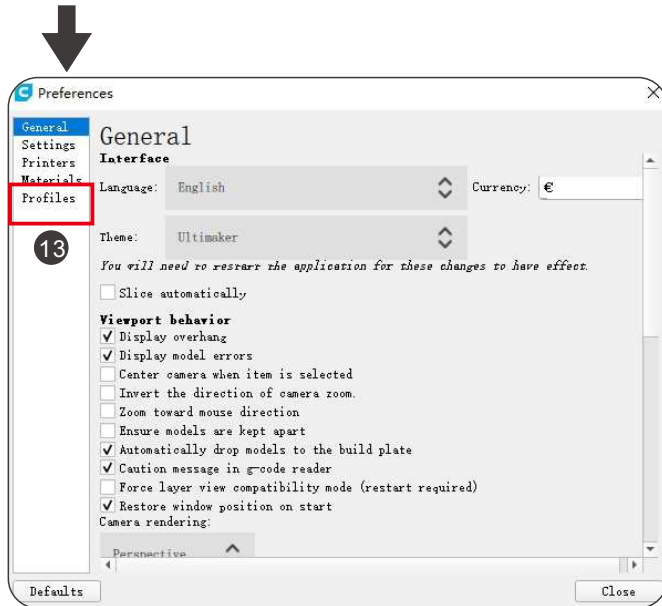
Extruder End G-code

Next

11 Set E2 print head

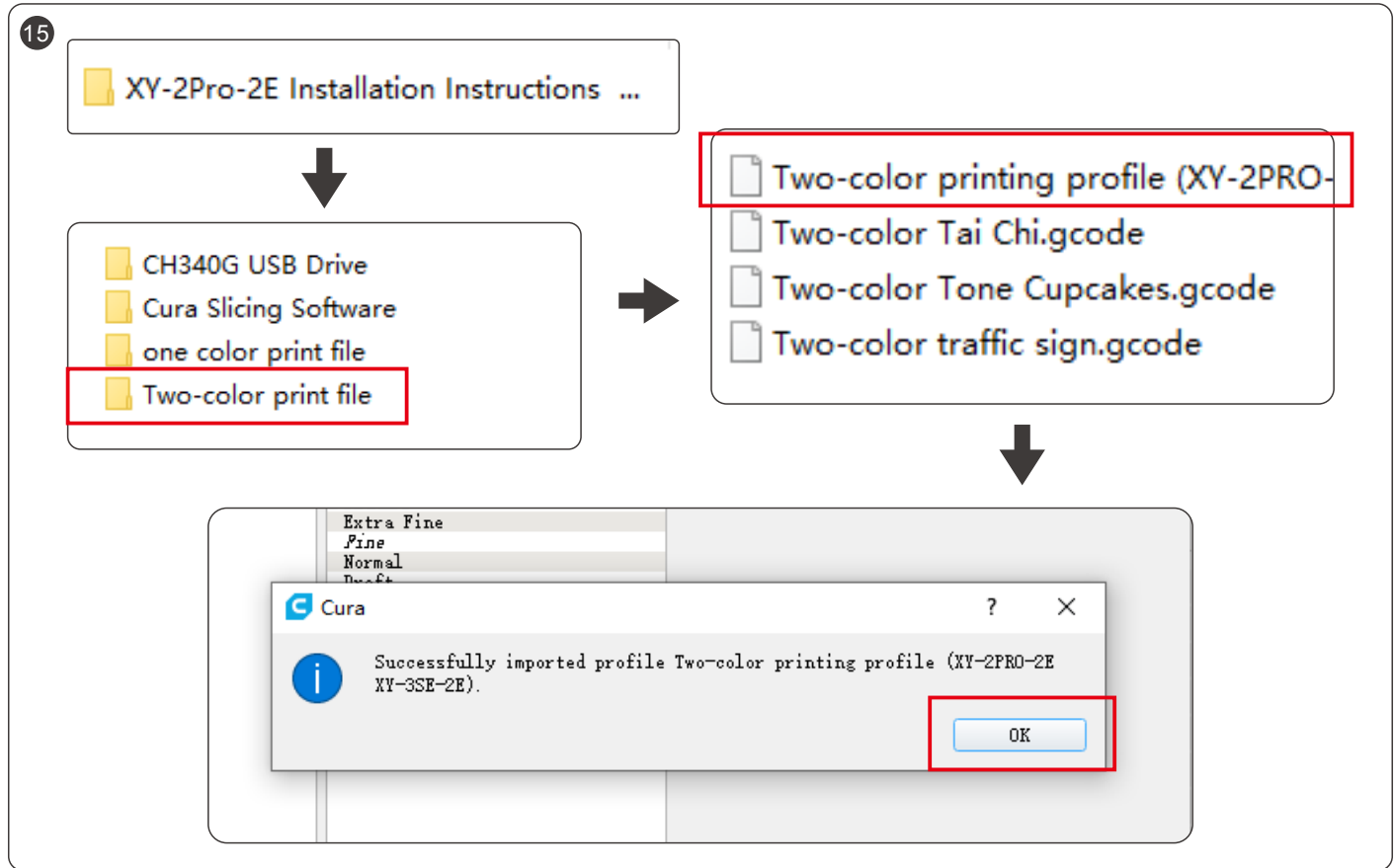
Setting of slicing software

3. Import the configuration file "Two-color printing profile (XY-2PRO-2E XY-3SE-2E)" in TF card"



12 Preferences → Configure Cura... → 13 Profiles → 14 Import

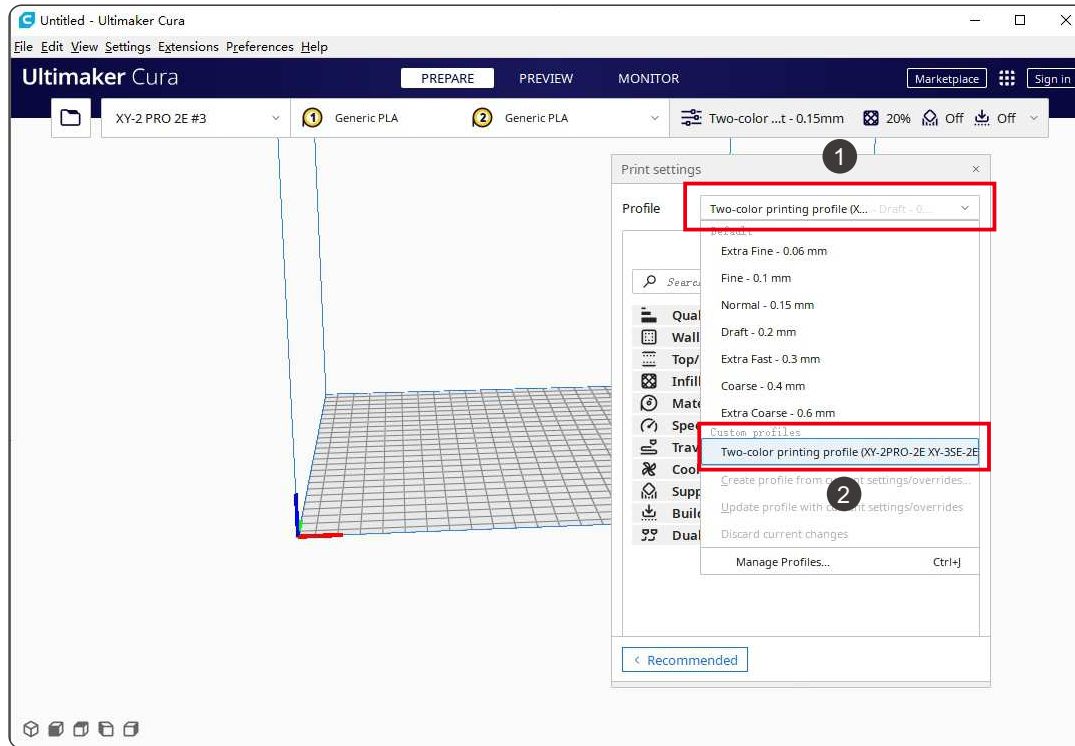
Setting of slicing software



15 Use the computer to read the TF card, find the configuration file in the TF card and import it

How to use slice software

1. Import the model and slice it (taking the two-color model as an example)



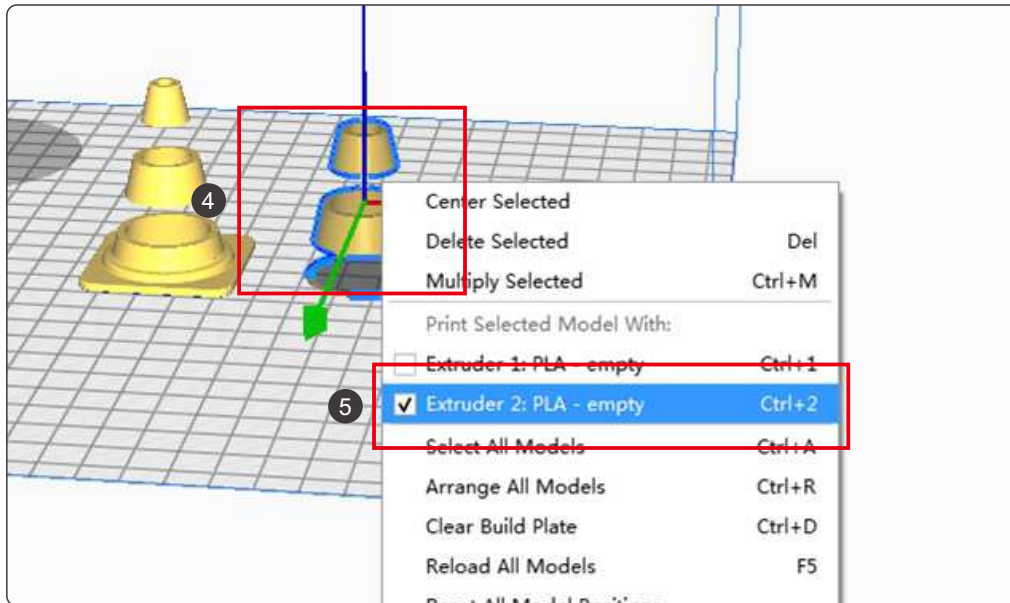
1 Click "Profile"

2 Select the configuration file "Two-color printing profile (XY-2PRO-2E XY-3SE-2E)" that you just imported"

How to use slice software



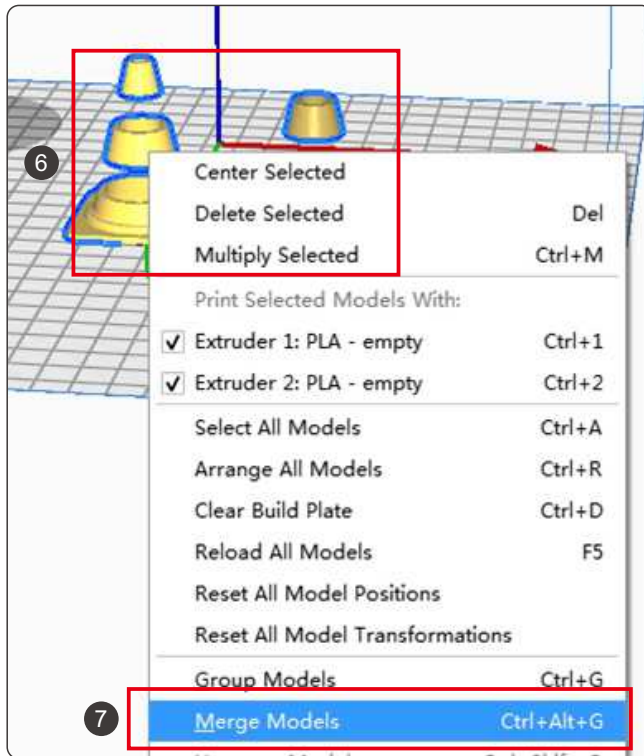
3 Import a two-color combination file



4 Select a model and right-click it.

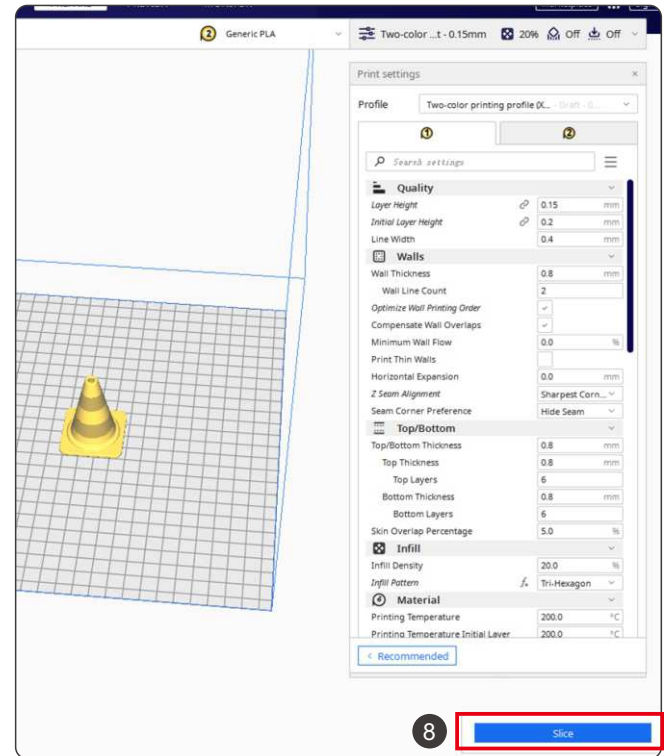
5 Select "Extruder 2: PLA-empty" to let E2 print this part of the model

How to use slice software



6 Hold down the "shift" key and select both models at the same time

7 Right-click and select "Merge Models"



8 Click "slice", and then export the file to TF card to insert the printer socket for printing.

Failure cause analysis

1. The machine cannot be started.

- 1) Check whether the power line and other wires are connected.
- 2) Check whether the power supply voltage meets the local voltage standard.
- 3) Check whether the screen or power supply is damaged and replace it in time.
- 4) Check whether the wire is damaged or broken.
- 5) Check whether the power fuse is burnt.

2. Unable to read TF card content

- 1) Check whether the card reader is in good condition.
- 2) If the computer cannot read TF card, please format it and try again.
- 3) Check whether TF card is correctly inserted.
- 4) The file name contains invalid characters. Rename the file name.
- 5) Replace the damaged TF card and try again.

3. If the print head does not flow out enough filament or cannot flow out any filaments.

- 1) Check whether the temperature of the print head reaches above 200°C (PLA), which causes the filament to fail to flow out and waits for the temperature to rise to the set target.
- 2) Check whether the filament is knotted, resulting in poor feeding.
- 3) Check whether the filament or pipeline is not inserted in place, resulting in feeding failure.
- 4) Check whether the temperature of the print head is too high, which causes the filament to be too soft and cannot flow out normally.

- 5) check whether the diameter of the filament is consistent with the diameter set in the slicing software, in case the amount of the outgoing filament is not enough.
- 6) Check whether the filament is blocked by foreign matter or the nozzle is blocked when it flows out.
- 7) replace the filament with better quality.

4. If the first layer starts to tilt up

- 1) Check whether the hot bed is leveled.
- 2) Check whether there is dirt on the surface of the hot bed.
- 3) Check whether the distance between the nozzle and the platform is too high, resulting in insufficient adhesive force.
- 4) Check whether the hot bed has enough temperature.
- 5) check the first layer settings of the slicing software to see if the printing speed is too fast.

5. The model and hot bed are too tight

- 1) Try to heat the hot bed to 50-70°C and remove it with a shovel.

6. The print head or hot bed cannot heat up

- 1) Check whether the contact between the heating rod and the thermistor is poor or damaged.
- 2) Check whether the slice software has set the target temperature.
- 3) Check whether the thermistor wire falls off.

Failure cause analysis

7. Stepper motor exception

- 1) Check the tightness of the Belt and whether the belt pulley is not locked.
- 2) Check the current voltage.
- 3) Check whether the X/Y/Z axis moves smoothly.
- 4) The printing speed is too fast.
- 5) The ambient temperature is too high.
- 6) Firmware needs to be refreshed.

8. Abnormal noise or vibration of the motor

- 1) Check whether the motor wire is in poor contact, loose or wrong connection.
- 2) the motor temperature is too high.
- 3) Check whether the motor is damaged.
- 4) brush the firmware.
- 5) The working time of the motor is too long.

9. Model forming exception

- 1) The nozzle feeding is not smooth, please clean the nozzle or replace the nozzle.
- 2) Check whether the printing speed is too fast.
- 3) The quality of the filament is poor, please replace it with a new one.

10. The extruder makes abnormal noise or vibration

- 1) Please check whether the nozzle is blocked.
- 2) The nozzle feeding is not smooth, please clean the nozzle.
- 3) Whether the software settings are incorrect.
- 4) Check whether the motor is not working.
- 5) Check whether the motor is working or the feeding gear is not working.

11. Screen related questions

- 1) Black Screen/blue screen, please check whether the screen cable of the display screen is plugged in.
- 2) Touch screen failure, check whether the screws are installed too tight.
- 3) Garbled/flash screen, static electricity, grounding or restart.

12. Motherboard related issues

- 1) Check the wiring installation.
- 2) Automatic shutdown and restart may be caused by abnormal firmware or damage to the "resume print" module.
- 3) Insufficient heat dissipation. Please lower the ambient temperature.
- 4) Mainboard damage.

13. The computer cannot be connected to the printer

- 1) Check whether the driver is not installed or installed correctly.
- 2) The serial port selection is incorrect.
- 3) Software parameters do not match.



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