

# USER MANUAL

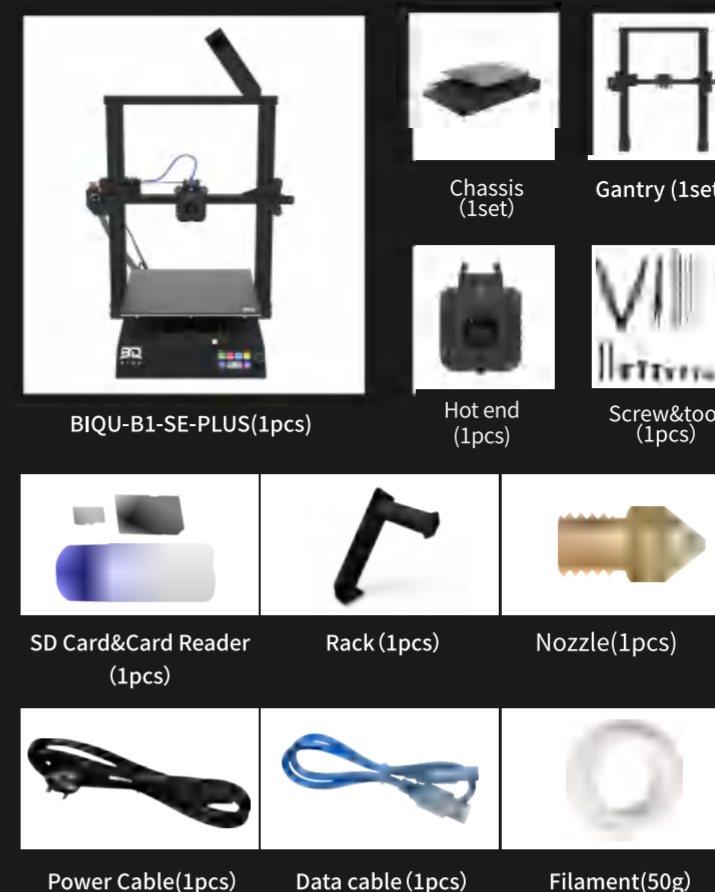


Shenzhen Big Tree Technology Co., Ltd

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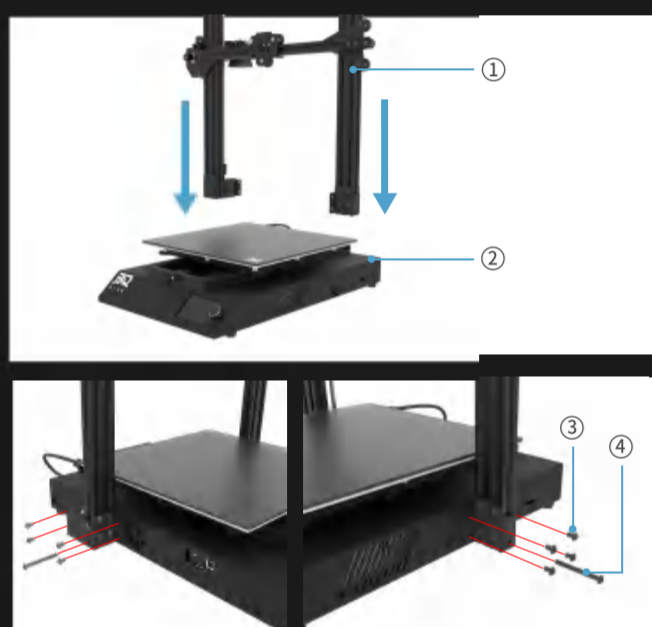
## PACKING LIST



## PARAMETER

Model	BIQU-B1 SE-Plus
Printing Size	310x310x340mm
Molding Tech	FDM
Nozzle Quantity	1 PCS
Layer Thickness	0.1mm - 0.3mm
Nozzle Diameter	Standard 0.4mm
Printing Accuracy	±0.05mm
Filament	PLA/PETG/TPU/TPE/ABS/Nylon
Slicing Format	STL / OBJ / AMF
Connecting Method	Online / TF card / USB
Slicing Compatible	Cura / Repetier-Host / Simplify 3D
Rated Voltage	100 - 120V / 200 - 240V 50 / 60 HZ
Output Voltage	24V
Rated Power	300W
Max Temp of Hot Bed	100°C
Max Temp of Nozzle	260°C
OS compatible	Win 7 / Win 10
Max operating speed	180mm/s
Max Printing Speed	120mm/s
Normal Printing Speed	60mm/s
Language Transform	Support
Resume Printing	Yes
Filament Detection	Yes

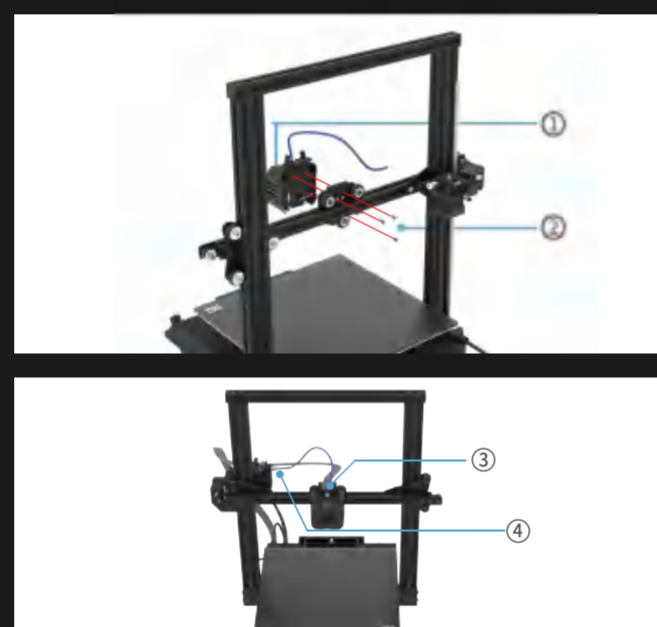
### Step 1 Machine Installation



- ①Gantry (1set)
- ②Chassis (1set)
- ③M5×8 Hexagon Socket Button Head Screw
- ④M5x50 Hexagon socket head screw

Align the holes on the sheet metal parts of the gantry with the threaded holes on the chassis, then install the gantry on the chassis with screws

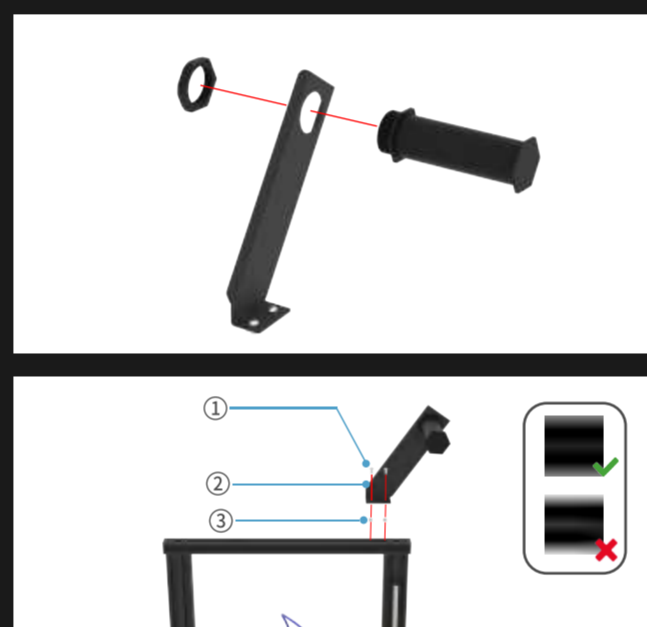
### Step 2 Nozzle Installation



- ①Hot end (1pcs)
- ②M3×6 Hexagon socket button head screws (3 pcs)
- ③Nozzle cable
- ④Teflon tube

Align the threaded hole of the nozzle with the threaded hole on the sheet metal part, fix the nozzle with the sheet metal part with M3×6 screws, then insert the Teflon tube into the quick connector of the extruder, and connect the nozzle cable.

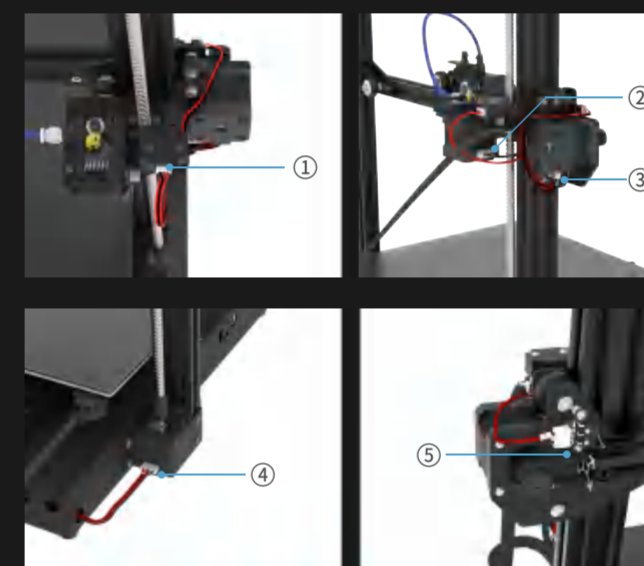
### Step 3 Rack Installation



- ①M4×8 hexagon socket head screws (2 pcs)
- ②Rack (1 piece)
- ③M4 ship nut (2 pcs)

The ship nut will rotate during installation; fix it on the aluminum profile with screws.

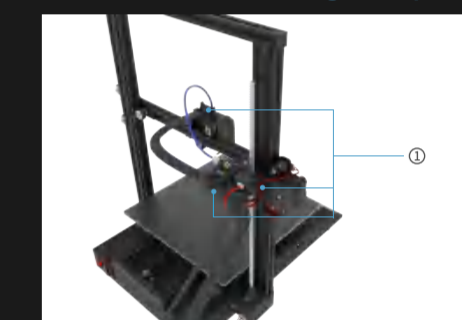
### Step 4 Line connection



- ①Connecting wire of filament detection module → 3P terminal with "FLD" label
- ②Extrusion motor cable → 6P terminal with "E" label
- ③X-axis motor connection line → 6P terminal with "X" label
- ④Z-axis motor connection line → 6P terminal with "Z" label
- ⑤ X axis limit switch line → 3P terminal with "X" label

As shown in the pictures above, install the terminal to the corresponding position in the figure.

### Step 5 Fixe data cable and glass plate



- ①Rolled strip (3pcs)

As shown in the pictures above, there are key grooves on the sheet metal parts, and the nozzle line group can be fixed on the sheet metal parts with a rolling band. Before fixing the print head data line, reserve a certain length of the print head line group close to the end of the print head to facilitate the movement of the print head.



- ①

### Step 6 Power on



Voltage Mode:115V  
Household Power  
Supply:100~120V

Voltage Mode:230V  
Household Power  
Supply:200~240V

- ①Machine power switch
- ②Power cord socket

Confirm whether the wiring terminals are firm and the wiring is correct, plug one end of the power cord into the power cord socket and the other end into the household power supply, and turn on the machine power switch.

Note: Before turning on, please check whether the voltage mode of the power supply matches your household electrical voltage. If not, you can use a screwdriver to turn the switch above to select the mode that matches your household voltage.

## II. Screen instructions

The screen of BIQU-B1-SE-PLUS is a touch screen, and the overall printer can be adjusted by touching the screen. At the same time, for some large increments (decrements), the adjustment knob beside the screen can be used for quick adjustment.



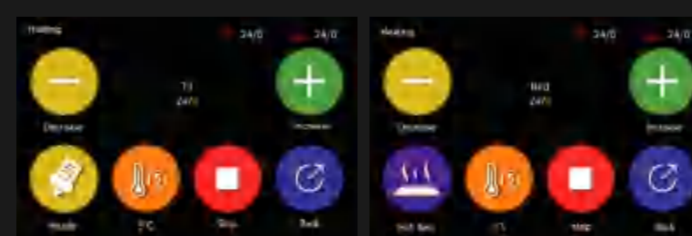
- ①Adjustment knob
- ② Reset button

This interface is the main interface of the system, which contains six functional modules: nozzle module, hot bed module, fan module, extrusion module, menu bar and printing module.



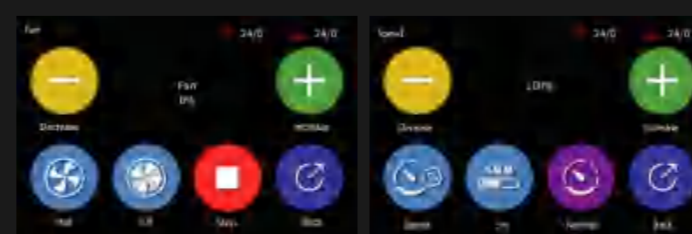
### 1. Heating module

The heating/cooling function of the nozzle or hot bed can be realized by adjusting the knob or touching the screen "+"/"-". Incremental unit:1°C,5°C,10°C.



### 2. Fan and extrusion rate adjustment module

The function of adjusting the fan speed of the nozzle can be realized by adjusting the knob or touching the screen "+"/"-". Incremental unit:1%,50%.



The function of adjusting the extrusion rate of the nozzle can be realized by touching the screen "+"/"-". Incremental unit:1%,5%,10%.

### 3. Menu column

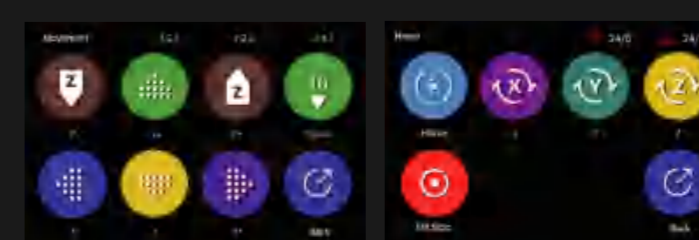
The menu column can perform specified operations on the machine.



#### 3.1. Move and return to origin

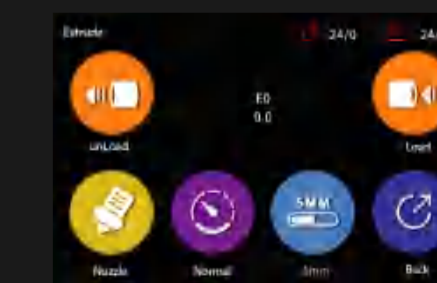
This module controls the position of the print head of the printer, including returning to the originrdinates and moving to the X, Y, and Z directions

Can be moved in X, Y, Z direction by jog, Move increment: 0.1mm, 1mm,10mm



#### 3.2. Squeeze out

This function can realize the return/feed of filaments by adjusting the knob or touching the screen. Incremental unit:1mm,5mm,10mm



#### 3.3. emergency stop

It can make emergency stop when the nozzle position is moving, extrusion, etc. are in progress.

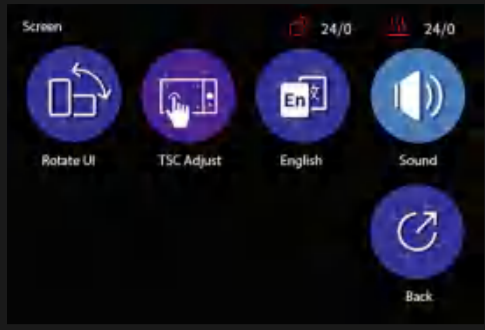
#### 3.4. Setting

This module contains screen settings, machine settings, and factory reset.



### 1) Screen settings

Language, rotating screen, bell, touch screen calibration, etc. can be edited through this module.



### 2) Machine settings

It can set the machine's light color, consumables detection, power outage and resuming, etc.



### 2. Automatic Leveling

Select on the homepage of the touch screen. ① "Menu" → ② "Leveling" → ③ "Auto Leveling". After clicking the automatic leveling, the following interface will appear for preheating.

Clean the nozzle with tweezers before automatic leveling



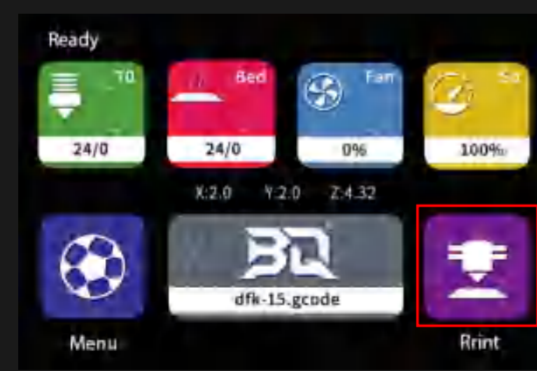
After the preheating is completed, the 3D printer starts to level automatically, and the head starts to descend until the nozzle touches the first point of the platform, the nozzle starts to rise, and then moves to the top of the second point, the nozzle starts to descend, and repeats the operation, until the 6x6 points on the platform are tested



(2) Put the TF card with the G-code file in the card slot shown in the figure.



(3) Connect the power cord, turn on the machine, select "Print" on the touch screen homepage, and then select the slice file just saved in the TF card.



The printer nozzle and hot bed begin to preheat. When preheated to the preset temperature, the machine will automatically reset to zero and then start printing.

After printing, the print head and hot bed will automatically cool down. When the nozzle and hot bed reach room temperature. The model can be removed.



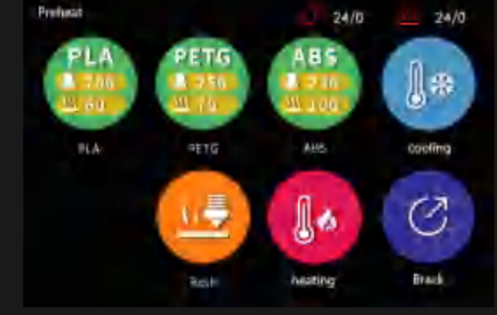
### 3.5. Leveling

This module can perform leveling operations on the print heads. Just click the "auto leveling" icon on the screen to perform automatic leveling operations. When the height of the automatically leveled print heads is not suitable, you can click Z-fine adjustment for fine-tuning.



### 3.6. One-key preheating

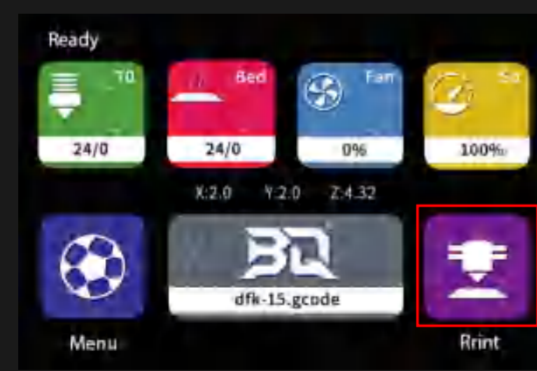
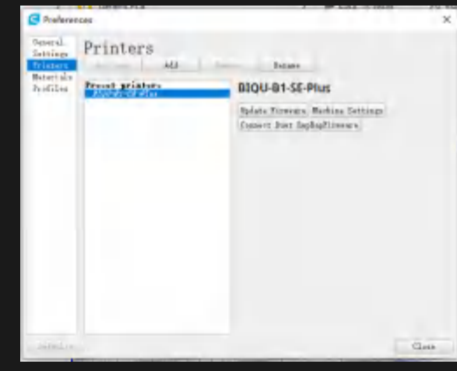
This module can set pre-heating for some consumables before printing.



After the automatic leveling is completed, you can click "Z-fine adjustment" in the operation interface of the previous step, and the printer will start printing. The customer can evaluate the leveling effect of the platform according to the printing effect for the next optimization.

### 3. Offline printing

Add a new printer device in the slicing software

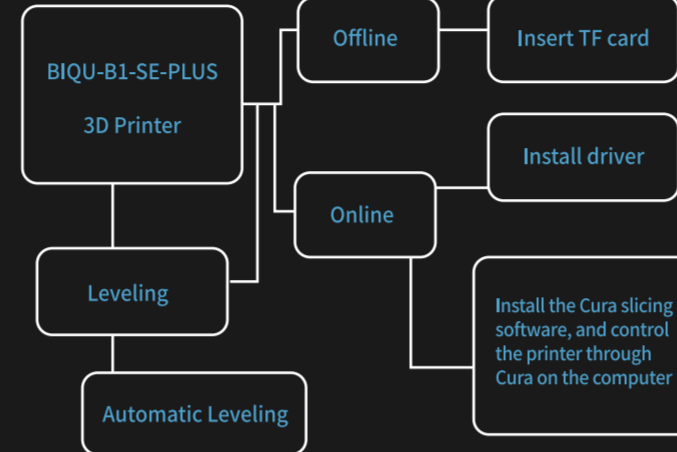


### III. Print instructions

BIQU-B1-SE-Plus 3D printer has two working modes, namely offline printing and online printing.

Offline printing: After the printer is leveled, the slicing file generated by the slicing software is saved in the TF card, then insert the TF card into the TF card slot of the base, click "print" from the main interface, and then select the file in the TF card to print.

Online printing: The computer is connected to the 3D printer through the data cable, and the printer is controlled by the slicing software (such as Ultimaker Cura). But the connection printing signal is transmitted by the computer through the data cable, which is prone to unstable factors such as signal interference. Therefore, it is recommended that customers use offline printing as much as possible.



### Set parameters of the printer



### 4. Online printing

(1) The computer is connected to the 3D printer through a data cable. One end of the data cable is inserted into the USB port as shown in the figure below, and the other end is inserted into the USB port of the computer.

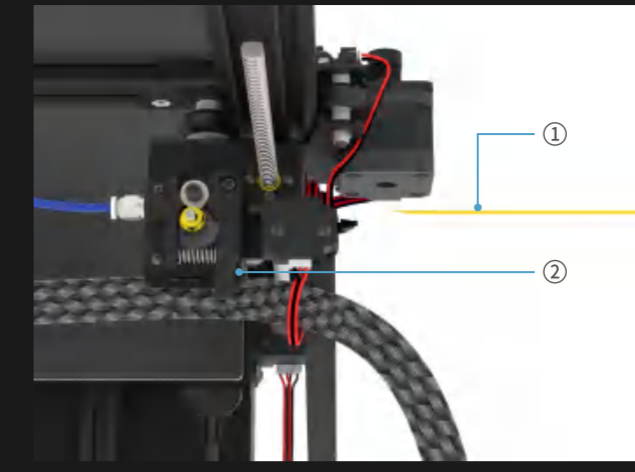


(2) Open the slicing software, and drag the stl format model into the slicing software window to slice the model.



After slicing is complete, click "Print via USB" to start online printing.

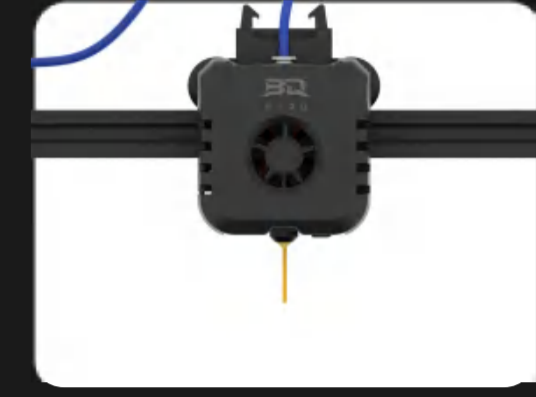
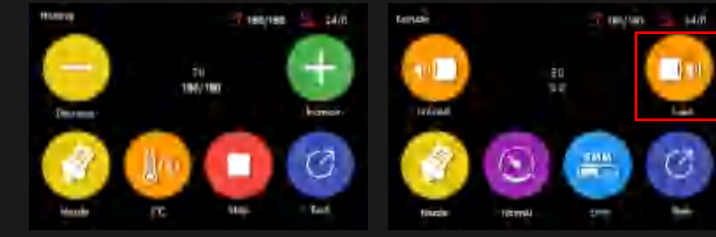
### 1. Filament installation



- ① 3D printing filament
- ② Extruder handle

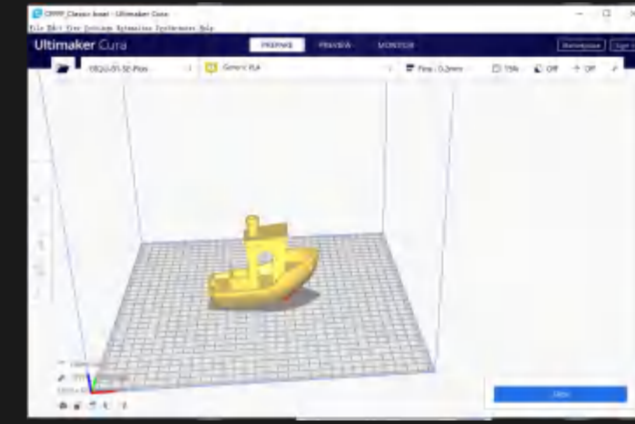
Use diagonal pliers to cut a section of the filament into a bevel, press the handle of the extruder, and push the 3D printing consumable into the extruder into the barrel at the same time. Note: Check whether the screws on the machine are installed correctly, and make sure that the screws on the machine are stable and not loose.

Fully insert filament to the heat break. The nozzle is heated to 180-200°C to extrude. Ensure that the extrusion is normal. The installation is complete.

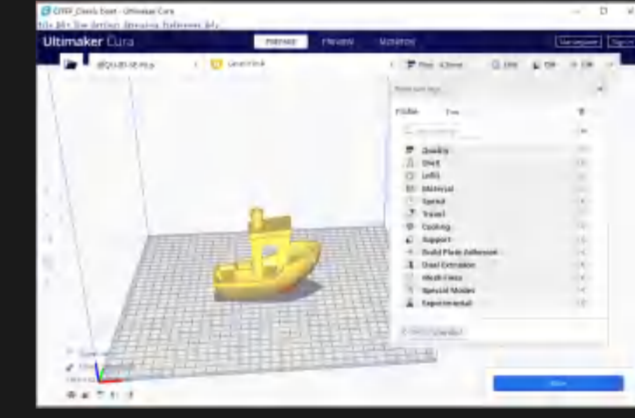


Machine installation is complete

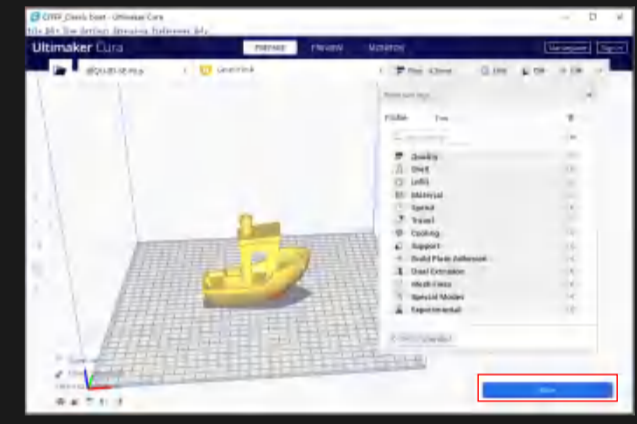
### Import the file of printing model



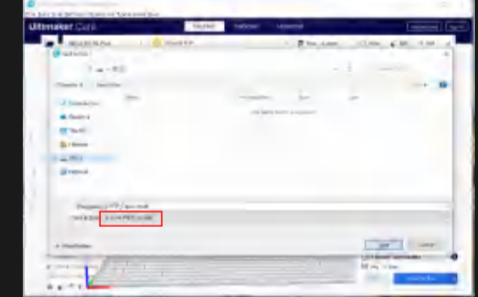
### Parameter settings of printing



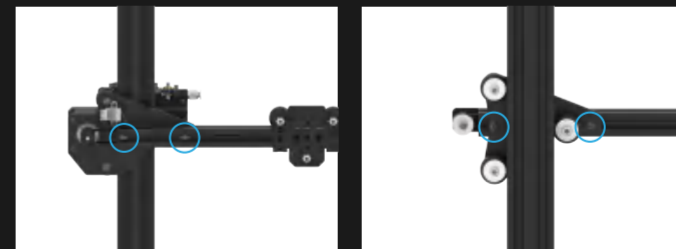
### After parameter settings, click "slice"



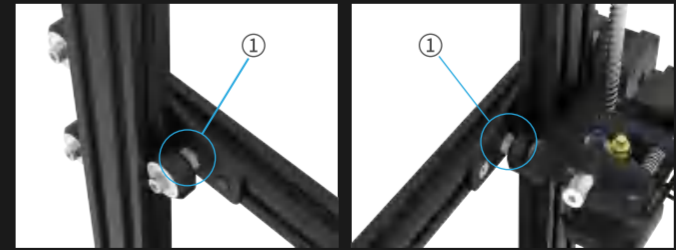
After the slicing software finishes slicing the model, you can start 3D printing the model. First save the G-code file after the model slice processing to the TF card, and then use the SD card for offline printing.



### IV



### Loose the bolts fixing the X axis



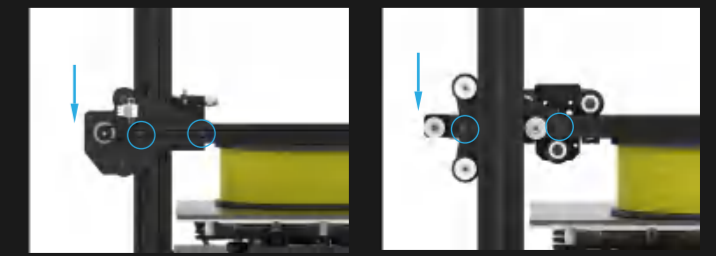
### ① Spacer

Adjust the spacers of the X-axis slide kit with the Allen wrench. Fully tighten the spacer by rotating in the direction of the profile.

- How to judge if the fine-tuning is finished?
1. There is no obvious loosening of the slide kit.
  2. The slide kit is secured, without falling off.
  3. The POM is fully tightened.
  4. The angle between the V-shaped groove and the profile is  $0^\circ < \theta < 5^\circ$



Put an object with a flat surface on glass plate, pull down the X-axis slide kit so that the X-axis profile presses on the object, and then tighten the screws fixing the X-axis profile to ensure the X-axis profile parallel with the glass plate.



- How to judge if the fine-tuning is finished?
1. Move the X-axis up and down, no looseness or tilt on one side.
  2. Press the X-axis module on the object, the object moves in the horizontal direction, no obvious loose or tight change.
  3. POM wheel is fully tightened