




BIQU-B1-Two-in-one-out dual-color printing upgrade kit		
		
Two-in and one-out dual-color print head	Bowden extruder	Filaments bracket

specification	
Applicable model	BIQU-B1
Printing Size	235 x 235 x 270mm
Molding Tech	FDM
Nozzle Quantity	1PCS
Filament quantity	2PCS
Layer Thickness	0.1mm - 0.3mm
Nozzle Diameter	Standard 0.4mm
Printing Accuracy	±0.05mm
Filament	PLA
Slicing Format	STL / OBJ/ AMF
Connecting Method	Via data cable / TF card / USB
Slicing Compatible	With Cura / Repetier-Host / Simplify 3D
Max Temp of Nozzle	260C°
Dual color printing	support

## Product specification

### Heating Rod Specifications

- Head size 5\*20mm
- Power: 30w
- Cable : 70mm

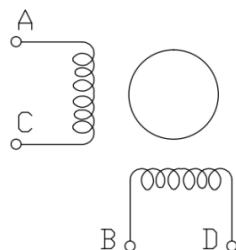
### Fan Specifications

	4010 Hydraulic Bearing	4010 Hydraulic Bearing	4010 Turbofan
Size	40*40*10mm	30*30*10mm	30*30*10mm
Cable	150mm	80mm	100mm
Voltage	24V	24V	24V
RPMS	6000±10%	6000±10%	6000±10%
Herminal model	DuPont 2.54"	DuPont 2.54"	DuPont 2.54"

### Motor Specifications

Items	Specs
Motor cable length Rated	1000mm
Rated voltage	DC3.45V
Rated current	DC 1.5A/phase
Phase number	2
Winding DC resistance (25°C)	2.3X (1±10%) Ω
Winding inductance	2.0X (1±20%) mH
Holding torque	≥110mN·m
Positioning torque	7mN·mREF
Insulation resistance	≥100MΩ (DC 500V)
Insulation class	Class B
Moment of inertia	8g·cm <sup>3</sup>

Winding  
arrangement

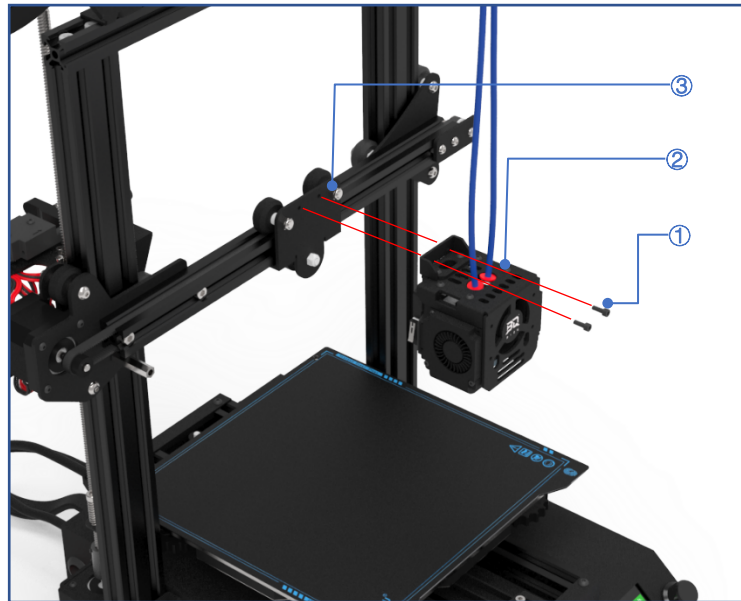


Connector  
Pinout



## —、Install the upgrade kit

### 1、Install two-in and one-out dual-color print head



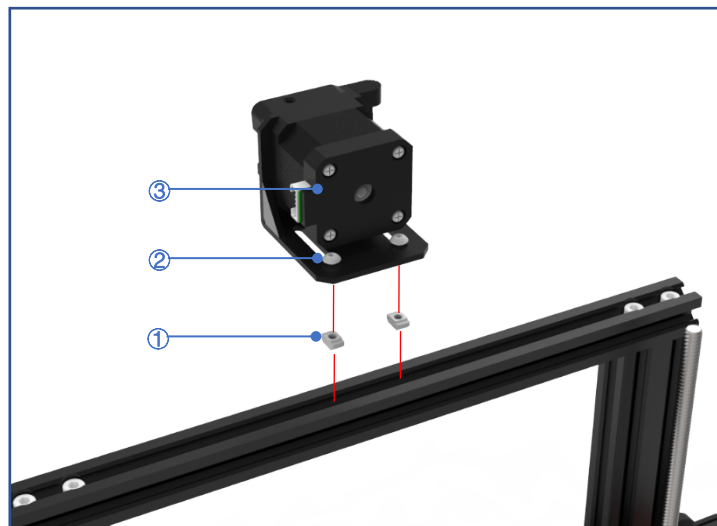
①M3x8 Hexagon socket head screw

②Two-in and one-out dual-color print head

③BIQU-B1-Fixed nozzle slider

Align the holes on the two-in and one-out two-color print nozzle with the threaded holes of BIQU-B1-fixed nozzle slider, and fix them with M3x8 hexagon socket head screws.

### 2、Install remote extruder



①M4 boat nut

②M4x8 Hexagon socket head screw

③ Bowden extruder+stepper motor

Put the boat nut into the gantry profile, and use the corresponding hex wrench to tighten the M4x8 inner hexagon socket head screw placed in the sheet metal of the extruder with the boat nut to fix the extruder on the gantry.

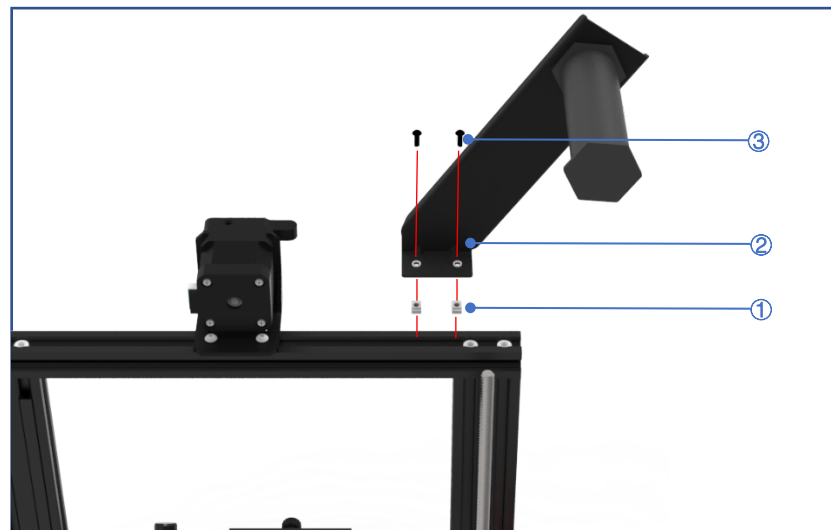
Note: The boat nut needs to be placed in the longitudinal direction, and the ship nut is placed horizontally in the gantry profile by rotating the screw to have an effective fixing effect.

### 3、Install filaments bracket



- ① filaments bracket sheet metal
- ② filaments bracket barrel
- ③ filaments bracket nut

Fix the barrel on the sheet metal by the nut

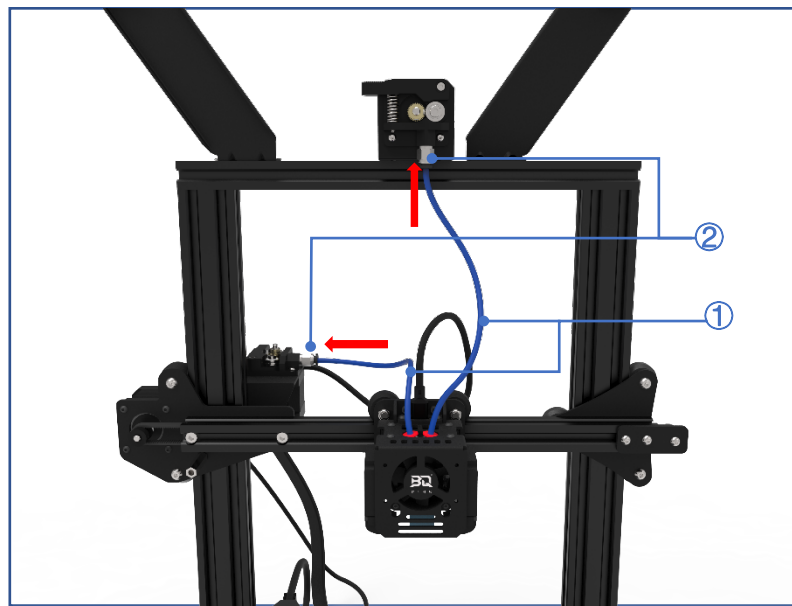


- ① M4 boat nut
- ② filaments bracket
- ③ M4x8 Hexagon socket head screw

Put the boat nut into the gantry profile, and fix the filaments bracket on the gantry with M4x8 hexagon socket head screws

**Note:** The ship nut needs to be placed in the longitudinal direction, and the ship nut is placed horizontally in the gantry profile by rotating the screw to have an effective fixing effect.

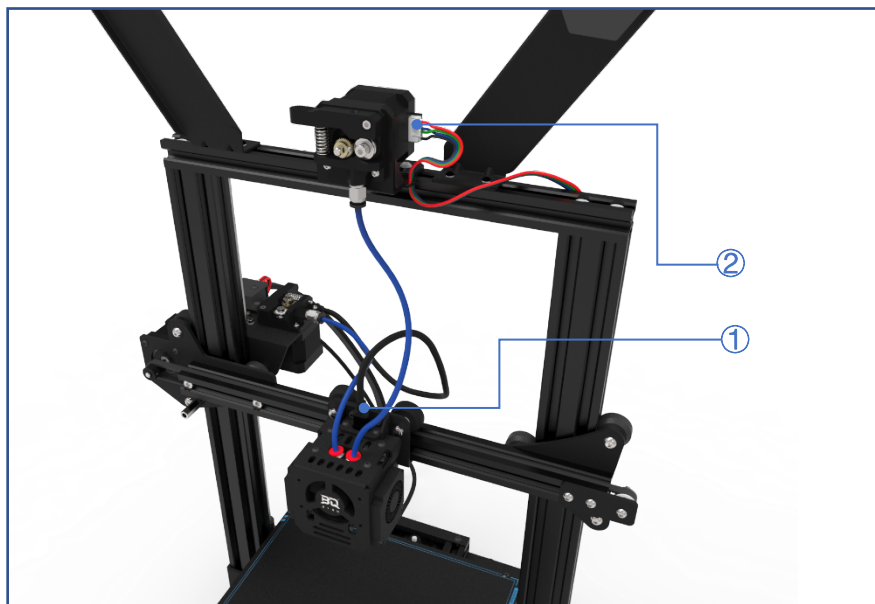
#### 4、Connect the data cable and Teflon tube



①Teflon tube

②Fitting

The nozzle is a two-in and one-out two-color printing nozzle, so two Teflon tubes and two remote extruders are required. Insert the Teflon tubes into the quick connectors of the extruders to ensure effective fixation.



① Print head data line

② Bowden extrusion motor data cable

Insert the print head data cable into the print head socket so that the two-in and one-out two-color print head can be connected to the main board. Insert the bowden extruder motor data cable into the extruder motor, so that the extruder motor can be controlled through the main board.

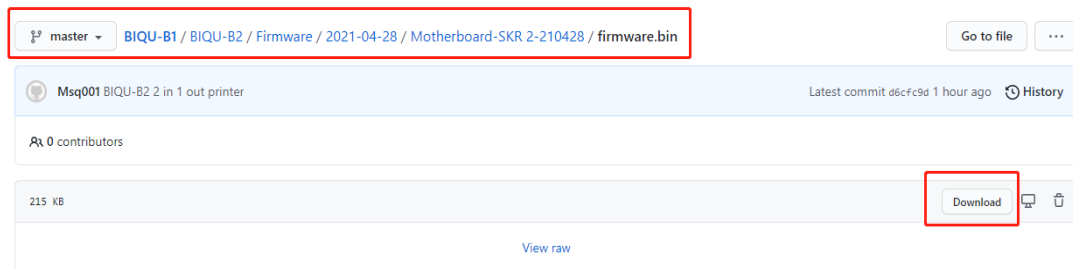
Installation and connection complete

## 二、Print preparation

### 1. Refresh the firmware

Download the firmware from the website to the TF card, then insert the TF card into the TF card slot of the machine, and click the reset button on the machine to refresh the firmware.

<https://github.com/bigtreetech/BIQU-B1>

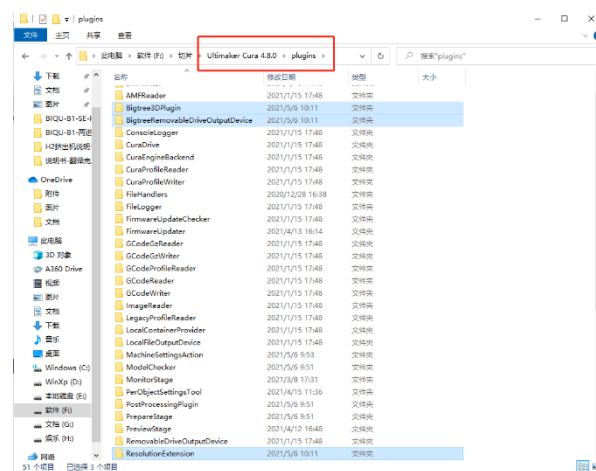
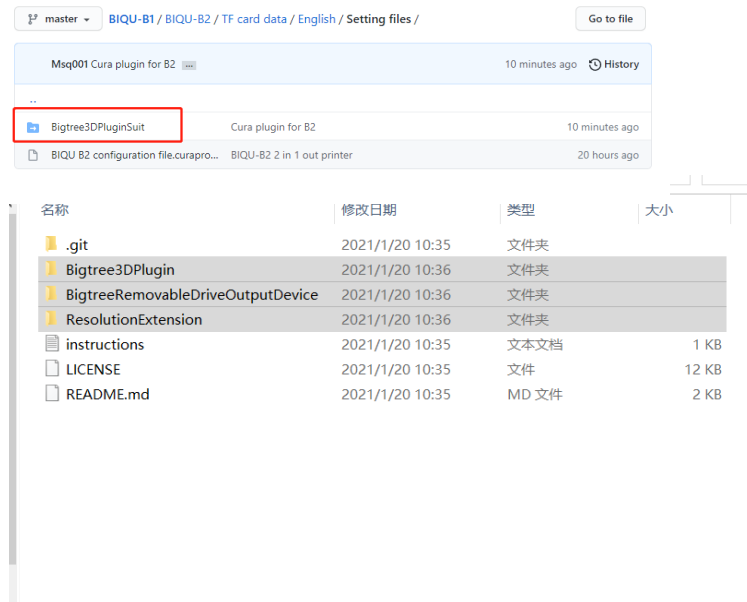




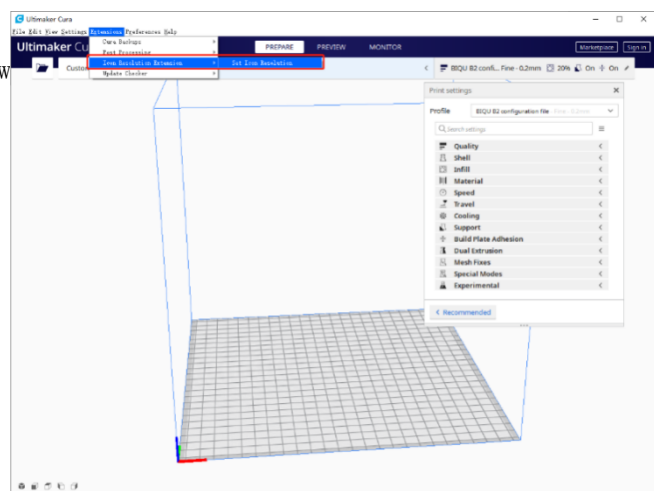


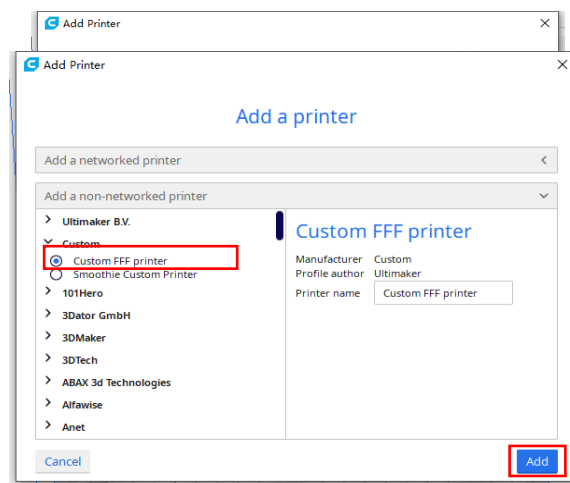
### 三、Model slice

1、Installation of the slicing software plug-in: download the plug-in file from the website, replace the file to the specified location on the slicing software, and find the effective plug-in function on the slicing software.



2、Build new





3、Set the basic parameters of the printer:

The image shows the 'Machine Settings' window for a BIQU B2 printer. The window has three tabs: 'Printer', 'Extruder 1', and 'Extruder 2'. The 'Printer' tab is selected. It contains two main sections: 'Printer Settings' and 'Printhead Settings'. The 'Printer Settings' section includes fields for X (Width) at 235 mm, Y (Depth) at 235 mm, Z (Height) at 260 mm, Build plate shape set to 'Rectangular', Origin at center (unchecked), Heated bed (checked), Heated build volume (unchecked), and G-code flavor set to 'Marlin'. The 'Printhead Settings' section includes X min at -20 mm, Y min at -10 mm, X max at 10 mm, Y max at 10 mm, Gantry Height at 260 mm, and Number of Extruders set to 2. Below these are 'Start G-code' and 'End G-code' text areas. A red box highlights the 'Printer Settings' section and the 'Number of Extruders' field.

Printer Settings		Printhead Settings	
X (Width)	235 mm	X min	-20 mm
Y (Depth)	235 mm	Y min	-10 mm
Z (Height)	260 mm	X max	10 mm
Build plate shape	Rectangular	Y max	10 mm
Origin at center	<input type="checkbox"/>	Gantry Height	260 mm
Heated bed	<input checked="" type="checkbox"/>	Number of Extruders	2
Heated build volume	<input type="checkbox"/>		
G-code flavor	Marlin		

**Start G-code**

```
G28 ;Home
G1 Z15.0 F6000 ;Move the platform down
;Prime the extruder
G92 E0
G1 F200 E3
G92 E0
```

**End G-code**

```
M104 S0
M140 S0
;Retract the filament
G92 E1
G1 E-1 F300
G28 X0 Y0
```

The image shows the 'Machine Settings' window for a BIQU B2 printer, with the 'Extruder 1' tab selected. It contains a 'Nozzle Settings' section with fields for Nozzle size at 0.4 mm, Compatible material diameter at 1.75 mm, Nozzle offset X at 0 mm, Nozzle offset Y at 0 mm, and Cooling Fan Number at 0. Below this are 'Extruder Start G-code' and 'Extruder End G-code' text areas. A red box highlights the 'Nozzle Settings' section.

Nozzle Settings	
Nozzle size	0.4 mm
Compatible material diameter	1.75 mm
Nozzle offset X	0 mm
Nozzle offset Y	0 mm
Cooling Fan Number	0

**Extruder Start G-code**

**Extruder End G-code**

Setting of the printer's start and end code:

**Machine Settings**

**Custom FFF printer #5**

**Printer** | Extruder 1 | Extruder 2

**Printer Settings**

X (Width) 235 mm  
Y (Depth) 235 mm  
Z (Height) 260 mm  
Build plate shape Rectangular  
Origin at center ☐  
Heated bed ☒  
Heated build volume ☐  
G-code flavor Marlin

**Printhead Settings**

X min -20 mm  
Y min -10 mm  
X max 10 mm  
Y max 10 mm  
Gantry Height 260 mm  
Number of Extruders 2

**Start G-code**

```
G28 ;Home
G1 Z15.0 F6000 ;Move the platform down
;Prime the extruder
G92 E0
G1 F200 E3
G92 E0
```

**End G-code**

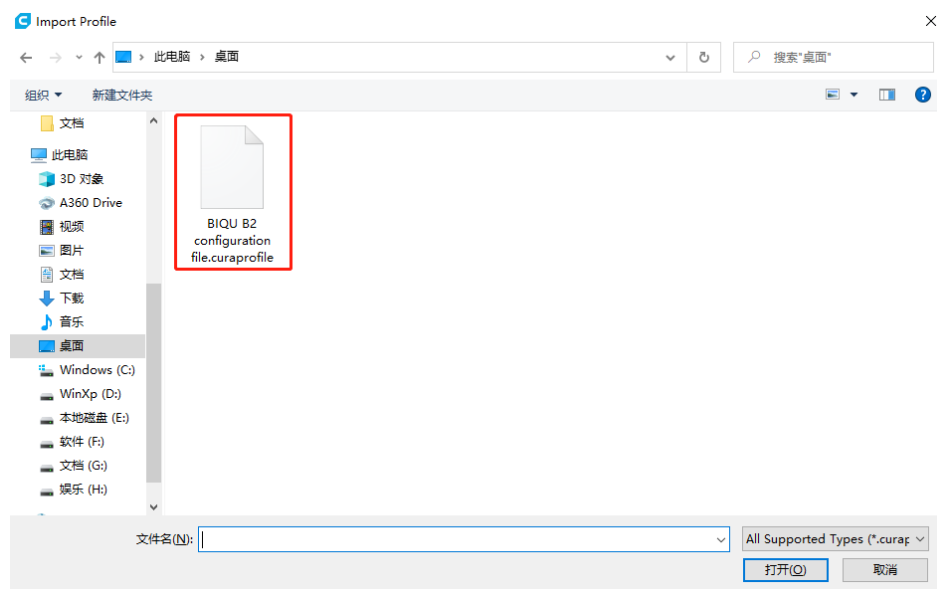
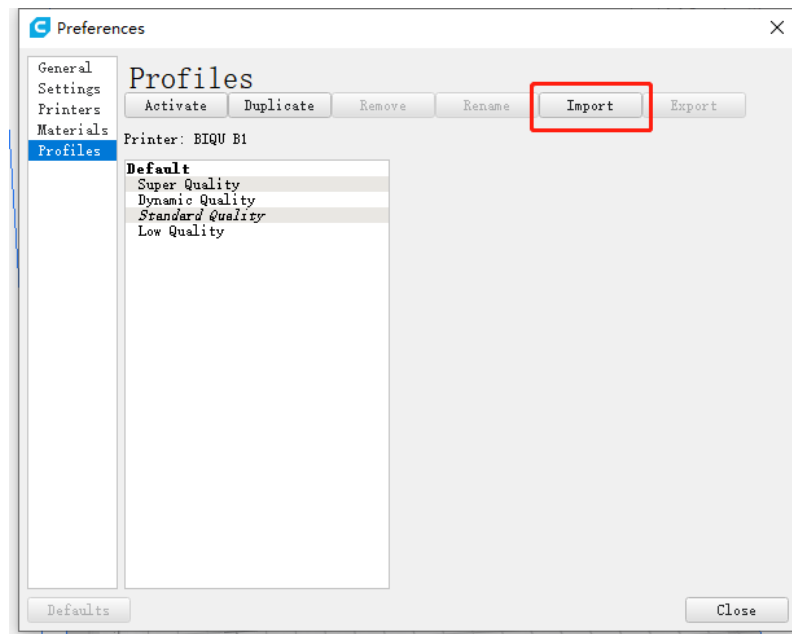
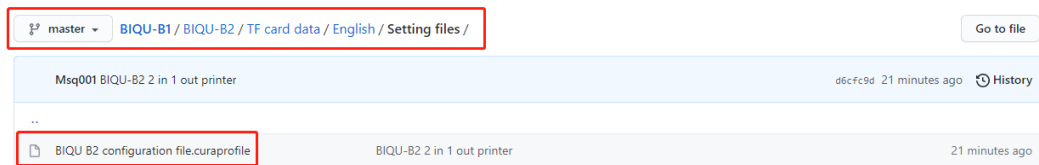
```
M104 S0
M140 S0
;Retract the filament
G92 E1
G1 E-1 F300
G28 X0 Y0
```

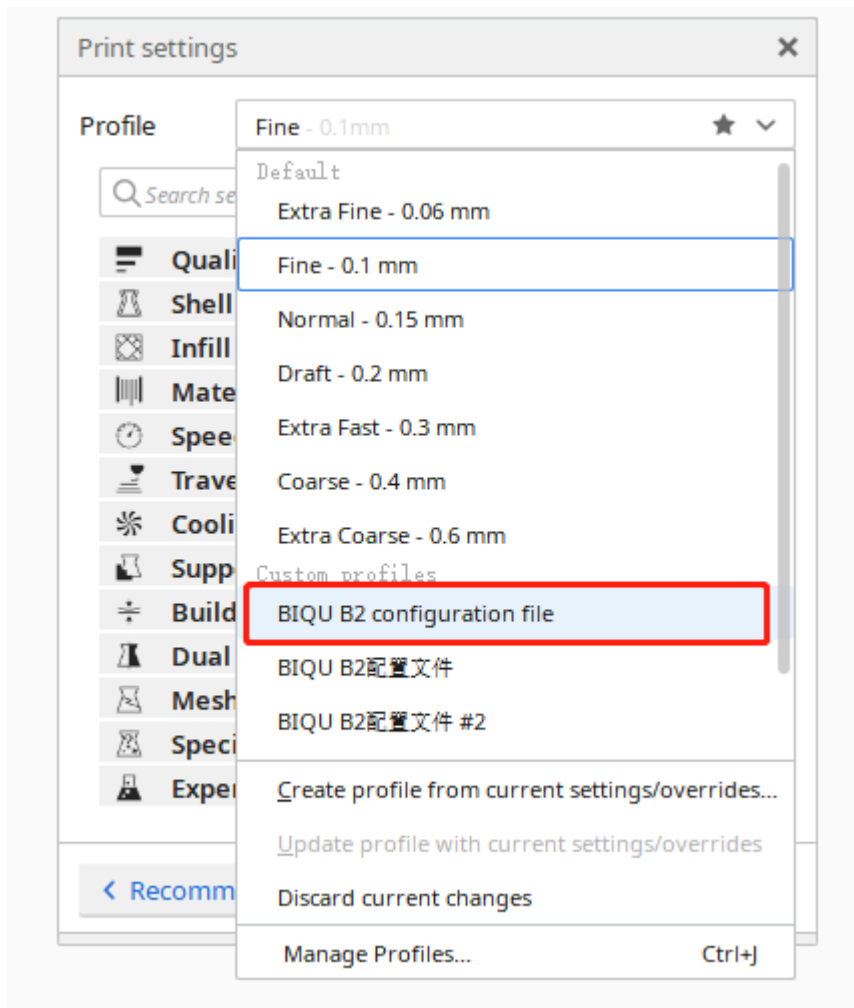
Close

Download the corresponding start code and stop code of the B2 print head from the website, and replace the code on the slicing software.

### 3、Import of printing parameters

Download the BIQU-B2 configuration file from the website and import it into Cura.

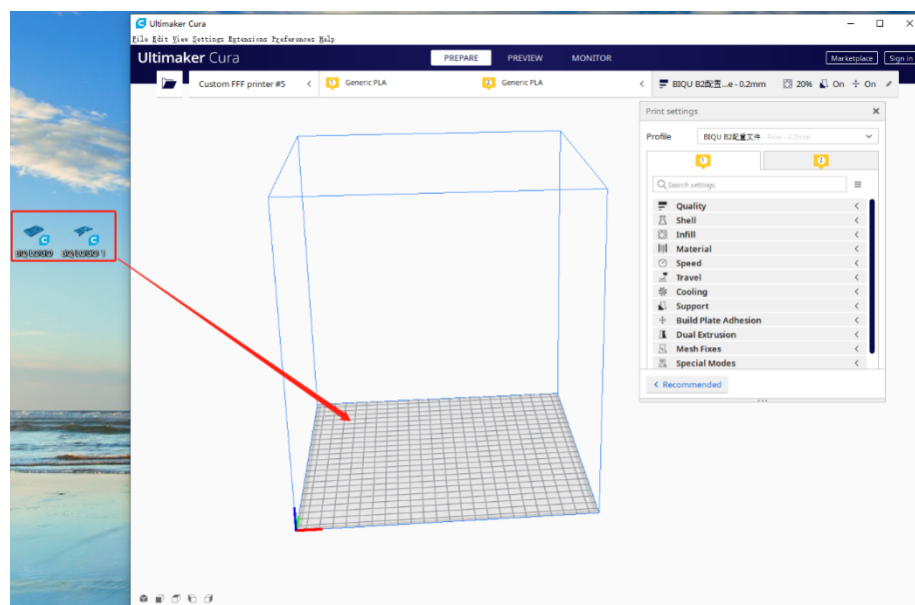




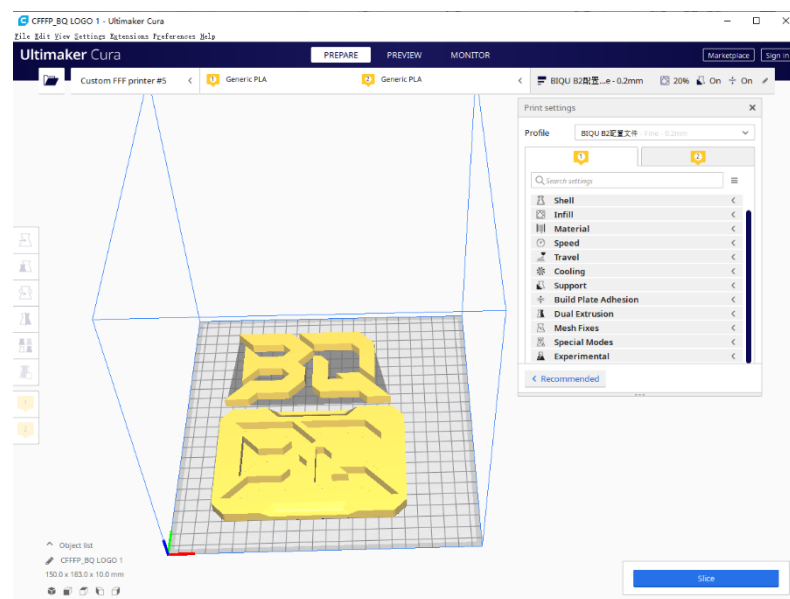
After the import is successful, the model can be sliced.

#### 4、Model slice

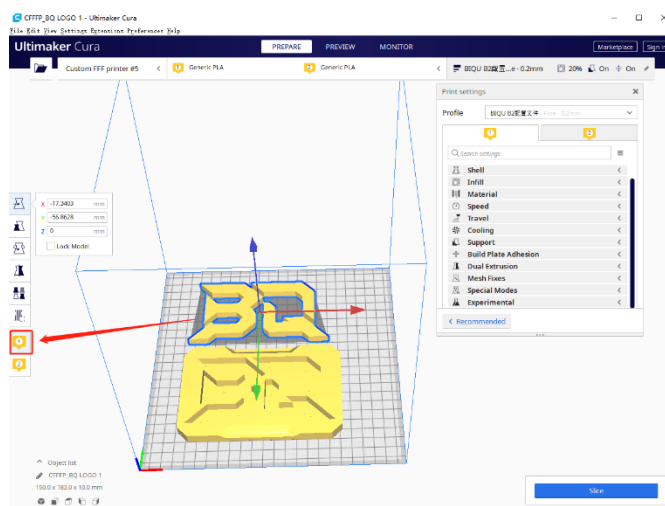
Add the model to the Cura slicing software.



## Color definition of two models

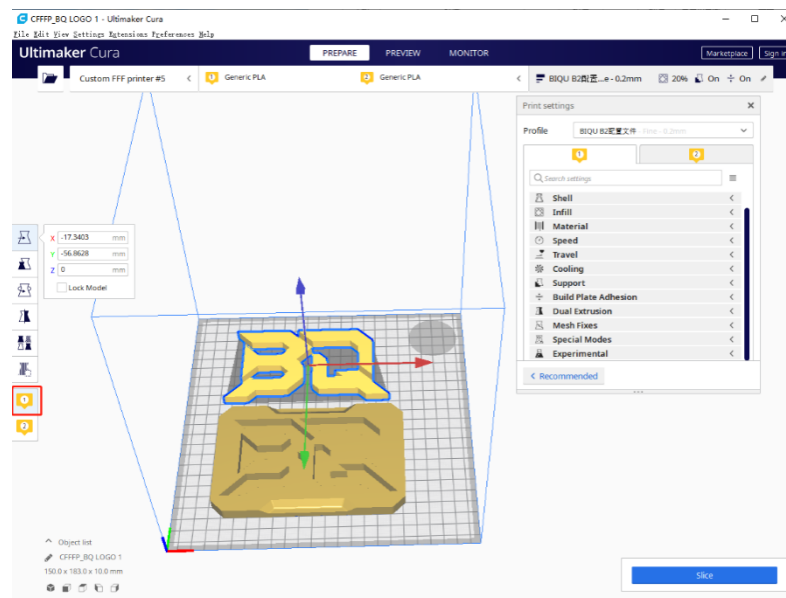


Select the model separately, click 1 or 2 on the left to set two different colors.

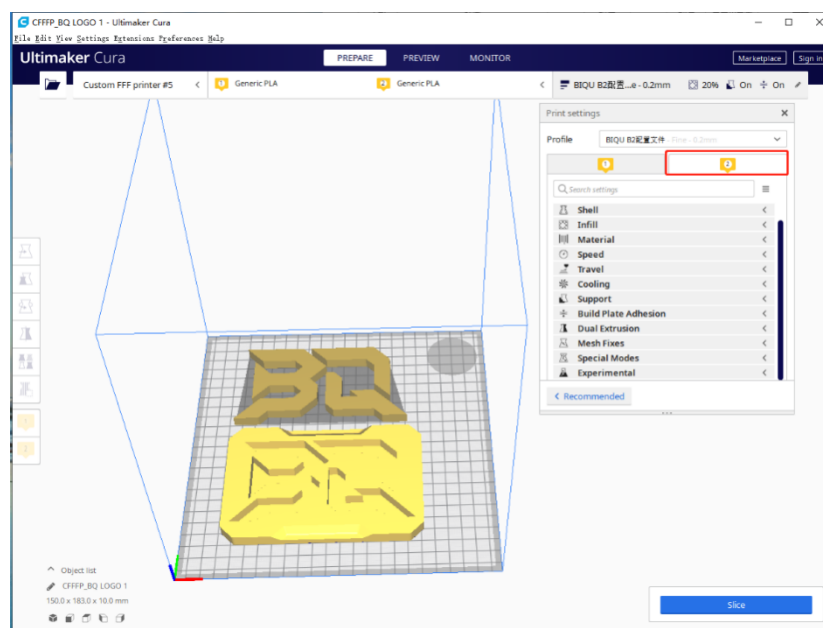




After the setting is complete, click the model to be in the highlighted state, the color on the left side is the selected state, and the other model is in the dimmed state.

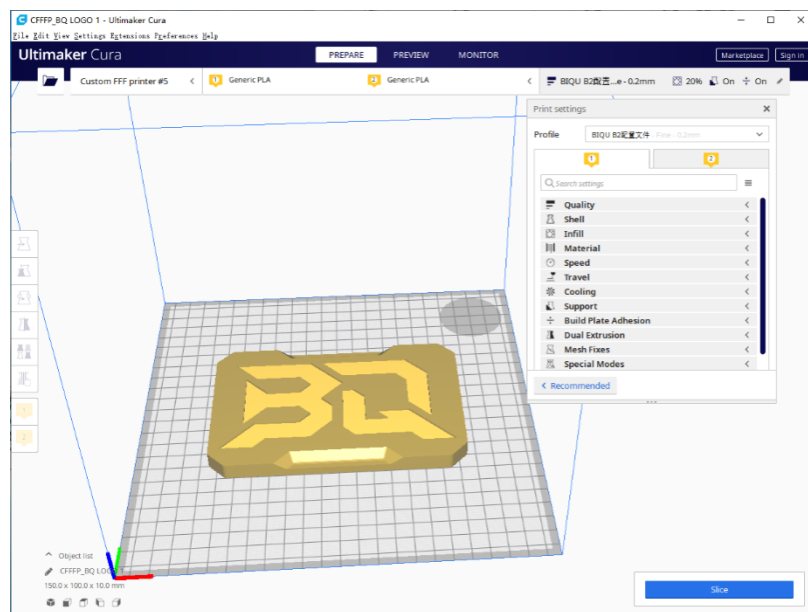
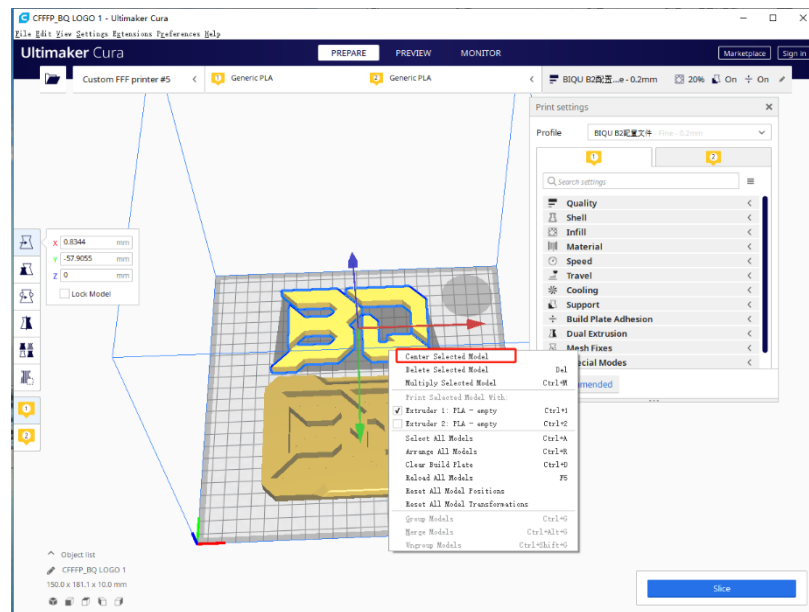


After setting the corresponding color, you can set the printing parameters for the individual output color.

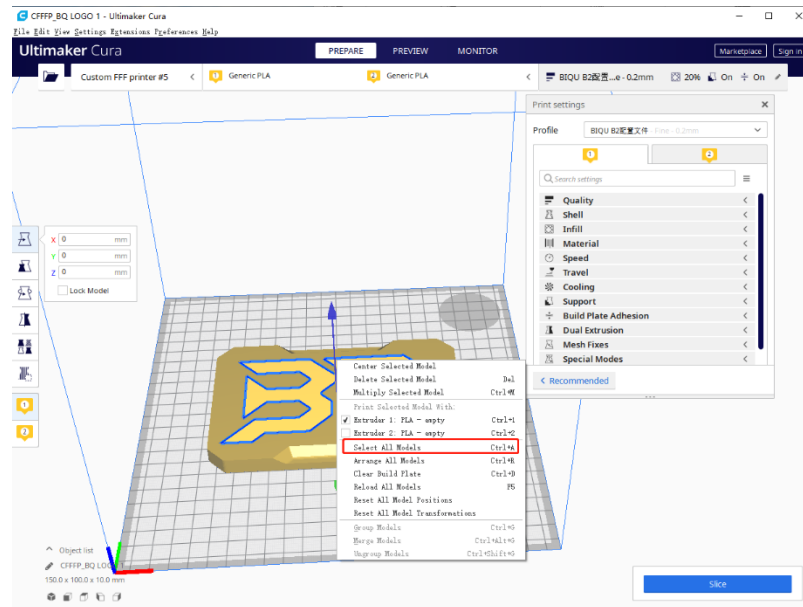


## 5、Combination model

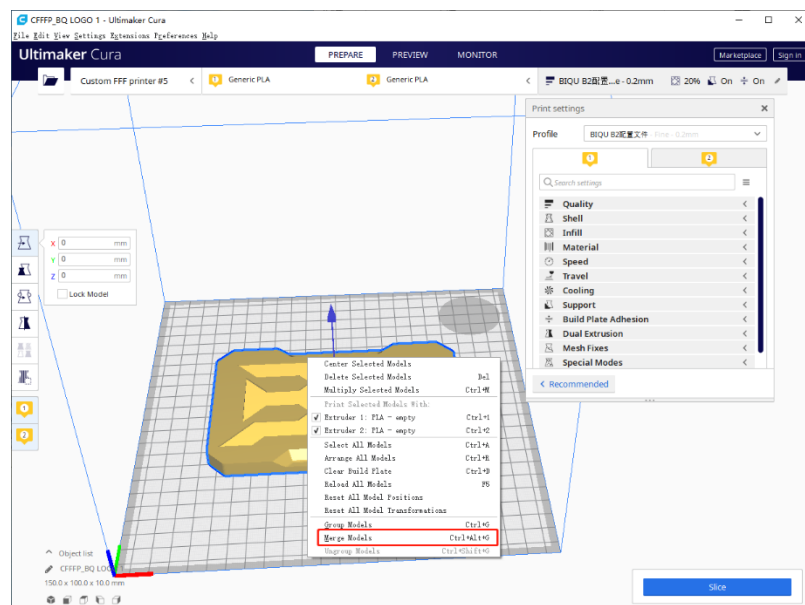
Layout the two models in the center respectively, select the model, click the right mouse button, and lay the model in the center.



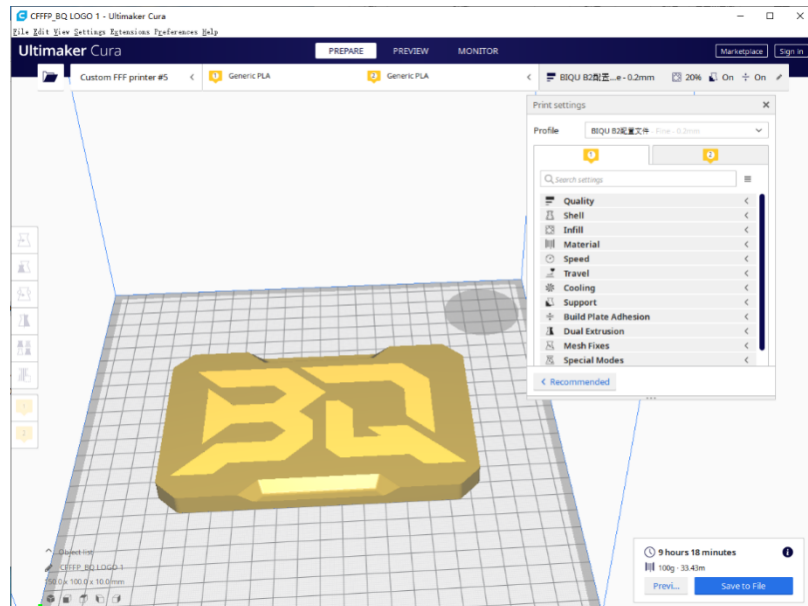
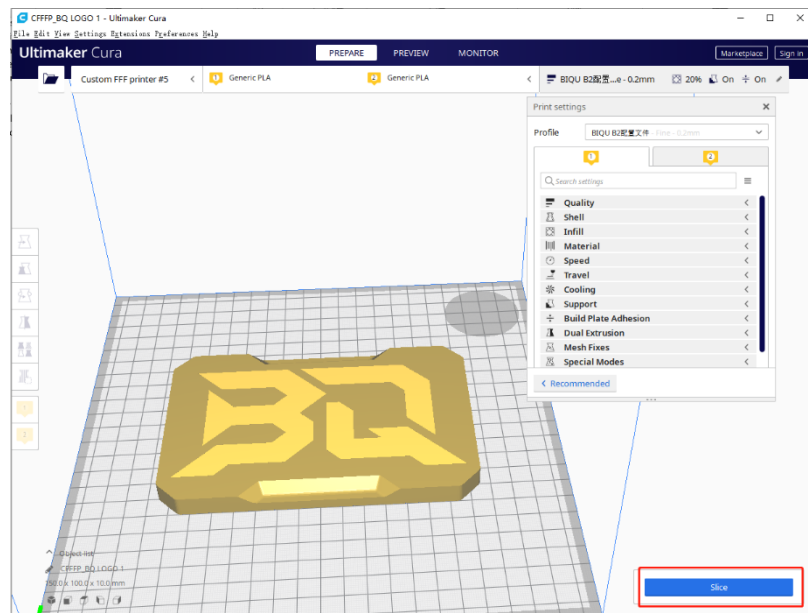
Click the right mouse button, click to select all models



After the merging is completed, click the right mouse button to merge the models.



6、Slice the model and export the print file



Slicing completed