

DATASHEET



## 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\PETG\TPU\TPE\ABS\Nylon
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	260°C
Dual color printing	support

# Product specification

## Heating Rod Specifications

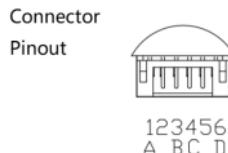
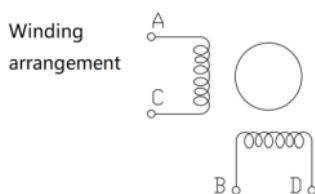
- Head size 5\*20mm
- Power: 30w
- Cable : 70mm

## Fan Specifications

	4010 Hydraulic Bearing	3010 Hydraulic Bearing	4010 Turbofan
Size Cable Voltage RPMS Herminal model	40*40*10mm 150mm 24V 6000±10% DuPont 2.54	30*30*10mm 80mm 24V 6000±10% DuPont 2.54	40*40*10mm 100mm 24V 6000±10% DuPont 2.54

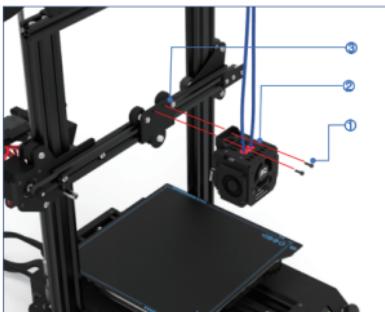
## Motor Specifications

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>



# Install the upgrade kit

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



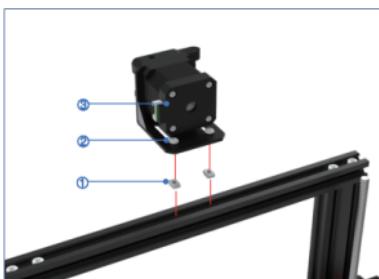
①M3x8 Hexagon socket head screw

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.



①M4 boat nut

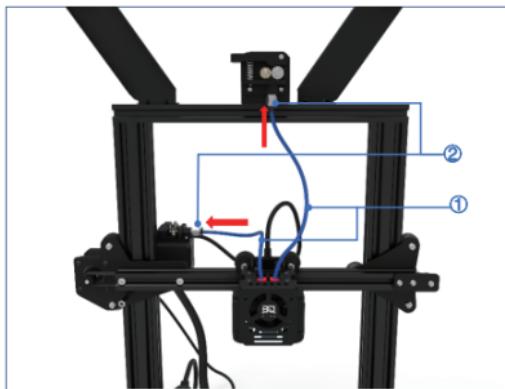
②filaments bracket

③M4x8 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.

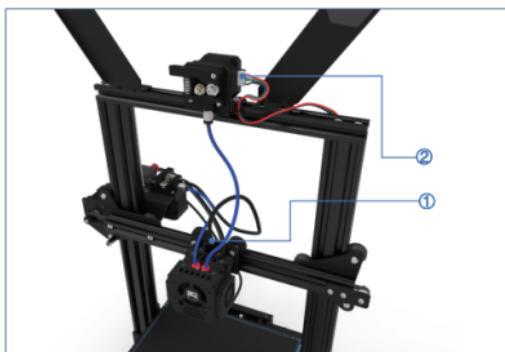
#### 4. Connect the data cable and Teflon tube



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.

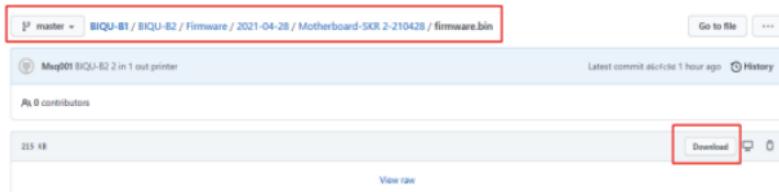
**Installation and connection complete**

## 4. Print preparation

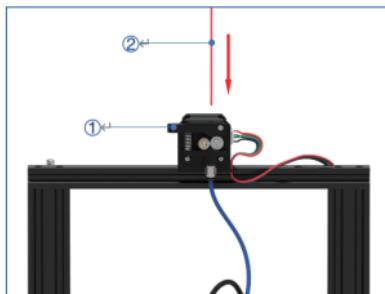
Download the firmware from the website to the TF card, then insert the TF card into the TF card slot of the machine, and click the reset button on the machine to refresh the firmware.

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

[BIQU-B1/BIQU-B2/Firmware/2021-04-28/Motherboard-SKR 2-210428/firmware.bin](#)



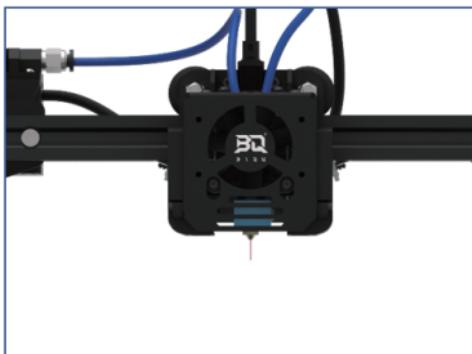
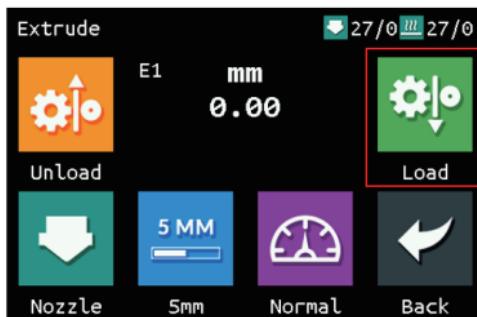
## Installation consumables



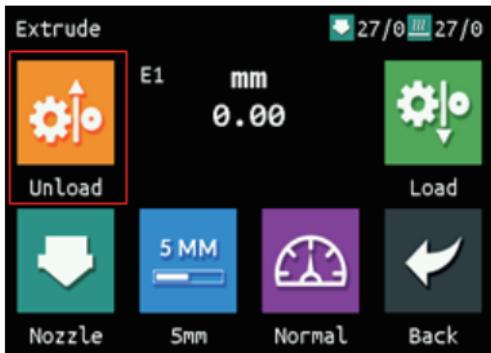
① Extruder handle

② Consumables

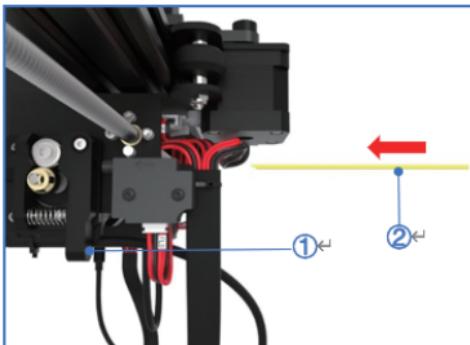
Before installing consumables, preheat the nozzle and heat the nozzle to 190-210 °C. Install consumables on the extruder at the upper end of the gantry, press the extruder handle to put the consumables into the nozzle through the extruder gear, and click the extrusion operation on the screen to extrude the consumables from the nozzle normally.



After the consumables can be discharged normally, click "unload" on the screen to pull the consumables back to "40mm".



Then install the consumables of the second extruder.

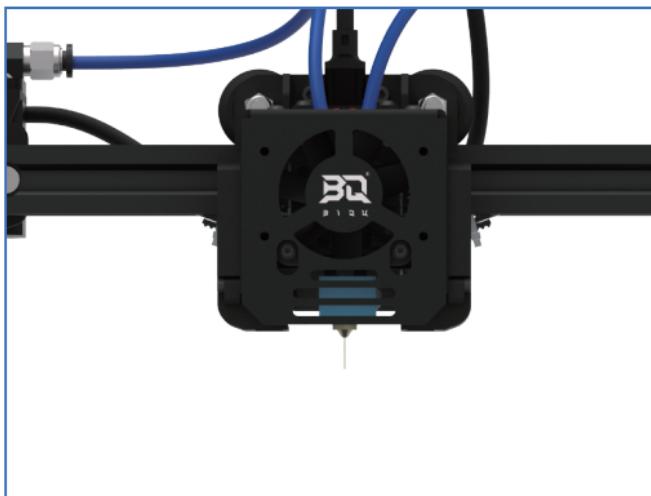
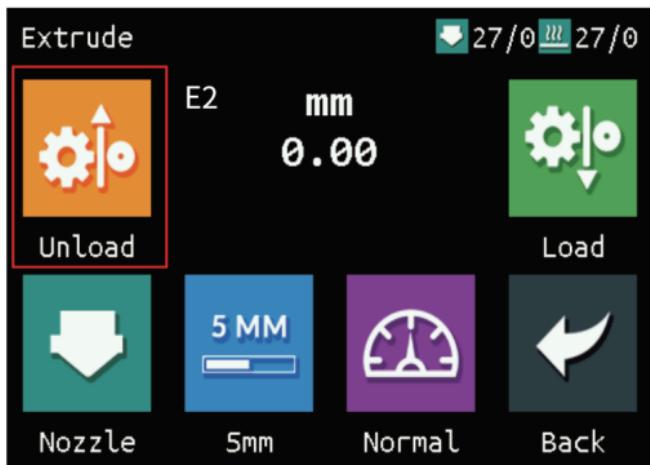


① Extruder handle

② Consumables

Cut one end of the consumables out of an inclined plane with a diagonal pliers, press and hold the handle of the extruder, and push the 3D printing consumables into the extruder and into the material pipe at the same time.

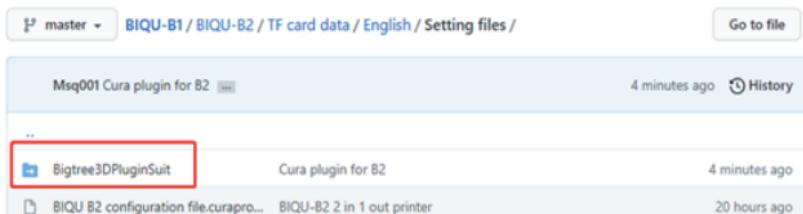
Through the extrusion button on the control screen, if the consumables can be extruded normally, it indicates that the consumables are installed successfully.



## 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.

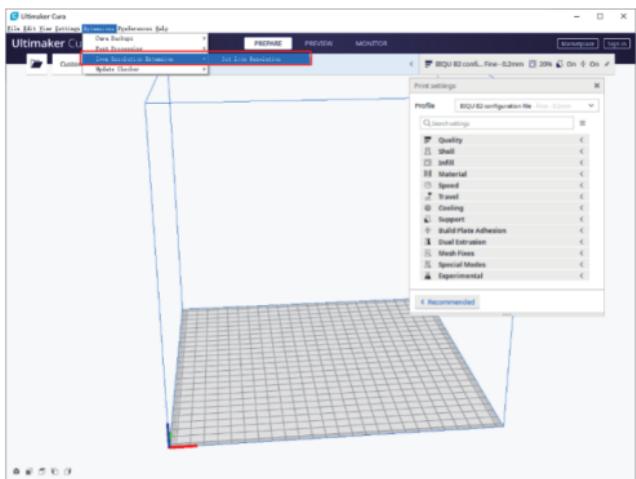
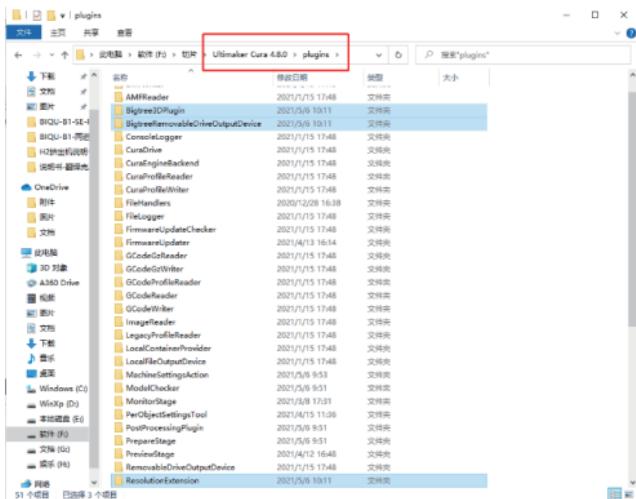
BIQU-B1/BIQU-B2/TF card data/English/Setting files/Bigtree3DPluginSuit



The screenshot shows a GitHub repository interface. At the top, there is a navigation bar with 'master' selected, followed by the path 'BIQU-B1 / Biqu-B2 / TF card data / English / Setting files /'. On the right, there are buttons for 'Go to file' and 'History'. Below the navigation, a list of files is displayed:

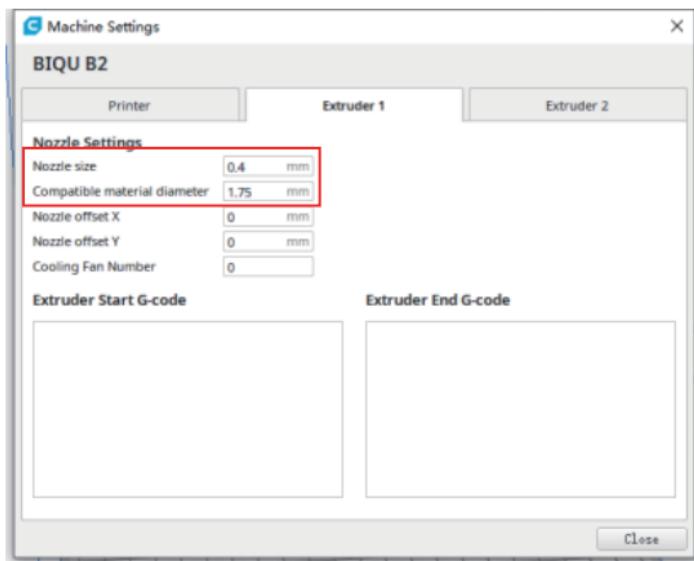
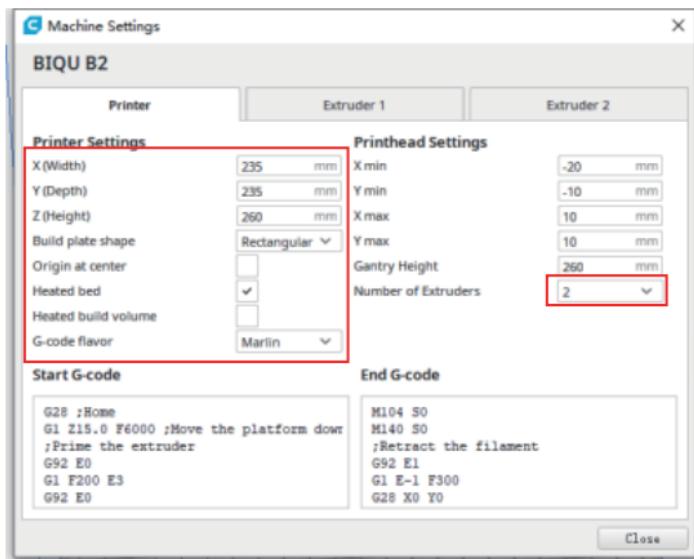
文件名	修改日期
Msq001 Cura plugin for B2	4 minutes ago
Bigtree3DPluginSuit	4 minutes ago
BIQU B2 configuration file.curapro...	20 hours ago

名称	修改日期	类型	大小
.git	2021/1/20 10:35	文件夹	
Bigtree3DPlugin	2021/1/20 10:36	文件夹	
BigtreeRemovableDriveOutputDevice	2021/1/20 10:36	文件夹	
ResolutionExtension	2021/1/20 10:36	文件夹	
instructions	2021/1/20 10:35	文本文档	1 KB
LICENSE	2021/1/20 10:35	文件	12 KB
README.md	2021/1/20 10:35	MD 文件	2 KB

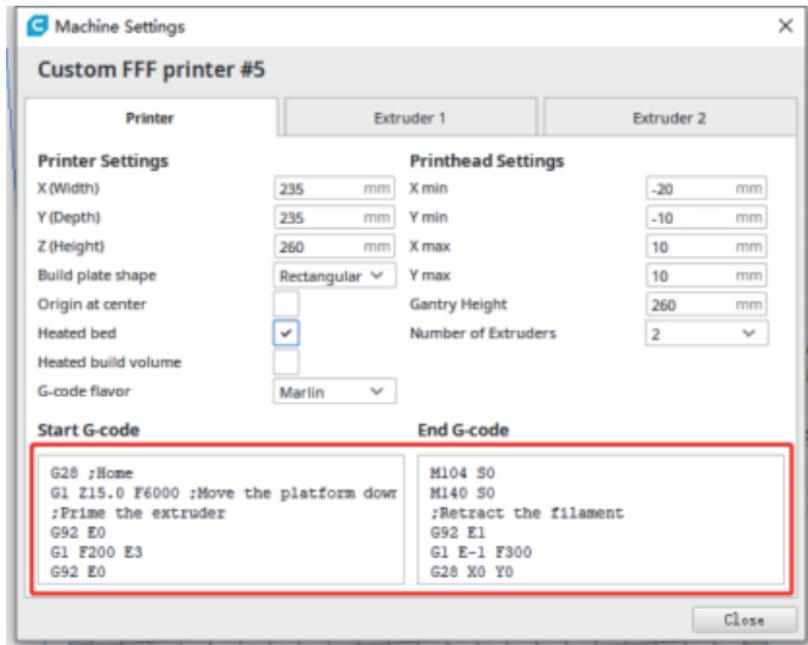


Plug in installation complete

## 2. Set the basic parameters of the printer :



### 3. Setting of the printer's start and end code

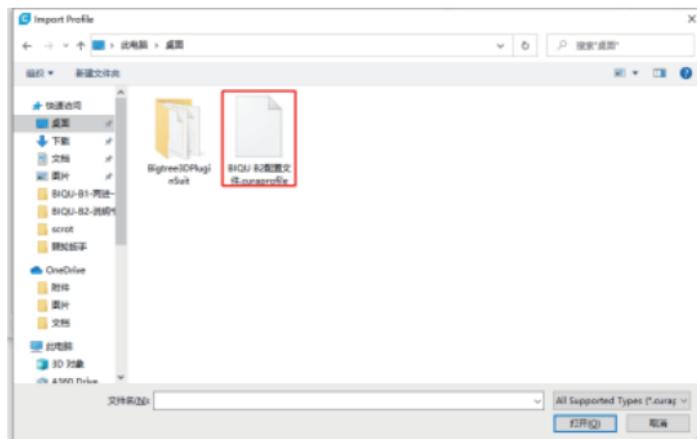
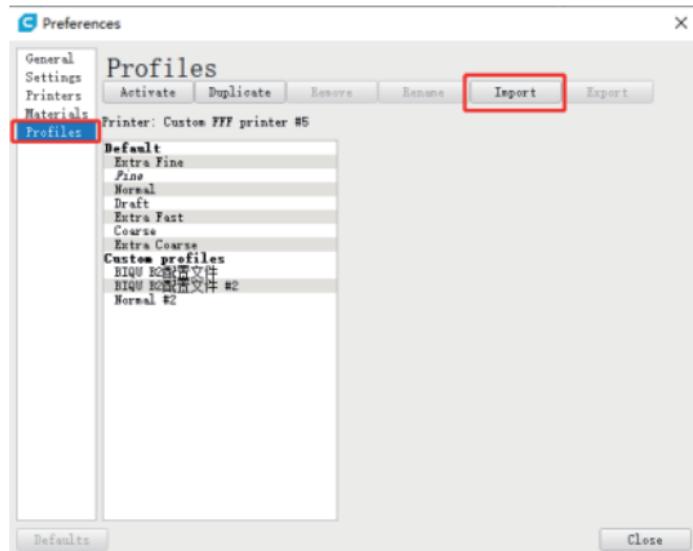


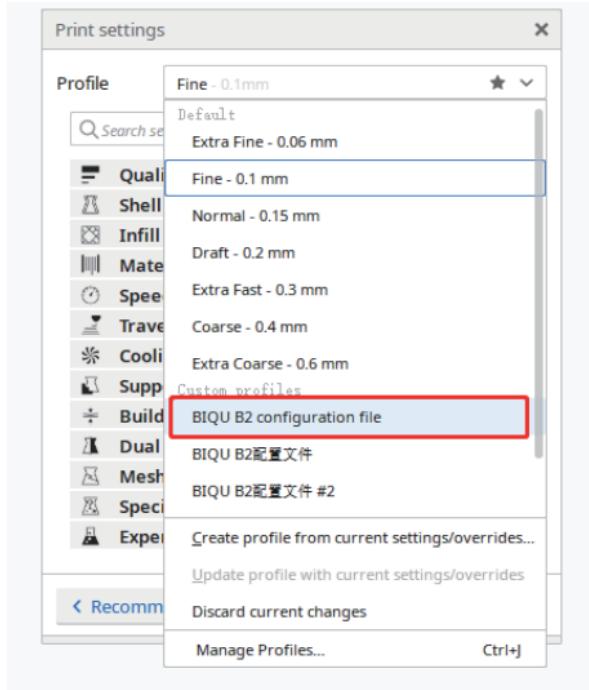
Download the corresponding start code and stop code of the B2 print head from the website, and replace the code on the slicing software.

### 3. Import of printing parameters

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

[BIQU-B1/BIQU-B2/TF card data /English / Setting files /BIQU B2 configuration file.curaprofile](#)

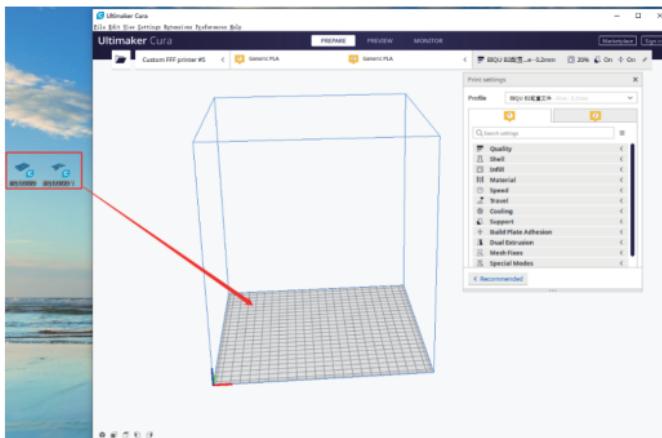




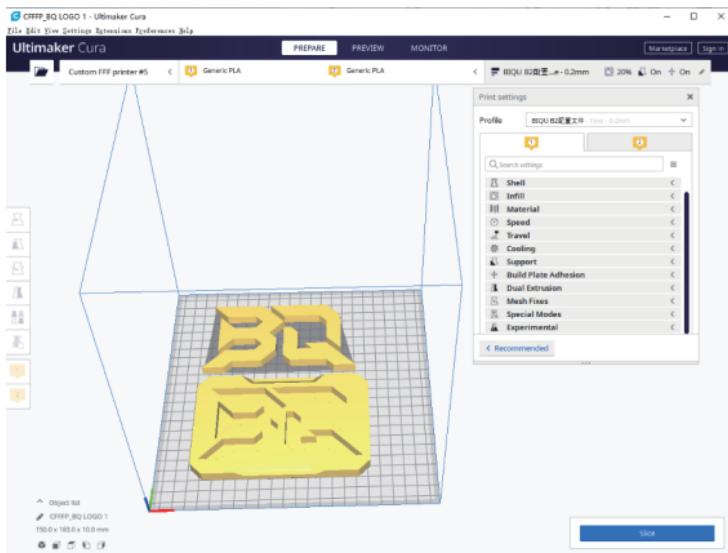
After the import is successful, the model can be sliced.

#### 4. Model slice

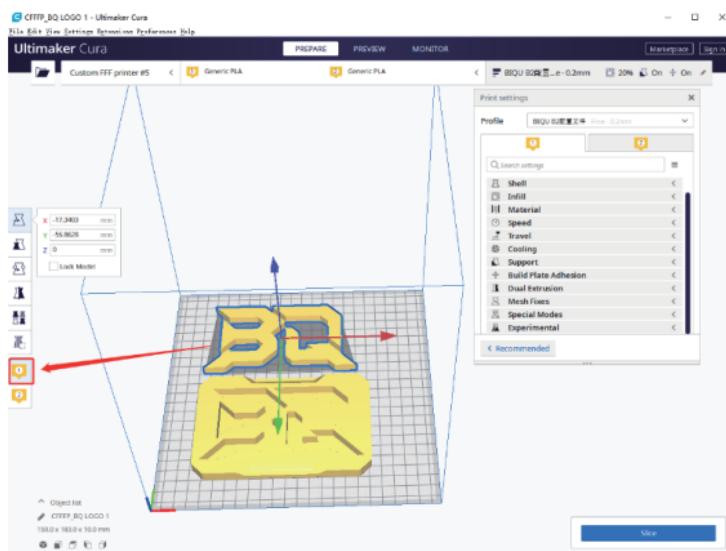
Add the model to the Cura slicing software.



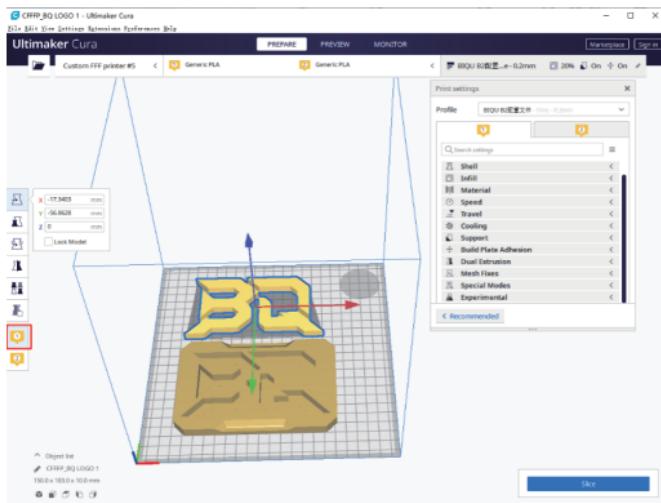
## Color definition of two models



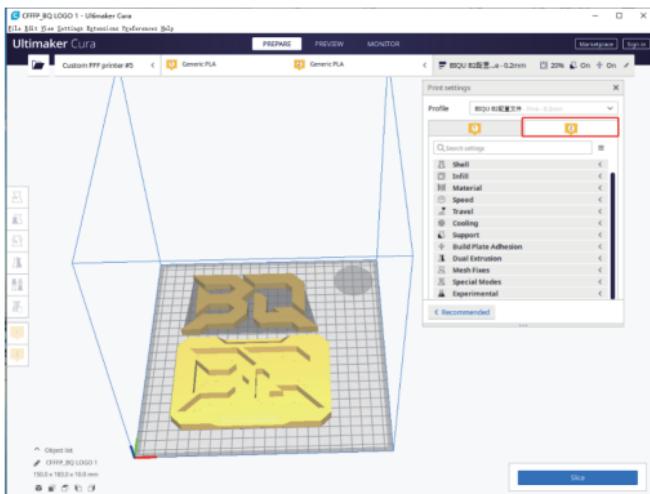
Select the model separately, click 1 or 2 on the left to set two different colors.



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.

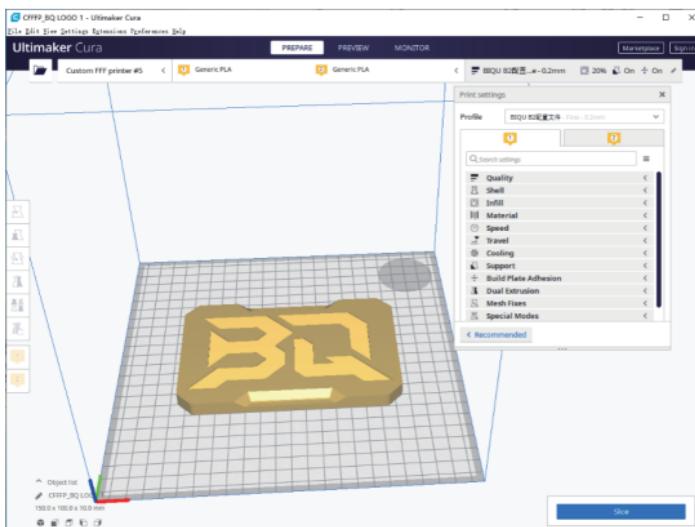
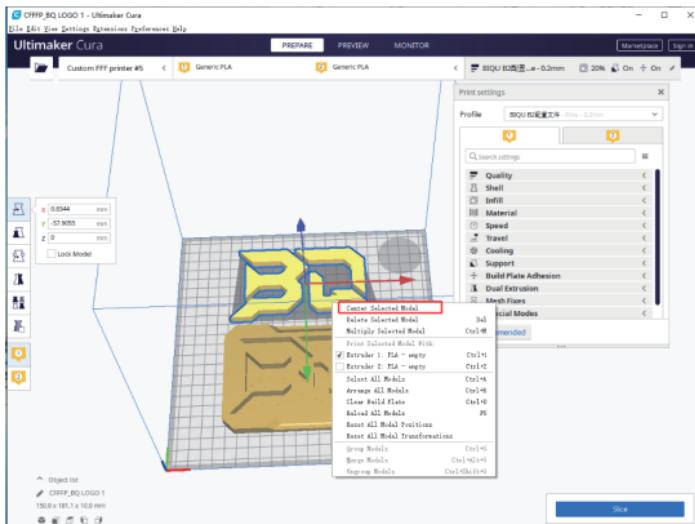


After setting the corresponding color, you can set the printing parameters for the individual output color.

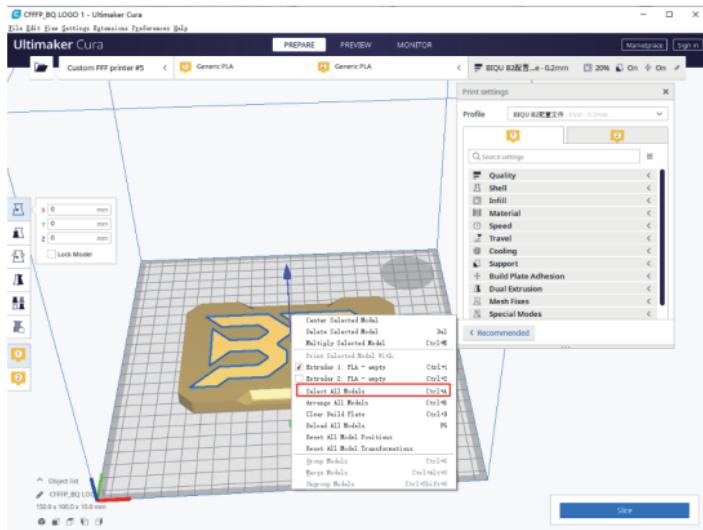


## 5. Combination model

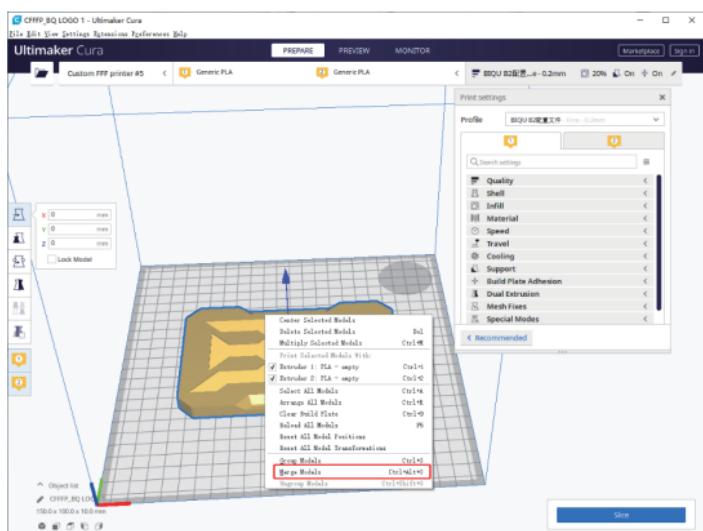
Layout the two models in the center respectively, select the model, click the right mouse button, and lay the model in the center.



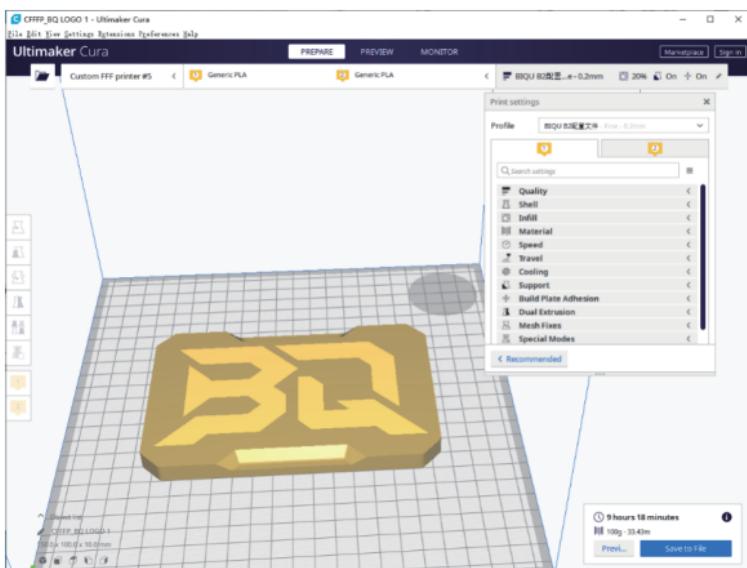
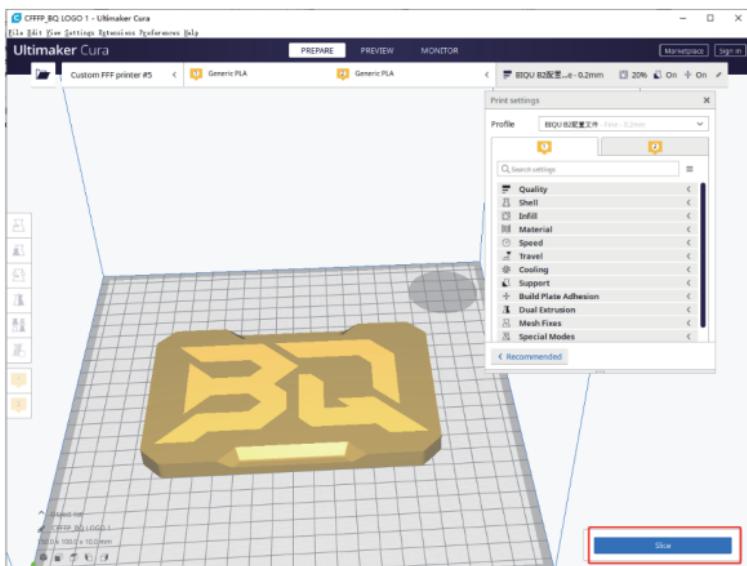
Click the right mouse button, click to select all models



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

