

JIANGSU WIIBOOX TECHNOLOGY CO.,LTD

3D PRINTER TINA 2 USER MANUAL



- ◆ This user manual is for standard TINA 2.
- ◆ Because of software or hardware upgrades and model differences, new revisions may not be listed in this guide.

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1.Application Notices

1.1. About the User Manual

This User Manual contains important information on the installation, use, maintenance and other questions frequently raised up about the 3D printer. Please read this user guide carefully before using this 3D printer. For damages to the 3D printer and other losses caused by the violation of safety precautions and operational processes given in this User Guide, the user should take all the responsibilities.

1.2. Safety Precautions

- 1) Please use the machine under room temperature. The printing temperature of the nozzle should not exceed 230 C. When the machine is working normally or just finished, do not touch heating parts such as motor, nozzle, etc. to avoid scalding. Children should use it under the care of their parents.
- 2) The structure of this 3D printer is very complex; please refer to this user guide for troubleshooting. If the problem still cannot be solved, please contact our after-sale service. Our company will not offer warranty for printers with unauthorized repair by the user.
- 3) There is high voltage within the 3D printer and it is prohibited for non-professionals to disassemble the printer. All the consequences for violation of this precaution should be the responsibility of the user.
- 4) Please use the power cord and the USB data cable supplied by our company. For printer failure and other consequences because of using the third-party power cable or USB data cable, the user should take all the responsibilities.
- 5) When the 3D printer is connected to the power, please plug the power cord into three-hole flat socket complying with the international standard. The power cord cannot be forced into a two-hole socket. The ground wire must be connected to the ground and shall not be suspended. Our company will not be responsible for mechanical failure or other accidents caused by the disconnection of the ground wire.

- 6) The input voltage of the 3D printer is 100-220V. Please feel free to use it in or outside the mainland China.
- 7) If unexpected power outages are frequent in your area, please equip the 3D printer with UPS power.

1.3. 3D printing Filament

Please use the printing filament provided by our company for this printer. Printing filament sold at the retail market are different in specifications and varying in quality; As a result, it is easy to block the printer extruder, damage the extruder and motor. Our company will not offer warranty for printer failure for using third-party printer consumables.

1.4. Environment requirements

This 3D printer can work properly in an environment from 5 °C to 40 °C. If the ambient temperature is beyond this range, the quality of the printing products will decline.

If the filaments will not be used for a long time, please store them in a sealed package, and it is especially true for PLA consumables which will absorb moisture in prolonged exposure to air and affect the quality of finished printing products.

2. Product Appearance and Introduction



1. Operation Knob

2. LCD Screen

3. Extruder

4. Filament Holder

5. Printing Platform

3.Specification

Product Size	215*200*270mm
Product Weight	3kgs
Printing Technology	FDM
Filament	PLA, PLA Pro
Filament Diameter	1.75mm
Nozzle Diameter	0.4mm
Build Volume	100*105*100mm
Printing Software	Willbuilder/Cura
Printing Accuracy	0.1-0.4mm
Model File	STL/OBJ/G-code
Printing Method	TF card/Wi-Fi/W Lan
Leveling Method	Auto-Leveling

4. Unboxing

- 1) Before using the printer, please remove the fixing clip between the printing extruder and the printing platform. If the fixing material is not removed, turning on the printer may cause damage to the machine.
- 2) Remove the fixing clip in the 3D printer.

Precautions

When the printer is repaired during the warranty period, it is recommended that it be packaged and shipped in original packaging. Therefore, please retain the original packaging material. If you replace it with other package, the printer may be damaged during transportation.

5. Accessory List



1	USB Cable
2	Power Adaptor
3	Power Cable
4	Glue
5	Platform sticker
6	Hex wrench(1.5mm, 2.0mm, 2.5mm)
7	Phillips Screwdriver
8	Wrench
9	M6 Nozzle
10	TF Card
11	TF Card Reader
12	Filament

6.Operation Introduction

6.1 Connect Power Supply

- (1) Take out the power cord and transformer from the accessory box.
- (2) Connect the power supply to the printer as below photo.



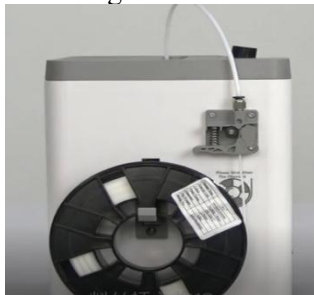
6.2 Loading Filament

- (1) Insert one end of the “guide tube” into the pneumatic connector of the extruder at the right side of the printer.



(2) Take out the filament from the box.

(3) Cut 5mm and make it straight, then insert it into the guide tube from the bottom side of the extruder.



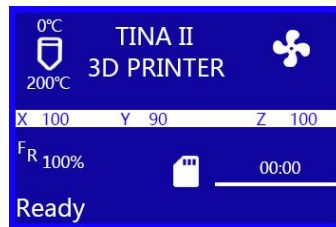
6.3 Start Printing Test

- (1) Take out the TF card from accessory box and insert it into the slot on the left side of the display screen.
- (2) Connect the power and open the power switch.



- (3) After above 2 steps, the “Info screen” shown in the right figures appears on the screen.

- Display the main interface after booting
- Click the knob, turn the knob clockwise to select “prepare” and click knob



- Turn the knob clockwise and click on “Auto feed filament”
 - The nozzle starts to heat, when the temperature reaches to 200 °C,there will be with Beep,it begins to load filaments.
- When Feed Filament finishes, select Continue to enter into main interface.

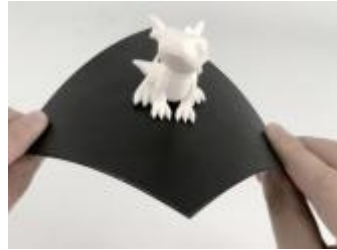


Note:Before printing,make sure to place a magnetic sticker on the platform.

- Turn the knob clockwise and click on”Print from SD card”, choosing “Test” , to print the test model.



-After finish the printing, take off the magnetic sticker then pick the model off.



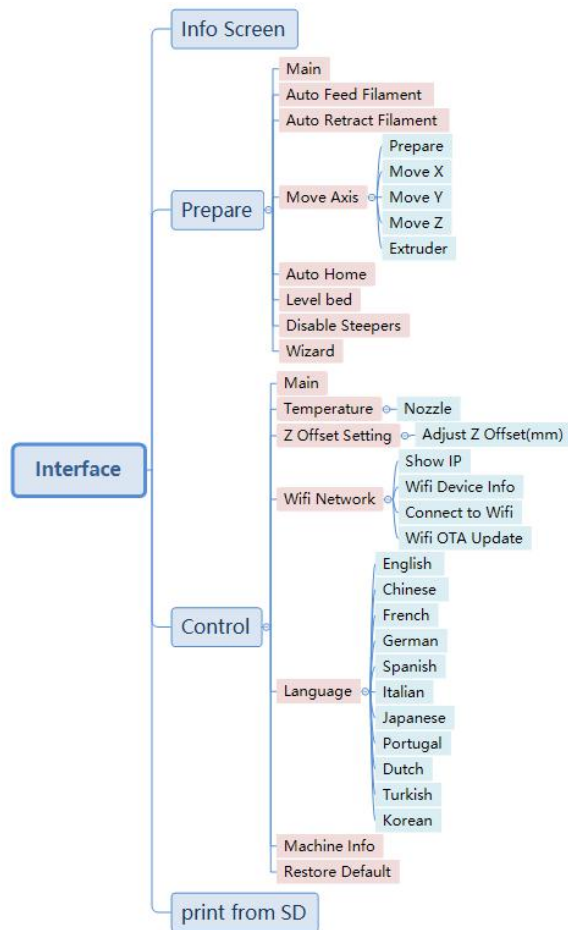
Notes:

- (1) Make sure that the magnetic sticker is placed horizontally on the platform before printing starts.
- (2) It is recommended that the printer being used at room temperature. When the adhesiveness of the platform is insufficient, apply glue on the printing area of the platform, or replace it with a new magnetic sticker.
- (3) After you start printing, we recommend that you confirm the first layer is attached on the platform to ensure that subsequent printing is successful.

7.Introduction of Interface

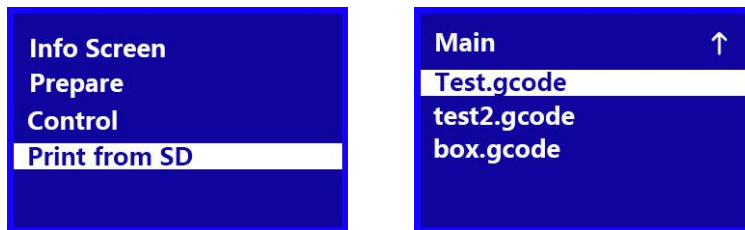
There are 4 menus on the 2.4" LCD screen: "Info Screen", "Prepare", "Control", "Print from SD"

The menu tree of the operation panel is shown in the following figure. The menu is divided into three layers (menu structure may be adjusted due to firmware upgrade). The left-most menu is the start menu, and the right-hand menu is its sub-menu. Rotate the button clockwise and click the button to enter the sub-menu of a menu item. Rotate the button counterclockwise and click the button to return to the top menu.



7.1 Common operation on Interface

7.1.1 Print from SD



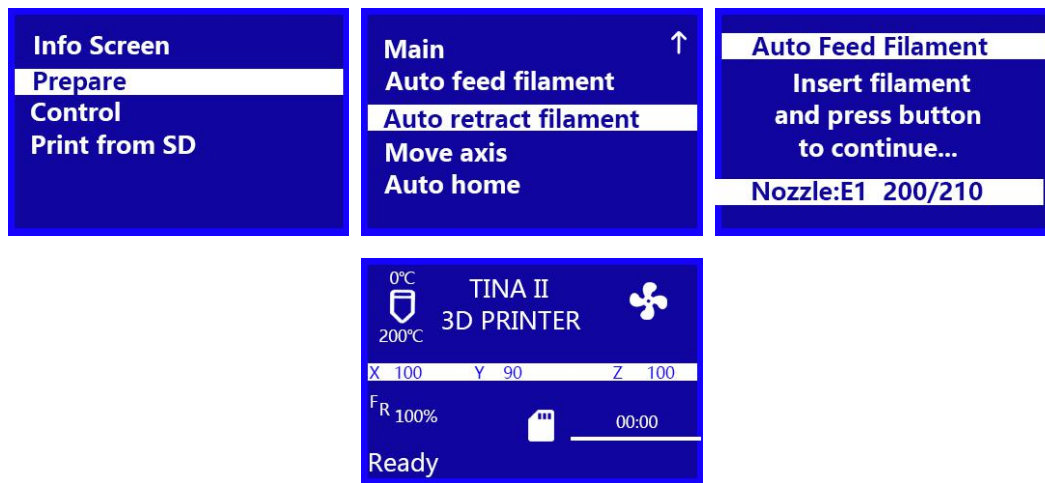
In the Start Menu, select Item 4 "Print from SD" and enter the SD Card File List. This list has the g-code format files in SD card root directory in reverse chronological order. Use the up and down keys to select the file to be printed, and then press OK to start printing.

Please note that the filename cannot be in Chinese, and the length of the filename must not exceed 20 characters, otherwise the machine can not recognize or display scrambled code.

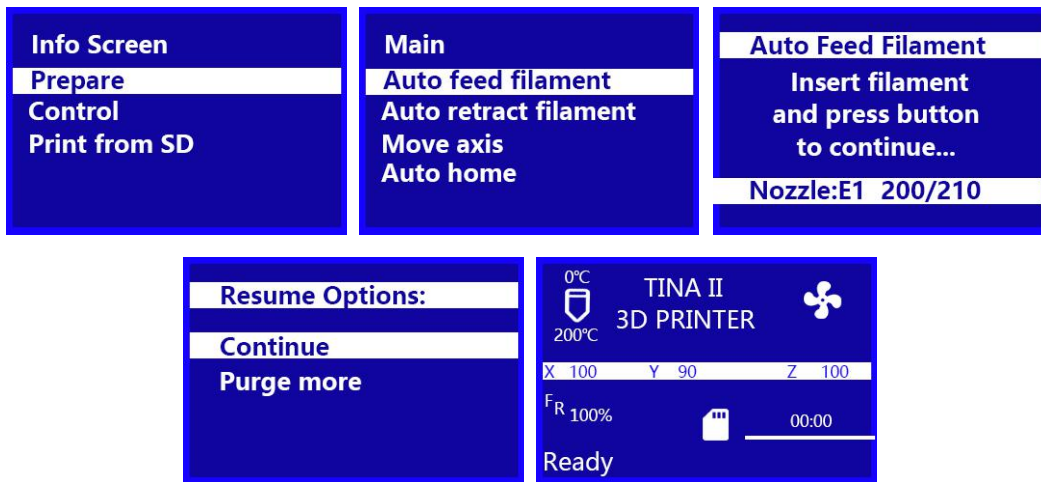
7.1.2 Printer Function in Prepare

7.1.2.1 Change Filament

In the Start menu, select item 2, "Prepare". Rotate the button and click on the "Auto Retract Filament" program. The nozzle is heated to a predetermined temperature, and then the motor of the nozzle starts to retreat.



Next, select item 2 "Prepare" from the start menu, rotate the button and click on the "Auto Feed Filament" program. The nozzle is heated to a predetermined temperature, and then the motor of the nozzle starts to move forward.



7.1.2.2 Move Axis

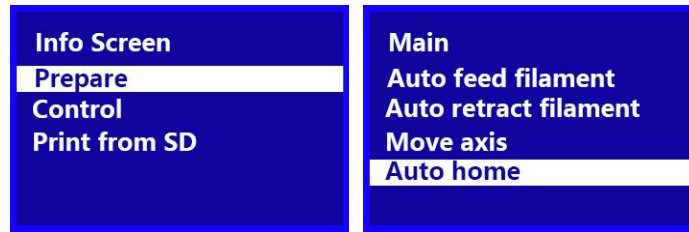
In the Start menu, select item 2, "Prepare". Rotate the button and click on "Move Axis". Enter the printer touch debugging interface. The debugging interface is included X axis, Y axis and Z axis and Extruder respectively. When you want the x\y\z axis go to the position you want, you can use 'move axis' function. Before click move axis, you need click 'auto home' show in 7.1.2.3. You can choose the step count 10mm, 1mm and 0.1mm. For moving extruder, you have to make sure the nozzle temperature at least 190°C. In the mode, you can see whether every axis is working correctly.

Main	Prepare	↑	Move x	
Auto feed filament	Move X	→	Move axis	↑
Auto retract filament	Move Y	→	Move 10mm	→
Move axis	Move Z	→	Move 1mm	
Auto home	Extruder	→	Move 0.1mm	→

Move Y	Move Z	Move Extruder
Move axis	Move axis	Move axis
Move 10mm	Move 10mm	Move 10mm
Move 1mm	Move 1mm	Move 1mm
Move 0.1mm	Move 0.1mm	Move 0.1mm

7.1.2.3 Auto home

In the start menu, select item 2 "Prepare". Rotate the button and click "Auto home". The printer nozzle and platform will automatically return to the origin. In this mode you can check whether each axis is working correctly.



7.1.2.4 Level Bed

Click “Prepare” choose “Level bed”, the 3D printer will level the bed automatically. In this mode you can check whether the ‘level bed’ function work correctly. If this function work incorrectly, you can check whether you put the magnetic sticker on the platform, if there is no magnetic sticker on the platform the level bed function will invalid.



7.1.2.5 Disable Steppers

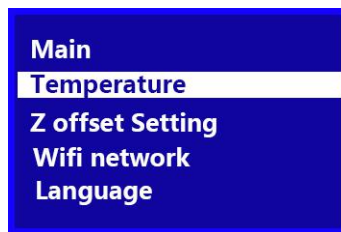
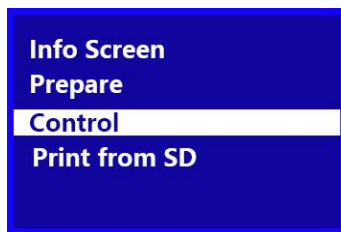
When you are using 'move axis' or 'auto home' all the axis are locked , you can not move each axis by hand immediately. you can click "Disable steppers", therefore, each axis will be in the free station. To be mentioned, it will be the station of unlocked after a few minutes with no operating.



7.1.3Printer Function in Control

7.1.3.1 Temperature

Select item 3 "Control" from the start menu, rotate the button and click the button to select "Temperature" to enter the printer temperature real-time monitoring interface. This function often used in the way of dredging nozzle, sometimes when the nozzle is blocking, we can try to improve the nozzle temperature to solve. However, the best way to dredge nozzle, is remove the old nozzle with a new one, there is a brass nozzle given free of charge in the accessory box.

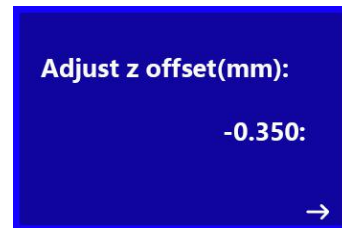
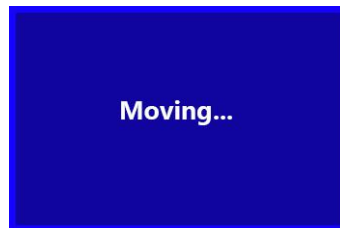
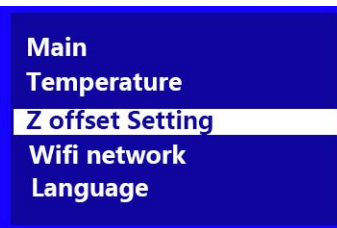
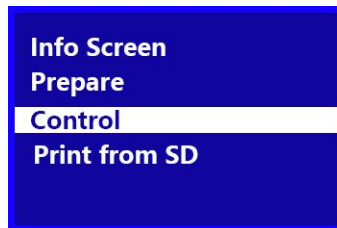


7.1.3.2 Z Offset Setting

Z Offset Setting is for users to adjust the distance between Nozzle and Platform.

Under the situation of nozzle and hall switch is in correct position.

When the distance between nozzle and platform is small, please adjust the figure to bigger; When the distance between nozzle and platform is bigger, please adjust the figure to smaller. The best distance between nozzle and platform is a piece of paper.



7.1.3.3 Wi-Fi Network

Choose “Control” --”Wi-Fi Network” ,there are 4 items: “Show IP” ,”Wi-Fi Device Info”, “Connect to Wi-Fi” and “Wi-Fi OTA Update”.

Choose “Show IP”, the IP of the Net will be shown.



Choose ”Wi-Fi Device Info” to show the information of the Wi-Fi Device and connecting status.



Choose “Connect to Wi-Fi”, open APP, go to Wi-Fi setting,input Wi-Fi password to connect the Wi-Fi. After connecting successful, IP will be shown as below picture.



”Wi-Fi OTA Update” : When there is update Wi-Fi firmware, users can update it online. **Currently, the firmware version is 2.7,when there is a new version you can use ota update function.**



7.1.3.4 Language

There are 11languages include English/Chinese /French/German/Spanish/Italian/Japanese/Portugal/Dutch/Turkish/Korean in the machine, you can choose the language you need.



7.1.3.5 Machine Info

This shows the basic information of the machine.



7.1.3.6 Restore Default

There is no need to choose to this function normally. After you update with our new firmware, you need to click 'Restore Default', and then restart the printer.



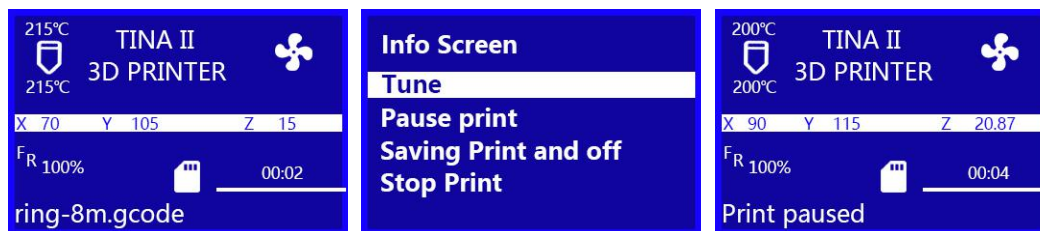
7.2 Parameter setting during printing

7.2.1 Pause print/Stop print

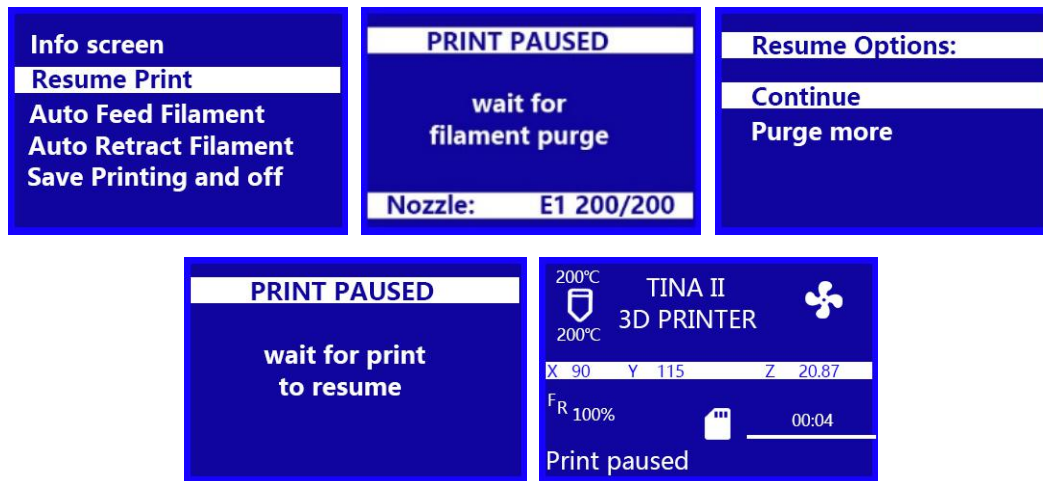
In the state of file printing, you can click the rotary button to enter the Print Screen, and the rotary button can choose "Pause print" or "Stop print".

Pause Print

After pausing printing, you can click the button to select "Pause print" to resume printing.

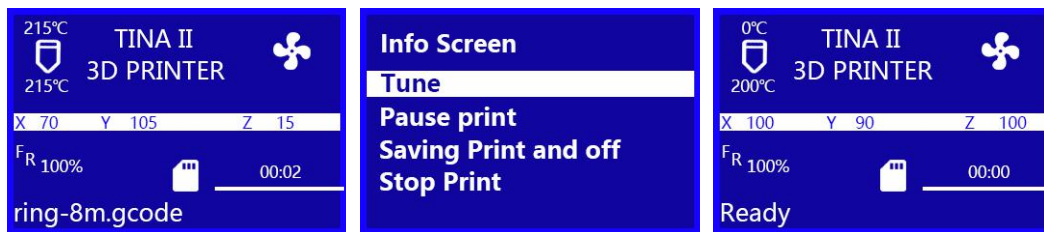


Click the button, enter into below interface, select “Resume Print”,operating as guide as below pictures:



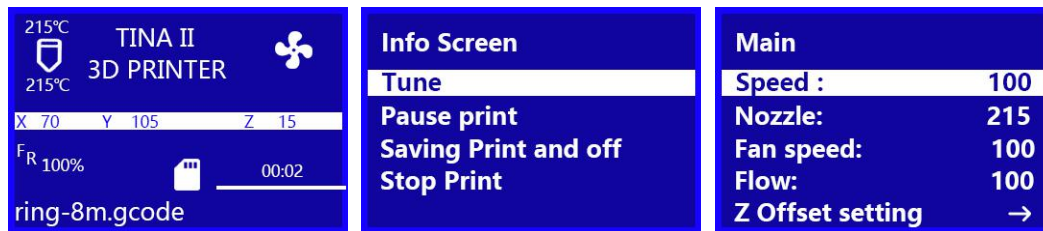
Stop Print

During the printing process, click the button, “Stop Print” selection will be appeared.Click it, the printing will be stopped.



7.2.2 Adjust temperature of nozzle

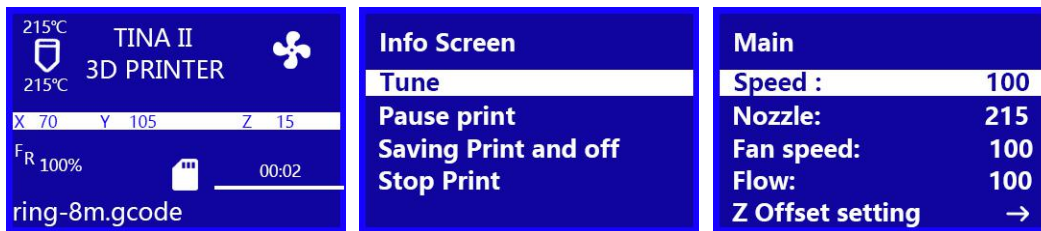
In the state of document printing, you can click the rotary button to enter the Print Screen, rotate the rotary button and click the button to select "Tune", "Nozzle" and enter the temperature reset interface of the print nozzle. The rotary button can increase or decrease the temperature.



Rotate the rotary knob to adjust the temperature, click the button to confirm, the the nozzle temperature is adjusted.

7.2.3 Adjust the speed of nozzle

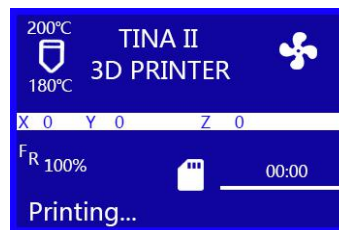
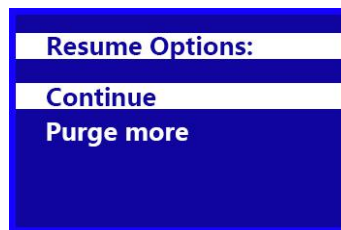
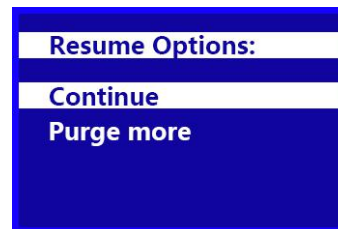
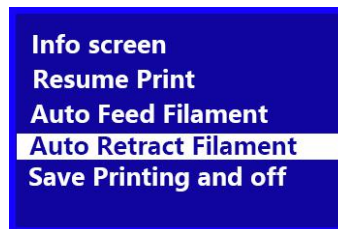
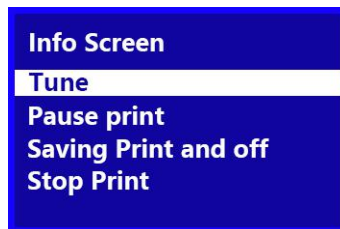
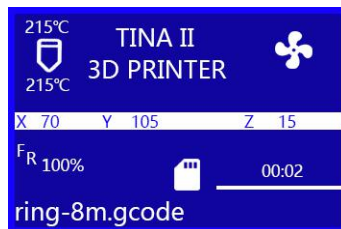
In the state of document printing, you can click the rotary button to enter the Print Screen, the rotary button and click the button to select "Tune", "Speed". You can enter the print speed reset interface, and the rotary button can increase the deceleration. The printer will be damaged if the printing speed is too fast. Please use the speed-up function carefully.



Rotate the rotary knob to adjust the temperature, click the button to confirm, the the nozzle temperature is adjusted.

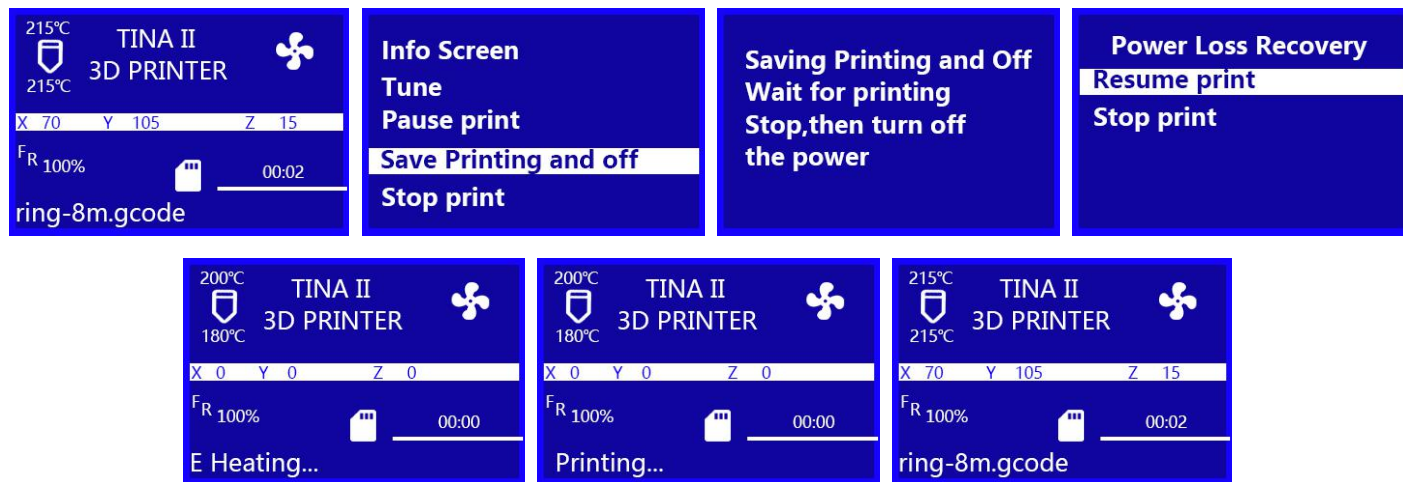
7.2.4 How to change filament when printing

In the state of document printing, you can change filament when you need different color of filament, or in case the material will used up. You can click the button and choose the pic2 below 'Tune' then choose "Auto retract filament" after the filament is retracted, you have to click "auto feed filament" after the new filament is loaded, The last way you have to do is choosing "Resume print".



7.2.5 Saving print and off

The function "Saving print and off" means you can click "save printing and off" when you are printing, after this you can turn off the machine. The printing will be saved, therefore next time when you turn on the printer, you can resume the printing.



8.Software

Software	Instruction
Wiibuilder2.0.6.0.exe	Wiibuilder is a host computer software for 3D printers, which can be sliced to generate files for offline printing, online printing, 3D model editing, and management of 3D printers. Wiibuilder uses a multi-thread slicing engine, including user interface and professional interface.

System requirement for Wiibuilder

CPU: Above Pentium 1GHz

Memory: Above 1G

Hard disk: Above 1G disk space

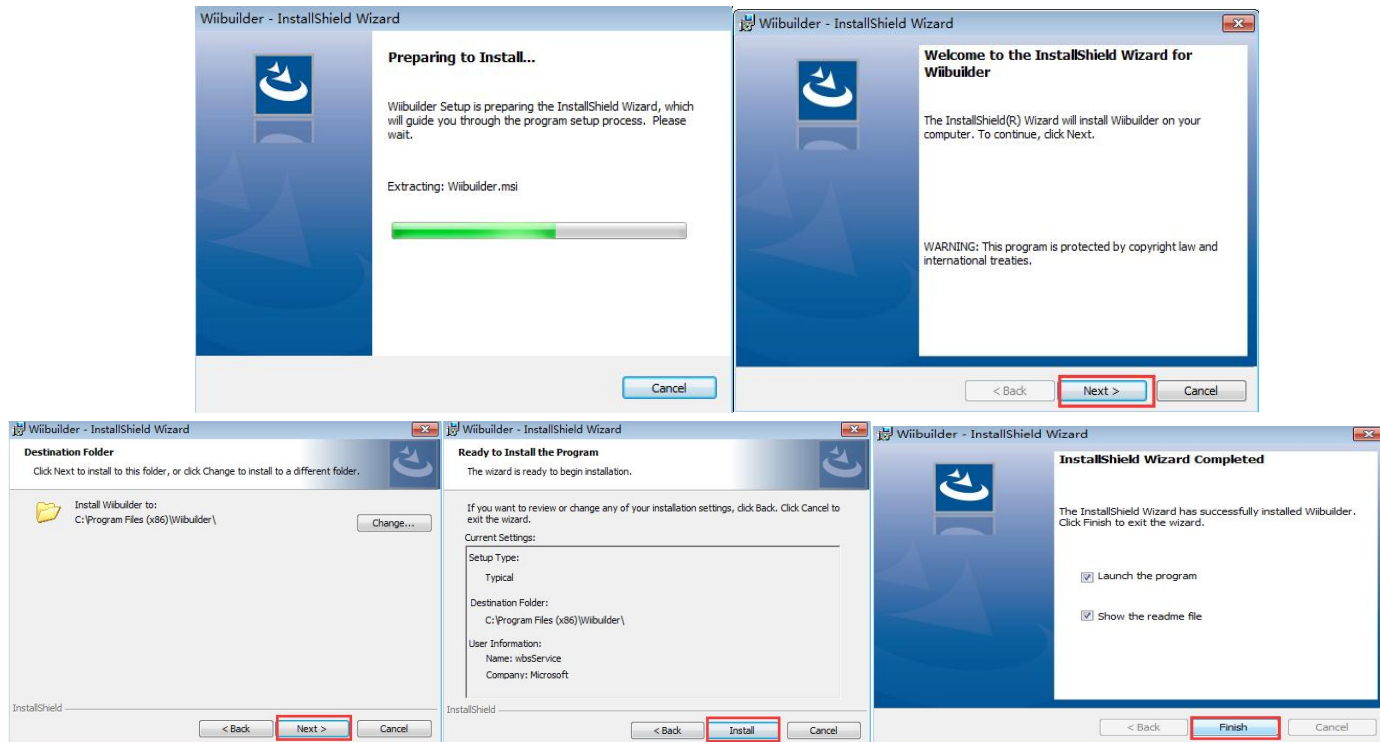
Display resolution: minimum 640 x 480 pixels, recommended 1024 x 768 pixels and above

Color: 256 colors

Operation System: Windows7 and above Windows 7

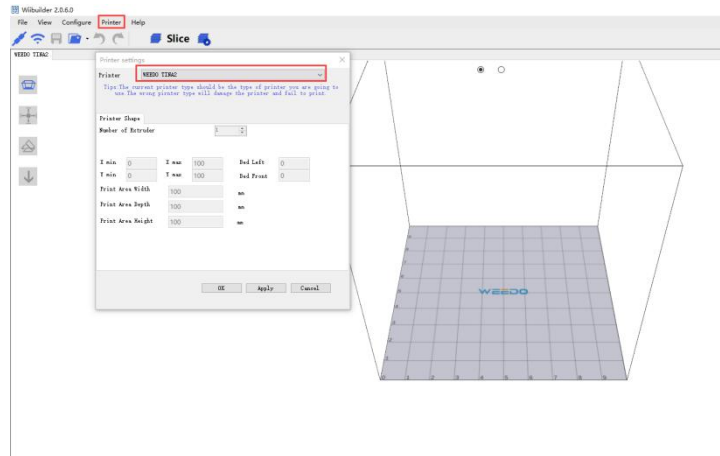
Other Run time library: Above OpenGL2.0, Above .NET Framwork4.0

(1) Run the software installation package, Wiibuilder in the installation wizard window, click "next"-"next"-"Install"-"finish". In the selection installation path window, use the default path of the program.



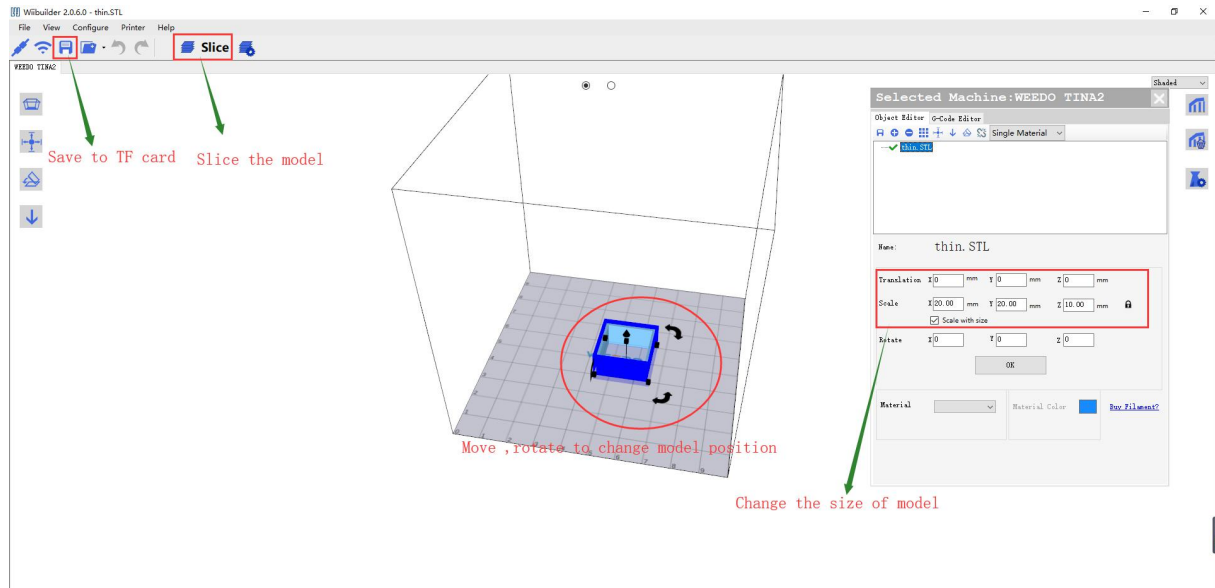
(2) Select Printer model

Our company 3D printer models are stored in the software configuration file. Users choose the corresponding models according to the products they buy. The direct printing files produced by the software are matched with the specific models. So, choosing the right model is related to whether the printing can be done properly. In this case please select Tina2.

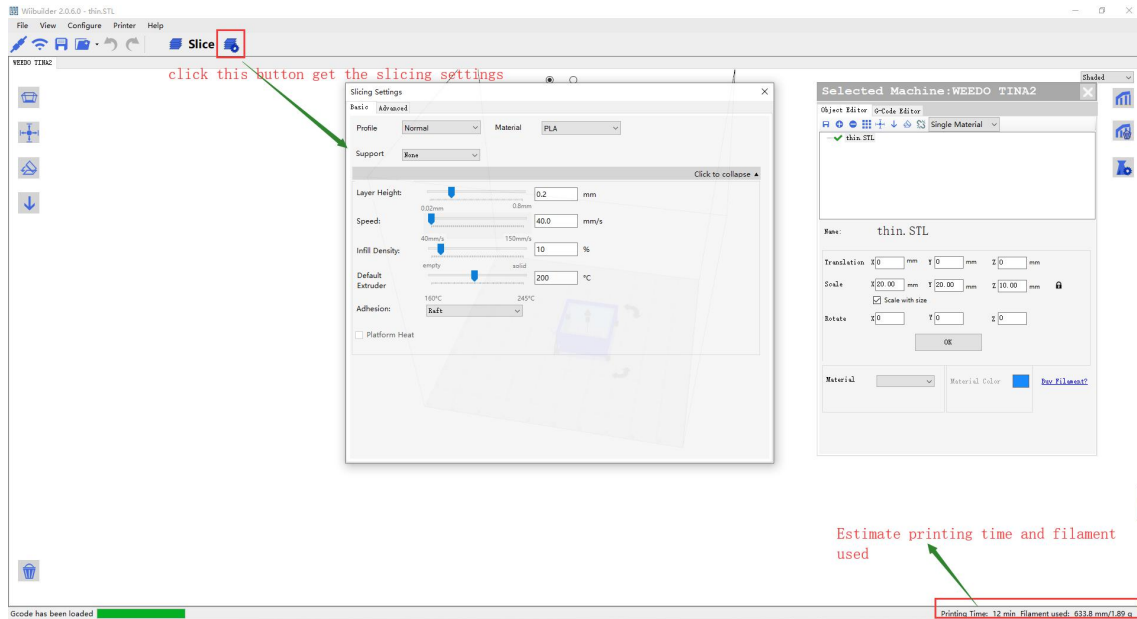


(3) Load STL model file and slice printing file

Click 'file' to load stl. file, after loading into the software, you can move and rotate the model. If you are not sure the meaning of each button, you can leave the mouse on the button for a while, you can see the tips. You can also change the size of model, one thing need to mention is that the printer size is 100x120x100mm, model size must be within this range.

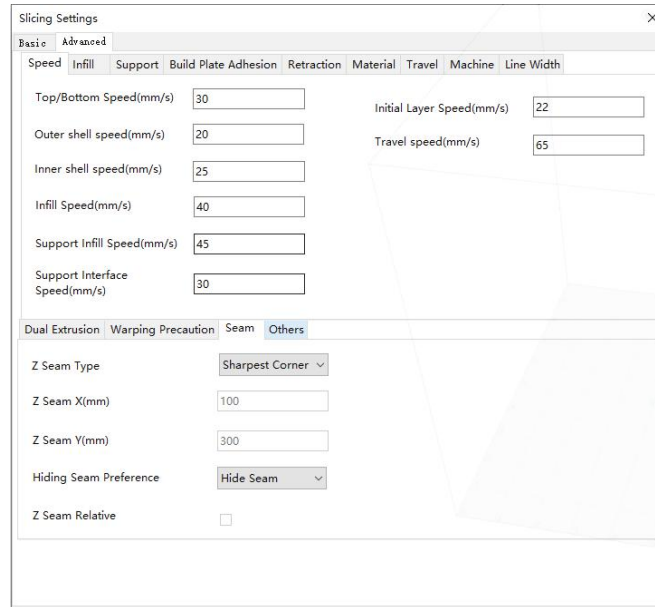


(4) Slicing setting



- (1) You can choose different printing profile: very fast, fast , normal, high quality, Ulti quality, if you choose fast profile, the printing precision will worse than normal and high quality profile. We recommend you use normal and high-quality profile.
- (2) Support: depend on your model, if there are some hanging on your model, make sure use support everywhere.
- (3) Layer height: 0.1-0.2 will be ok for the balance of speed and precision.
- (4) Speed: 40mm/s this is speed we recommend you to use. If you make the speed higher, it may cause split layer when printing, because this is a tiny machine, printing too quick may cause problem.

- (5) Infill density: if you have no strength requirement, 10-20% will be ok, however if you are focus on strength, you can make the density higher-40-60%
- (6) Printing temperature: 200°C
- (7) Adhesion: please use Raft model



The image shows a 'Slicing Settings' dialog box with a close button (X) in the top right corner. The 'Advanced' tab is selected, and the 'Infill' sub-tab is active. The settings are organized into two columns. The left column contains: 'Top/Bottom Speed(mm/s)' set to 30, 'Outer shell speed(mm/s)' set to 20, 'Inner shell speed(mm/s)' set to 25, 'Infill Speed(mm/s)' set to 40, 'Support Infill Speed(mm/s)' set to 45, and 'Support Interface Speed(mm/s)' set to 30. The right column contains: 'Initial Layer Speed(mm/s)' set to 22 and 'Travel speed(mm/s)' set to 65. Below these, there are four sub-tabs: 'Dual Extrusion', 'Warping Precaution', 'Seam', and 'Others'. The 'Seam' sub-tab is selected, showing 'Z Seam Type' as 'Sharpest Corner', 'Z Seam X(mm)' as 100, 'Z Seam Y(mm)' as 300, 'Hiding Seam Preference' as 'Hide Seam', and 'Z Seam Relative' as an unchecked checkbox.

Parameter	Value
Top/Bottom Speed(mm/s)	30
Outer shell speed(mm/s)	20
Inner shell speed(mm/s)	25
Infill Speed(mm/s)	40
Support Infill Speed(mm/s)	45
Support Interface Speed(mm/s)	30
Initial Layer Speed(mm/s)	22
Travel speed(mm/s)	65

Parameter	Value
Z Seam Type	Sharpest Corner
Z Seam X(mm)	100
Z Seam Y(mm)	300
Hiding Seam Preference	Hide Seam
Z Seam Relative	☐

For advanced slicing setting

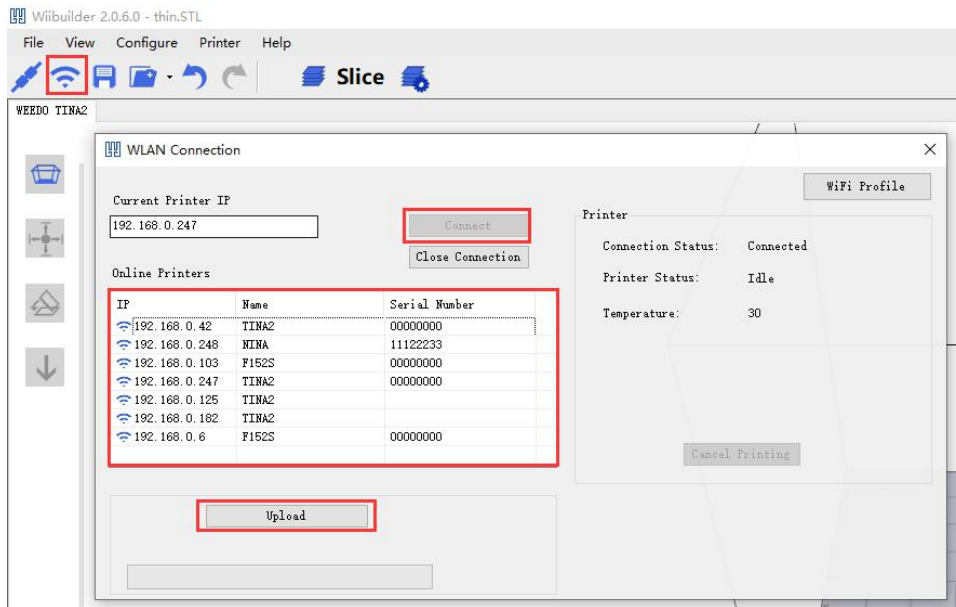
You can set more parameters, however this parameters often do not need to be changed.

The seam function is one of our invention. You can set the seam as you wish, it will make the model more precision.

If you want know more about the advanced function, please see the instruction of software in TF card.

(5) Print via W Lan

Tina2 can print via W Lan, it means after you slice the printing file. You can send the printing file to the machine in the software. As you can see in the picture below, you need find the your machine, or input your machine's IP address, then connect to the printer, when you finish the connecting progress, you have to upload the printing file, and then the printer will begin to print, after the uploading progress finished.



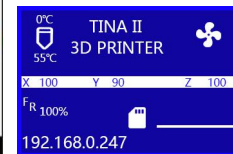
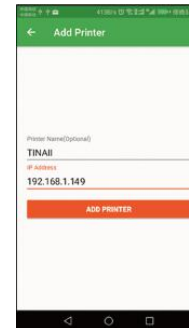
9. APP Printing Introduction

Step 1: Copy the APP and install to your Pad or phone(for Android)

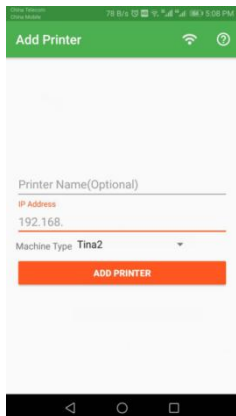


Step 2:When you first use the APP,you will see the tutorial,and know how to connect to your printer.

Step 3:Enter the network Wi-Fi password, click the “control”--”Wi-Fi Network”--”Connect to Wi-Fi”



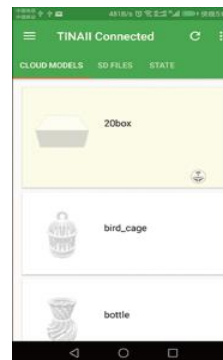
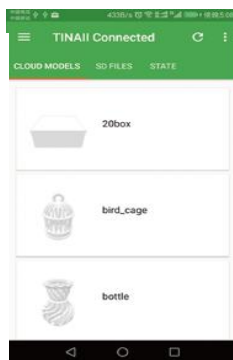
After Step 3 finished,the mobile phone starts to distribute the network.After the network is complete ,the IP address is displayed.The current IP address of the device will also display at the bottom left of the printer.



Step 4: Add your printer

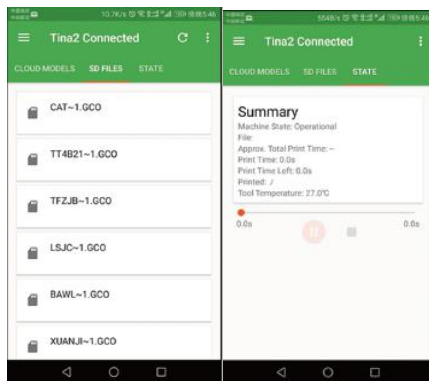
- (1) Setting the printer name
- (2) Enter the device IP address
- (3) Select Machine type
- (4) Click “ADD PRINTER”

Note: IP address should be same with that shown on your mobile phone and printer.



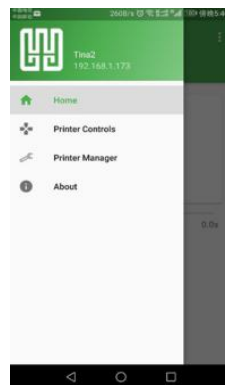
Step 5: The main interface of APP displays cloud model files for users to choose the model to print.

After selecting the model to print, click on the model icon and a print button will appear in the lower right corner. After clicking, you can print.



Step 6: Printer State

- (1) The file you slice with wiibulider and saved in TF card can also be chosen to print via app.
- (2) You can see the state of the printing status.



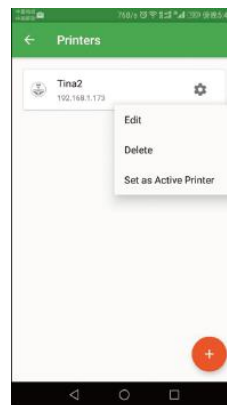
Step 7: More Function

You can see other functions by click the upper left corner icon. You can control and manage your printer.



Step 8: Printer Control

You can control your printer with this APP. Move X/Y/Z; Filament in and filament out.



Step 9: Printer Management

In the Printer manager interface, you can manage your printer, edit the name and IP address, delete the printer. When you have several printers, you can add new one and set one as active printer

To know more about our product, you can go to our wiki website:

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