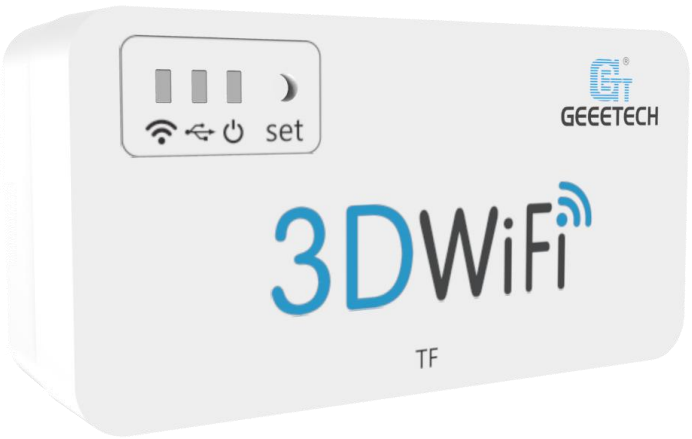
Geeetech 3D WiFi Module

—User Manual—



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Safety and Compliance

Radio and Television Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The following booklet compiled by FCC may help you: “How to Identify and Resolve Radio-TV Interference Problems”

Changes and modifications not expressly approved by the manufacturer or registrant of this equipment will void your right to use the equipment in accordance with FCC regulations.

Radio Specifications

	WLAN RF Frequency			
Frequency	Gange	Protocol	Wireless Types	Wireless Specification
			Taoglas，P/N	Within 2.4 GHz Band
2.4 GHz	2.412 - 2.472 GHz	802.11 b/g/n	FX831.07.0100C	2.5 dBi

1. About Geeetech 3D WiFi Module

Geeetech developed 3D WiFi Module, with the only aim of enabling all the 3D printing hobbyists to control their printer wirelessly. 3D WiFi Module is mainly composed of two parts: control board and Wi-Fi module. Thumb-size as it is, it is powerful enough to connect your 3D printer with Geeetech's cloud server, making it a reality for you to control your device on EasyPrint 3D App.

3D WiFi Module is ready to use right out of box. You just need to connect your printer to its USB port and finish simple configurations on EasyPrint 3D App. That's all. Then you can start to control your printer wirelessly.

3D WiFi Module is cloud-based. Via EasyPrint 3D App, it is extremely simple and convenient to direct control over your printer anywhere and anytime. Besides, you would have access to a large cloud gallery, which covers 9 categories of 3D models for printing. What's more exciting is that you could record and share your printing moments on EasyPrint 3D App in seconds.

3D WiFi Module is broadly compatible with many different kinds of 3D printers on the market. As long as the USB to serial chip of your printer belongs to one of these three ones (CH340, FT232 and PL2303) and is controlled by G.code instructions, our 3D WiFi Module can upgrade your machine as Wi-Fi enabled and make it comparable to other prohibitively expensive Wi-Fi connected 3D printers.

Coded professionally and adopting high-performance chips, 3D WiFi Module could transmit model files and your commands to your printer in a stable and reliable way.

2. Install EasyPrint 3D App

Download the EasyPrint 3D APP and install it by following the instructions.

www.geeetech.com/firmware/EasyPrint3D_Android.apk

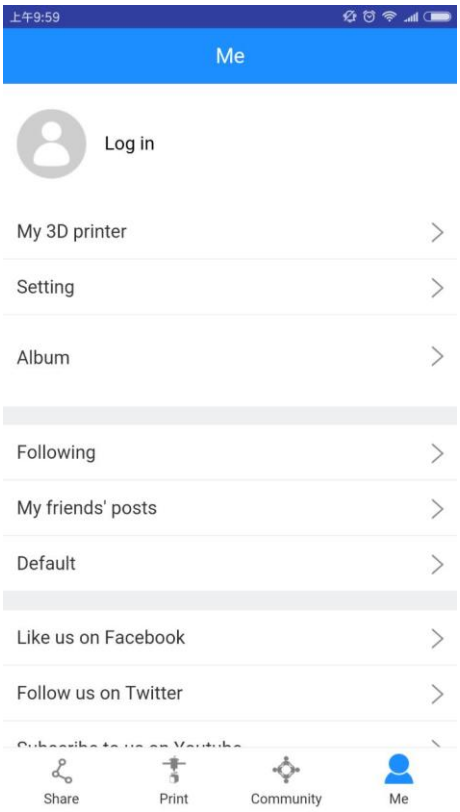
You could also download EasyPrint 3D App on **Google Play** and **App Store**.

Once finishing installation, enter ***Me*** to register and log in.

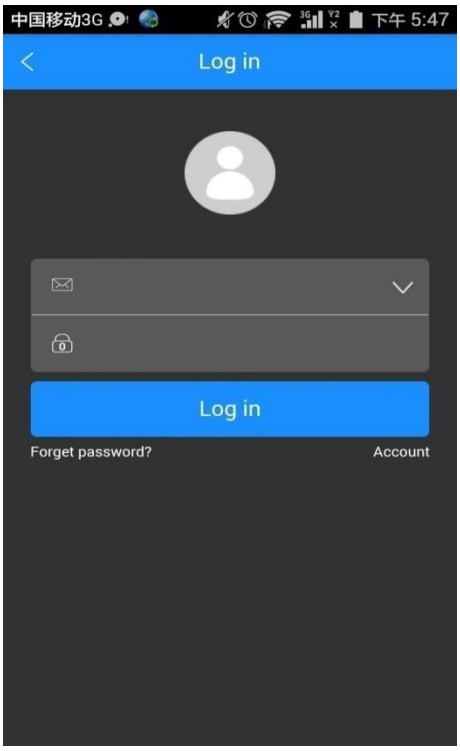
Note: As the EasyPrint 3D APP is continuously upgraded, some UI and workflow may be different, please follow the APP.

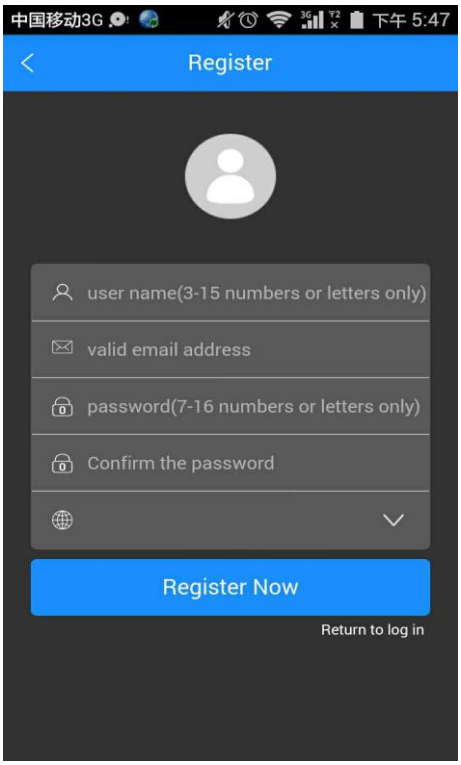
Here are the login steps.

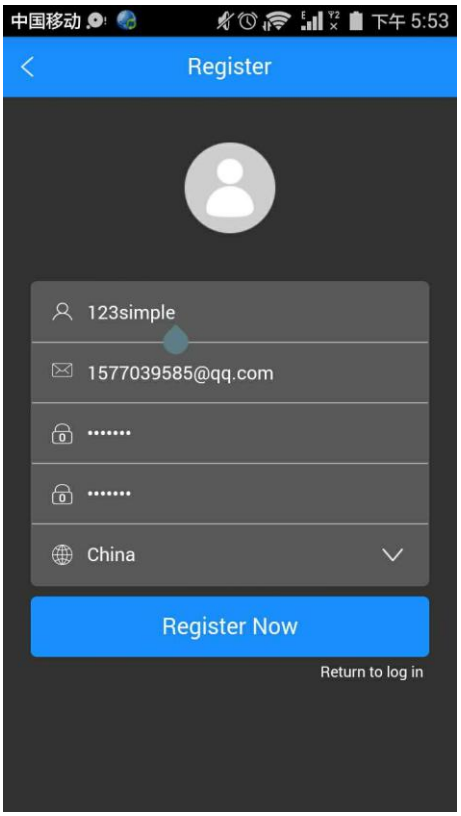
Step1. Open EasyPrint 3D App. Click the [Log in] button in the [Me] interface to finish your registration.



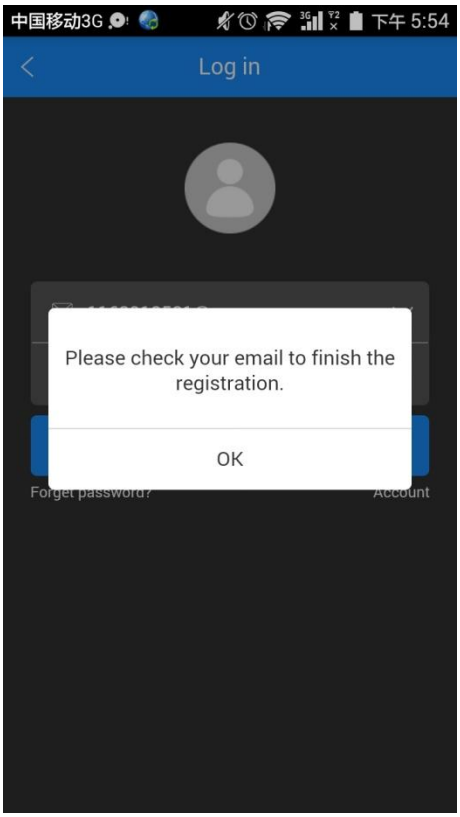
Step 2. For beginners, click [Account] to register. Enter your own account information (Note: There is no space in the user name. For foreign users, please choose “English” for your server address.)







Step 3. Click [Register Now] and a pop-up interface will appear for your to check your email.

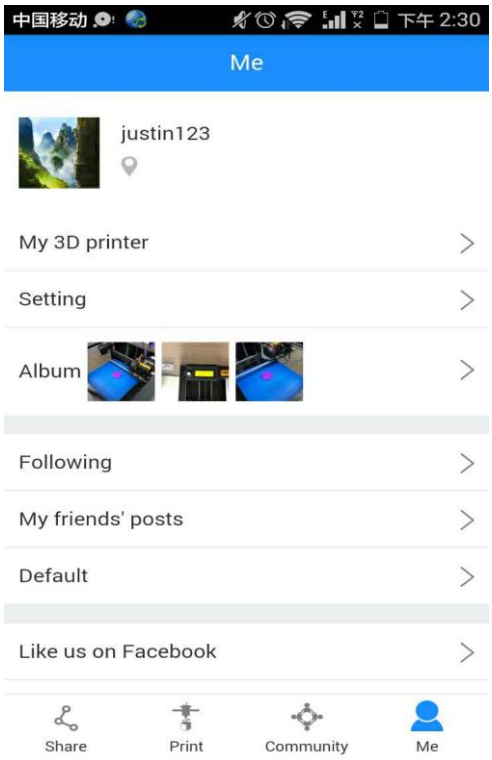


Step 4. Click OK and check your email. Log in with your account information.

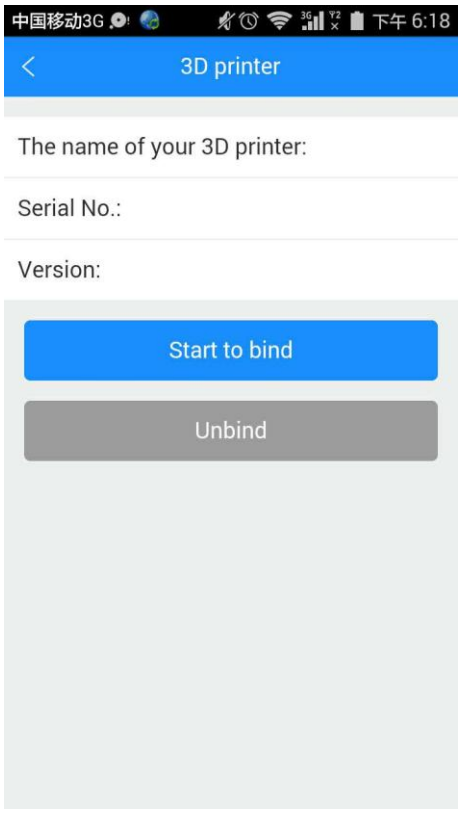
3. Bind 3D printer to EasyPrint 3D App

Log in and bind the printer. In ***Me—My 3D Printer***, finish the binding process following the instructions on App.

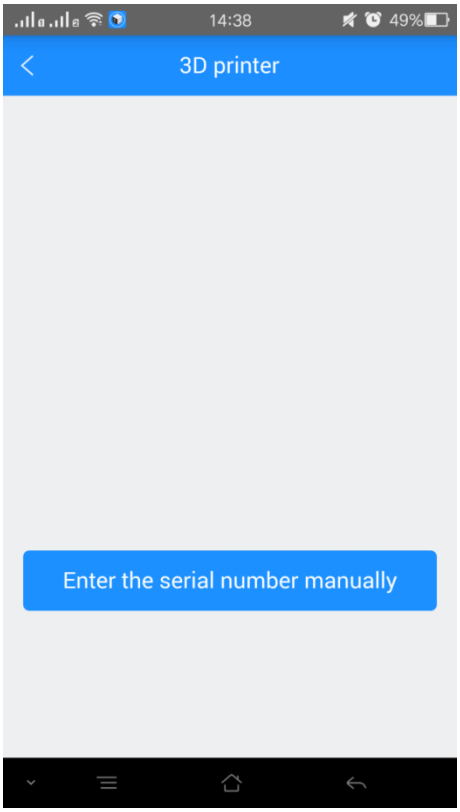
Step 1. Click ***My 3D printer***

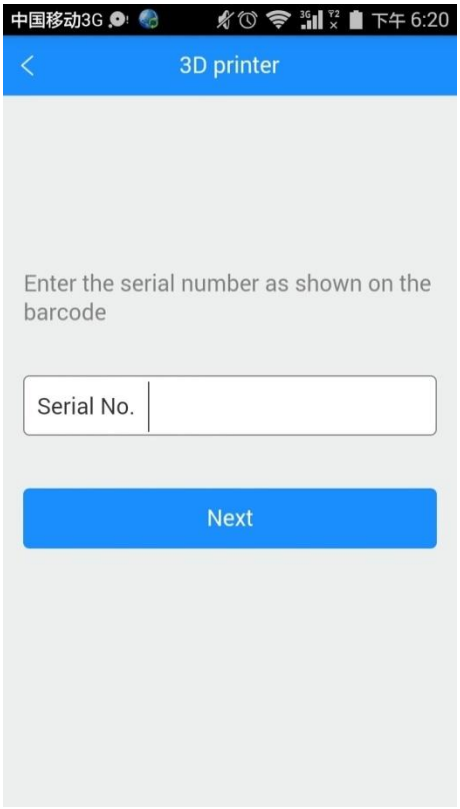


Step2. Click the "Start to bind"button.



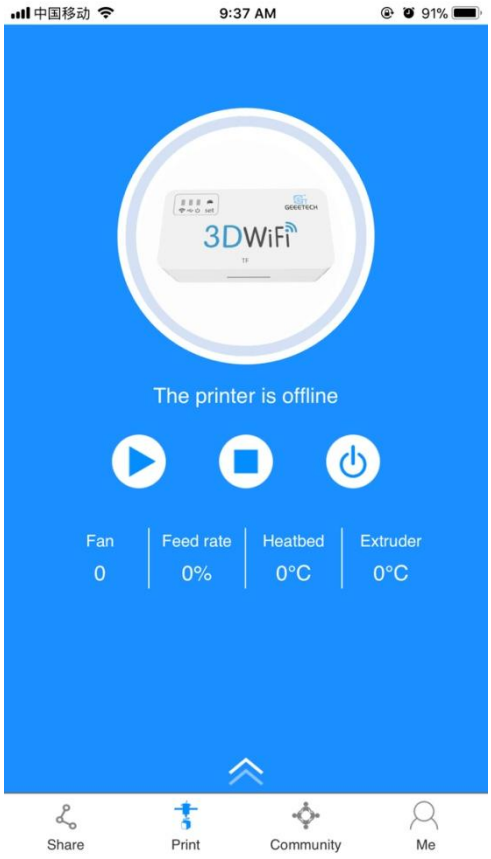
Step 3. Click the button in the picture below to enter the serial number manually.





Step 4. Click "Next"and the picture below will pop up to inform you that the binding process is successful.

Step 5. Then you will see the following interface, showing that the printer is off-line.



That’s the whole binding process. In the next part, we will finish the Wi-Fi configurations step by step. Be patient~

4. Wi-Fi Configurations

Detailed configuration procedures are as follows:

Step 1. Connect your 3D printer to the USB port of 3D WiFi Module with your USB cable for data transmission. Use the power cable to connect 3D WiFi Module with your adapter to power it up.

Step 2. Please check if the three indicator lights are on: Wi-Fi, USB, Power source from left to right orderly. Insert the TF card into the slot.

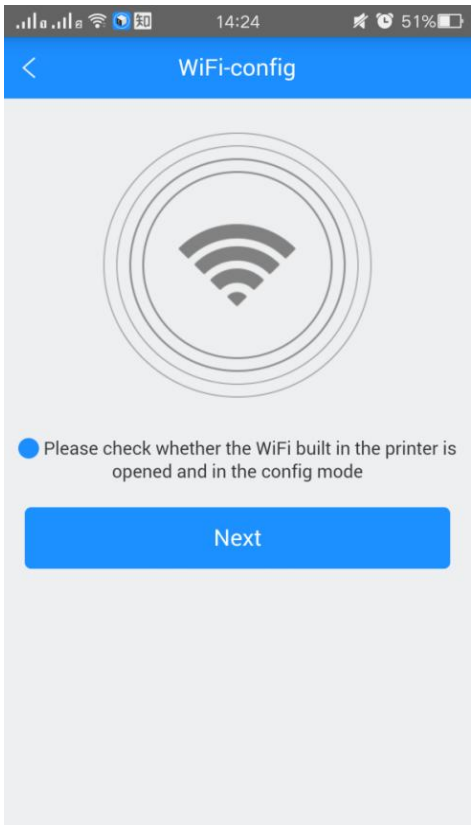
Step 3. Long press the hole labeled with "set"with a pin, until the Wi-Fi light turns dim and flickers quickly. Loosen the pin and 3D Wi-Fi will enter the config mode.

Note: If you do not loosen the pin, the light will flicker slowly to enter the reset mode.

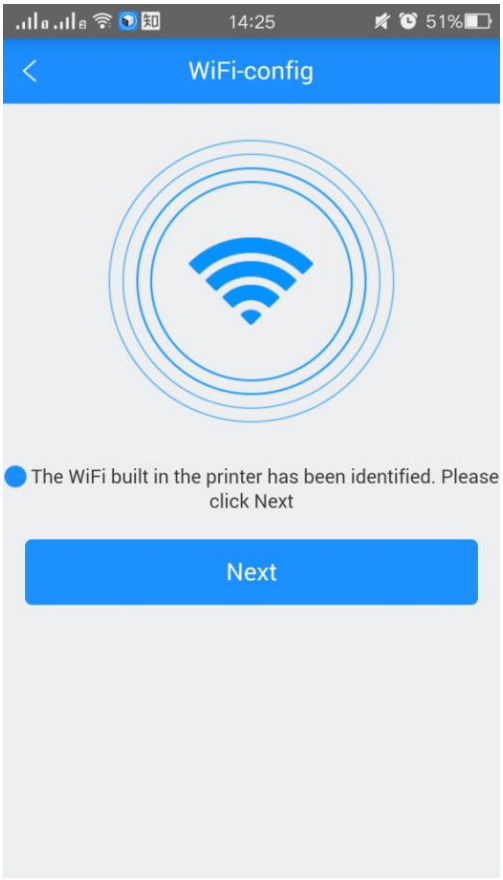
Step 4. Open EasyPrint 3D App and click "Print". At the page of pop-up, click the "Wi-Fi" icon to enter Wi-Fi configuration mode, as shown in the picture below.

中国移动
9:37 AM
91%
3DWiFi
The printer is offline
Fan
0
Feed rate
0%
Heatbed
0°C
Extruder
0°C
Share
Print
Community
Me

中国移动
9:37 AM
91%
3DWiFi
The printer is offline
Fan
0
Feed rate
0%
Heatbed
0°C
Extruder
0°C
Move
Temp
Speed
Leveling
Filament
Wi-Fi
Setting
G-Code
Share
Print
Community
Me

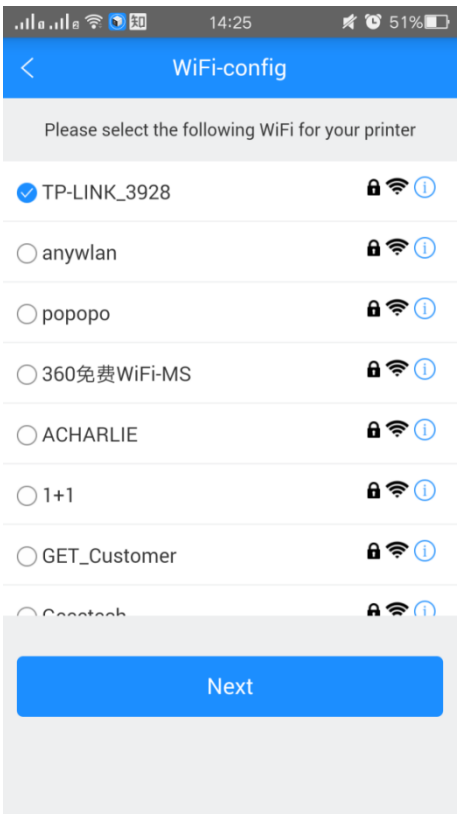


Step 5. Click [Next] to start to detect Wi-Fi built in the printer. If the Wi-Fi is detected, you could see the following picture.



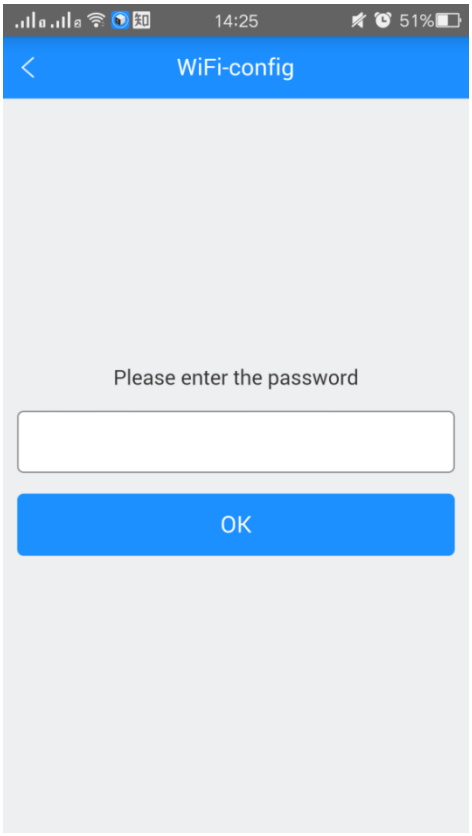
If not detected, it will pop up a prompt “Printer Wi-Fi is not detected”. Click [OK] and again click [Next] to redetect.

Step 6. After detecting the Wi-Fi built in the printer, click [Next] and choose a Wi-Fi hotspot, as shown in the picture below.

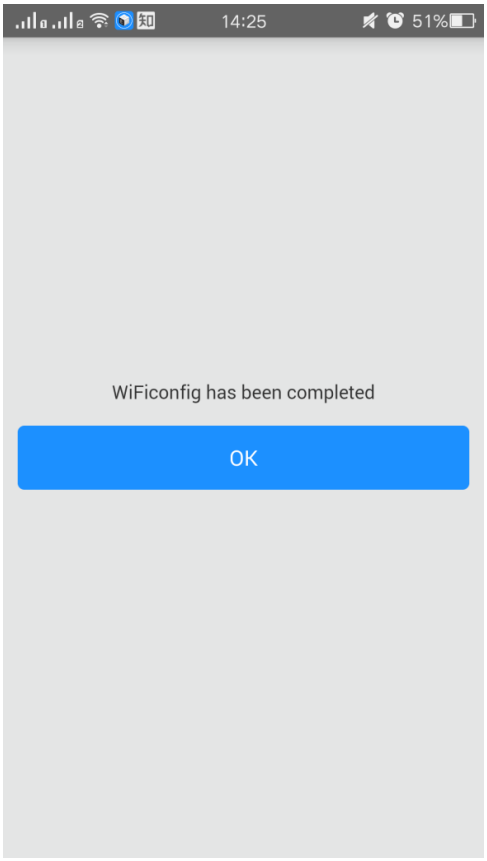


Step 7. Click [Next]. If the Wi-Fi hotspot needs password, the interface will show the Wi-Fi password input box. Just input the correct password, and then click [OK], as shown in the picture below.

If there is no need to input the password, please continue with the next step.



Step 8. When you succeed in connecting the Wi-Fi, the interface will show that the configuration is finished. Click “[OK]” and the interface will show that the printer is on-line.

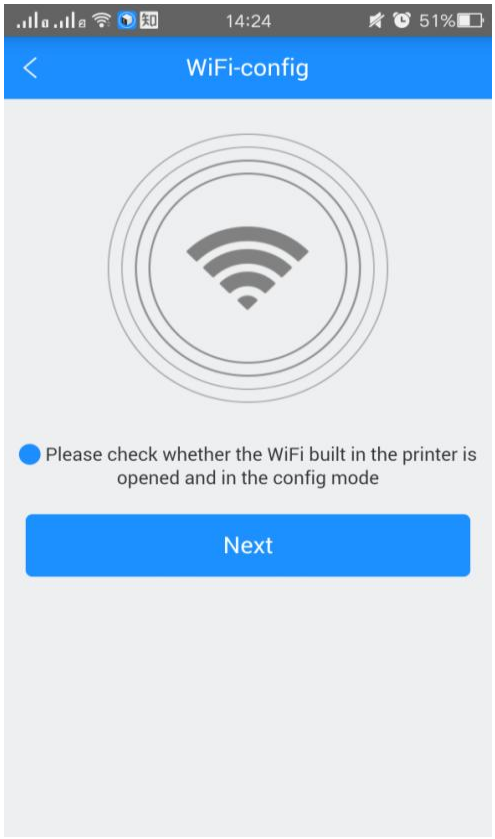


Till here, the configuration between App and your printer is finished. Now you can print and control the printing via EasyPrint 3D App.

Note:

- For iOS users: The configuration steps are a little different from the Android version from Step 5.

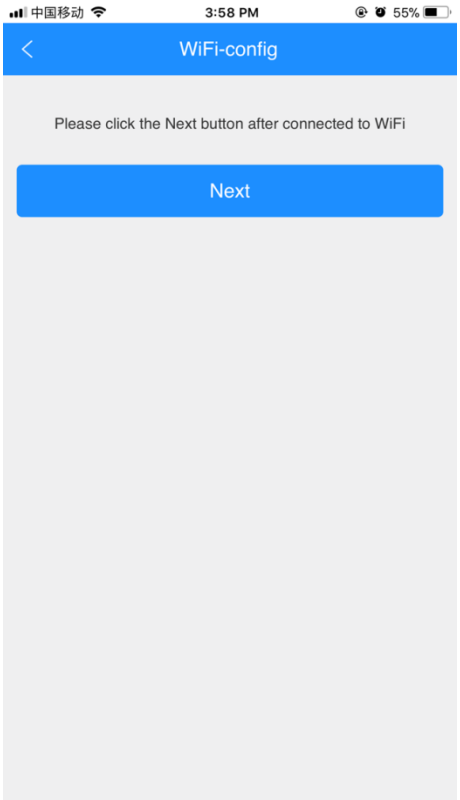
Step 5. Click [Next] to start to detect Wi-Fi built in the printer. If the Wi-Fi is detected, you could see the "Settings"interface on your phone.


14:24
51%
WiFi-config
Please check whether the WiFi built in the printer is opened and in the config mode
Next

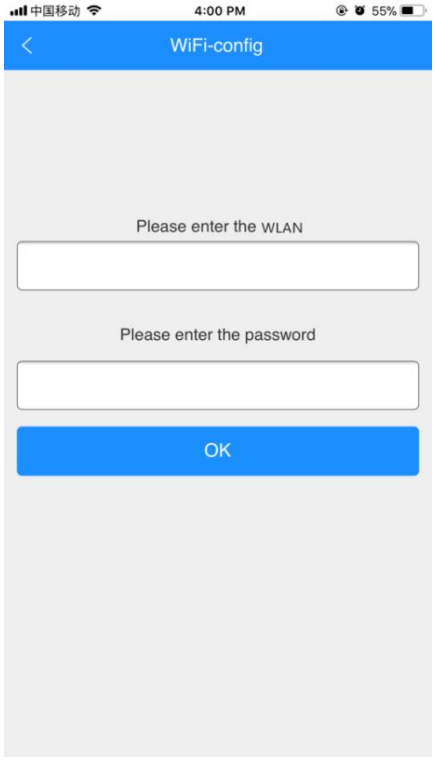
EasyPrint3D
3:56 PM
56%
Settings
向莉群
Apple ID, iCloud, iTunes & App Store
Finish Setting Up Your iPhone
1
Airplane Mode
Wi-Fi
TP-LINK_3928
Bluetooth
Not Connected
Cellular
Personal Hotspot
VPN
VPN
Carrier
CHINA MOBILE
Notifications

Step 6. Click the Wi-Fi button to connect “Geeetech-Printer” hotspot, as shown in the picture.

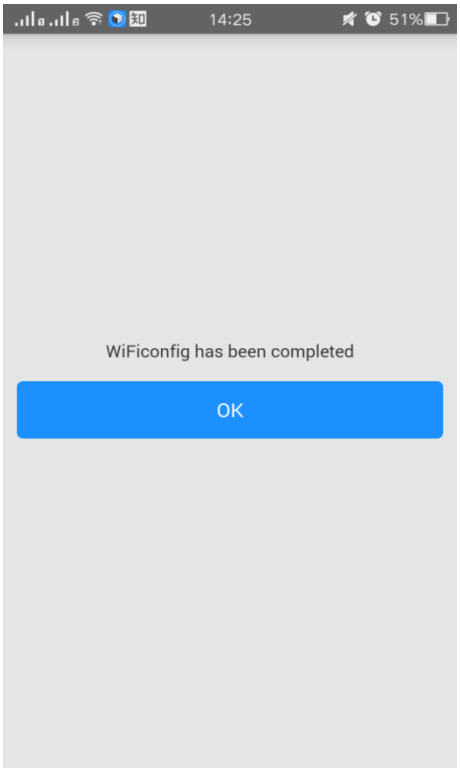
Step 7. Click the [Next] button in the picture below.



Step 8. Enter the WLAN name and password of your router. Click [OK] to connect your Wi-Fi.



Step 9. When you succeed in connecting the Wi-Fi, the interface will show that the configuration is finished, as shown in the picture below.



Step 10. Click [OK] and the interface will show that the printer is on-line.

Till here, the configuration between App and your printer is finished. Now you can print and control the printing via EasyPrint 3D App.

5. Printing via EasyPrint 3D App

As above, once the configuration between APP and the printer is successful, you can start to print.

Note: A TF card is still needed when print via Wi-Fi to save the files.

5.1 Control Your 3D Printer with EasyPrint 3D App

5.1.1 Introduction to Print Interface

Click the [Print] button. In the prompt box will appear 8 icons, all having different functions: Move, Temp, Speed, Leveling, Filament, Wi-Fi, Setting and G-Code.

Move: control the moving direction of each axis.

Temp: show the temperature of the extruder and hotbed.

Speed: show printing speed and fan speed.

Leveling: use the 5 points leveling method to calibrate the building platform.

Filament: load / unload filament.

Wi-Fi: click to start Wi-Fi config.

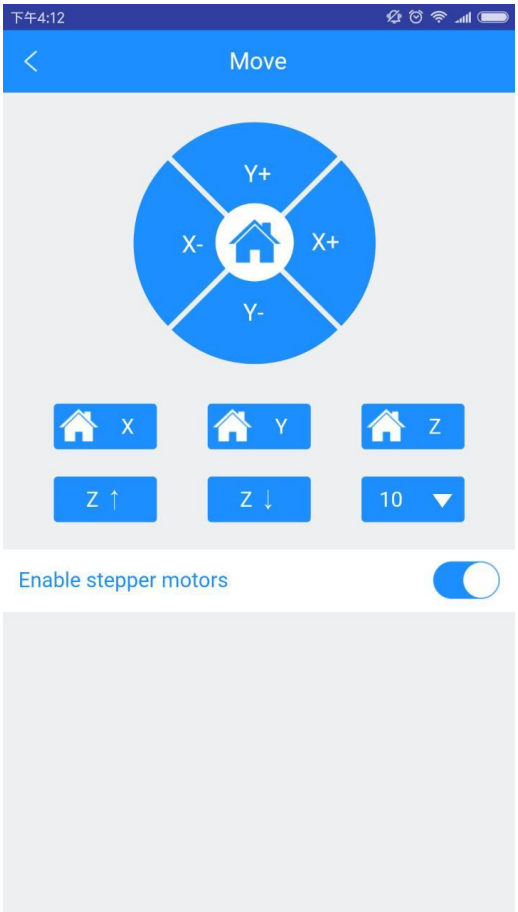
Setting: show the relevant parameters of your 3D printer.

G-Code: convenient to send G-code instructions to control your 3D printer.

5.1.2 Move

Click the [Move]icon , and the following picture will pop up. Switch on the [Enable stepper motors] button to control the moving direction and distance of each axis.

Note: During the printing process, click the [Enable stepper motors] button and a pop-up window will appear to remind you “Printing. Please wait…”. In this case, you can’t adjust the position of each axis.



Home: click to home X/Y/Z axis simultaneously.

Click to home X axis.

Click to home Y axis.

Click to home Z axis.

Click to move X axis towards the origin of coordinates.

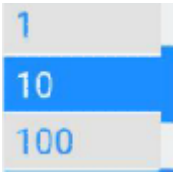
Click to move X axis away from the origin of coordinates.

Click to move Y axis towards the origin of coordinates.

Click to move Y axis away from the origin of coordinates.

Click to move Z axis towards the origin of coordinates.

Click to move Z axis away from the origin of coordinates.

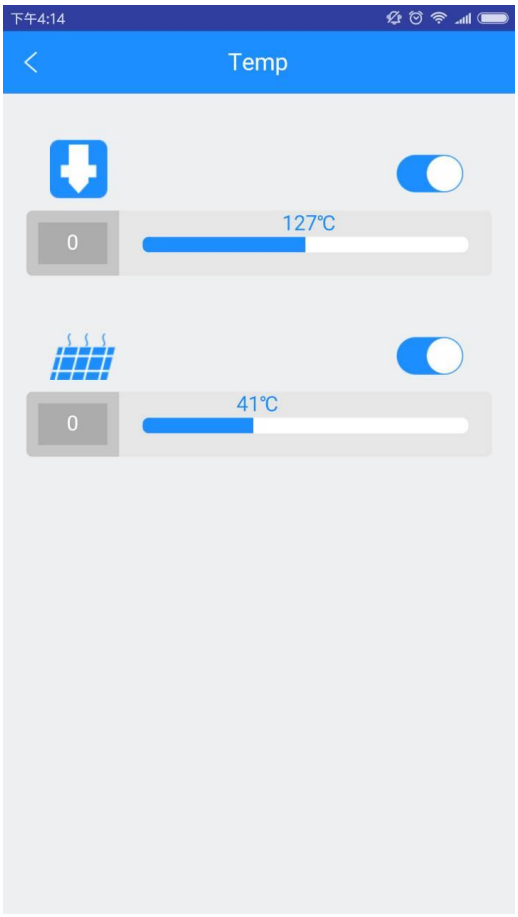
Click the dropdown button to choose the moving distance 

according to your need.

Note: The actual moving direction should be in accordance with the settings of your 3D printer.

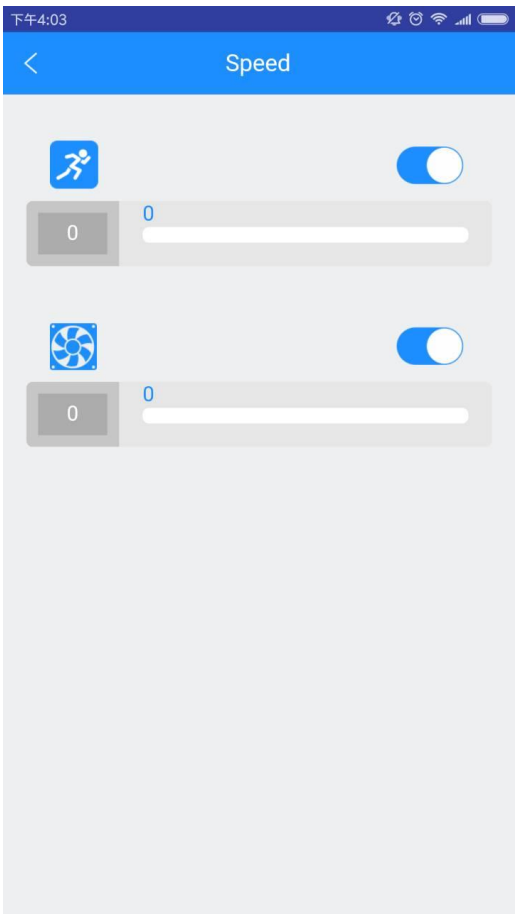
5.1.3 Temp

Click the [Temp] icon . The following picture will show the real-time temperature of the extruder and hotbed.



5.1.4 Speed

Click the [Speed] icon to observe the real-time printing speed and fan speed.



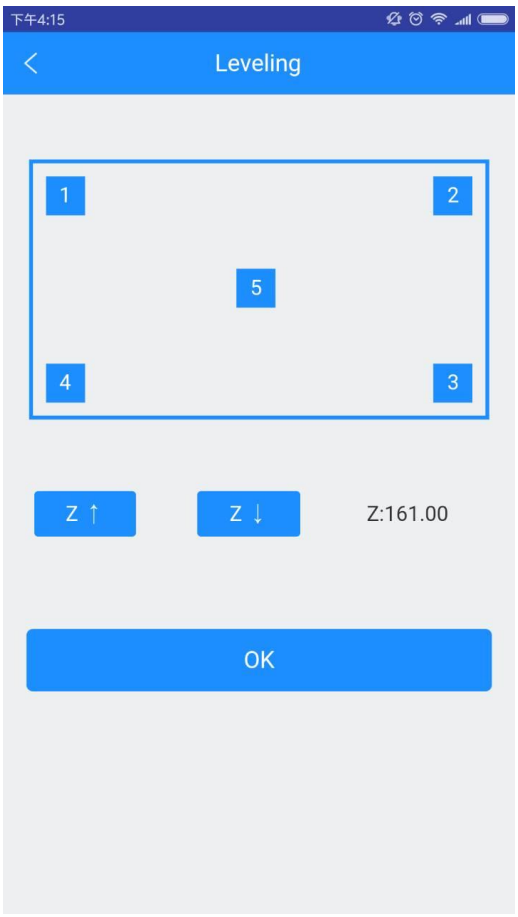
5.1.5 Leveling

When the printer is idle, it is accurate and efficient to use 5 points leveling method to calibrate the building platform.

Click the [Leveling] icon and the following picture will pop up. At the same time, X/Y/Z axis will be homed in sync and Z axis will move to the position Z= 10mm.

Please make sure that the [Enable stepper motors] button is switched on.

Move the printing head to the 5 points respectively to finish the leveling job. Remember to use an A4 paper to help you weigh the leveling effects.



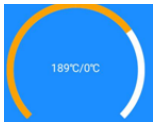
1) Choose point 1: Z axis will move upward to the position Z = 10mm. The printing head will move to point 1 and move downward to the position Z = 0 mm. Use an A4 paper to make sure the distance between the printing head and building platform is appropriate (with a little friction).
2) The operations at the remaining points 2, 3, 4, 5 are the same with that at point 1.

   Note: The leveling sequence at each point is random.

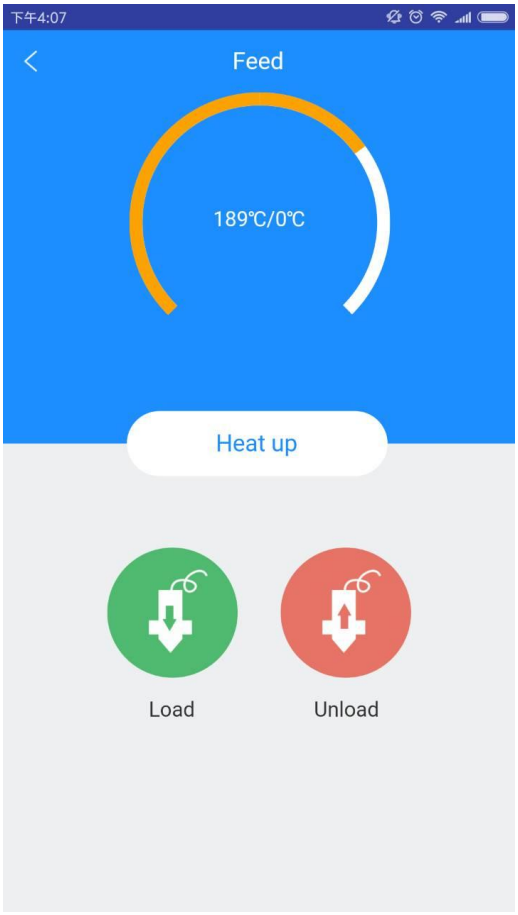
5.1.6 Filament

Click the [Filament] icon to show the interface where you could set the target temperature for the extruder. As the real-time temperature of the extruder reaches the target one, choose the [Load] icon to load filament.

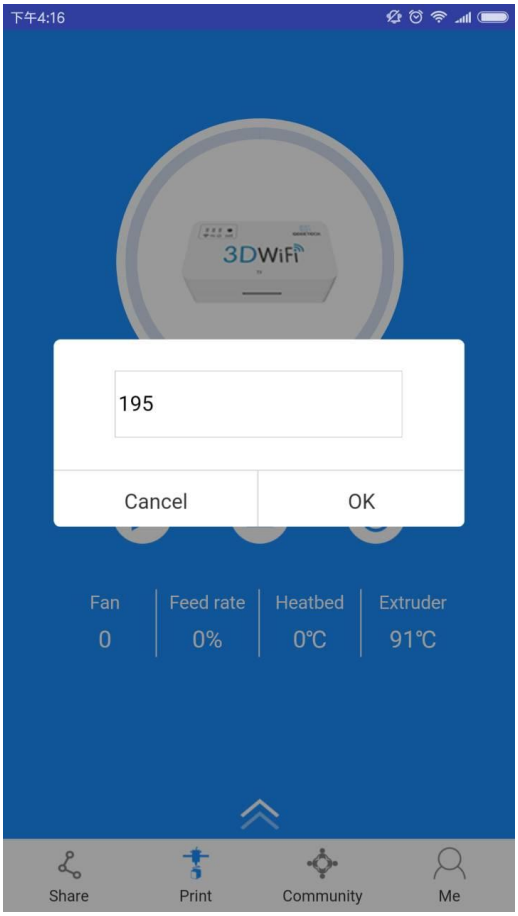
Specific operations are as follows:

Step1: Click the center part of this icon 

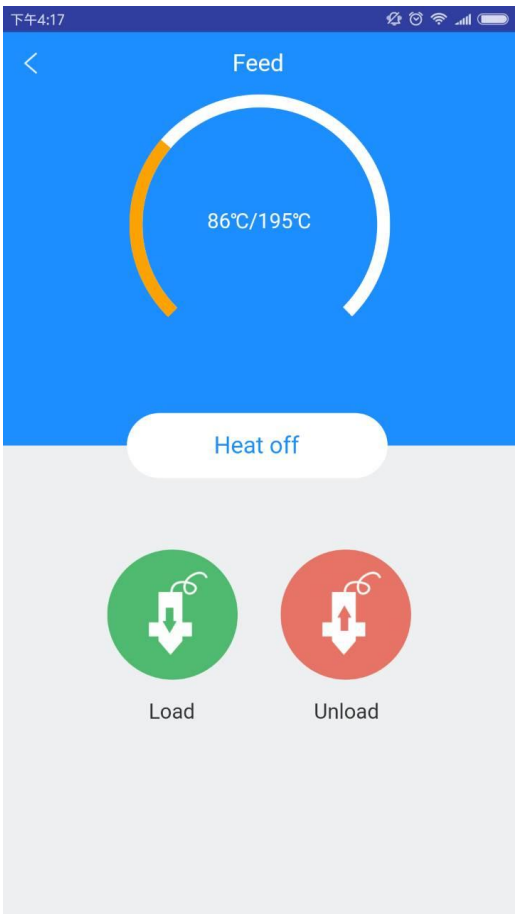
to set the target temperature for the extruder. Usually at 200℃ or so.



Take 195 ℃ for instance. After entering the value, please click [OK].



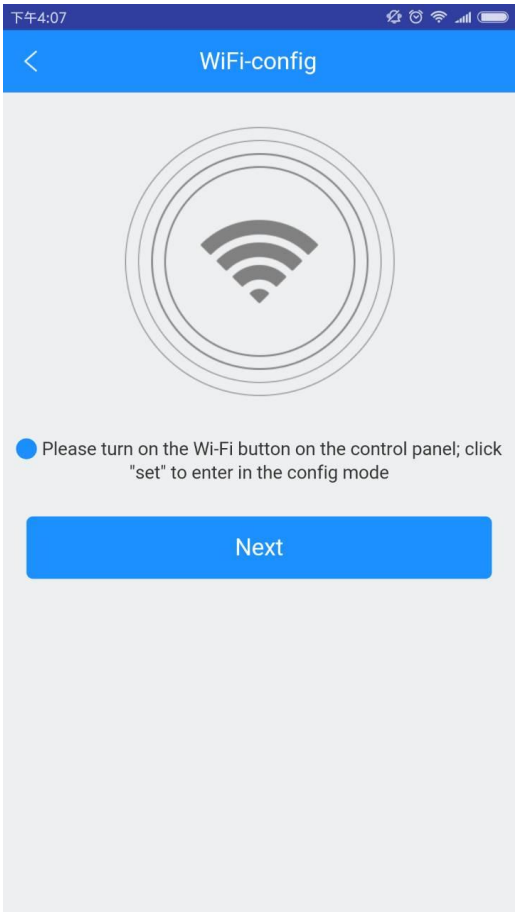
Step 2. Click [Heat up] button Heat up and you will see the extruder temp increases until it reaches the target one.



Step 3. After the extruder reaches its target temp, please choose the [Load] icon to load filament.

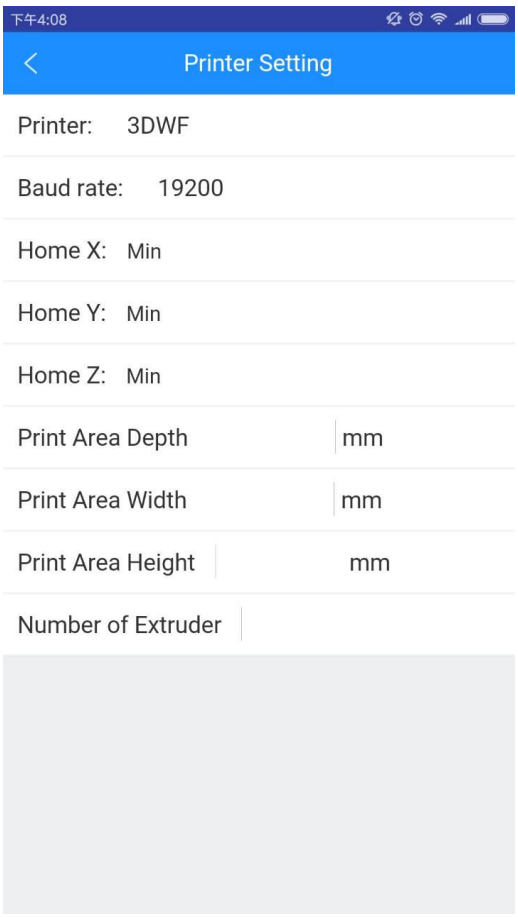
5.1.7 Wi-Fi

Click Wi-Fi icon and you will see the following interface. Click [Next] to start your Wi-Fi configurations. For detailed configuration process, please make reference to Part 4.



5.1.8 Setting

Click the [Setting] icon and you will see the specific parameters of your 3D printer, like baud rate, printing volume, extruder number, etc.



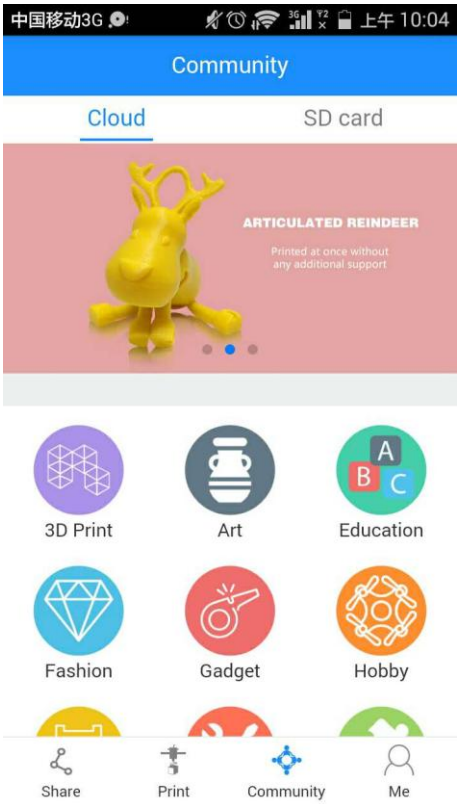
5.1.9 G-Code

Click the [G-Code] icon

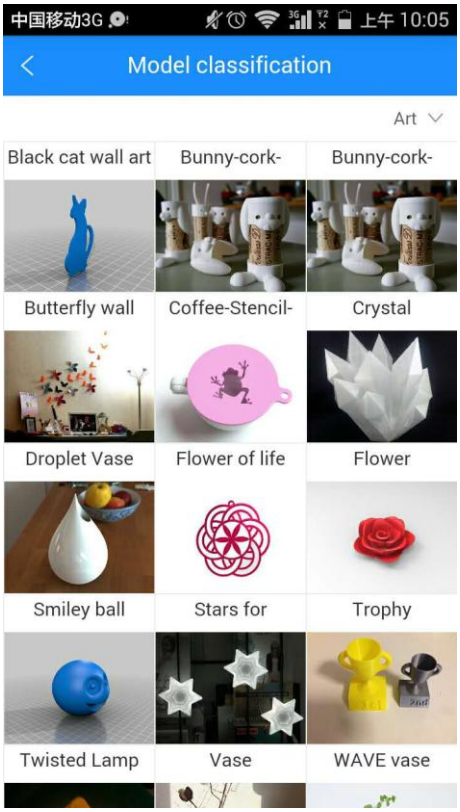
to send instructions for controlling the overall printing job.

5.2 Printing from Cloud Gallery

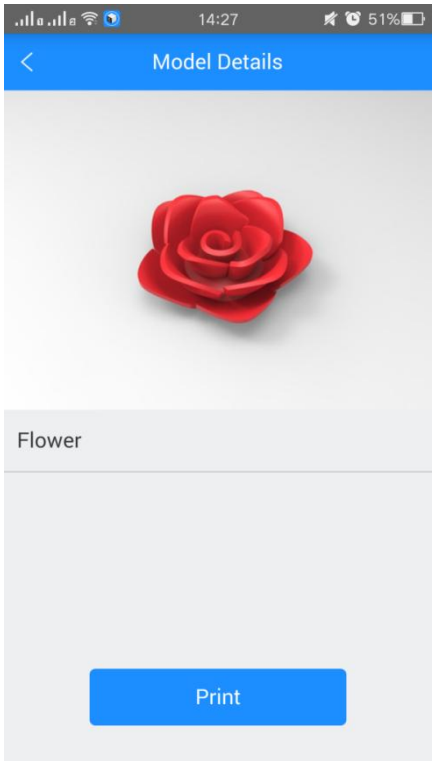
Step 1.Click ***Community***—— ***Cloud***, choose the type of models



Enter the model page; choose your favorite model, let’s take the “Rose” as an example:

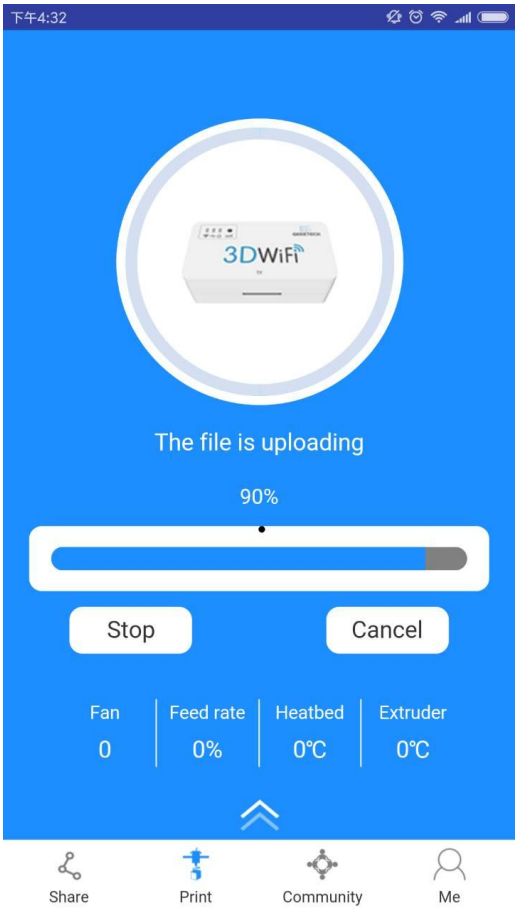


Enter the [Model details] page, click the button “Print” here, you can preview to the model



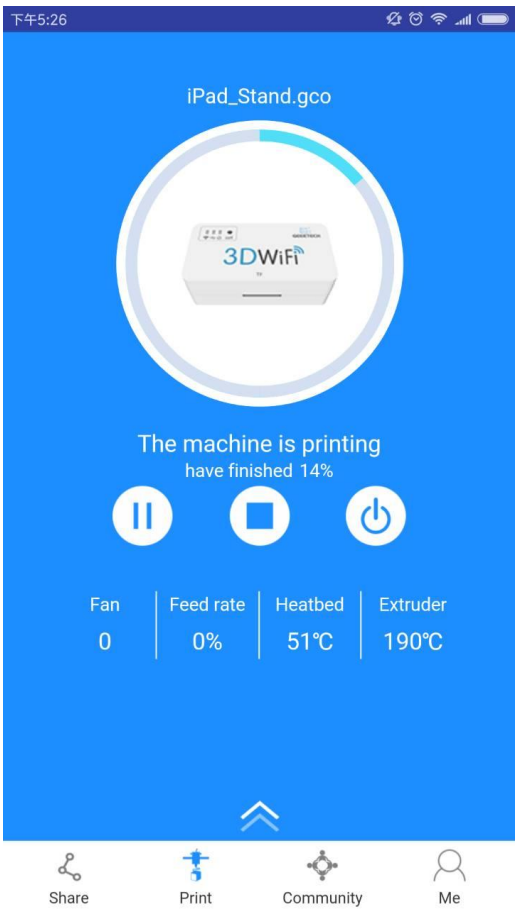
You can make some simple operations to the model on the screen with fingers, such as, zooming, rotating or moving.

Click the “Print” button to start print. This will take a while to transfer the file from the cloud server to your printer. Please keep your wireless networks unimpeded.



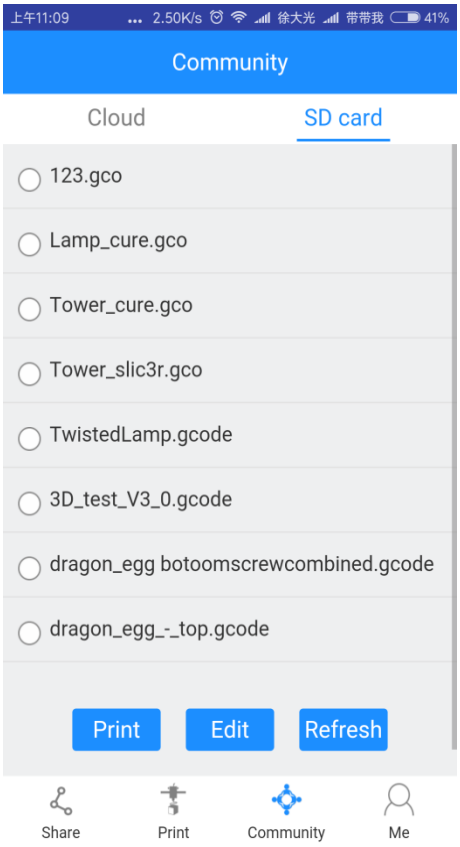
During the uploading, you can pause the uploading or give it up.

Upon uploading, it will start printing after a while.

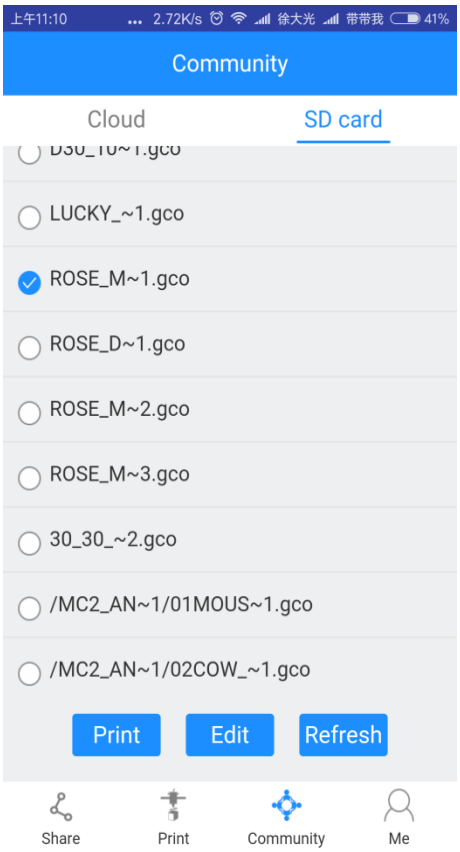


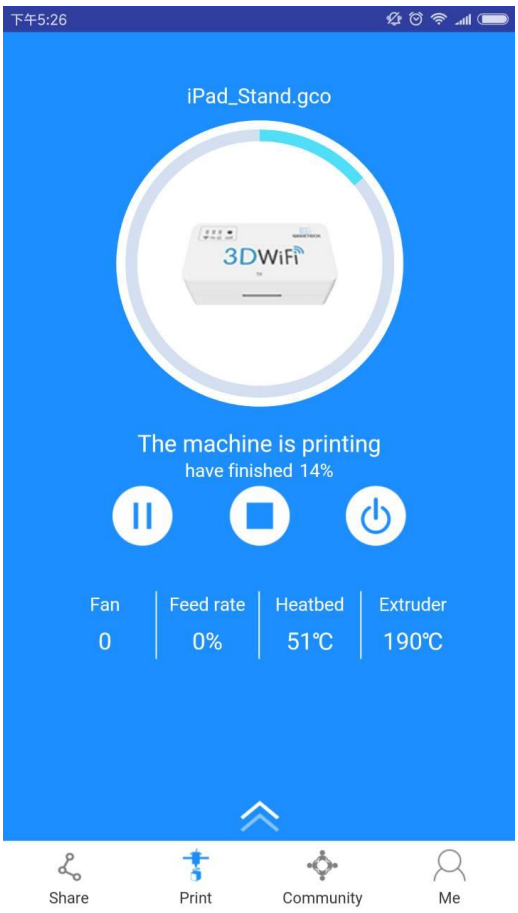
5. 3 Printing from TF card

Step 1. Click [Community] to choose [SD card]. The interface will show the G.code files from TF card. [Refresh] the interface, if there is no response.



Step 2. Choose a model file and click [Print]. The interface will show the printing progress. After the extruder reaches its target temperature, the printer will start to run.





6. FAQ

Q1: How to enter the configuration mode and reset mode?

A: Press "set" with a pin, you will find the Wi-Fi indicator light gets dim and then flickers fast. At this moment，it is in Configuration mode. Keep pressing and the light will flicker slowly to enter the reset mode.

Q2 :When I press "stop" on my Easy Print 3D APP，the printer does not stop immediately，Why?

A: There is a program cache. When you press "stop", the next instruction is stopped. But the printer will not stop until it run current instruction fully. An instruction may contain many moves.

Q3: Wi-Fi connection is failed. How to solve it?

A: Make sure the 3D WiFi Module is in a good internet condition. Then go into configuration mode and choose the Wi-Fi hotspot with the strongest signal.

7. Specs

- CPU:STM32F107 +ESP8266
- power supply: 5V DC
- Working current: 150mA(on average),500mA(peak)
- USB 2.0 full-speed host
- TF card support: SDSC,SDHC(<32G);CLASS2,CLASS4
- WIFI
  - Frequency: 2.4G~2.5G (2400M~2483.5M)
  - Transmission power: 802.11b: + 20 dBm
    802.11g: +17 dBm
    802.11n: +14 dBm
  - Receiving sensitivity: 802.11b: -91 dBm (11 Mbps)
    802.11g: -75 dBm (54 Mbps)
    802.11n: -72 dBm (MCS7)
  - Antenna: PCB on-board antenna
  - Wi-Fi mode: Station/SoftAP
  - WLAN standard: 802.11 b/g/n/
  - Security mechanism: WPA/WPA2
  - Encryption Type: WEP/TKIP/AES
  - Network protocol: IPv4、TCP/UDP/HTTP/FTP/MQTT
  - Size: 49.37*25.87*16.5mm
  - Packaging size: 52.44*28.94*17mm

8. Contact us

Technical support	1. There are lots of documents and troubleshooting for 3D WiFi Module on our wiki. They are good resources if you would like to quickly solve problems by yourself. 2.If you still can not solve problems yourself even with the help of above files, you can send e-mail to technical@geeetech.com,we will reply to you within 24 hours.
Sales	For more products of Geeetech, please visit www.geeetech.com or send e-mail to sales@geeetech.com
Feedback	In order to improve our products to provide better user experience, please send your comments and suggestions to Rita.xiang@geeetech.cn. We will appreciate to hear your valuable suggestions.