Makerbase

广州谦辉信息科技有限公司

Guangzhou Qianhui Information Technology Co.,Ltd.

MKS TFT28/32 **Touch Screen Manual**

MAKER BASE

QQ Discussion Group:489095605 232237692

E-mail:Huangkaida@makerbase.com.cn

Document Version:1.0

Release date: 2018-5-25

Trademark statement

Makerbase or Makerbase "Trademarks are the trademarks of Guangzhou QianHUI Information Technology Co., Ltd.

All other trademarks or registered trademarks mentioned in this document are the property of their respective owners.

ATTENTION:

The products, services or characteristics you purchase should be subject to Guangzhou Qianhui information technology commercial contract and terms.The products, services or characteristics you purchase should be subject to Guangzhou modest information technology commercial contract and terms。 In the case of commercial contracts and terms, unless otherwise agreed by the contract, MKS Information Technology Limited does not make any express or implied representations or warranties with respect to the contents of this document.The contents of this document will be updated irregularly due to product version upgrades or other reasons.Unless otherwise agreed, this document is used only as a guide, and all statements, information and recommendations in this document do not constitute any express or implied warranty.

Firmware version update

Firmware version	Modified Time	Modify Content	Note
V1.1.3	2016.5	1. Fix the firmware update or change the baud rate. The touch screen cannot communicate with the motherboard. 2. Fixed a reset or control error bug when setting more menus.	
V1.1.4	2016.6	1. Increase the maximum temperature of the nozzle and hot bed in the mks_config.txt configuration file. 2. Increase the default level of the breakout interface and configure it in mks_config.txt. 3. Modify the "About" interface to display as TYPE: MKS TFT 4, fix the U disk crash BUG. 5. The leveling button is not displayed by default.	
V1.1.5	2016.8	1. Add the "auto off" function in mks_config.txt. 2. In the print operation interface, the “More” button has been added to select the “Turn off” function.	
V1.2.0	2016.11	1. The display interface display speed becomes faster and more sensitive; 2, you can switch between Simplified Chinese, Traditional Chinese, and English. 3. Fixed a bug where the wifi interface initially displayed default values within 2 minutes of power-on. 4. Fixed a bug that caused the font size to be abnormal when the SD card or U disk was not connected after the power was turned off; 5. Increase the function of manual leveling; 6, increase the refueling function; 7. Add “More” customizable buttons to the operation interface during printing; 8. Delete the “Correction” button on the “Settings” interface;	Chinese file name printing requires firmware version 1.2.0 or higher;
V2.0.0	2017.2	1. Update the layout of the interface and add 3 different homepage interfaces (corresponding to 3 different firmware) 2. Add the function of “breakpoint continuous play” in the setting interface. 3. Delete the "Connect" button and set the baud rate setting to mks_config.txt 4, updated the layout of the "leveling" interface 5. Correct the refueling after the pause in printing, and the extrusion position of E is not normal. 6. The Z-axis height can be seen in the move or print.	
V2.0.1	2017.5	1. Repair the port of the auto off; 2, modified to choose manual leveling or automatic leveling; 3. Compatible with MKS WIFI TFT and MKS HLK-WIFI, compatible with the new version of mobile app "MKSCloud"; 4. Increased Internet functions such as cloud services and mobile phone transmission files; 5. Increase the Windows style.	
V3.0.0	2017.9	1. Add multi-language, you can switch 5 languages online; 2. Fixed WIFI transmission problem;	

		3. Optimized the chance filament function;	
V3.0.1	2017.12	1, V3.0.1 firmware version because the WIN8 style in the switching language font display is not good, so win8 style can only use the picture display mode. 2. The difference between the Chinese version and the English version is: The comment in the configuration file is in Chinese or English. 3, V3.0.1 firmware version increases configuration items: when manually leveling the XY axis movement, the height of the Z axis of the extrusion head from the origin (mm) 4, V3.0.1 firmware version update blue version of the close motor button picture 5, V3.0.1 firmware version of the English version of the manual version of the WIN8 icon is reversed, has been fixed.	
V3.0.2	2018.5	1. Add "turn off the motor" in the zero return interface in the classic version. 2. Under the modified preheating interface, change the default 180 to 0 to display the current actual target temperature. 3, increase error error reporting, filter line number error 4, the fan presses +- to start 5. Click the "More" command to process the function and it will restart. 6. When the M110 re-arrangement command is used more than 5 times, the main board will stop moving. 7, increase the configuration item can shield the power off and break detection function 8, modify the serial port interrupt transmission will be interrupted bug 9, modify the U disk or SD card printing failure to read 10, increase configuration items, support two in and out models 11, add a button in the WIFI interface, you can control whether it is a WIFI module function 12, repair the simple version and the retro version of the firmware manually leveling, start zeroing without returning to zero 13, wifi firmware repair password is less than 8 when the use of abnormal problems	

Directory

目录

Ⅰ.Overview

MKS-TFT 28/32 is an independent color touch product developed for maker base , which is suitable for open source 3D printers. It can be used in a series of motherboards such as MKS Base, MKS Gen, MKS Sbase and so on.Unlike the MKS-TFT32, the MKS-TFT28 supports an external DC12V supply and can be used on the Ramp1.4.

Makerbase

Makerbase

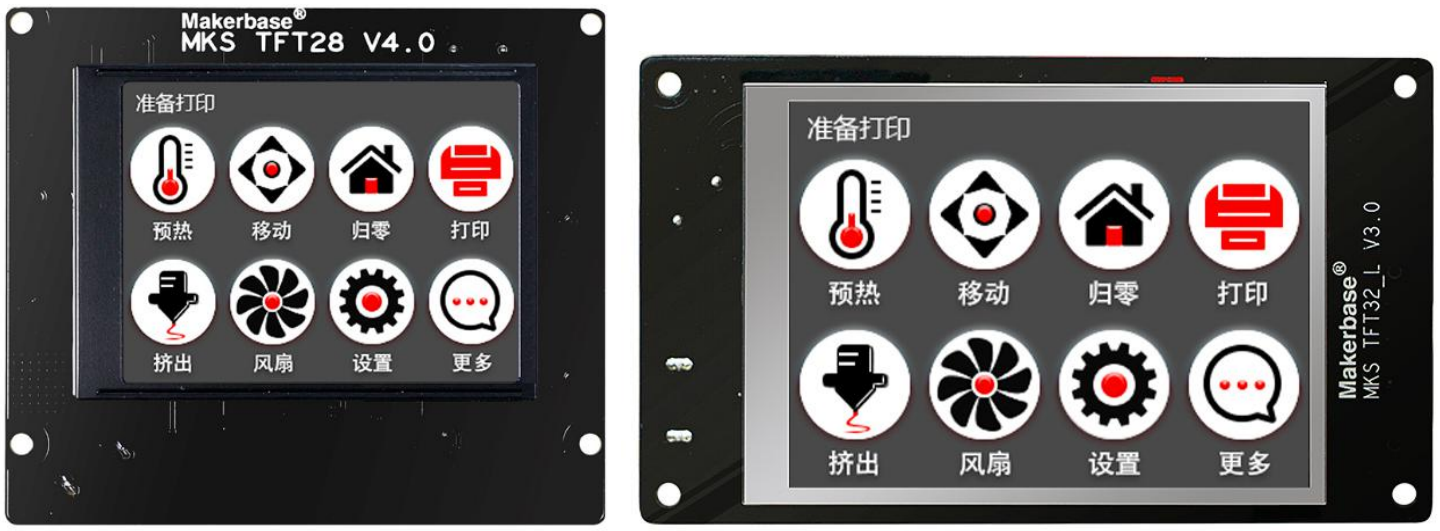
Makerbase

Ⅱ Features

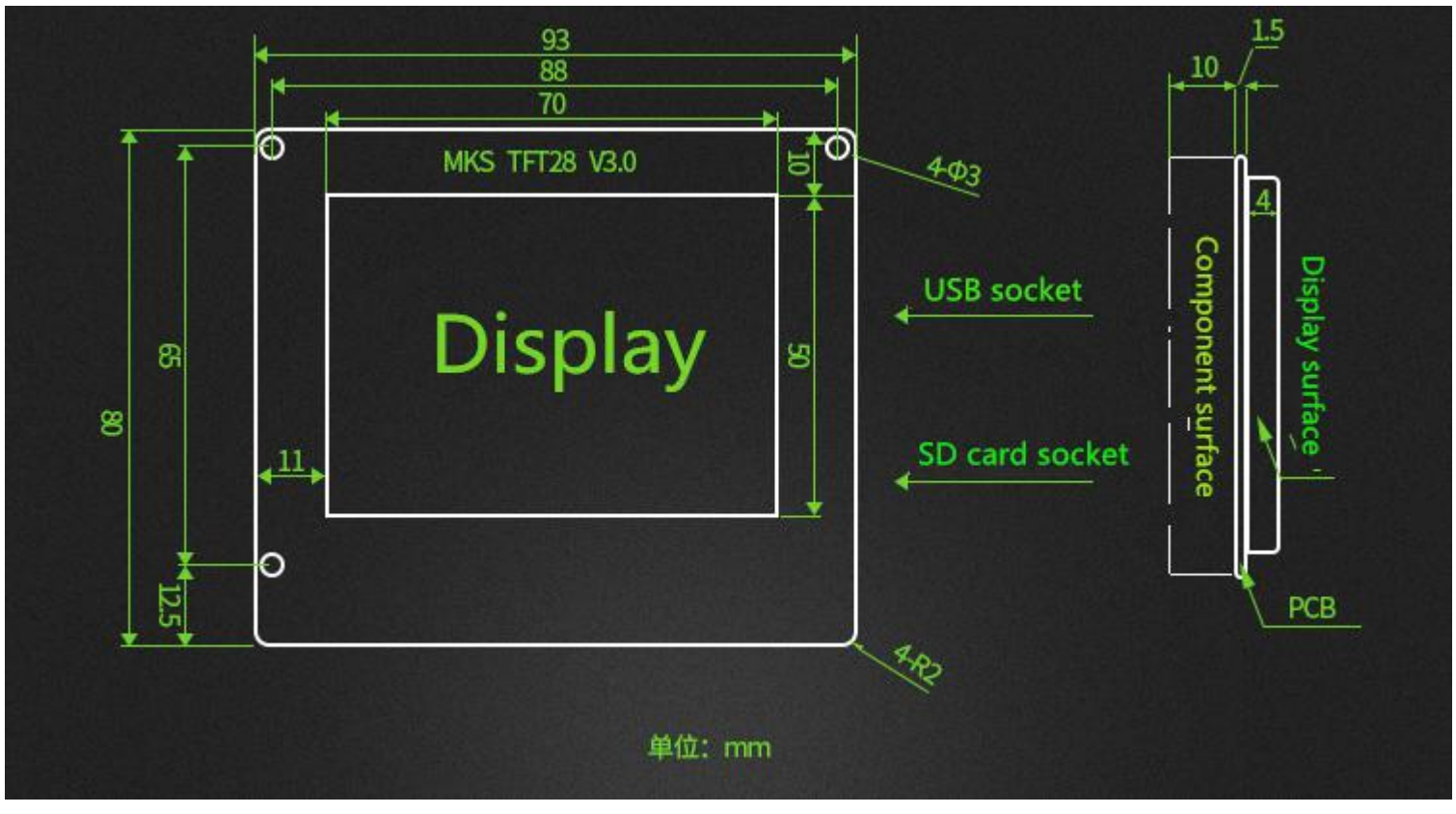
1. Support 5 Languages Online switching.
2. 2.8-inch / 3.2-inch color touch screen, support U disk and SD card
3. Reserve Wifi port, increase Wifi module can support Wifi function;
4. Provide three themes, two styles, so that users can choose more.
5. Boot logo and all buttons can be self designed.
6. A maximum of 13 directive functions can be customized.
7. Upgrade configuration firmware by sd card, simple and convenient operation.
8. The main control program does not need to be modified, the baud rate is consistent, plug and play, support Marlin, Repetier, Smoothieware firmware;
9. Can be used on the MKS series motherboards introduced by Maker base and Ramp1.4 (TFT28) and ;
10. Support multiple functions,such as Breakpoints recovery function,filament detecting function,save the gcode data with power off function.
11. Can support all Chinese Gcode printing (MKS-TFT28 touch screen version 1.3 or MKS-TFT28 touch screen version 1.1 and firmware version 1.2 and above)

Ⅲ . Port Instructions

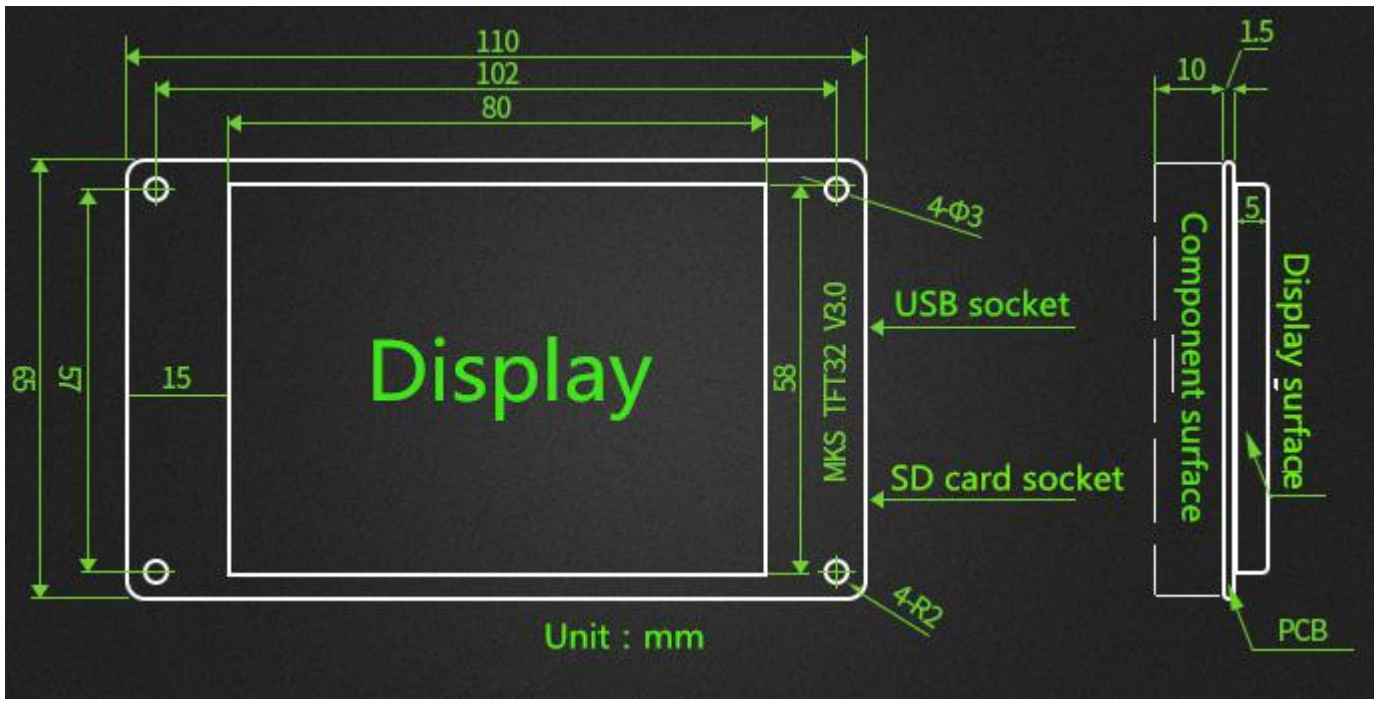
3.1 MKS TFT28/32 Front



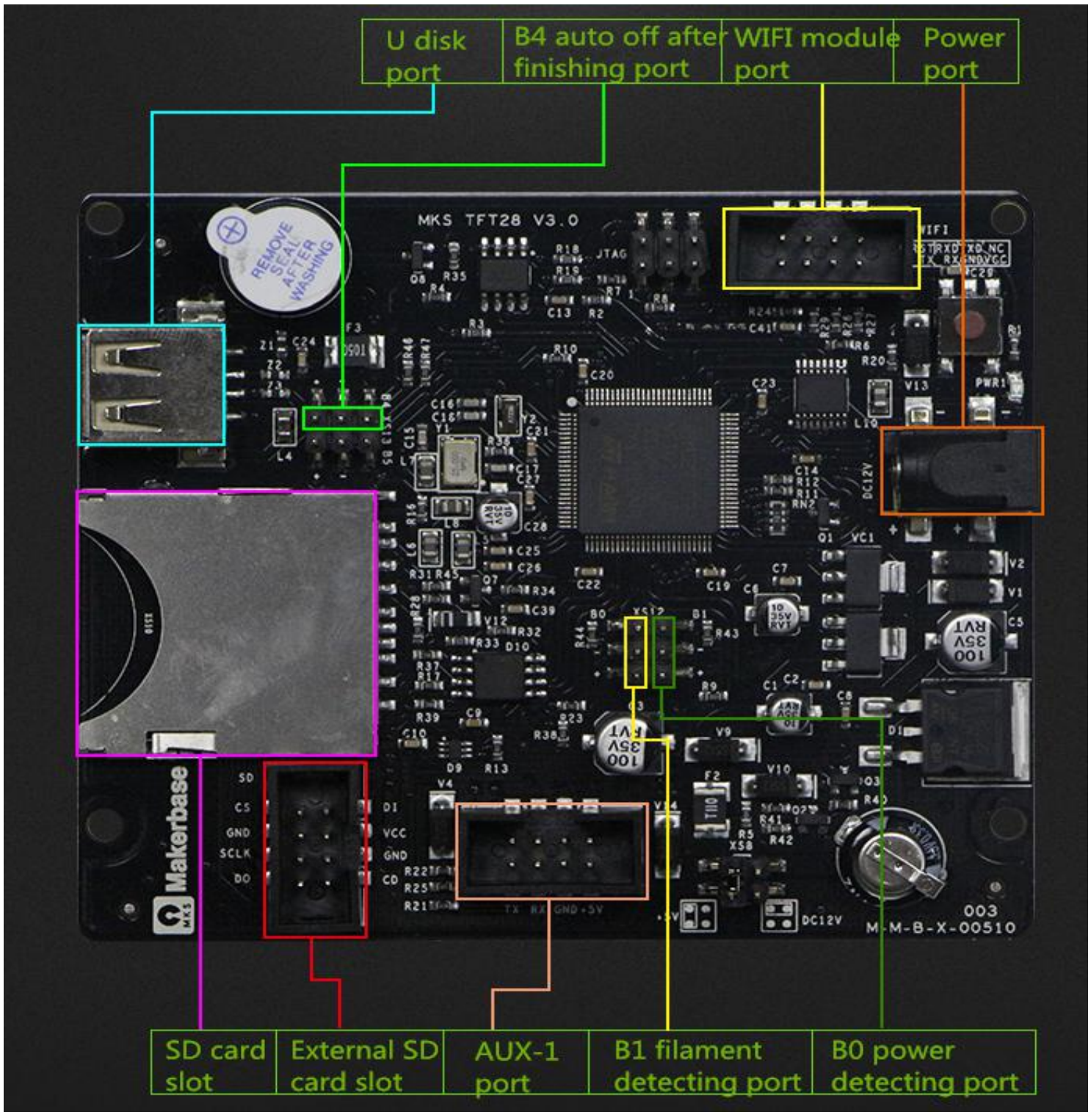
3.2 MKS TFT28 Installation Dimensional Drawing



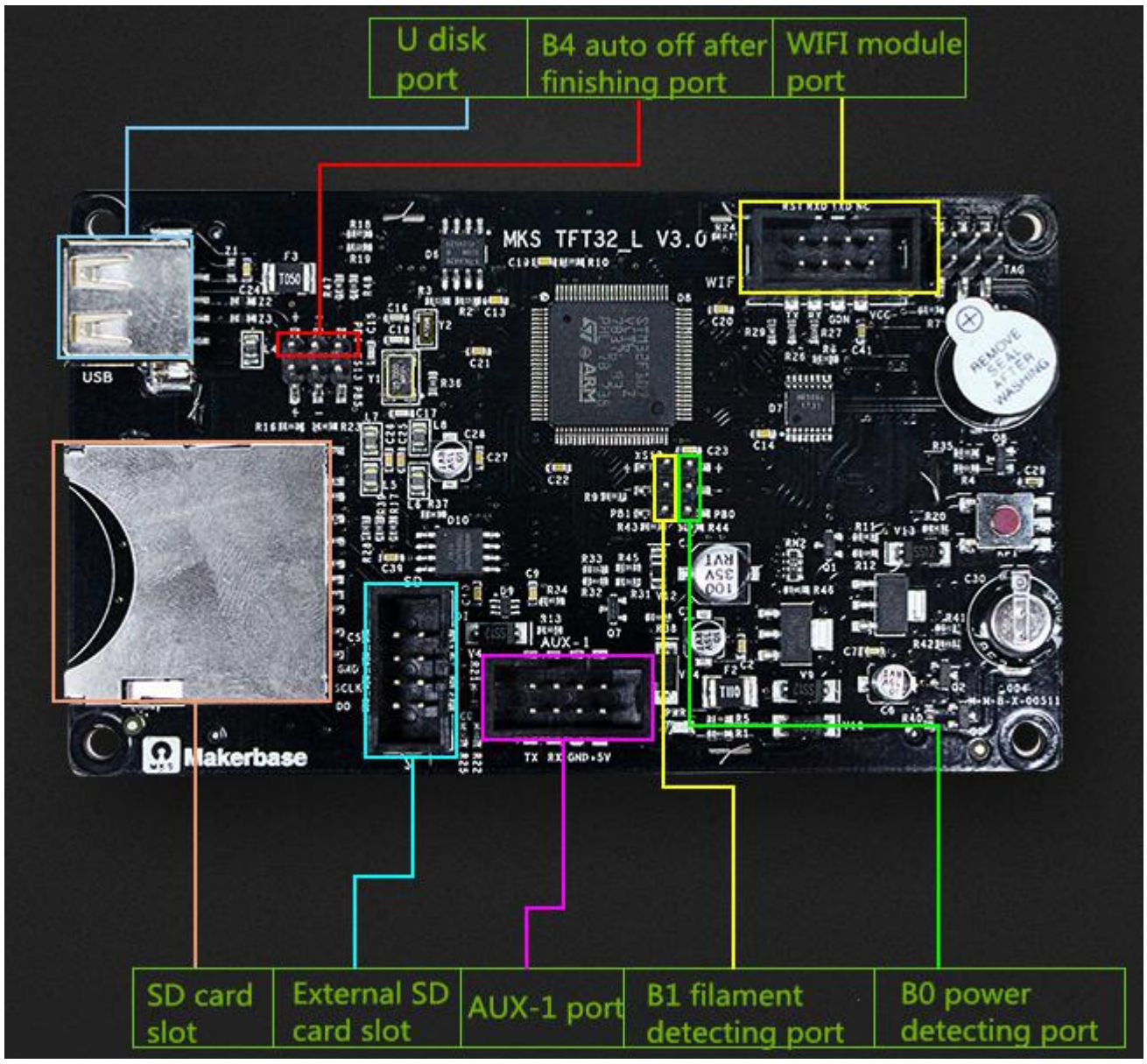
3.3 MKS TFT32 Installation Dimensional Drawing



3.4 TFT28 System connection diagram



3.5 TFT32 System connection diagram



3.6 Connection with motherboard

3.6.1 Connect to ramps1.4, only TFT28 can be connected.

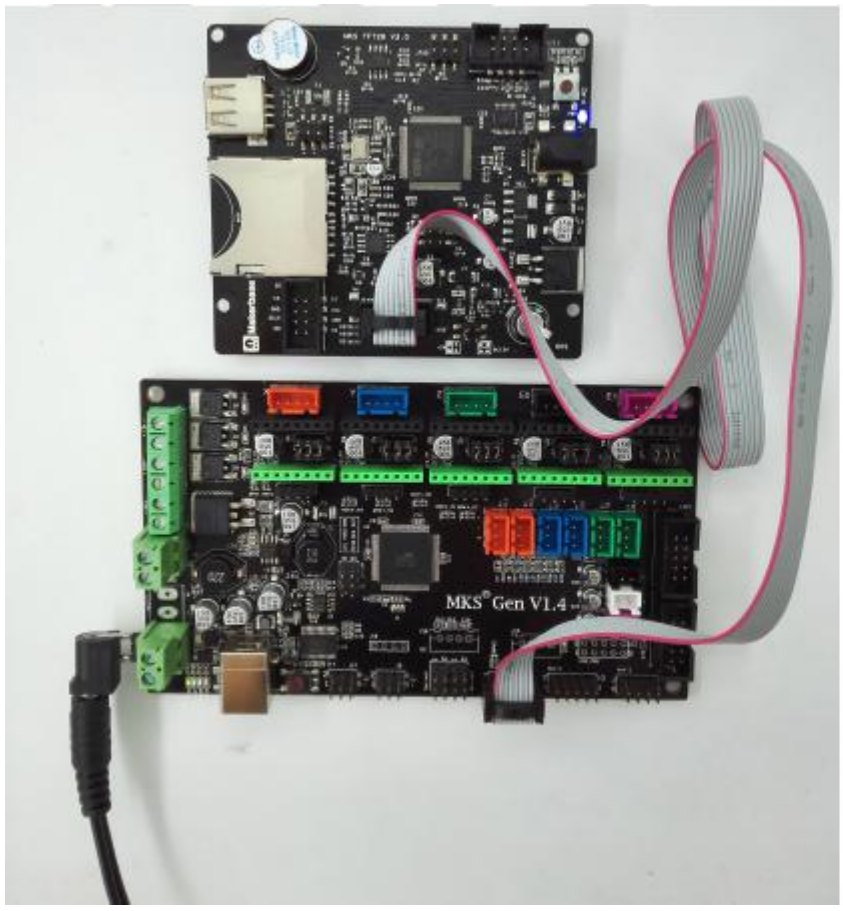
1. The touch screen jack is connected to the Aux-1 of the ramps 1.4;

2. Touch screen power supply select jumper to jump to 12V position;

3. Touch screen power interface input 12V.

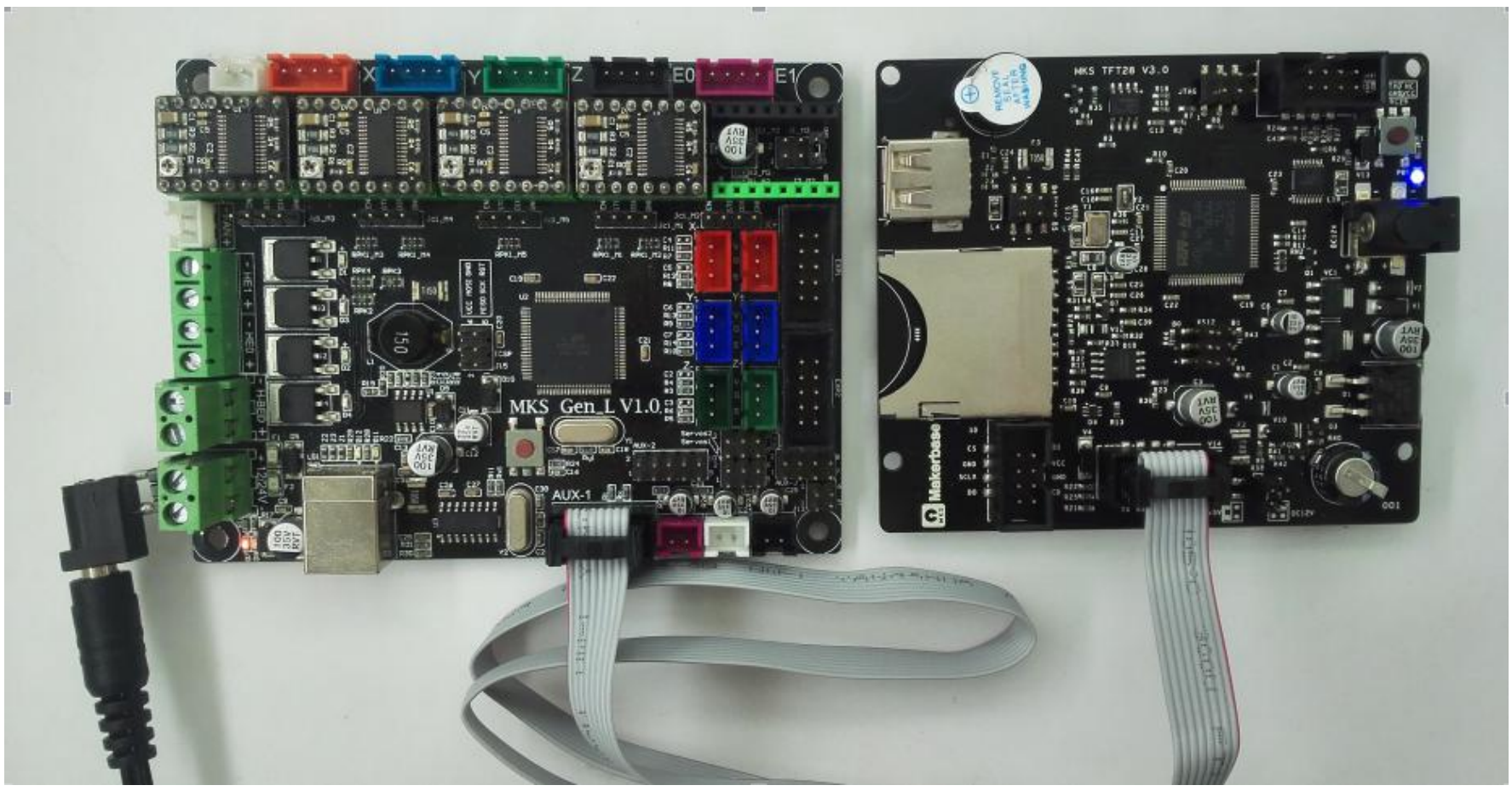
3.6.2 Connect to MKS GEN

1. The socket is connected to the Aux-1, no external 12V power supply is required, and the wiring direction is as follows:



3.6.3 Connecting MKS Base, MKS GEN-L, MKS MINI, MKS SBase

1. Connect to the MKS series motherboard AUX-1 interface, no external 12V power supply, plug and play (both baud rate).



Ⅳ .Firmware Upgrade Instructions

The factory firmware is up to date, so no need to update.

1 The ways to get the MKS TFT28/32 Latest Firmware.

- Get firmware from customer service or technician
- Download the firmware from the makerbase discussion group.
- Download on Web:

★ https://github.com/makerbase-mks?tab=repositories

2 The methods for updating the firmware

4.2.1 Copy the latest upgrade to the SD card root directory, including:

Mks_font

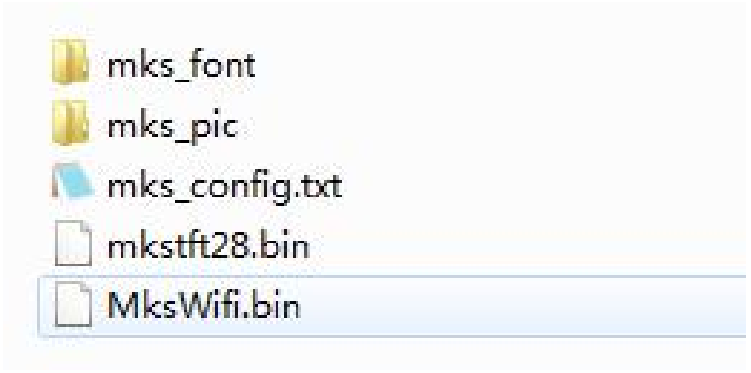
Mks_pic

Mks_config.txt

Mks_tft28.bin

Mks_WiFI.bin

As figure



Attention:Do not modify file names.

No need to copy mkswifi.bin without WiFi module.

2.2 Plug the SD card into the motherboard and power on,hear drops ~ ~ A short sound, touch screen display update process, and so about 30S after the completion of the update.

2.3 You can click” Settings--about” on the touch screen , to view current firmware information.

2.4 Advice: After the update is complete, delete the pictures and Fonts folder, avoid the next time to update the pictures and fonts.

ATTENTION:If you use ramps1.4, you must upgrade the external 12v power supply, and the MKS series does not need an external 12v power supply.

3. Base settings（Important, must be set）

```
########## Printer type setting ###################################

#mainboard firmware setting(marlin:1; repetier:2; smoothie:3)
>cfg_firmware_type:1

#machine setting (Normal:1; Delta:2)
>cfg_machine_type:1

#baud rate (9600:1; 57600:2; 115200:3; 250000:4)
>cfg_baud_rate:4

#multi-language(enable:1, disable:0)
>cfg_multiple_language:1

#languages setting
#(simplified Chinese:1; traditional Chinese:2; English:3; Russian:4; Spanish:5). This configuration is valid when "cfg_multiple_language" is disabled.
>cfg_language_type:3

#extruder number(one:1; dual:2)
>cfg_sprayer_counter:1

#enable heated bed(yes:1; no: 0)
>cfg_custom_bed_flag:1

#the max target temp of extruder and heated bed
>cfg_max_sprayer_temperature:270
>cfg_max_hotbed_temperature:150

#pause position (-1 is invalid; Z-axis is relative position)
>cfg_XPOS:-1
>cfg_YPOS:-1
>cfg_ZADD:10
```

After getting the configuration file from the technician, you need to configure the printer type settings.

Attention： 1.The baud rate in the configuration file must be the same as the motherboard baud rate, so that you can communicate.

2.Because the touch screen is the use of serial communication, to avoid conflicts with the USB .When connecting to the touchscreen, it is best not to connect the USB port on the motherboard.Similarly, when burning the firmware to the motherboard, it is best to unplug the touchscreen connector.

4 Multiple language Settings

Currently, languages can support 5 national languages, 1: Simplified Chinese, 2: Traditional Chinese, 3: English; 4: Russian; 5: Spanish

Enable the difference between multiple languages:

1. Do not enable multi-language language: Use with the previous text, the text is in the picture, the displayed language can only be displayed by brushing the picture.

2. Enable multi-language: You can slice the language freely in the language options in the settings, currently supports up to 5 languages.

#multi-language(enable:1, disable:0)

>cfg_multiple_language:1

Language (1: Simplified Chinese; 2: Traditional Chinese; 3: English; 4: Russian; 5: Spanish)

#This configuration is valid only when cfg_multiple_language is set to 1.

5 Automatic Leveling and Manual leveling

1 . Equipped with a leveling device can be selected in the configuration file automatic leveling (the position of the arrow is configured to 1), in the Touch screen settings interface can be adjusted leveling.Attention:For motherboards using the smoothie firmware, select the command to send as G32, as shown below:

```
#leveling mode(manual:0; auto:1; conceal leveling button:2)
>cfg_leveling_mode:0

#the command of auto leveling (G29 is available for Marlin.While G32 is for  Repetier and Smoothieware)
>cfg_auto_leveling_cmd:G28;G29;
```

2 . Manual leveling can be used on the general model structure (MB, I3, etc.), set in the configuration file needs to be in the hot bed leveling the three point leveling, four point leveling or five point leveling, the following figure:

```
#the point number of manual leveling:(3,4,5 point available)
>cfg_point_number:4

#the coordinates of 5 point on manual leveling
>cfg_point1:50,50
>cfg_point2:180,50
>cfg_point3:180,180
>cfg_point4:50,180
>cfg_point5:150,150

#the travel speed of leveling(mm/min)
>cfg_leveling_z_speed:1500
>cfg_leveling_xy_speed:3000

#When the XY axis is moved manually, the height of the z-axis of the extruded Z axis from the origin (mm)

#normally only needs to be reconfigured when the z axis is zero to the maximum under the smoothware firmware.
> cfg_leveling_z_high: 10
```

6 Filament Change Function

Filament Change Function, so that you more convenient to replace the supplies, you can also pause in the printing point after the use of the feed function. The extrusion head rotation speed and minimum temperature can be configured in the configuration file, as shown in the following figure:

```
#########  Filament Change Function  ##############################

#the speed to extrude filament(mm/min)
>cfg_filament_load_speed:1200
#the lenght to extrude filament (mm)
>cfg_filament_load_length:200

#the speed to retract filament(mm/min)
>cfg_filament_unload_speed:1200
#the lenght to retract filament(mm)
>cfg_filament_unload_length:200

#It is the minimum temperature for filament change.
It will auto heat up if the current temp doesn't reach the target.
>cfg_filament_load_limit_temperature:200
```

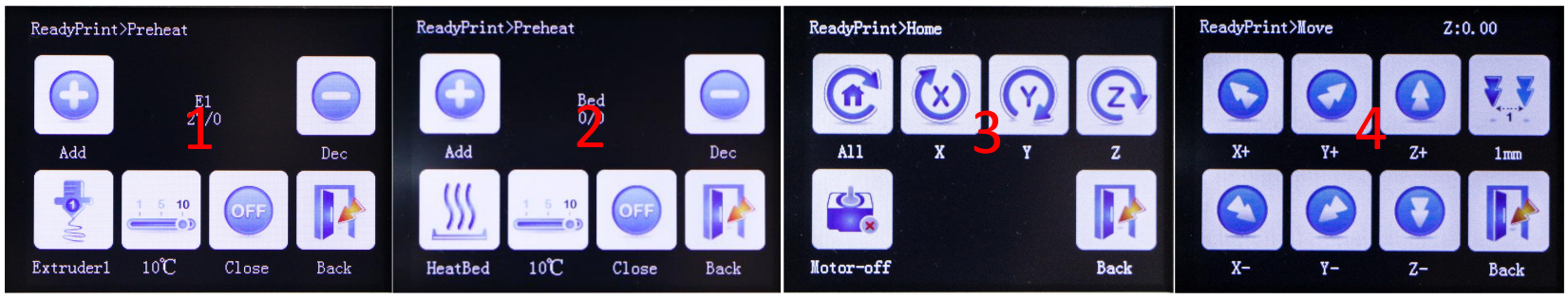
7 Breakpoints recovery

When you spend most of your time printing a model, the careless error operation causes the print to stop, but does not want to waste the printed model. Then you can use the breakpoint to continue to play the function, save your beloved model. The following illustration requires that you follow these steps:

1. First click “Preheat”, the extrusion head and hot bed target temperature set (no hot bed can ignore the hot bed target temperature).as Figure 1
2. When the temperature reaches the target temperature, click “homing”, choose to homing, so that the axes are back to home point.(Attention:Model printing failure to select Breakpoints recovery the operation between the Midway, if there is a power outage must be homing operation, such as continuous electricity can not return to home point operation).as Figure 2
3. After the axis back to home points, move the z axis will touch the mouth to stop printing of the layer, such as Figure 3, Figure 4, the time to test eyesight (can be selected in the configuration file to allow error, the following figure
4. Point setting, click on the breakpoint recovery and select the file to be printed on the breakpoint recovery, as shown in Figure 5, figure 6.
5. After you select the file, wait for it to print.as Figure 7.

(After selecting the model, the larger the model, the more complex it is, the longer it waits here.)

The steps of breakpoints recovery:



8 Save the gcode data with power off

In the printing process into a paused state,when without anyone watching you can directly shut down, the next time you can start from the pause to continue printing.

(Attention:Remember to delete the updated file in the SD card, to avoid the reboot and update the firmware, affect this feature).

9 Power off recovery

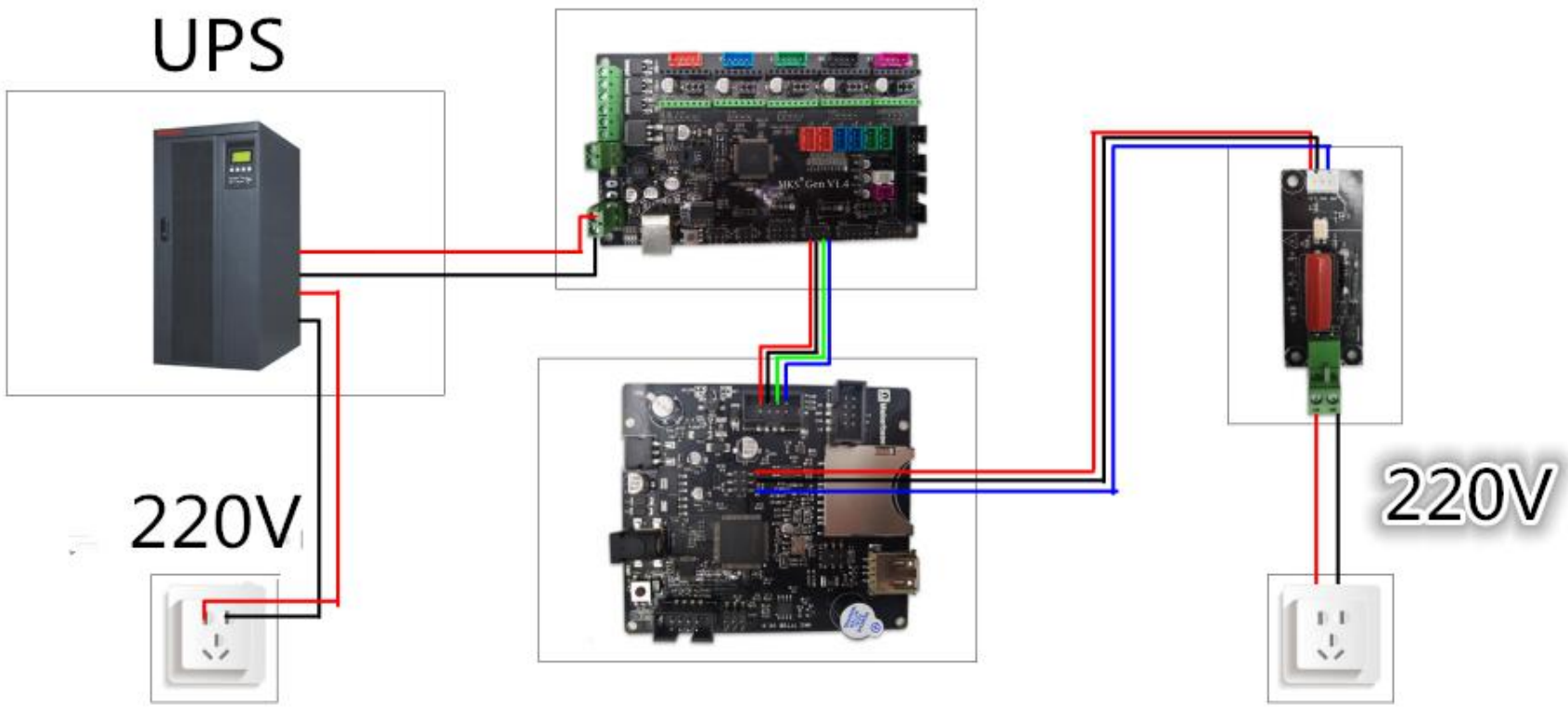
1. No UPS Power

1.1 A sudden power outage during the printing process, machine can continue to print from the power off. (due to power failure can not drive the motor, the print head will still remain on the model, may cause defects in the model, if the need for more complete power off processing, the need for power detection module and UPS).

Have UPS power

2.1 Power detecting module signal line s connection PB0, negative positive connection -and + two pins blow the PBO.

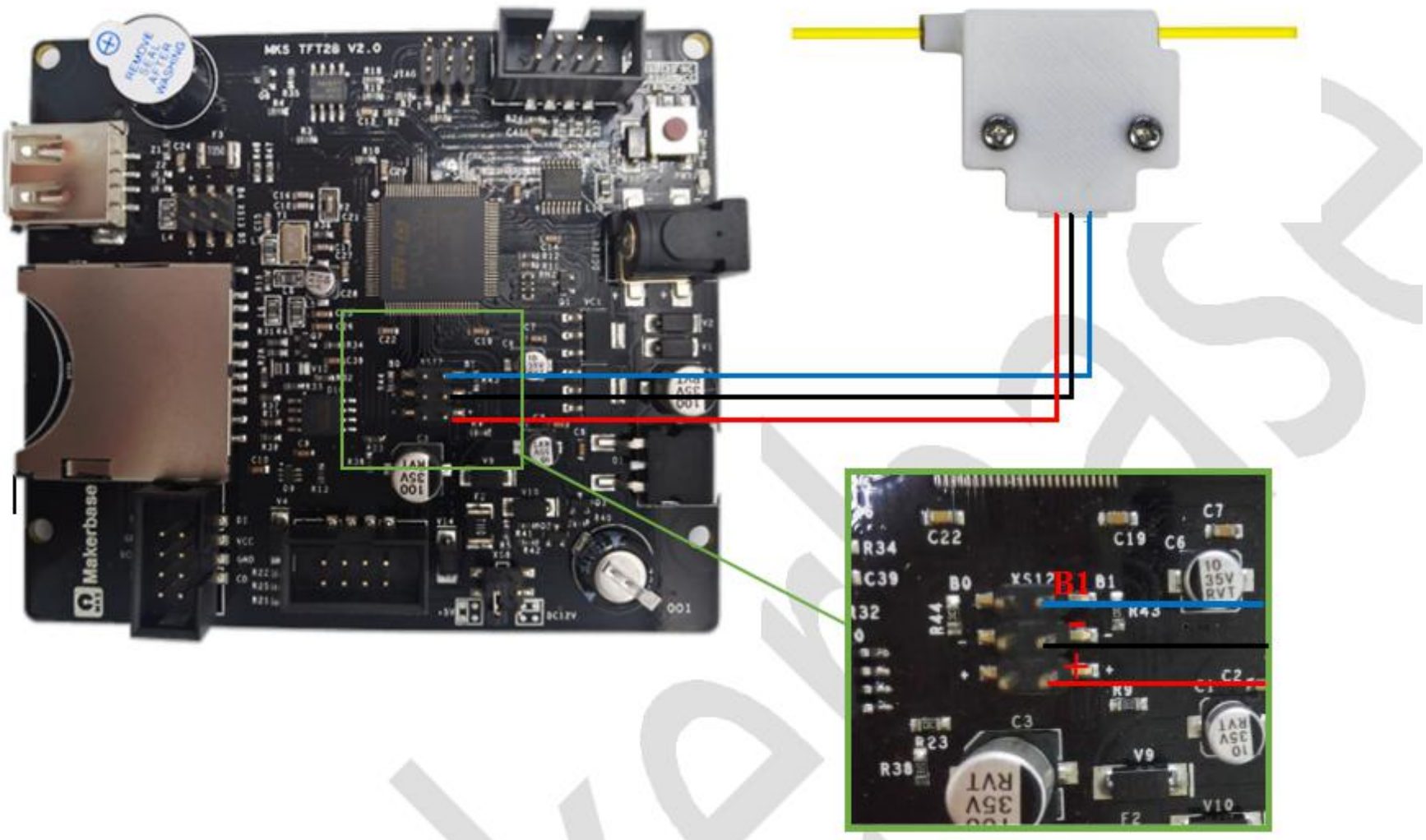
2.2 When the system loses power, the Power detection module informs the touch screen to enter the suspend printing state, UPS power supply. Leave the print head out of the model.



10 Filament detecting

The end of the break detection switch is connected to the PB1, the other end is connected to the PB1 under the ” - ” pin, can be in the configuration file to select a high level of effective or low level effective, the following figure

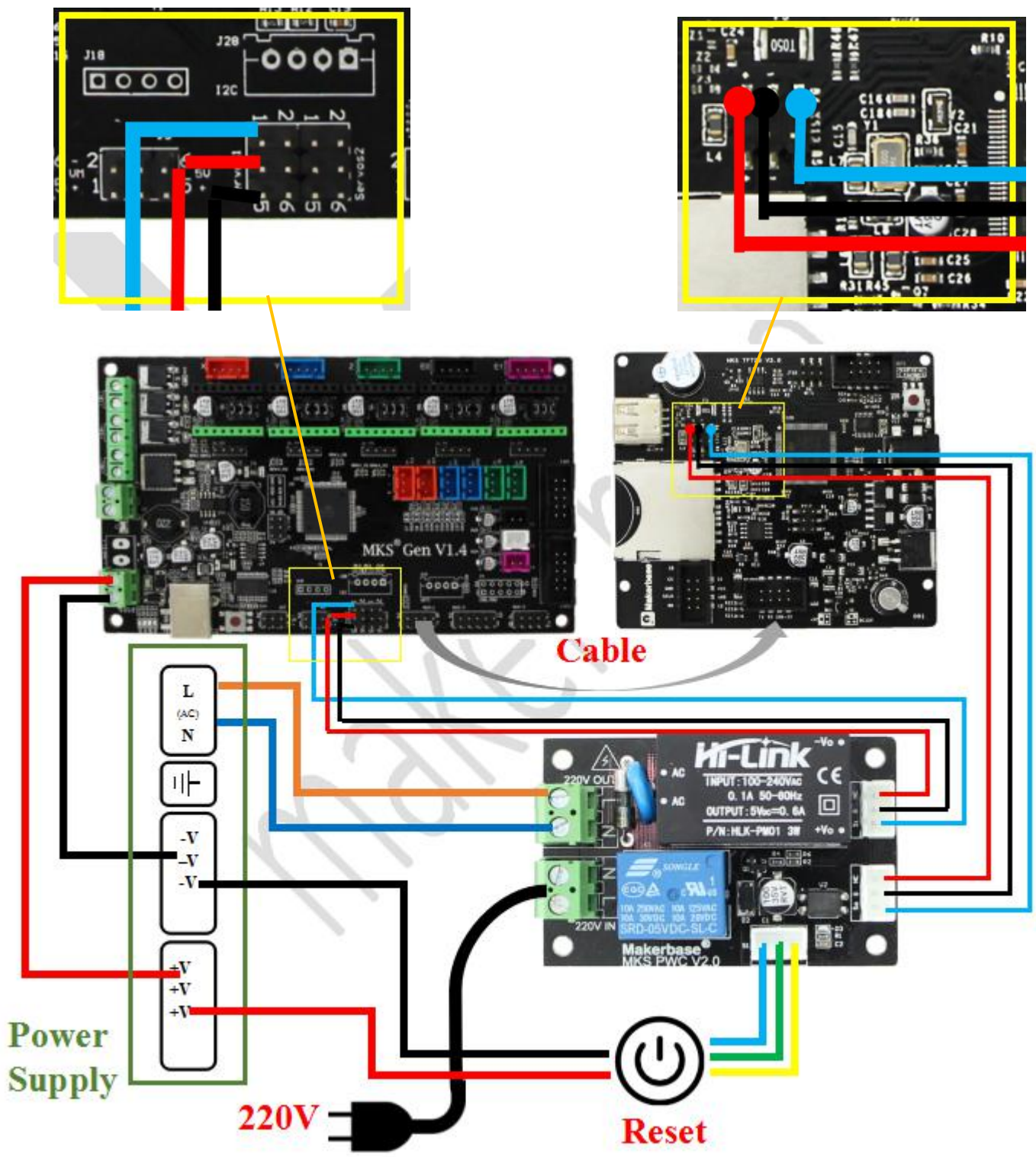
```
#set PB0 signal when use it for sencond nozzle (high level:1; low level:0)
>cfg_PB0_trigger_Level:0
```



11 Auto off after print finish function

Open the auto off after print finish function in the configuration file, cooperate with PWC to complete the shutdown module, you can use the shutdown function after playing.

```
#enable auto off after print finish function (no:0; Yes:1 )
>cfg_print_finish_close_Machine:0
```



Attention： Do not reverse the N and L lines

Ⅴ .The network printing function

MKS TFT28/32 Need to use MKS TFT-WIFI to achieve network printing.

5.1 Introduction to Print Mode

1. Cloud Print Mode: Recommended for use in a WiFi router environment with Internet access. Once you have a network connection to the WiFi module, the printer becomes the online printer on the cloud.Access to the app or control printer anywhere in the world. can also be in the local area network through the host computer (Printrun, etc.) to control the printer.

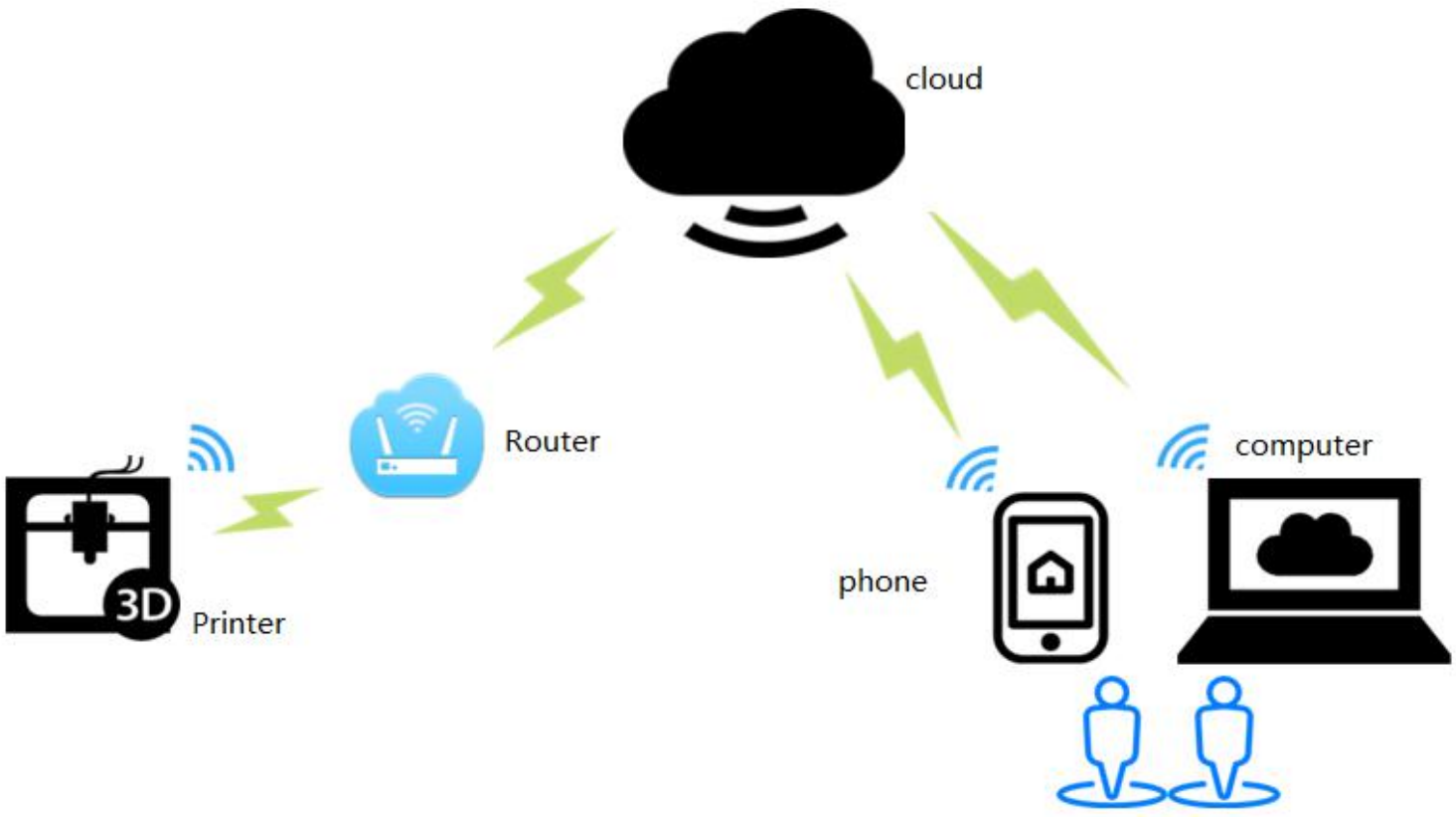
2. LAN Print Mode: Recommended in the case of a WiFi router, but the router is not available on the Internet or the network is slow (the cloud Print mode printer responds too slowly).

3 . AP printing mode:When the printer is in an environment where there is no WiFi router, the WiFi module is not configured, the WiFi module is configured, but the network environment is not good enough to connect to the router, the above three cases are entered by default.At this time the WiFi module will produce hot "mkswifi-xxxx" (open hotspot, no password), you can access the hotspot through the app, browser, host computer (Printrun, etc.) to control the printer.

4 . WebServer print mode: special mode, not recommended. This mode also controls the printer in the LAN. It can be controlled by the computer's Web, transfer files, print, etc. It can't use the APP control. You need to brush the Web version firmware to use it.

5.2 Cloud Print Mode

1 .Network Diagram



Features: Can control printers anywhere in the world by app.

2 .WiFi setting

MKS Robin Lite-wifi Configuration

The WiFi configuration options in the configuration file are shown in the following table:

Mks_config.txt	Description
#wifmodel(0:MKS WIFI TFT 1:MKS HLK-WIFI) >cfg_wifi_type:0	
#wifi mode(0:sta;1:ap) >CFG_WIFI_MODE 0	Set WiFi mode to STA mode
#wifi name >CFG_WIFI_AP_NAME MKSWIFI	Set the WiFi name to the name of the router you want to connect to
#wifi password >CFG_WIFI_KEY_CODE MAKERBASE	Set the WiFi password to the router password you want to connect to
#cloud service enable(0:disable 1:enable) >cfg_cloud_enable:1 #cloud server url >cfg_wifi_cloud_host:www.baizhongyun.cn #cloud server port >cfg_cloud_port:10086 IP/MASK/GATE >cfg_ip_address:192.168.3.100 >cfg_ip_mask:255.255.255.0 >cfg_ip_gate:192.168.3.	The default settings can be

3 .Firmware update

3.1 Copy the latest upgrade program to the SD card root directory, the motor can be renewed, upgrade

procedures include:

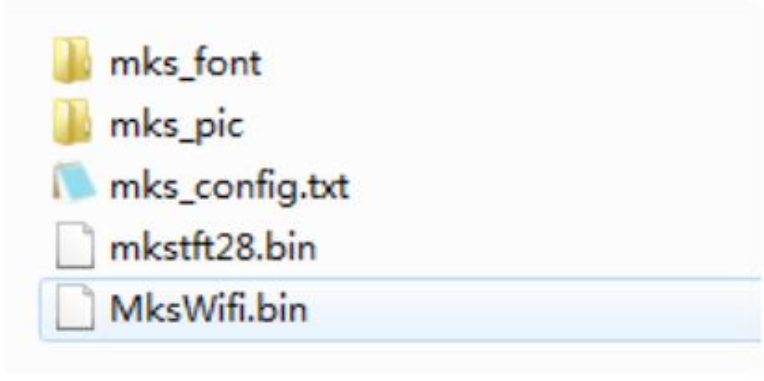
Mks_font

Mks_pic

Mks_config.txt

Mks_tft28.bin

Mks_WiFI.bin



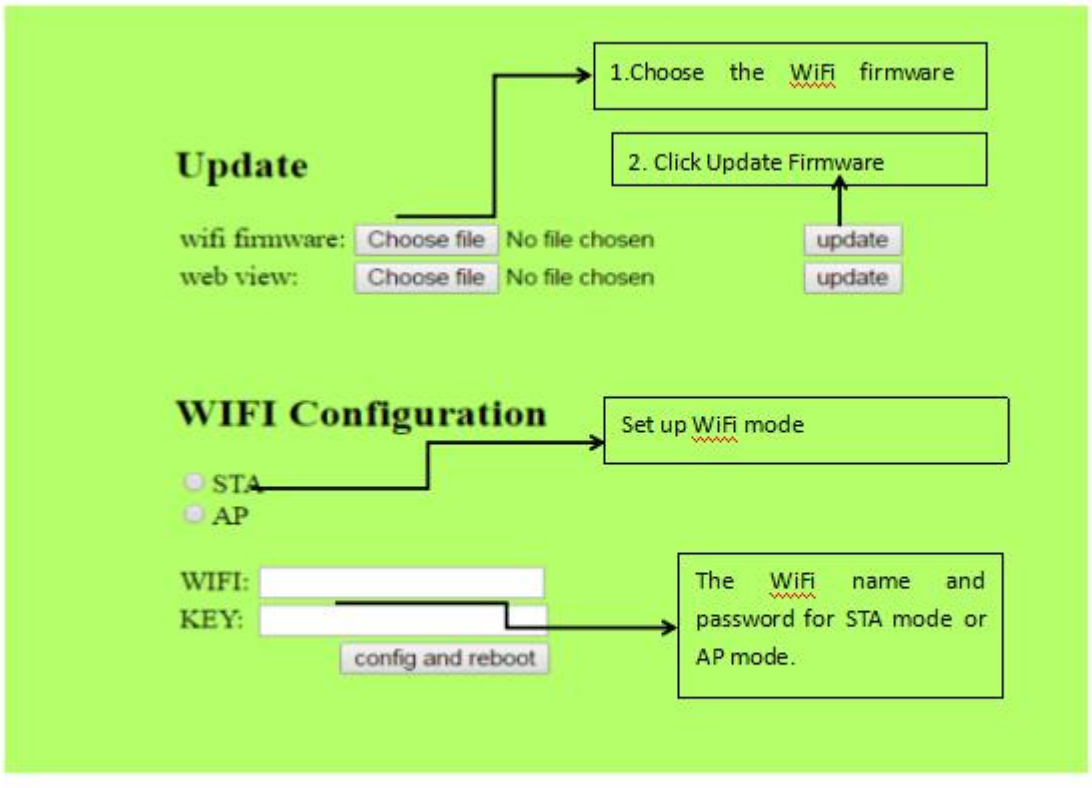
3.2 Update Considerations

A. The filename is not modifiable, or it will cause an update failure;

B. After the successful upgrade of the program, the filename will change;

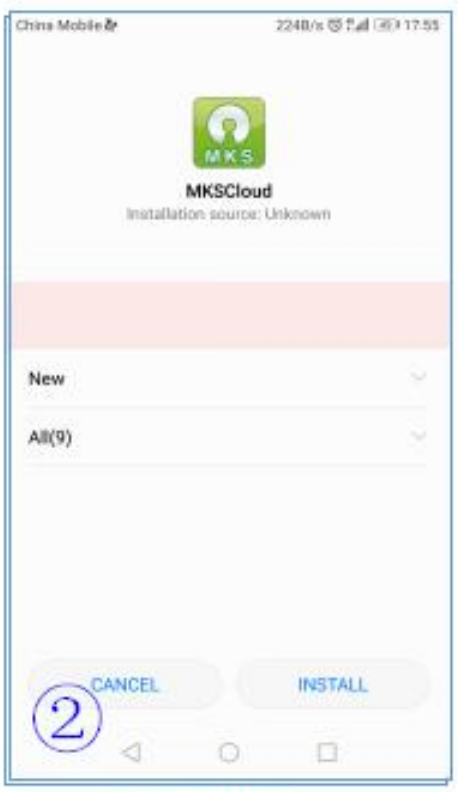
C. The current motherboard firmware and WiFi firmware version number can be viewed in the about.

3.3 WIFI firmware update can also be updated through the web side, in the same LAN, in the Computer browser input IP address, access to the Web page update firmware interface, the following figure:

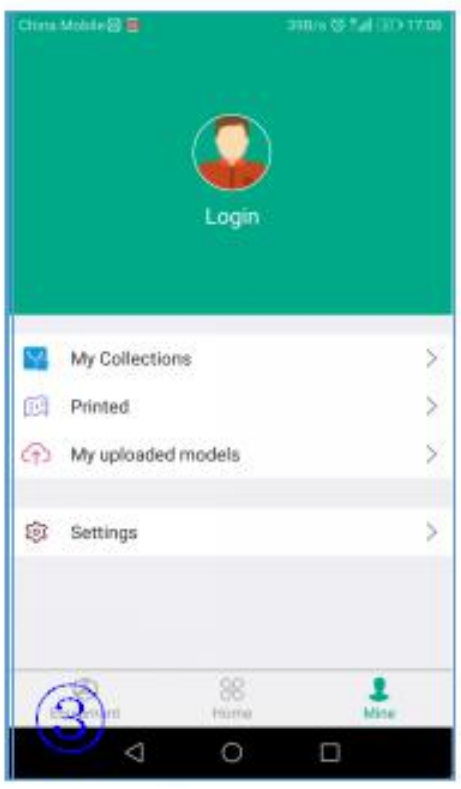


4 .APP print

Download MKSCloud App



Installation

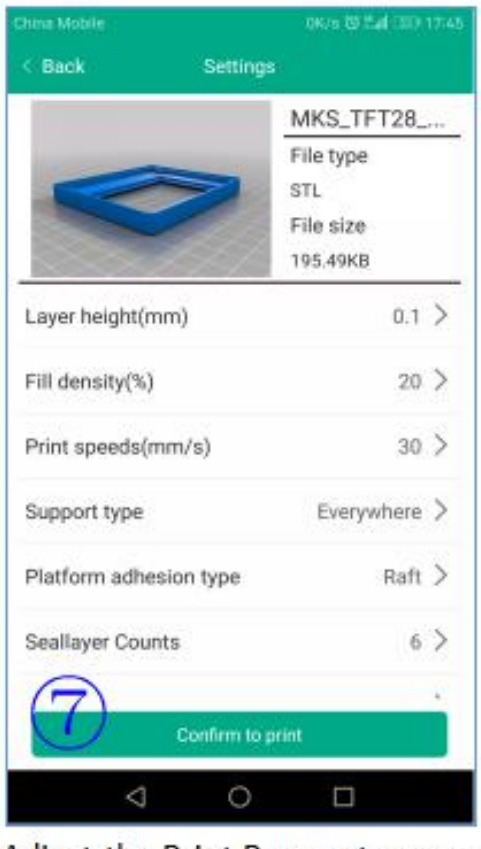


login

Model Preview Interface

Printer bindings

Add Printer page



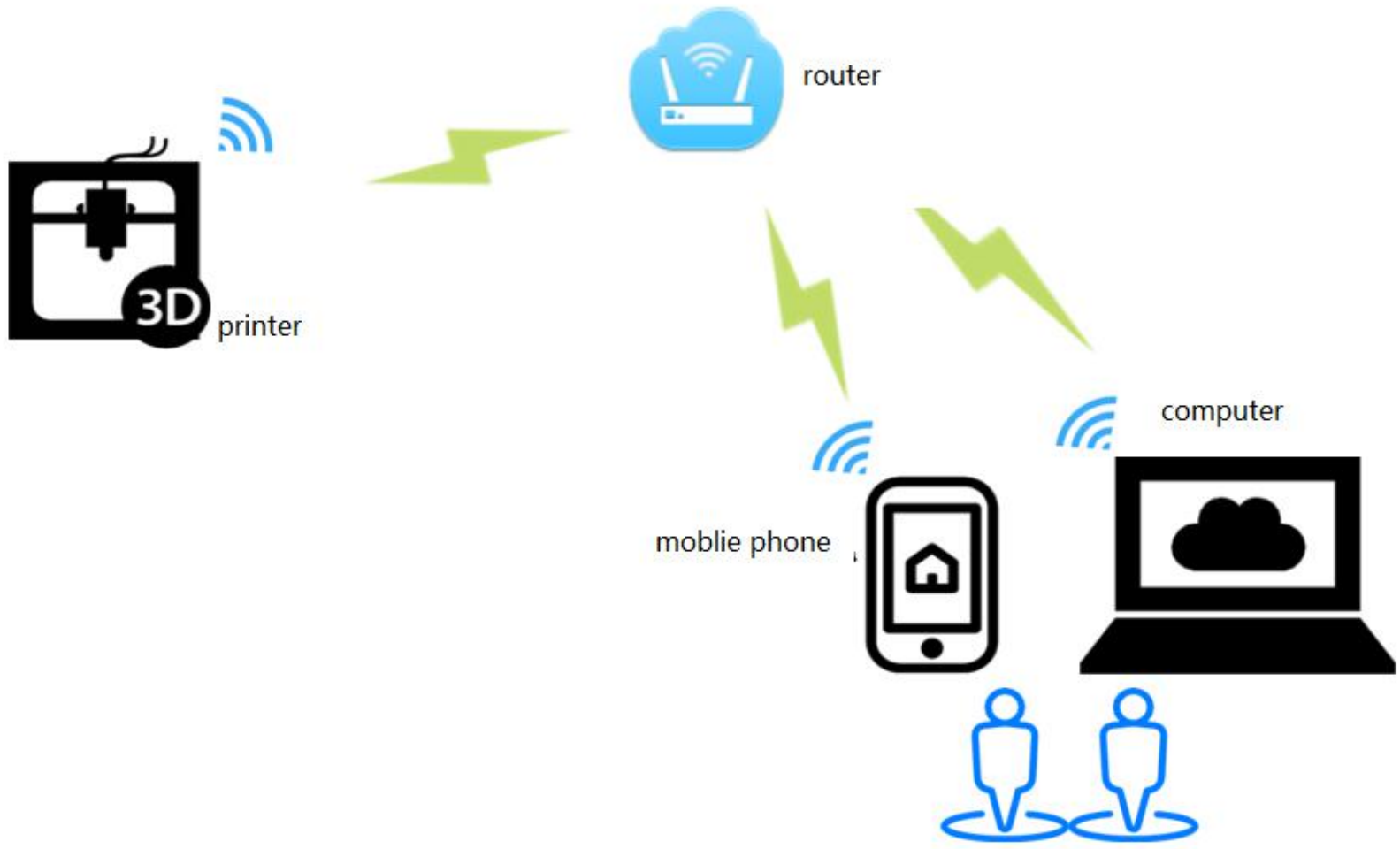
Adjust the Print Parameters page

Printing pages

Print complete

5.3 LAN Print mode

1.Network Diagram



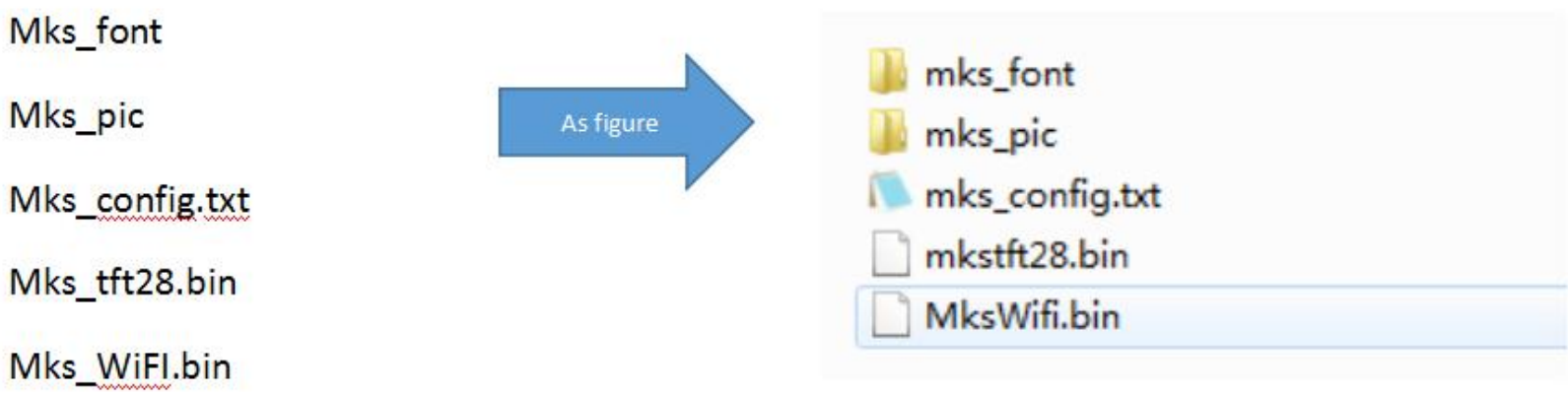
Features: Can control printer in LAN

3 .Software update

3.1 Copy the latest upgrade program to the SD card root directory, the motor can be renewed, upgrade procedures include:

Mks_config.txt	Description
#wifmodel(0:MKS WIFI TFT 1:MKS HLK-WIFI) >cfg_wifi_type:0	
#wifi mode(0:sta;1:ap) >CFG_WIFI_MODE 0	Set WiFi mode to STA mode
#wifi name >CFG_WIFI_AP_NAME MKSWIFI	Set the WiFi name to the name of the router you want to connect to
#wifi password >CFG_WIFI_KEY_CODE MAKERBASE	Set the WiFi password to the router password you want to connect to
#cloud service enable(0:disable 1:enable) >cfg_cloud_enable:1 #cloud server url >cfg_wifi_cloud_host:www.baizhongyun.cn #cloud server port >cfg_cloud_port:10086 IP/MASK/GATE	It is recommended to disable the cloud services,when LAN control. Other parameters can be used by default.

>cfg_ip_address:192.168.3.100 >cfg_ip_mask:255.255.255.0 >cfg_ip_gate:192.168.3.	



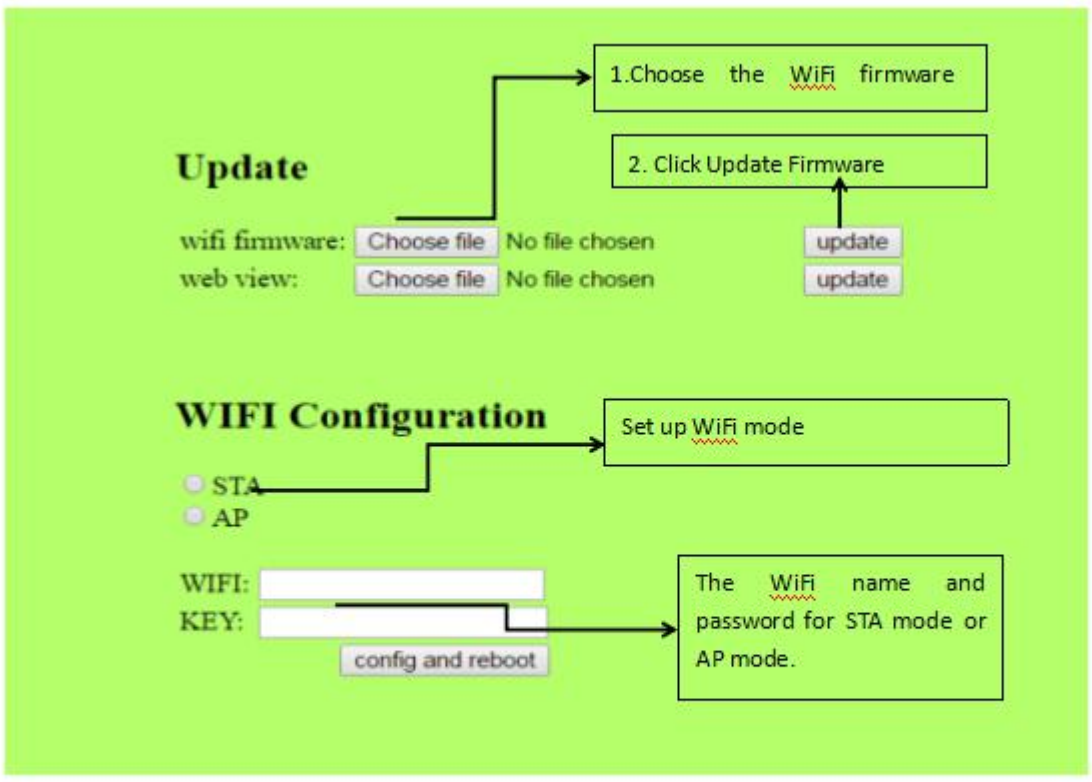
3.2 Update Considerations

The filename is not modifiable, or it will cause an update failure;

After the successful upgrade of the program, the filename will change;

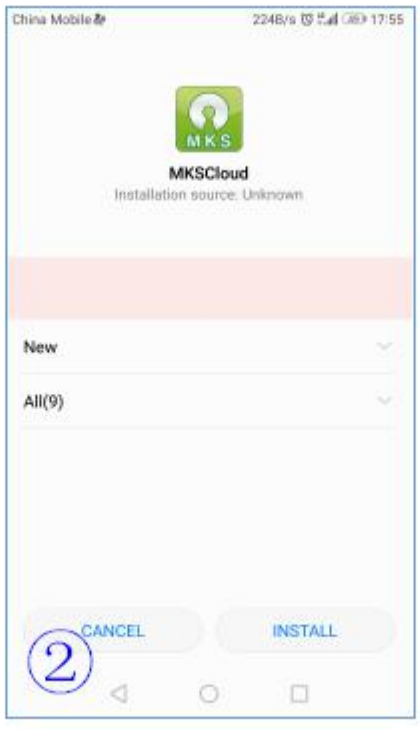
The current motherboard firmware and WiFi firmware version number can be viewed in the about.

3.3 WIFI firmware update can also be updated through the web side, in the same LAN, in the Computer browser input IP address, access to the Web page update firmware interface, the following figure:

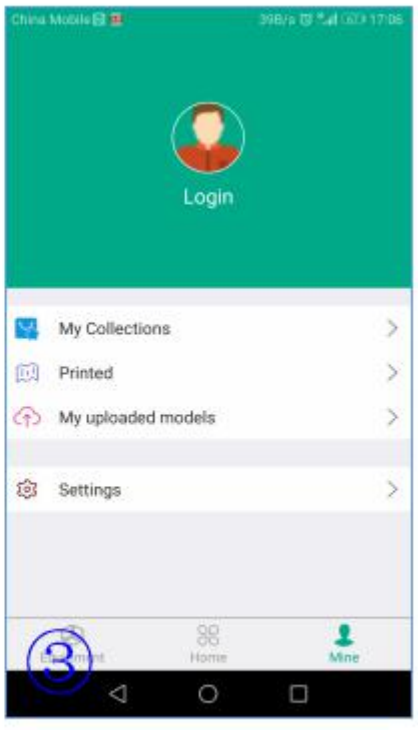


4 .APP print

Download MKSCloud App



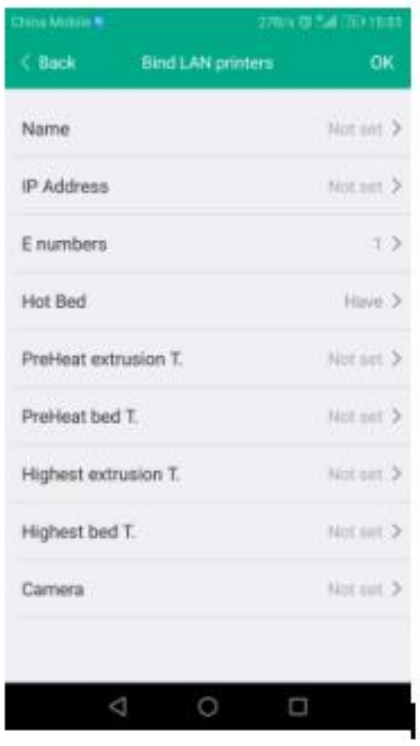
Installation



login

Printing interface

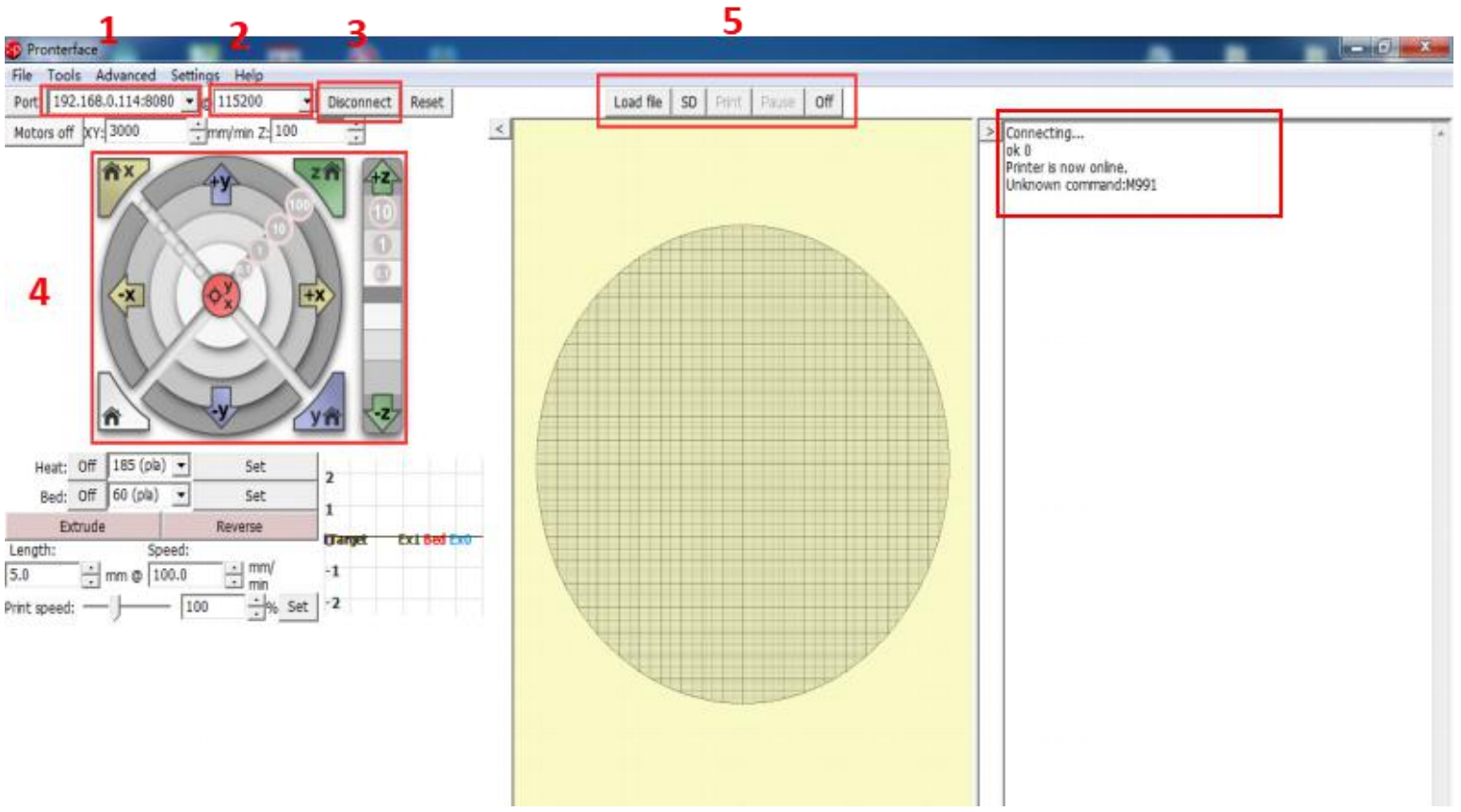
choose the file



add the printer

Upper Computer Printing

4.1 pringtrun printing



Here fill in "IP address +:8080", IP address can be in the set "WiFi" view, such as the above image of the IP address of 192.168.0.114, so fill in as: 192.168.0.114:8080;

Baud rate selection is 115200 (same as the baud rate of the motherboard, modified according to the actual situation)

The button of connect and disconnect.

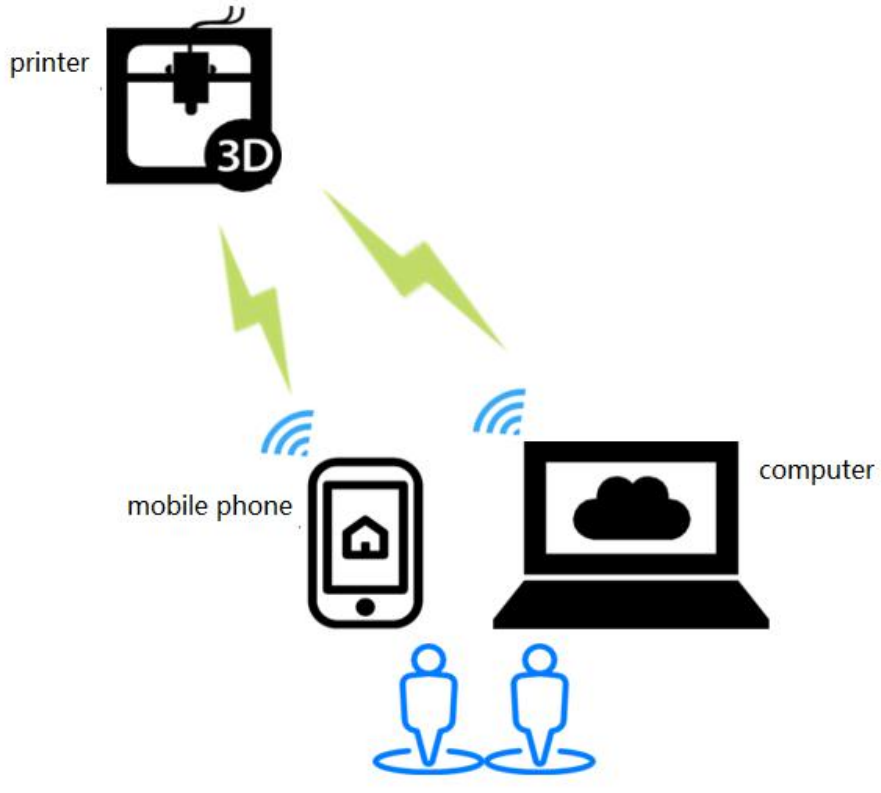
After the icon color becomes darker, the connection is successful;

choose SD file printing or select the computer file printing (select the computer file printing is a command transmission printing, so the printing effect is not good, and unstable, do not recommend this method)

View information about the printer feedback.

5.4 AP print mode

1. Network Diagram:



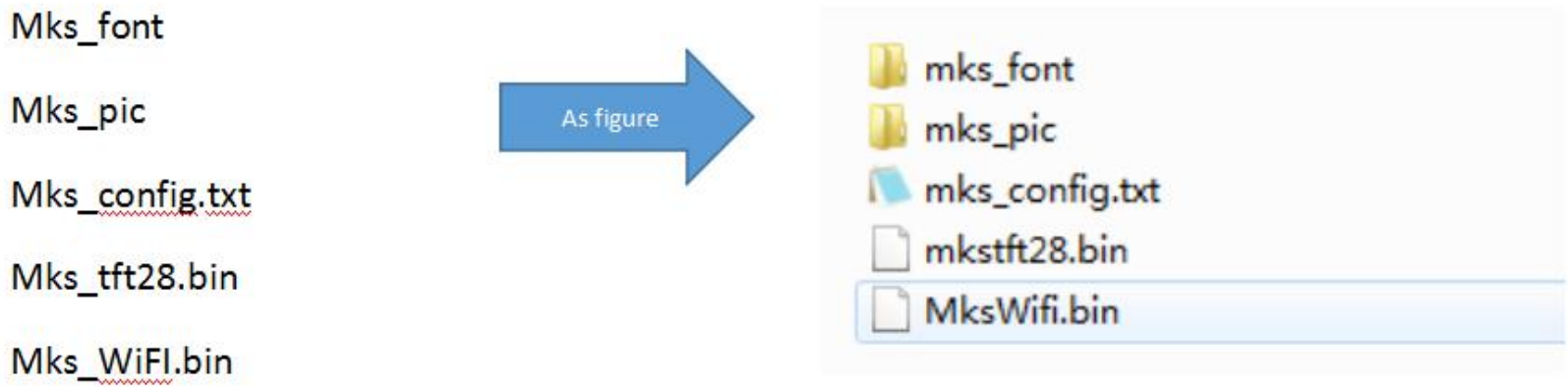
Features: WiFi module will produce hot "mkswifi-xxxx" (open hotspot, no password), you can access the Hotspot control printer.

2. WiFi configuration

lite_cfg.txt	Description
#wifi mode(0:sta;1:ap) >CFG_WIFI_MODE 1	Set WiFi mode to ap mode
#wifi name >CFG_WIFI_AP_NAME MKSWIFI	Set the WiFi name to the name of the wifi module you want to connect to
#wifi password >CFG_WIFI_KEY_CODE MAKERBASE	Set the WiFi password to the wifi module password you want to connect to
#cloud service enable(0:disable 1:enable) >cfg_cloud_enable:0 #cloud server url >cfg_wifi_cloud_host:www.baizhongyun.cn #cloud server port >cfg_cloud_port:10086 IP/MASK/GATE >cfg_ip_address:192.168.3.100 >cfg_ip_mask:255.255.255.0 >cfg_ip_gate:192.168.3.	It is recommended to disable the cloud services,when AP mode control. Other parameters can be used by default.

3. Software update

3.1 Copy the latest upgrade program to the SD card root directory, the motor can be renewed, upgrade procedures include:



3.2 Update Considerations

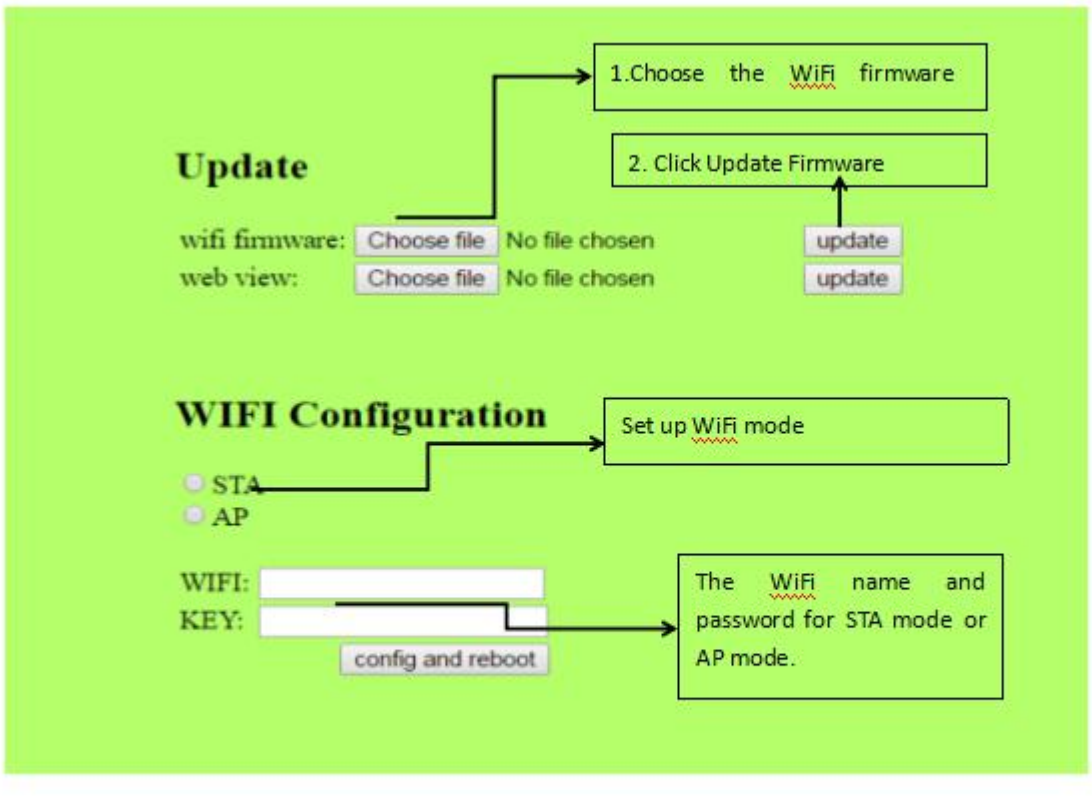
The filename is not modifiable, or it will cause an update failure;

After the successful upgrade of the program, the filename will change;

The current motherboard firmware and WiFi firmware version number can be viewed in the about.

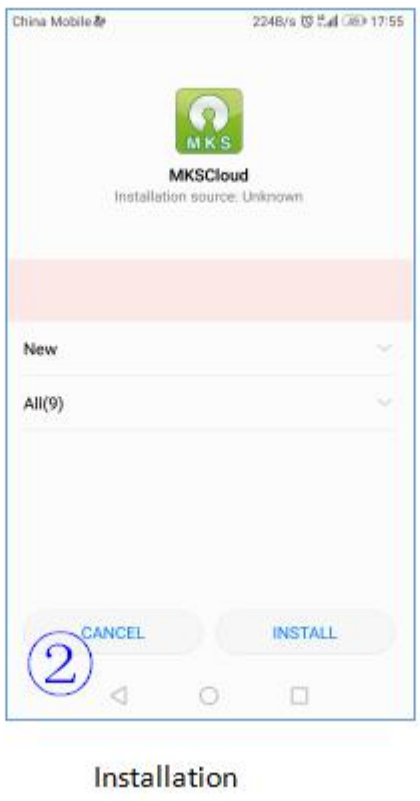
3.3 WIFI firmware update can also be updated through the web side, in the same LAN, in the Computer

browser input IP address, access to the Web page update firmware interface, the following figure:

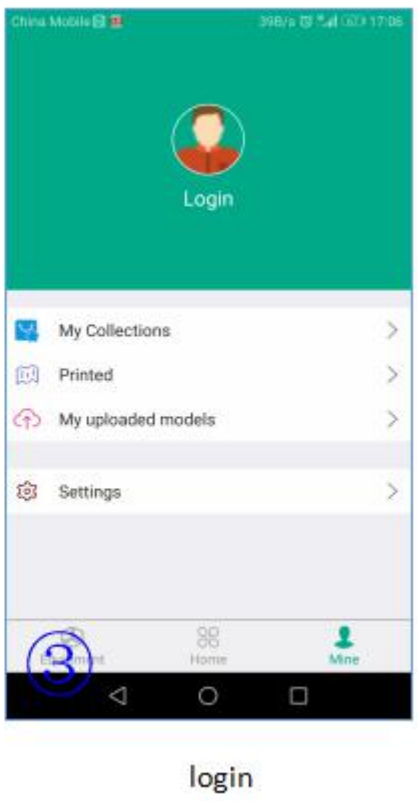


4 .APP print

Download MKSCloud App



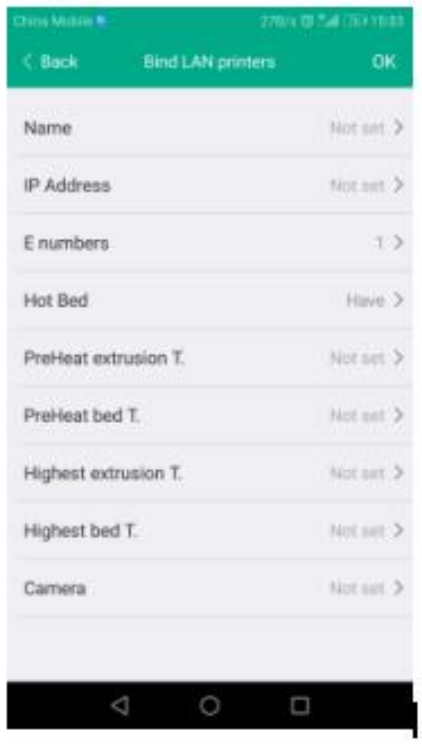
Installation



login

Printing interface

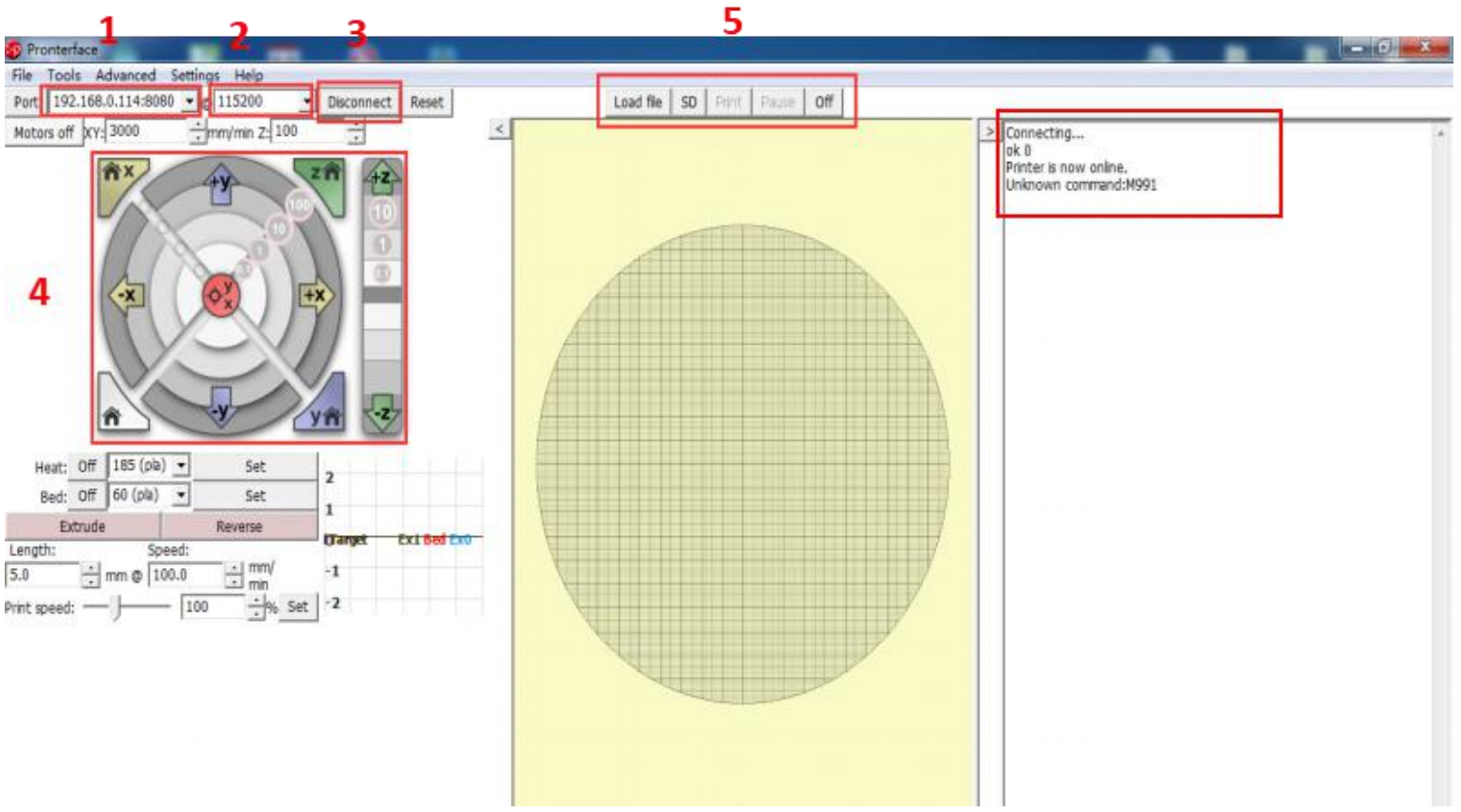
choose the file



add the printer

4 .Upper Computer Printing

4.1 pringtrun printing



Here fill in "IP address +:8080", IP address can be in the set "WiFi" view, such as the above image of the IP address of 192.168.0.114, so fill in as: 192.168.0.114:8080;

Baud rate selection is 115200 (same as the baud rate of the motherboard, modified according to the actual situation)

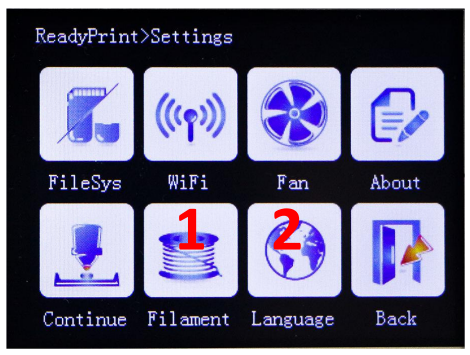
The button of connect and disconnect.

After the icon color becomes darker, the connection is successful;

choose SD file printing or select the computer file printing (select the computer file printing is a command transmission printing, so the printing effect is not good, and unstable, do not recommend this method)

View information about the printer feedback.

Ⅵ special function button customization



1：function_btn1_cmd

2：function_btn2_cmd

#user-defined function1 and 2.

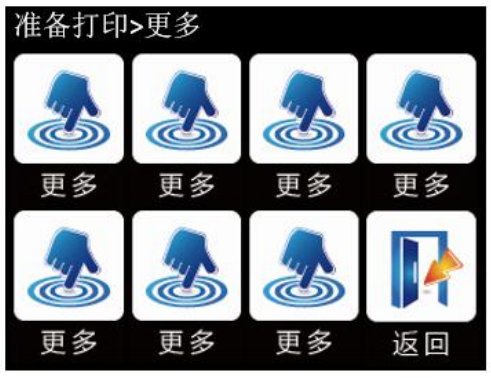
(display this button . disable: 0; enable: 1)

>cfg_function_btn1_display:1

#command of user-defined function

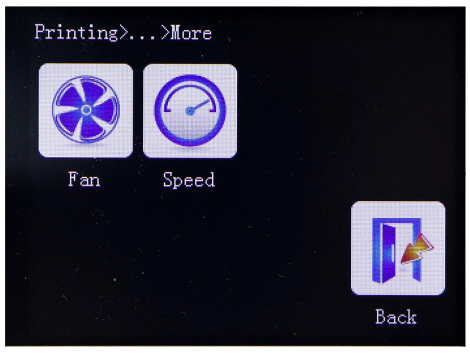
>function_btn1_cmd:M84;

Must be enabled to display




```
#set number of  "More" button
>moreitem_pic_cnt:0

#edit command for 1~7 "More" button,e
>moreitem_button1_cmd:G28 X0;

>moreitem_button2_cmd:G28 X0;

>moreitem_button3_cmd:G28 Y0;

>moreitem_button4_cmd:G28 Y0;

>moreitem_button5_cmd:G28 Z0;

>moreitem_button6_cmd:G28 Z0;

>moreitem_button7_cmd:G28;
```

must first set the number of then define the command




```
#how many "More" button display on screen interface
>morefunc_cnt:0

#command setting on button1~6
>morefunc1_cmd:G28;
>morefunc2_cmd:G28;
>morefunc3_cmd:G28;
>morefunc4_cmd:G28;
>morefunc5_cmd:G28;
>morefunc6_cmd:G28;
```

When the pause is time, there are fourbuttons, buttons on the page, and six at other times.

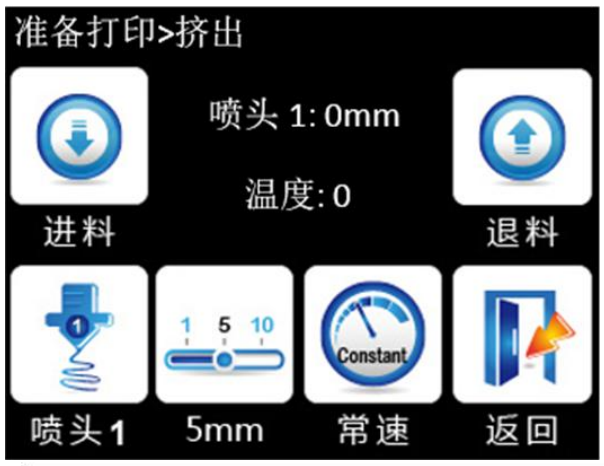
Ⅶ. each theme interface display

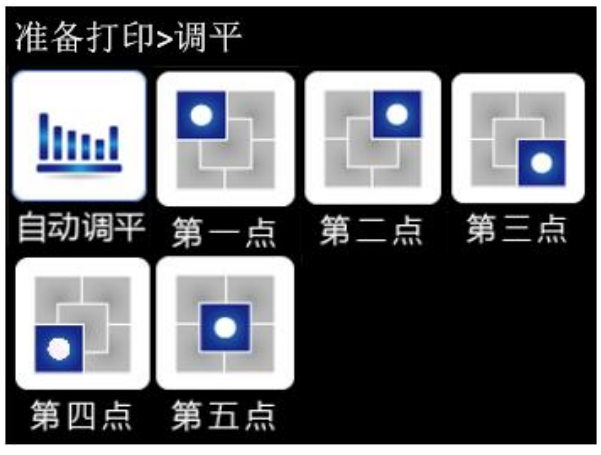
7.1 Blue style

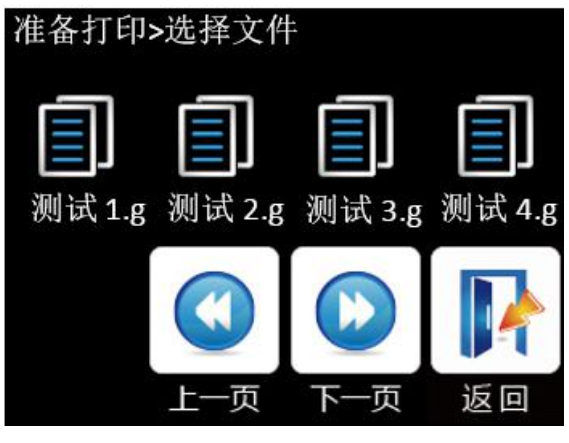
（Simple）

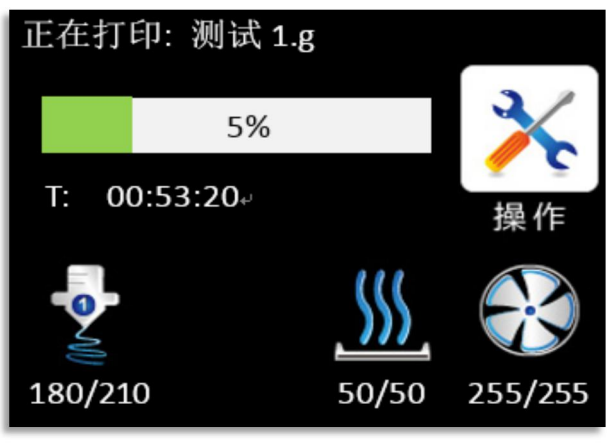
（Classic）

（Retro）









7.2 Windows style

（Simple）

（Classic）

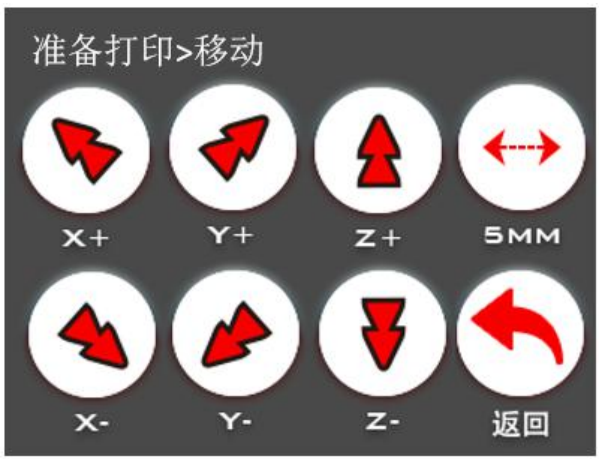
（Retro）

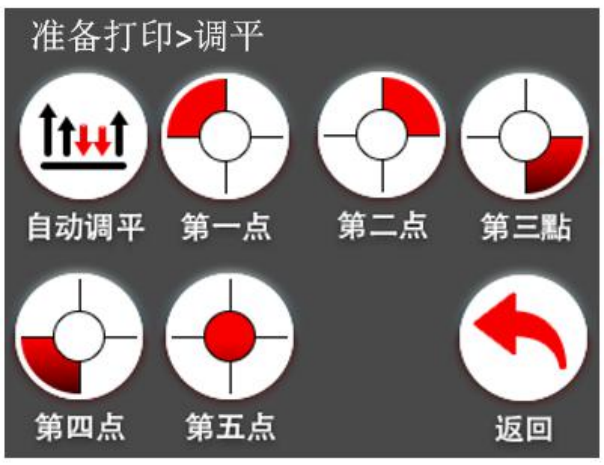
7.3 Red style

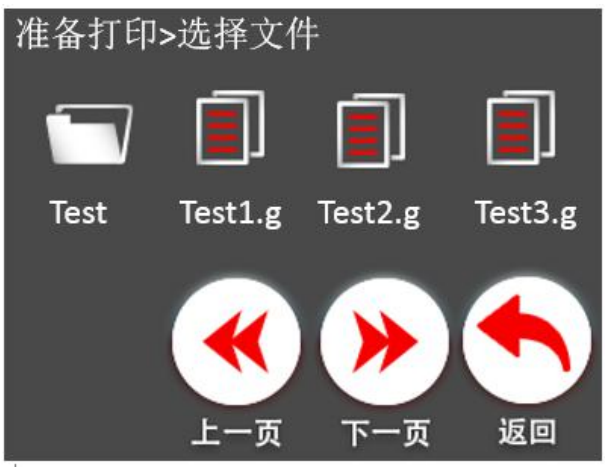
（Simple）

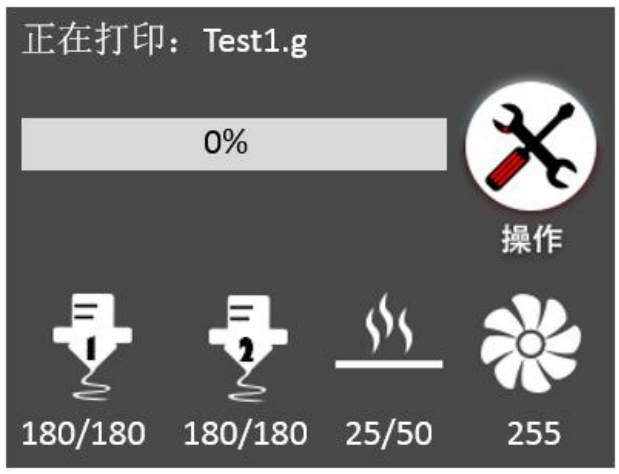
（Classic）

（Retro）









(1) Special instructions

The red style is modified on the basis of a UI designed by a foreign user, allowing users to choose more styles.

I am very grateful to this excellent design engineer. The following is the original words of the design engineer:

Special explanation： The red style is modified from the UI designed by Isaac Norris, which provides the users with more choice.The following is the designer Isaac Norris

words:

Hello and thank you for downloading my modified version of the MKS TFT User Interface.

Instructions-

1. copy the contents of the firmware folder to an SD card then insert the card into the readeron the MKS TFT Display. I am using the 3.2" varriant and that is all that will work with this OS.

2. Power on the board, it will automatically install the firmware.

3. Once it powers on you are ready to go!

This interface took alot of design time and effort to put together so I hope that you all apreciate it as a step forward in User Interfaces for 3D Printers.

All Credit for this UI's Design and assembly goes to me, Isaac Norris, the owner and operator of Dimension 3 Fabrication in Asheville NC.

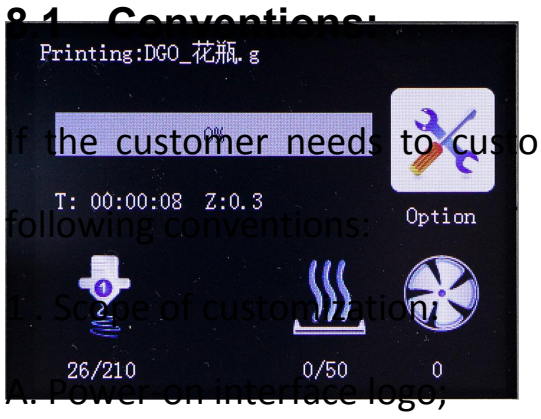
I hope that you all get the best from this user interface and share it freely, but I do not want this UI sold as it is Copywriten under the Creative Commons Copywrite.
The purpose for designing this UI was for the custom Delta 3D Printers that my company, DImension 3, will be manufacturing and the reason that I am sharing this with all of you is that I believe in sharing information, as the only way to make the world better is to help the spread of ideas.

Thanks everyone for your support and if you have any questions email me at Dimension3fab@gmail.com or personally at Flightfixit@gmail.com.
If you want to find me online search FlightFixit for my 3D modeling and Dimension 3 Fabrication for the Delta 3D Printers.

Hope you all get the best out of my UI.

Ⅷ TFT touch Screen User interface configuration

8.1 Conventions:



If the customer needs to customize the display picture of the touch screen, the first should follow the following conventions:

1. Scope of customization:

A. Power-on interface logo;

B. Picture of the button (see below "1" and "2") (including icons and text);

C. Screen background color (see below figure "3", default black);

D. Title text color (see below figure "4", default white);

E. Display the background color of the state of the temperature (see figure "5", the default dark blue);

F. Display the color of the state such as temperature (see below figure "6", the default white);

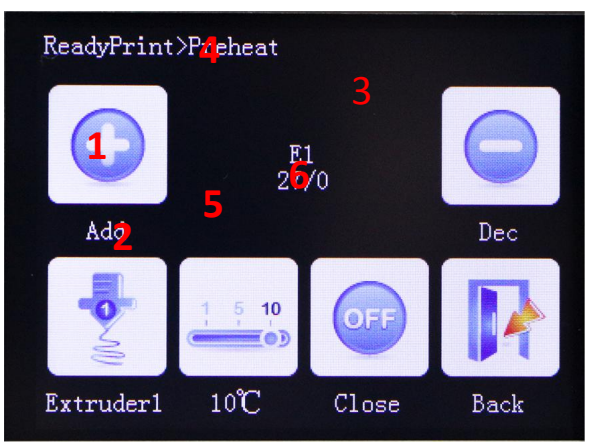
G. " Select the file interface, the font color of the file name (see figure "7", the default white);

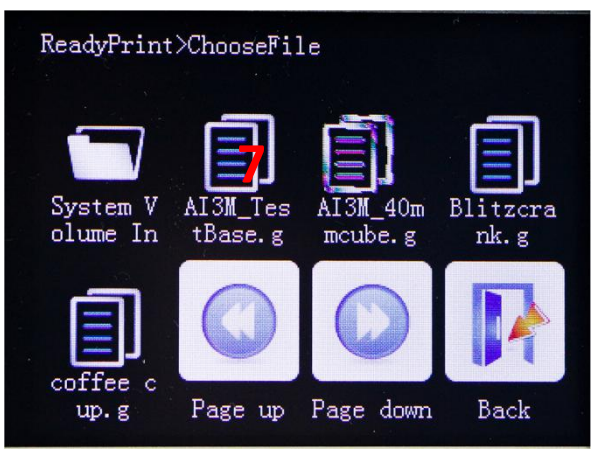
H. " Select the file interface, the font background color of the file name, and suggest the same color as the picture;

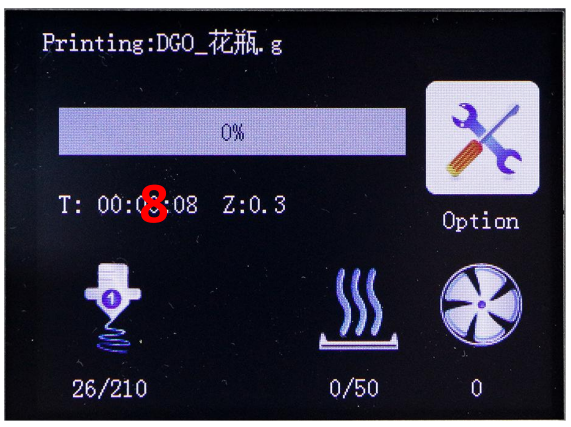
I. " Printing "interface, printing status information text background color; (See figure" 8 ", default white);

J. " Printing interface, print status information font color, suggest and picture color is the same;

K. Whether the button requires a 3D effect, the default is that the need, that is, the button picture outside the white







(1)Custom boot logo picture, 16DPP, wide =320 pixel, high =240 pixel;

(2) Custom button picture, 16DPP, wide =78 pixel, high =104 pixel;

(3) The name of the customized picture must be named in accordance with the appendix;

(4) Custom color value is 16, in accordance with 3 primary colors blue, green, red order;

(5) Customize the "More" menu function button, can be customized up to 7 function buttons;

(6) Custom "Print more" function button, can be customized up to 6 function buttons;

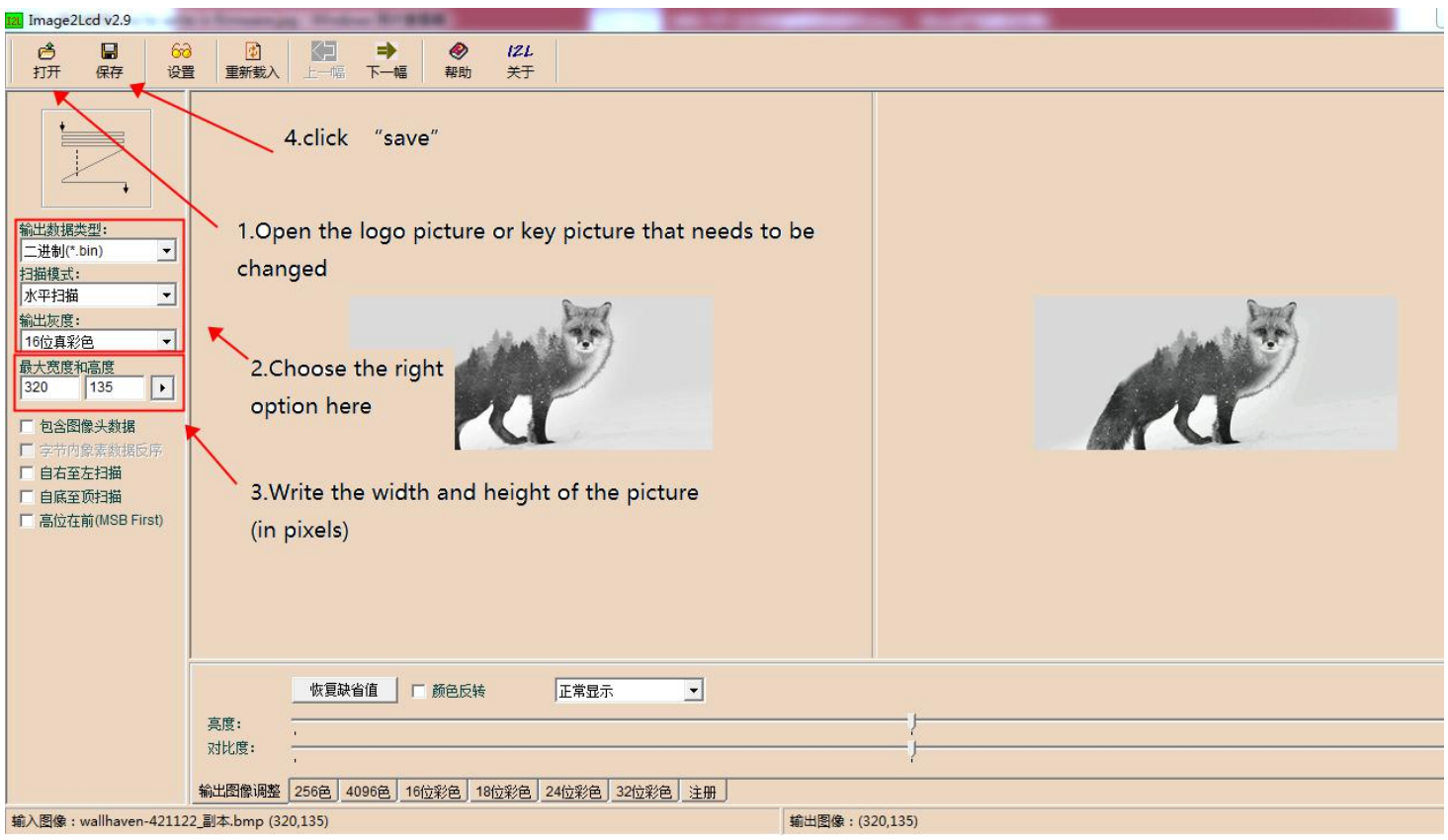
8.2 Steps

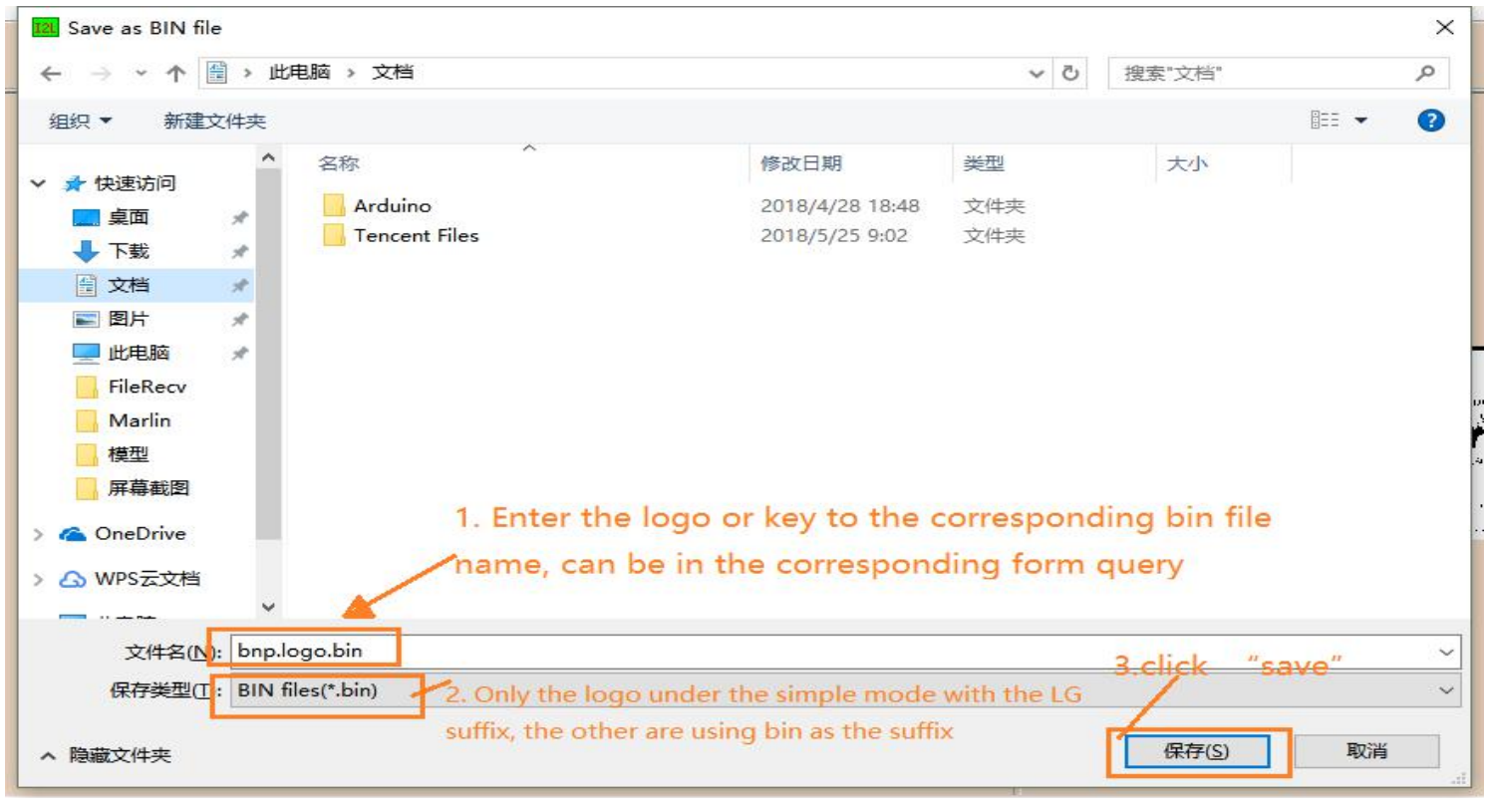
1.1 Preparation Tools

1.IMG2LCD software (cracked version of no watermark, ask customer service to obtain)

2.corresponding to the. bmp suffix name of the picture, pixels to correspond, do not know the pixel, please see above.

3.You can ask the customer to obtain the key source AI file to make two modifications.





Copy the saved files to the Mks_pic folder

8.3 Name of logo and button picture

Picture naming rules (note that some pictures are duplicated, just provide one)

Power-on logo.

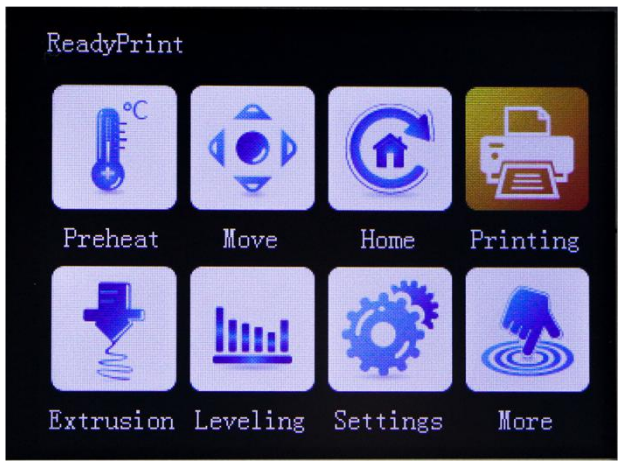
bmp_logo.bin	

Small LOGO（Simple）

bmp_iconlogo.lg	

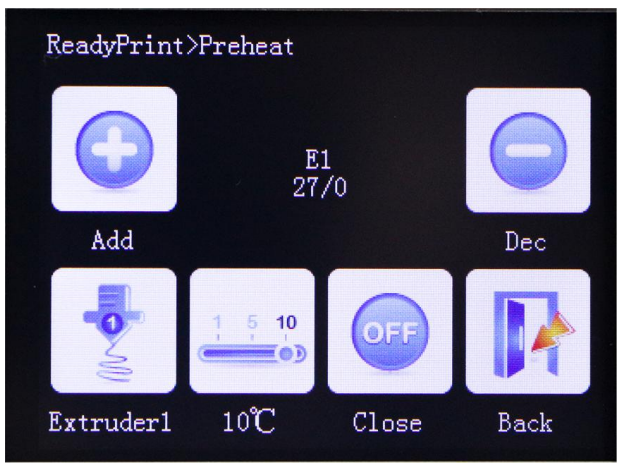
Ready to print Interface:

Preheat: bmp_preHeat.bin	Move: bmp_mov.bin	Home: bmp_zero.bin	Print: bmp_printing.bin
Extruct: bmp_extruct.bin	Leveling: bmp_leveling.bin	Setting: bmp_set.bin	More: bmp_more.bin



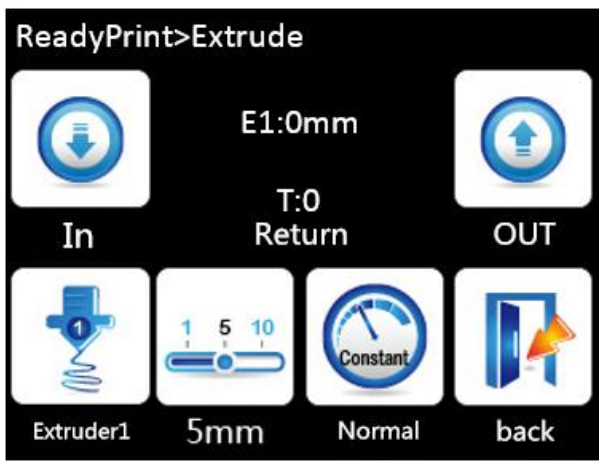
Preheat interface:

Add: bmp_Add.bin			Dec: bmp_Dec.bin
Preheat: Hot bed : bmp_bed.bin Extrul : bmp.extrul.bin Exteu2: Bmp.extru2.bin	Step: Step1_degree: bmp_step1_degree.bin Step5: bmp_step5_degree.bin Step10: bmp_step10_degree.bin	close: bmp_speed0.bin	Return: bmp_return.bin



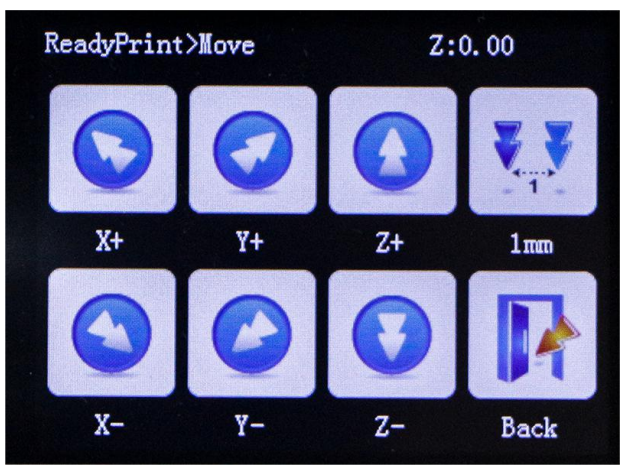
Extrusion interface

In: bmp_in.bin			Out: bmp_out.bin
Extru(E): E1: bmp_extrul.bin E2: bmp_extru2.bin	Step: 1mm: bmp_step1_mm.bin 5mm: bmp_step5_mm.bin 10mm: bmp_step10_mm.bin	Rate: Low: bmp_speed_slow.bin Normal: bmp_speed_normal.bin High: bmp_speed_high.bin	Return: bmp_return.bin



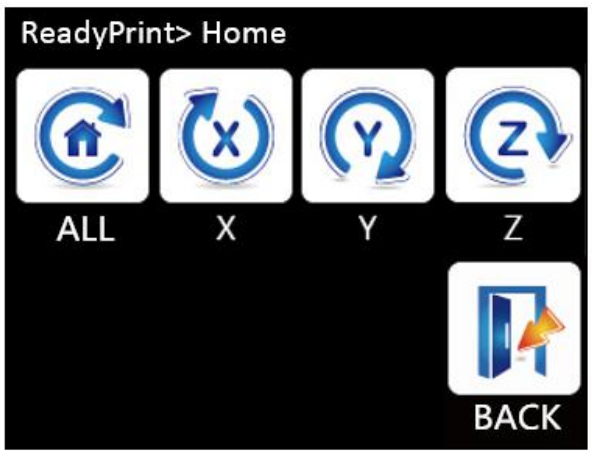
MOVE interface

X+: bmp_xAdd.bin	Y+: bmp_yAdd.bin	Z+: bmp_zAdd.bin	Step: 0.1mm：Bmp_step_move0.1.bin 1mm: bmp_step_move1.bin 10mm: bmp_step_move10.bin
X-: bmp_xDec.bin	Y-: bmp_yDec.bin	Z-: bmp_zDec.bin	return: bmp_return.bin



Home interface

All (Home): bmp_zero A.bin	X: bmp_zeroX. bin	Y: bmp_zeroY. bin	Z: bmp_zeroZ.bin
			return (Back) : bmp_return.bin

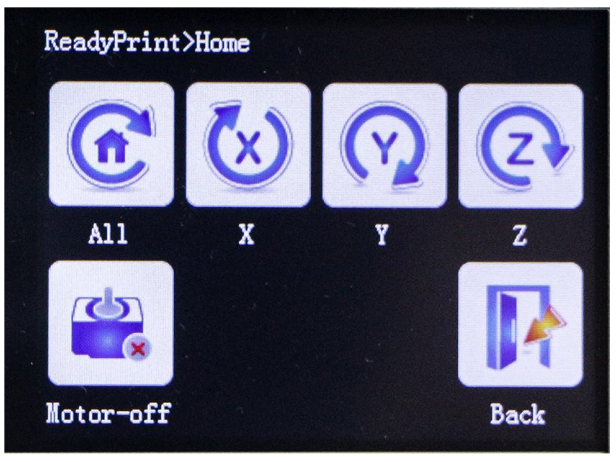


Language interface

simplified _cn: bmp_simpli fied_cn.bi n simplified _cn: bmp_simpli fied_cn_se l.bin	_traditiona l_cn.: bmp_traditi onal_cn.bin traditional _cn.: bmp_traditi onal_cn_sel .bin	english : bmp_englis h.bin english : bmp_englis h_sel.bin	russian: bmp_russian .bin russian : bmp_russian _sel.bin
spanish: bmp_spanis h.bin spanish: bmp_spanis h_sel.bin			(Back) : bmp_return. bin

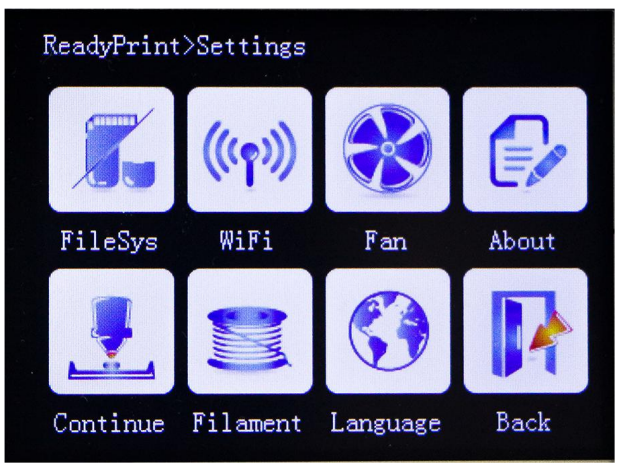
Leveling interface

Autoleveling : bmp_autoleve ling.bin	Leveling1: bmp_levelin g1.bin	Leveling2: bmp_levelin g2.bin	Leveling3: bmp_leveli ng3.bin
Leveling4: bmp_leveling 4.bin	Leveling5: bmp_levelin g5.bin		



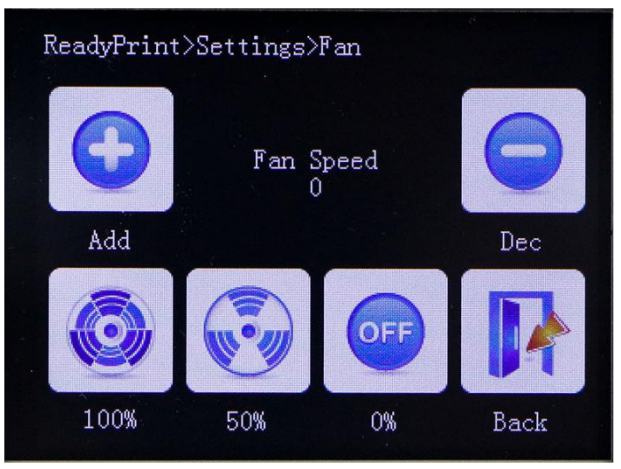
Setting interface

File system: bmp_fileSy s.bin	wifi: bmp_wifi.bi n	fan: bmp_fan.bin	about: bmp_about. bin
breakpoint : bmp_breakp oint.bin	change: bmp_functio n1.bin	Motor off: bmp_functio n2.bin	Return: bmp_return .bin



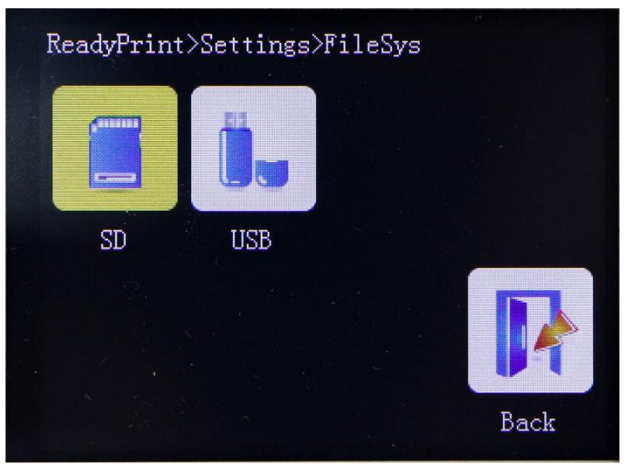
Fan interface

ADD: bmp_Add.bin			DEC: bmp_Dec.bin
Full speed: bmp_speed 255.bin	Halfspeed: bmp_speed 127.bin	Close: bmp_speed0 .bin	return: bmp_return. bin



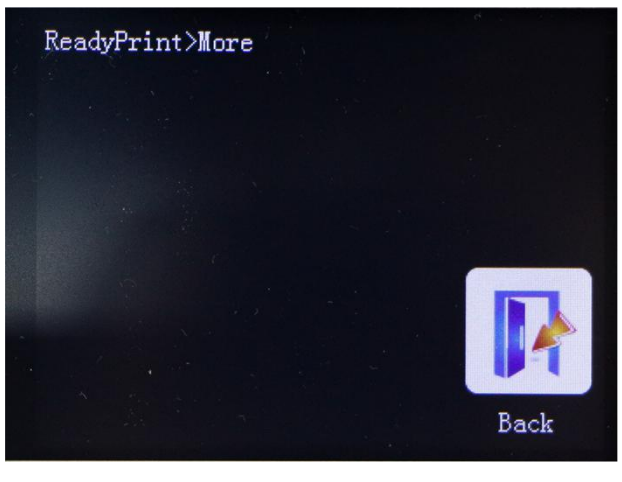
File system interface

SD: No set: bmp_ sd.bin set: bmp_sd _sel.bin	U disk: No set: bmp_ usb.bin set: bmp_usb _sel.bin		
			Return (Back) : bmp_return.bin



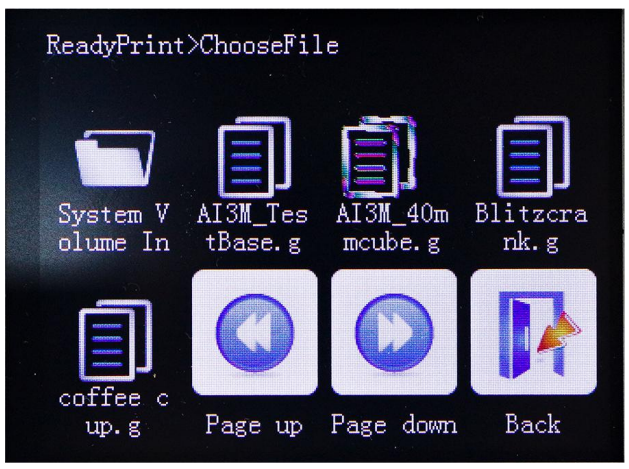
more interface

custom1: bmp_ custom1. bin	custom2: bmp_ custom2. bin	custom3: bmp_ custom3. bin	custom4: bmp_ custom4. bin
custom5: bmp_ custom5. bin	custom6: bmp_ custom6. bin	custom7: bmp_ custom7. bin	return: bmp_ return. bin



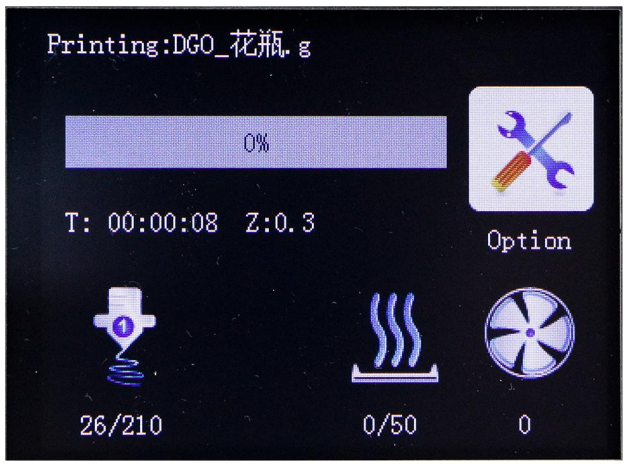
choose file

File: bmp_ file.bin			
	Pageup: bmp_pageU p.bin	Pagedown: bmp_pageD own.bin	Return: bmp_return.bi n



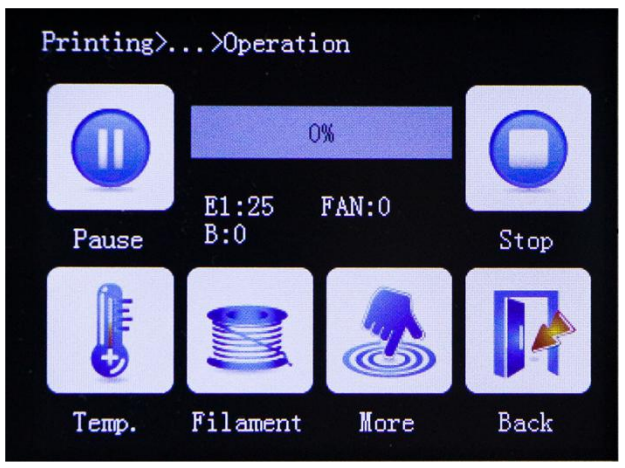
Printing interface

			option: bmp_menu.bin
Extru1（E1）: bmp_extru1_no_words. bin	Extru2（E2）: bmp_extru2_no_words.bin	Hot bed: bmp_bed_no_words. bin	fan: bmp_fan_no_words.bin Fan_move: bmp_fan_move.bin



option interface

Pause: bmp_pause.bin			stop: bmp_stop.bin
temperate: bmp_temp.bin	Speed: bmp_speed.bin	move: bmp_more.bin	return: bmp_return.bin

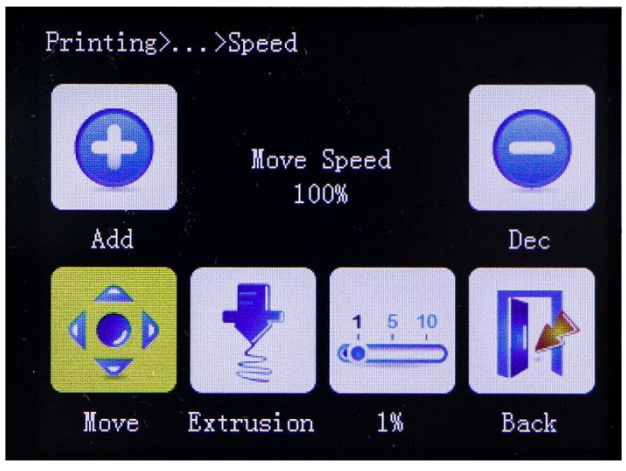


Pause interface

resume: bmp_ resume.bin			stop: bmp_stop.bin
Extruct: bmp_ extruct.bin	Move: bmp_ mov.bin	Temperate: bmp_temp.bin	More（move）: bmp_more.bin

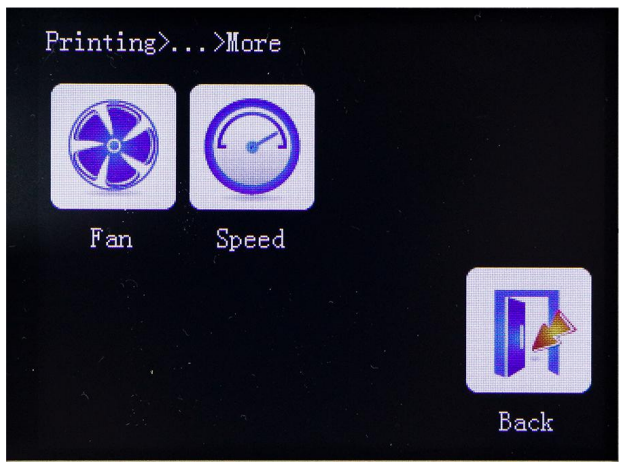
Speed interface

Add: bmp_Add.bin			Dec: bmp_Dec.bin
Move: No set: bmp_mov.bin Set : bmp_mov_sel.bin	Extruct: No set: bmp_extruct.bin Set : bmp_extruct_sel.bin	Step: 1mm: bmp_step1_mm.bin 5mm: bmp_step5_mm.bin 10mm: bmp_step10_mm.bin	Return: bmp_return.bin



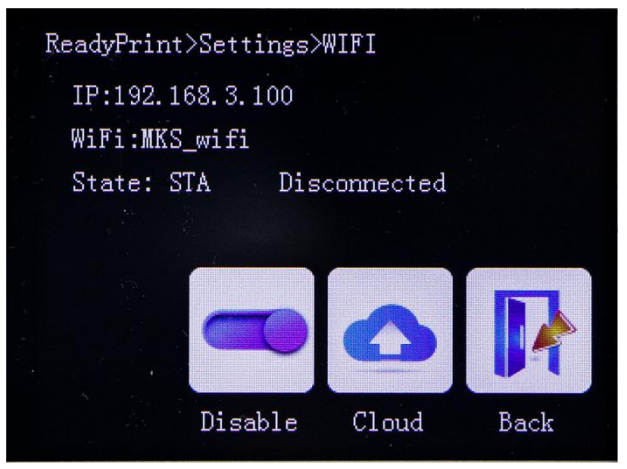
More interface in pause printing

Fan: bmp_fan.bin	Filament change: bmp_filamentchange.bin	Auto off: bmp_auto_off.bin Maunal off: bmp_manual_off.bin	morefun1: bmp_morefunc1.bin
morefun2: bmp_morefunc2.bin	morefun3: bmp_morefunc3.bin	morefun4: bmp_morefunc4.bin	Return: bmp_return.bin



Wifi interface

		Cloud: bmp_cloud.bin	Return: bmp_return.bin



Common color corresponding to the hexadecimal value

蓝色		0x0000FF
绿色		0x00FF00
红色		0xFF0000
黄色		0xFFFF00
浅蓝		0xE1FFFF
浅绿		0x80FF80
浅红		0xFF8080
青色		0x00FFFF
浅青色		0x80FFFF
浅黄色		0xFFFF80
深绿色		0x008000
深红色		0x800000
深蓝色		0x000080
深黄色		0x808000
黑色		0x000000
白色		0xFFFFFF

Ⅸ. Technical support and protection

1. Power test will be done prior to shipment to ensure normal use of the product
2. Welcome friends to join the discussion group: 232237692.
3. Welcome to Blog Exchange ： http://flyway97.blog.163.com.
4. 3D printer motherboard contact

Miss Zhong：15521638375 Mr. Huang： 13148932315 Mr. Tan：13640262556.

Mr.Peng：13427595835

5. If you have any questions you can contact our customer service or find technical support staff in the group, we will be happy to serve you.

MKS official website

MKS Taobao website