

# MKS-TFT28

## Overview

MKS-TFT28 is a colorful touch screen LCD display, designed by Makerbase and suitable for many types open source 3D Printers.

MKS-TFT28 is suitable for many main board, such as Ramps1.4 and MKS Base, MKS Gen, MKS Mini, as well as MKS SBase .

## Features

### 1.Advantage:

2.8 inch colorful touch screen LCD, support U disk and SD card.

Support continual and easy software update.

Suitable for many main board such as Ramps1.4 and MKS Base, MKS Gen, MKS Mini.

P&P, do not need to modify your firmware, support Marlin、Smoothieware and Repetier.

Support “situation save when power breakout” function. Using this function, you should choose Pause action first before you breakout the power. When you open the power again, the printer can run from the situation before you breakout the

Website: [www.makerbase.com.cn](http://www.makerbase.com.cn) Database: <https://github.com/makerbase-mks>

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power.

Support MKS Wifi module.

## 2. Technology Support and Assure:

100% in power test before shipping.

Any questions or requirement, please fill in this website <http://tieba.baidu.com/makerbase> . We will feedback quickly.

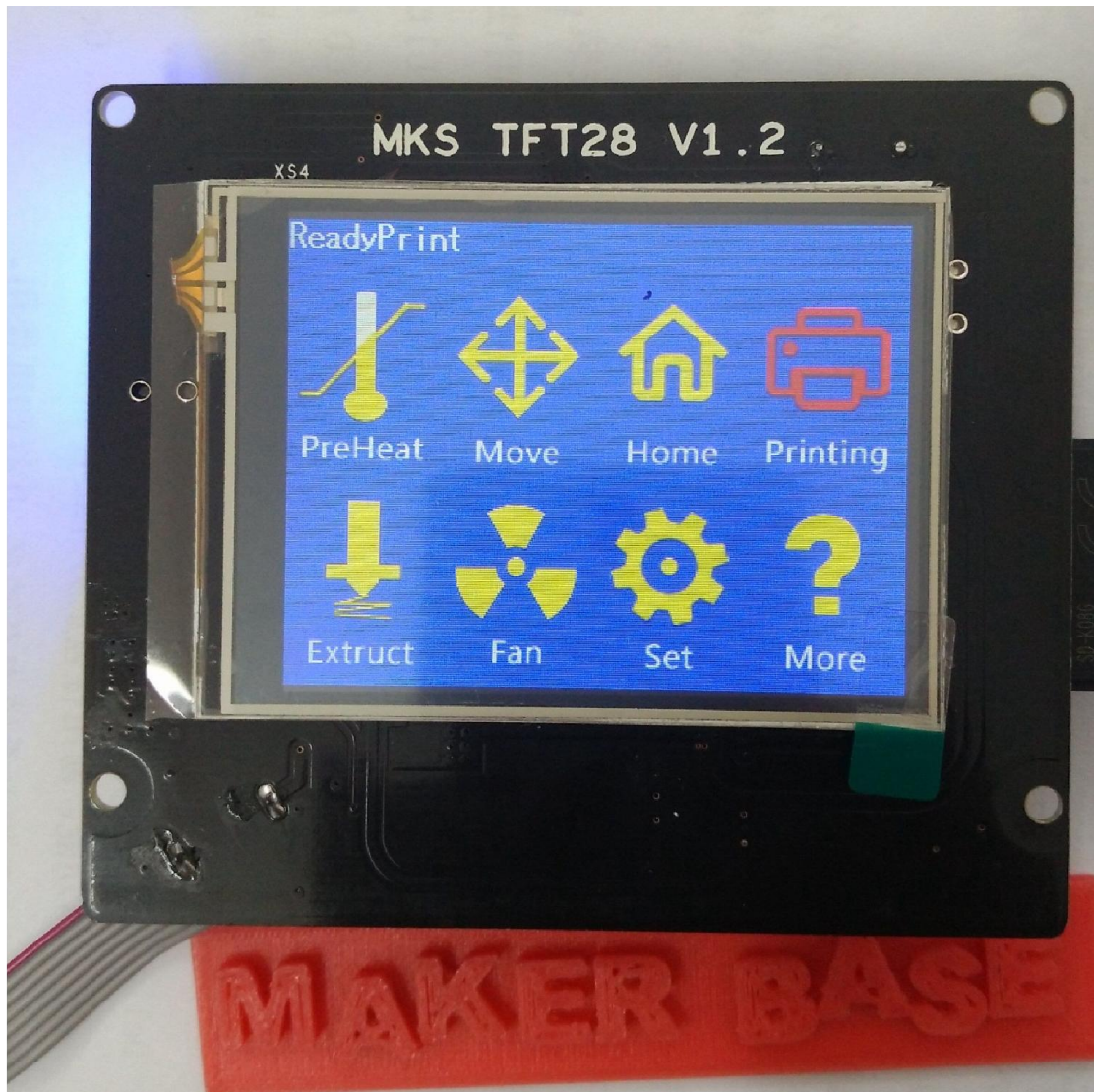
Welcome to our QQ group-156492164.

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Redesign please contact these e-mail [529442067@qq.com](mailto:529442067@qq.com),  
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Customer service or web shop is  
<http://www.aliexpress.com/store/1047297>.

## MKS TFT28



## How to connect

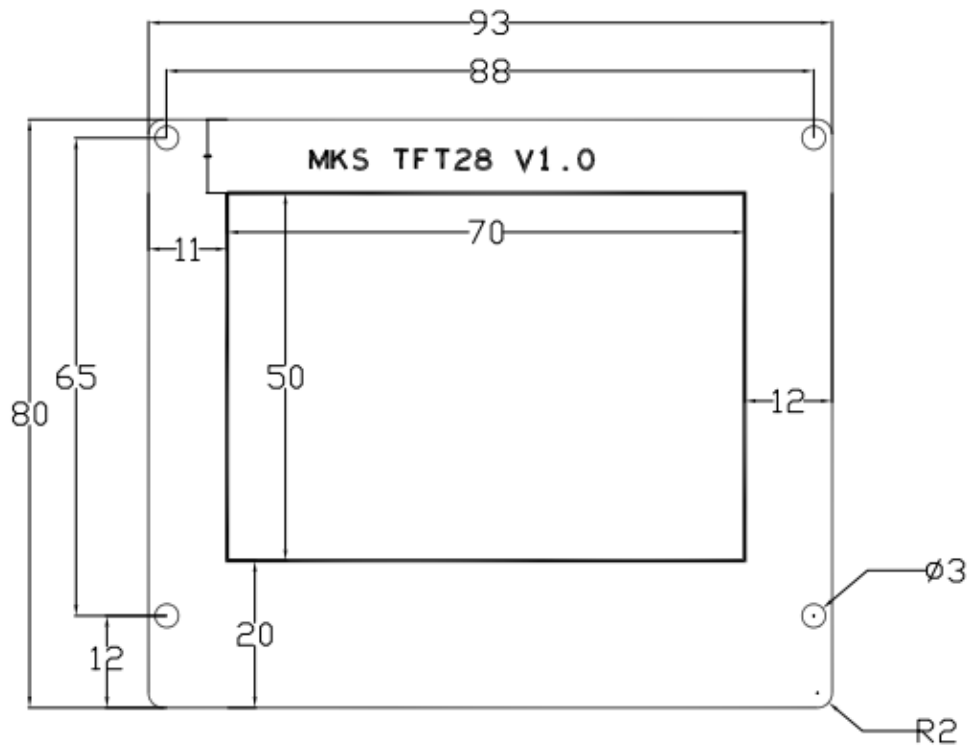
### MKS TFT28 Dimension

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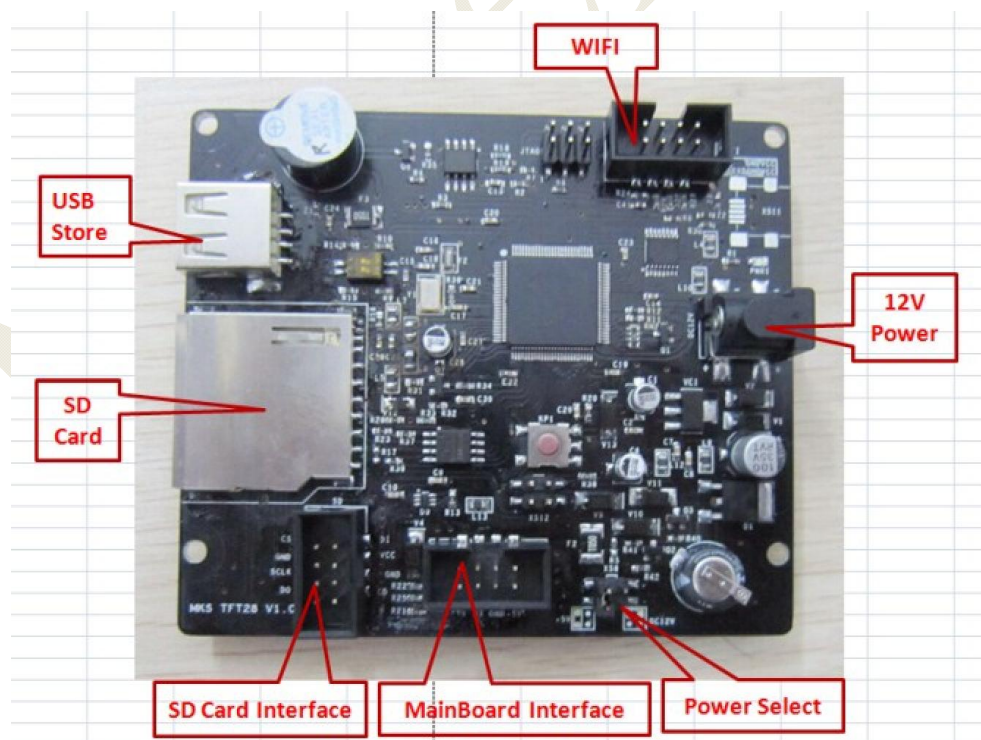
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## MKS TFT28 Connector



## Connect to Aux-1 on ramps 1.4

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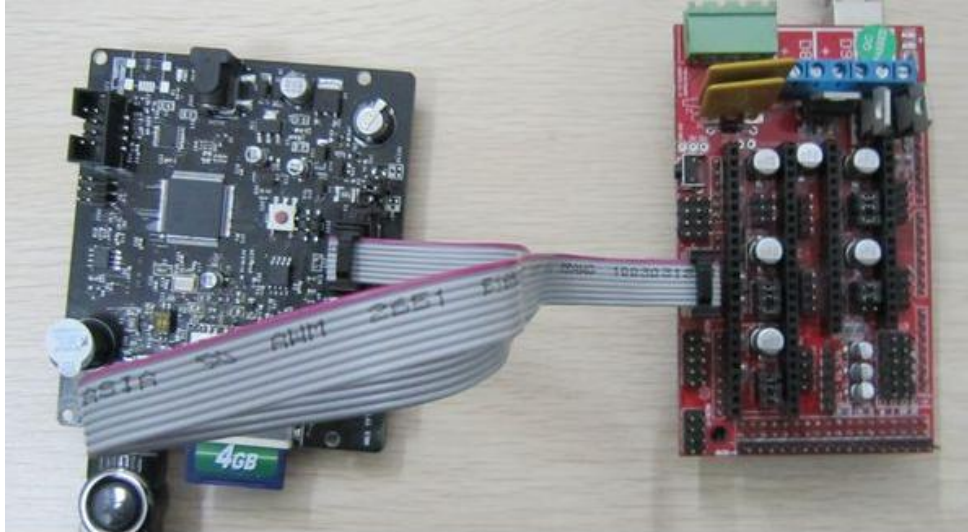
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Choose pin to 12V on power

Input 12V on power interface

Direction refers to the picture as follows:



Connect to Aux-1 on MKS Gen but no need to connect 12V additional power:



Connect to MKS Base, MKS MINI, MKS SBase, but no need to

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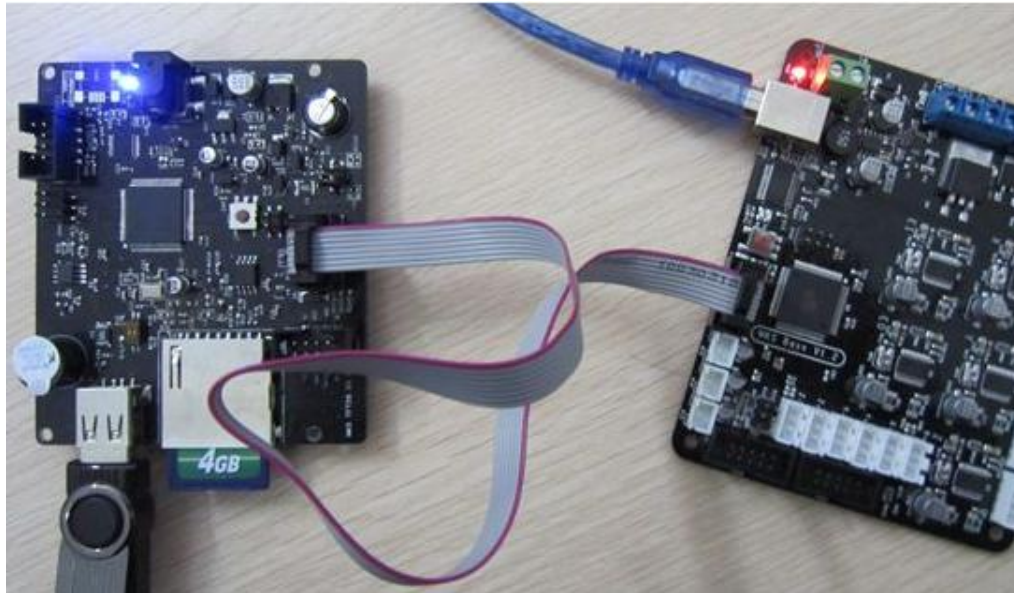
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connect 12V additional power

MKS Base only support V1.2 version or updated version

Direction refer to the picture as follows:



## Power-on Setting

Step1: turn on MKS TFT28 first and enter --> settings - -> connection, select baud rate that the firmware used.

Step2: entrance --> settings - -> model, choose printer type, only Delta and other two options

Others: entrance --> settings - -> touch screen correction, improving accuracy.

## Firmware Upgrade

Copy the latest upgrade program to SD card root directory, including: 1. firmware [mkstft28.bin](#), 2. file configuration [mks\\_config.txt](#) 3. photo file [mks\\_pic](#)

Do not modify the file name.

Insert SD card slot, it will upgrade automatically after restarts.

Special version: If you use ramps1.4, it must connect external 12v power, and then upgrade. MKS series is no need to connect to 1 2V power.

## Outage Saving

If there is halted state on printing, then turn it off directly.

It will keep working on last halted state when next time use.

## Continuous Printing after Halted State ( MKS

TFT28 supports V1.1 and updated version )

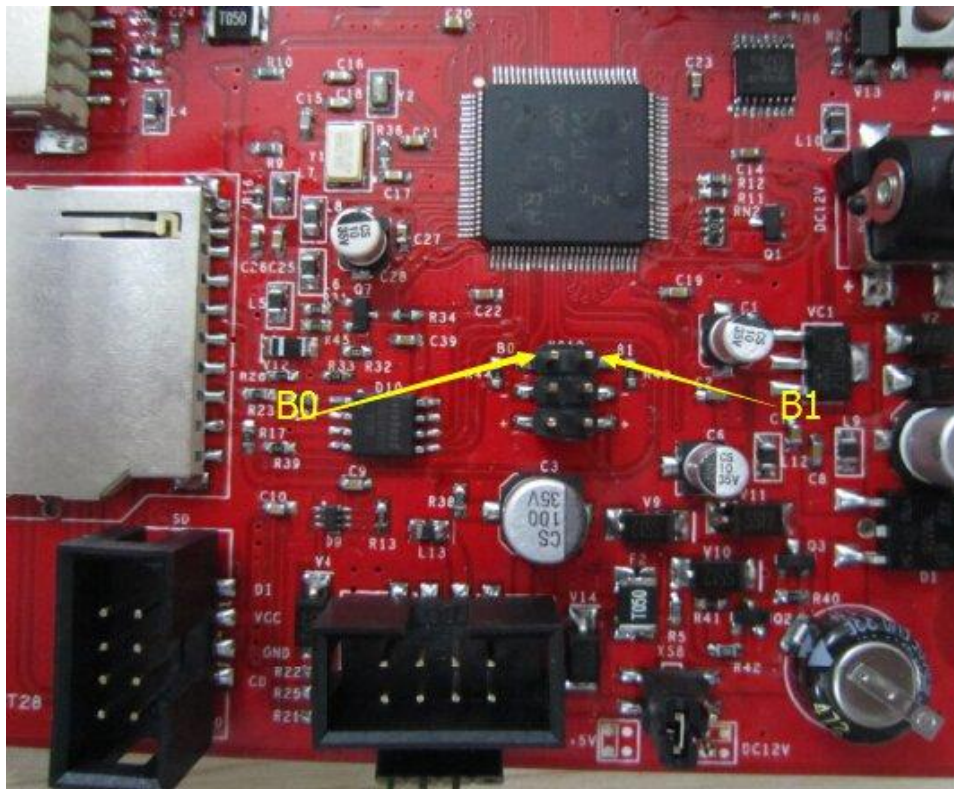
If power break off during printing, it can continue printing from off place after restarting.

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(Motor driver can not work after power cuts, it will cause defective models if the print head remains in the model, you need to improve power failure, detection module and UPS.)



**Outage detection** (MKS TFT28 supports V1.1 updated version)

1. Connect signal line S of outage detection module to B0 pin, cathode and [anode](#) connect to the +/- of the pins below B0 pin.

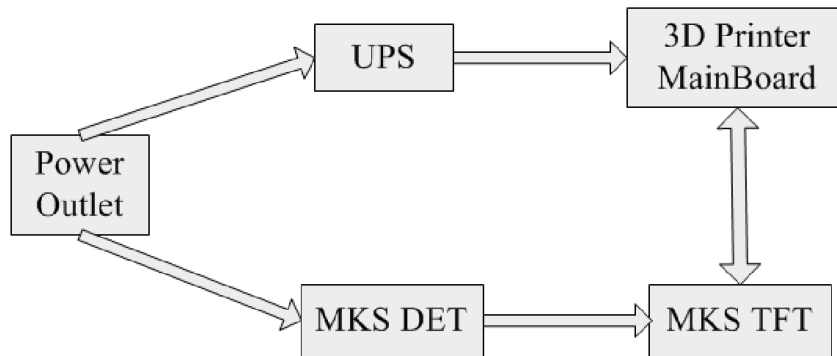
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2. When system fails to connect with power, outage detection module will automatically inform touch screen that enters into printing suspending status. Power supply of UPS will depart print head from module.

## **Blanking detection** (MKS TFT28 supports V1.1 updated version)

1. Connect limited switch S of blanking detection to B1 pin, cathode and anode connect to +/– of the pins below B1 pin.

Caution: it breaks out pause when switch S connect with Ground.

2. When it comes to breaking material, the limited switch will

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automatically inform touch screen that enters into stopping printing.

## **Photo Customization** (MKS TFT28 only supports V1.1 updated version)

1. MKS TFT supports photo customization, also, screen pictures, all button pictures, font color can be self-designed. Method reference: MKS TFT photo of custom description.pdf

2. MKS TFT can support 7 user-defined button which order is up to 200 characters.

Method reference: MKS TFT photo of custom description.pdf

## **WIFI Connection** (MKS TFT28 only support V1.1 updated version)

1. MKS TFT can support MKS WIFI module. Reference: MKSTFT WIFI configuration instructions.pdf

2. After MKS TFT adds MKS WIFI module, you can use Printron, Repetier-Host to proceed remote connect and control. But it may make some functions unavailable.

3. Also, it supports using APP control and proceeds Android APP test. If you need to custom-made APP, please contact customer service on our TaoBao shop.

4. It provides specific communication interface and APP self-development or other communication software.

Interface reference: MKS TFT WIFI and communication interface on screen.pdf

The users who have the created ability can do your own research, but technical support is unavailable.

## **Appendix1 mks\_config.tx Configuration**

mks\_config.txt basic configuration (MKS TFT28 only supports V1.1 updated version)

1. Configuration on single and double nozzle : change the value after the colon of “cfg\_sprayer\_counter” into the nozzle you need.(“1”is single nozzle; “2” is double nozzle )

2. Heated bed configuration: change value after the colon of “cfg\_custom\_bed\_flag” into custom requirements you need.(“1” is with heated bed; “0” is without heat bed)

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**mks\_config.TXT    WIFI configuration (MKS TFT28 only supports V1.1 updated version)**

## **1. The WIFI mode selection :**

Change the value after the colon of "cfg\_wifi\_mode" into the Wifi network you need ("1" is AP mode, "0" is client mode) .

## **2. The WIFI configuration of client mode**

A. WIFI name: change the WIFI name after the colon of the field "cfg\_wifi\_ap\_name" into the name of your wireless network

B. WIFI password: change the WIFI password after the colon of the field "cfg\_wifi\_key\_code" into your wireless network' password

C. Dynamic accessing IP address: set the value after the colon of the field "cfg\_ip\_dhcp\_flag" into what you need ("0" indicates static IP address, "1" indicates dynamic IP address);

D. IP address: change the IP address after the colon of the field "cfg\_ip\_address" into what you need;

E. IP address mask: change the IP address mask after the colon of the field "cfg\_ip\_mask" into what you need;



F. Gateway IP address: change the gateway after the colon of the field "cfg\_ip\_gate" to what you need;

### **WIFI configuration instruction on AP module**

A. WIFI name: change the WIFI name after the colon of the field "cfg\_wifi\_ap\_name" into the hot name you need .

B. WIFI password: change the WIFI password after the colon of the field "cfg\_wifi\_key\_code" into password of WIFI hotspot, and save it.

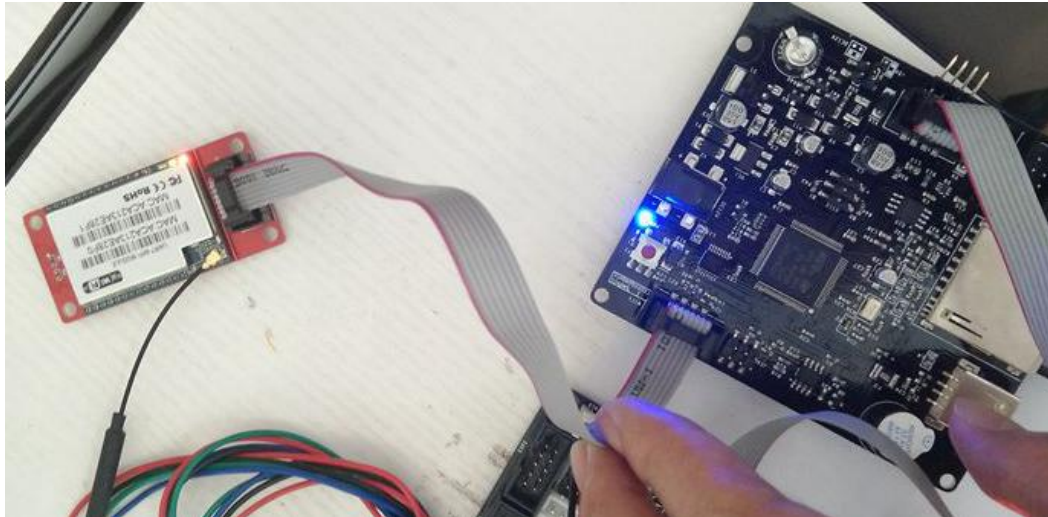
### **mks\_config.txt photo configuration (only support MKS TFT28 V1.1 updated version)**

Reference: MKS TFT photo customization.pdf

## **Appendix2 WIFI module usage**

mks\_config.txt, refer to appendix 1 configuration

Connect to WIFI module

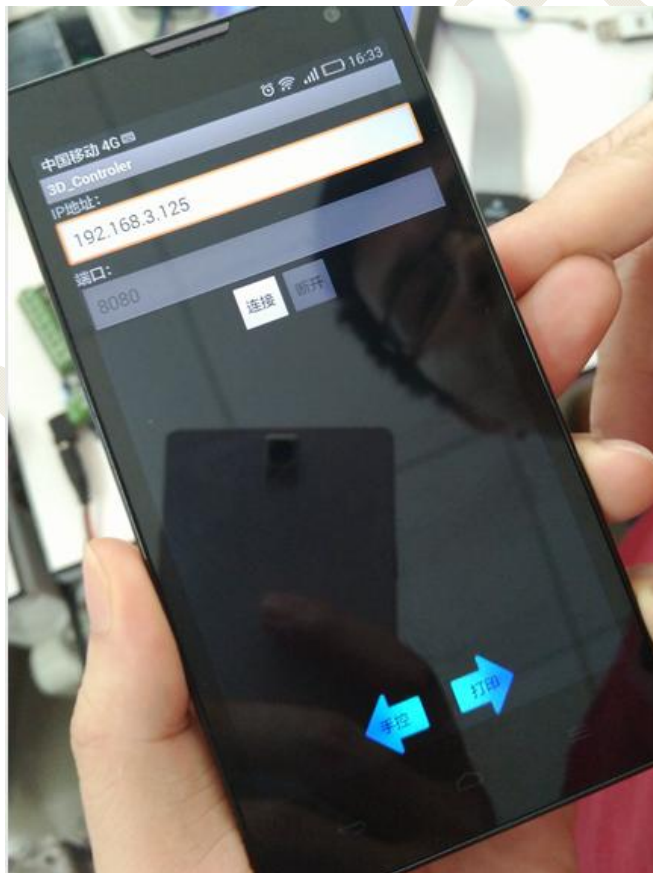


**Check network setting, wait state turns into connection**





## Use APP controlling printer



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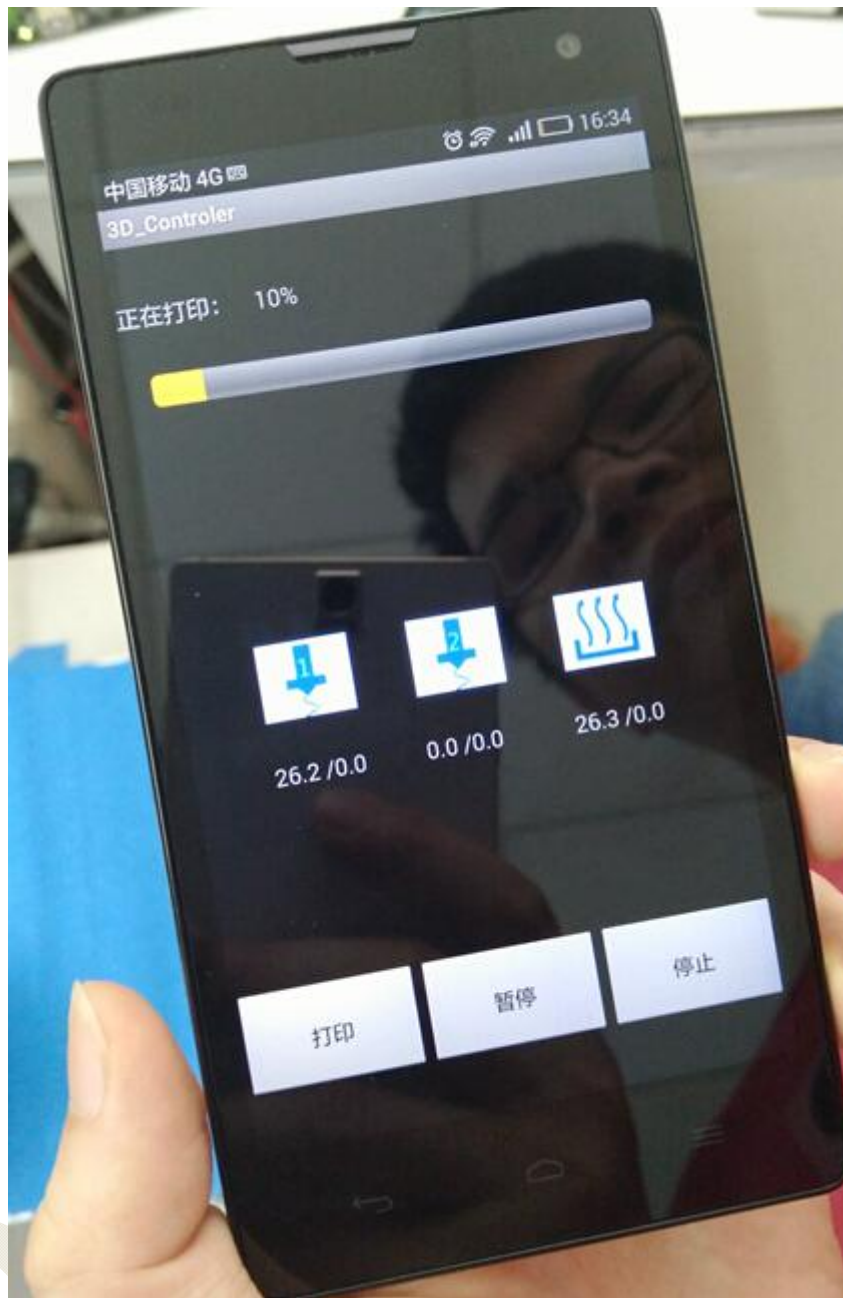
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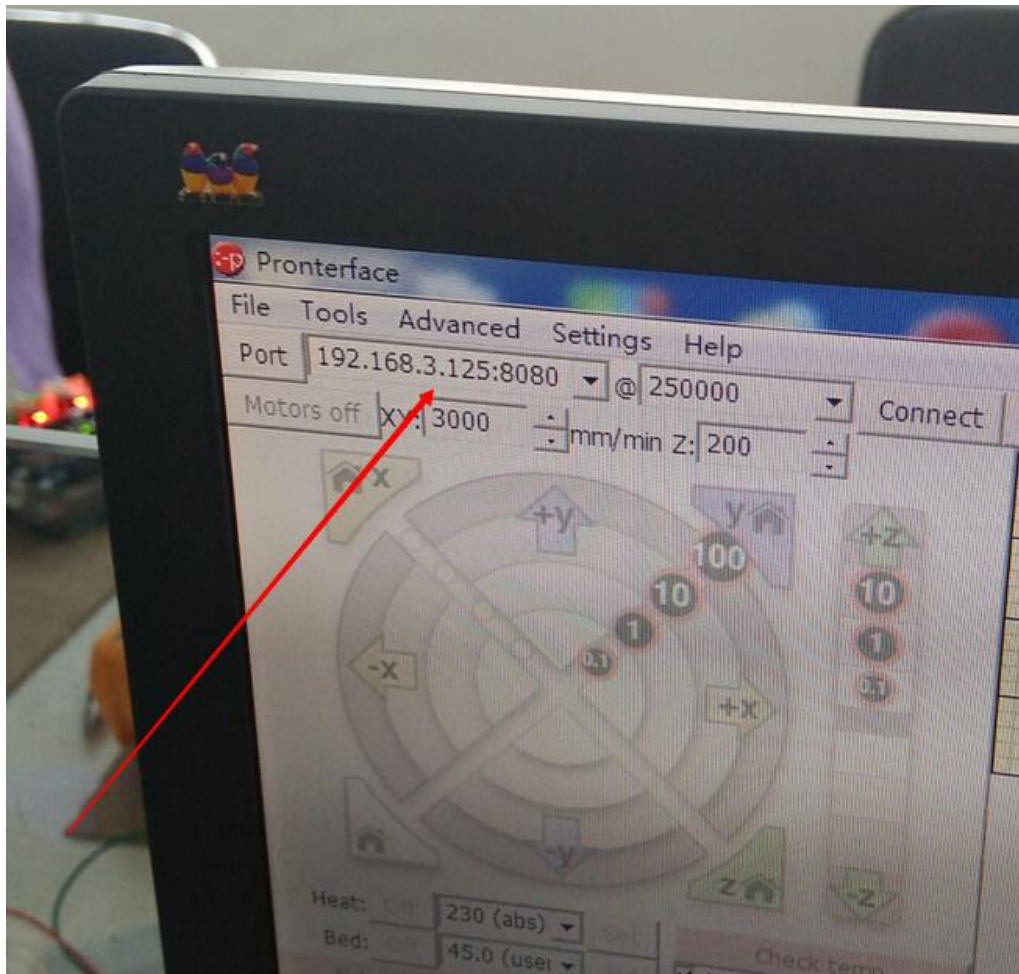






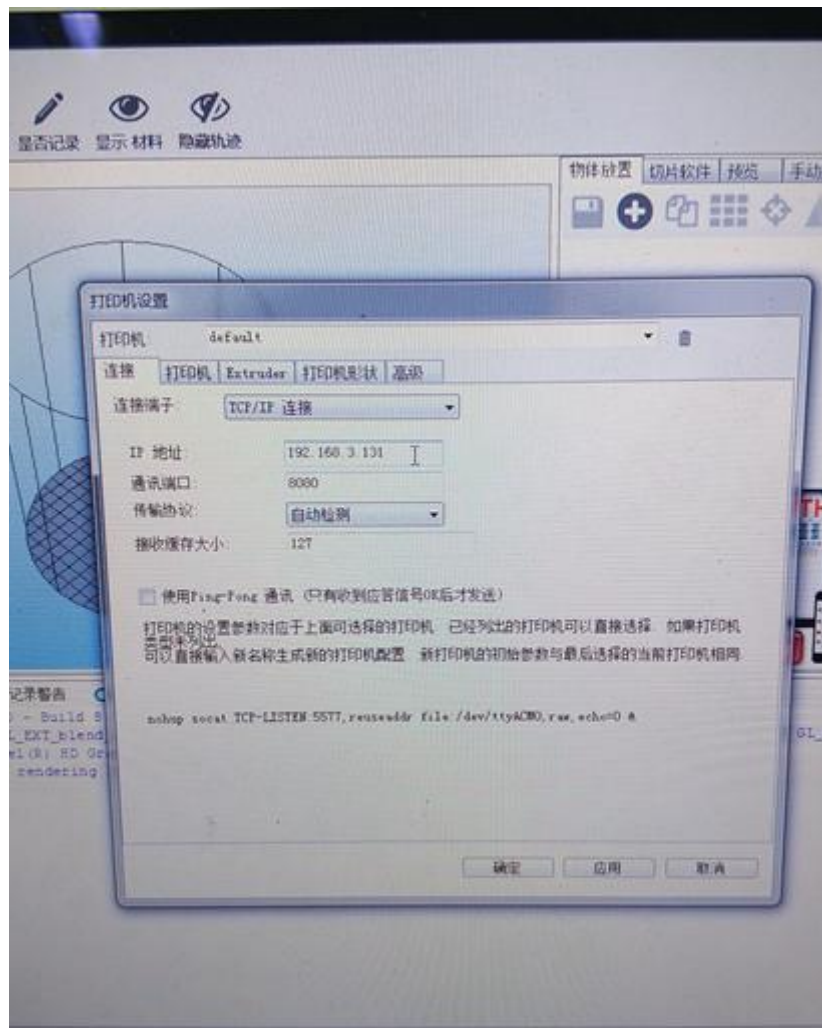
## Use Printron remote control printer

Input WIFI IP: 8080 at port



Use Repetier-Host remote control printer

Choose TCP/IP connection





MakerBase

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