# MKS-TFT32

Name: 3D Printer RepRap MKS TFT32 touch screen smart controller 3.2inch

#### MKS-TFT32

#### **Overview**

MKS-TFT32 is a colorful touch screen LCD, designed by Makerbase. It is suitable for many main board, such as MKS BASE, MKS GEN, MKS MINI, MKS SBASE, etc.

# But can't work with Ramps1.4.

## **Features**

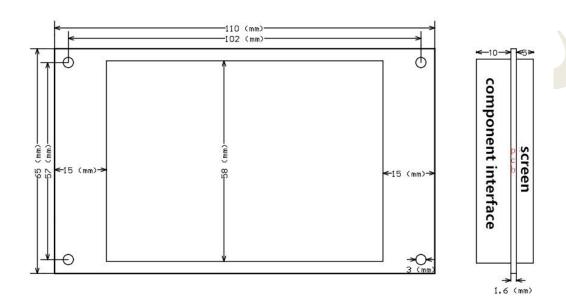
- 1.32 inch colorful touch screen, support U disk and SD card.
- 2. Support continual and easy software update.
- 3. Support MKS Wifi module.
- 4. No need to adjust firmware, support Marlin, Smoothieware and Repetier.
- 5. Support keeping printing and saving of outage. Also exhausted material detection.
- 6. Support logo and button customization.
- 7. Support user define function.

Please visit our github to download firmware: github.com/makerbase

Website: www.makerbase.com.cn Database: https://github.com/makerbase-mks

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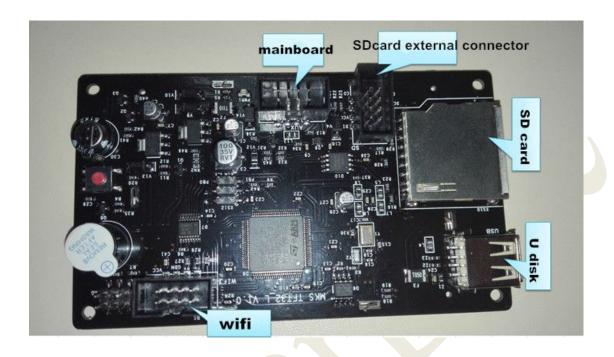
## MKS TFT32 Dimension



MKS TFT32 Connector

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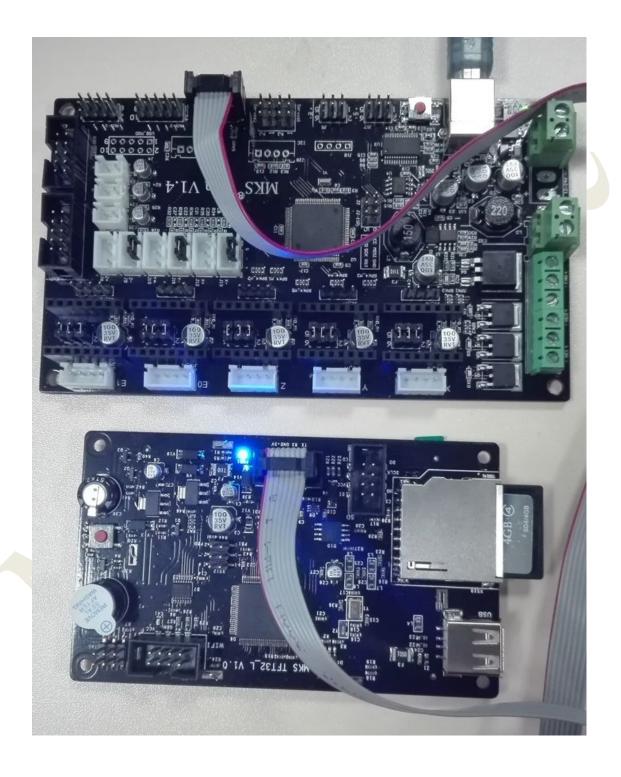
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Connect to MKS GEN
No need V12 external power, connect to Aux-1 of mainboard.

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## Connect to MKS BASE, MKS MINI



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# **Boot Setting**

Step1: turn on MKS TFT32 at first time, then enter --> setting --> connection, select baud rate that the firmware use.

Step2: enter --> setting --> model, choose printer type, only Delta and other two options

Others: enter --> setting --> touch screen correction, improving

accuracy.

# Firmware Update

Copy the latest update firmware to SD card root directory, including: 1. mkstft32.bin. 2. mks\_config.txt. 3. mks\_pic. Please do not adjust the file name. Insert SD card, it will update automatically after restarts.

# **Outage Saving**

When is halted state on printing, then can turn it off directly. It will keep working on last halted state when next time use.

# **Continuous Printing after Halted State**

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

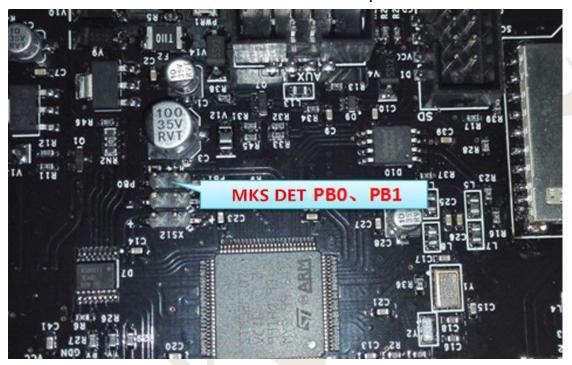
(Motor driver can not work after power cuts, it will cause defective models if the print head remains in the model, you need to improve power failure, detection module and UPS.)

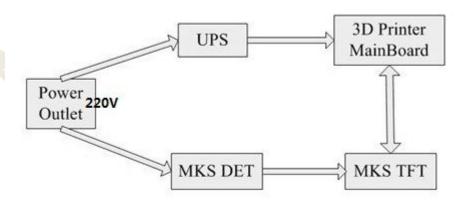
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# **Outage detection**

1. Connect signal S of outage detection module to PB0 pin, cathode and anode connect to the -/+ of PB0 pin.





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

#### **Exhausted Material Detection**

1. Connect S on limited switch of detection to PB1 pin,cathode to PB1 pin - .

Caution: it will pause when switch S connects with Ground.

2. When it comes to run out of material, the limited switch will inform touch screen automatically and stop printing.

#### **Photo Customization**

- 1. MKS TFT supports photo customization. Also, logo, button pictures, font color can be self-designed. Method reference: MKS TFT Pic\_custom.pdf
- 2. MKS TFT can support 7 user-defined button which order is up to 200 characters.

Method reference: MKS TFT Pic\_custom.pdf

#### WIFI Connection

- 1. MKS TFT can support MKS WIFI module.
- 2. After MKS TFT works with MKS WIFI module, can use Printrun, Repetier-Host to proceed remote connect and control. But it may make some functions unavailable.

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3. Also, it supports using APP control and Android APP test. If you need to custom-made APP, please contact seller.

4. It provides specific communication interface and APP selfdevelopment or other communication software.

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

#### mks\_config.txt basic configuration

- 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)

## mks\_config.txt WIFI configuration

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;

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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

Reference: MKS TFT Pic\_custom.pdf

# **Appendix2 Usage on WIFI Module**

mks\_config.txt, refer to appendix 1 configuration Connect to WIFI module

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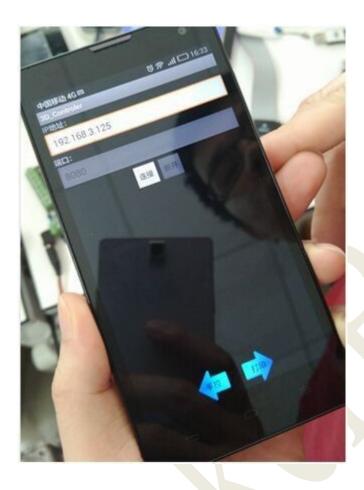
# Check network setting, wait state turns into connection



**Use APP controlling printer** 

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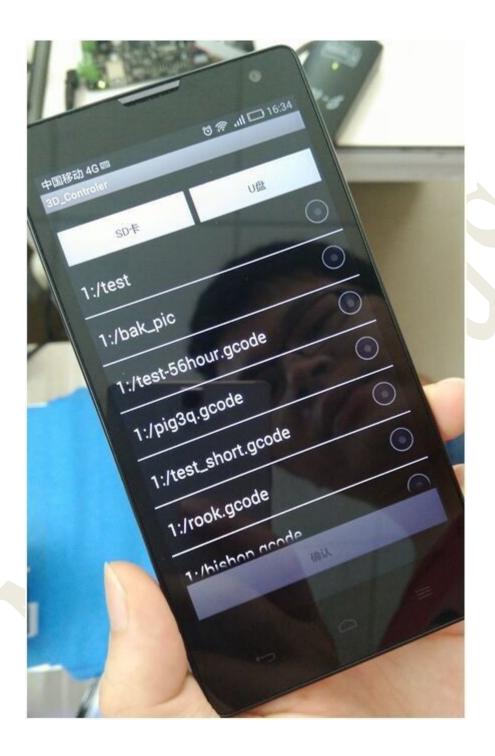
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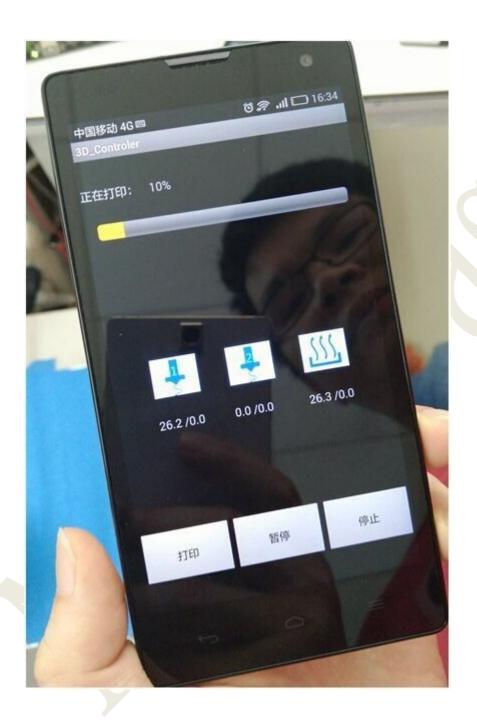
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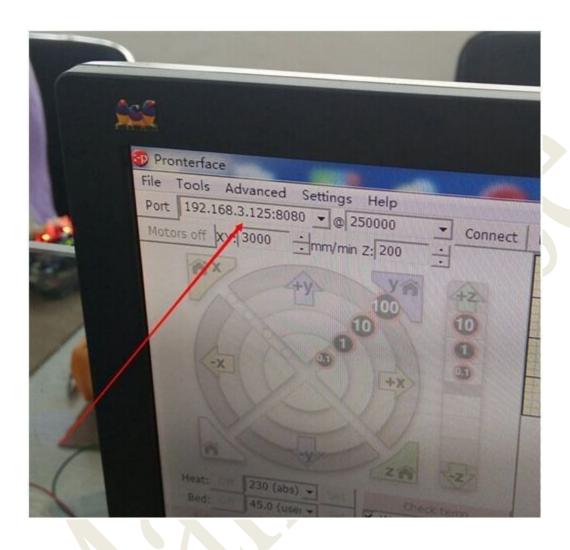


# **Use Printrun remote control printer**

Input WIFI IP: 8080

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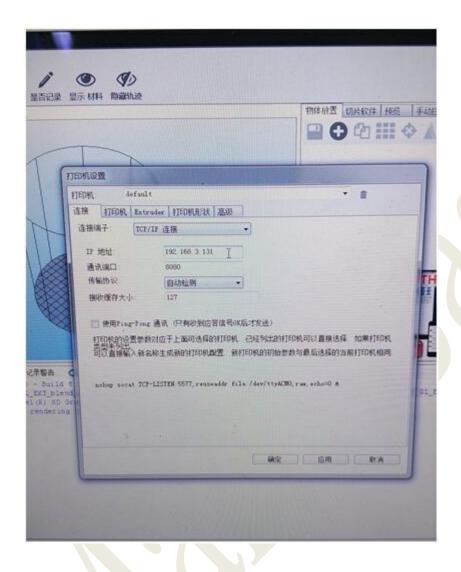
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Use Repetier-Host remote control printer Choose TCP/IP connection

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