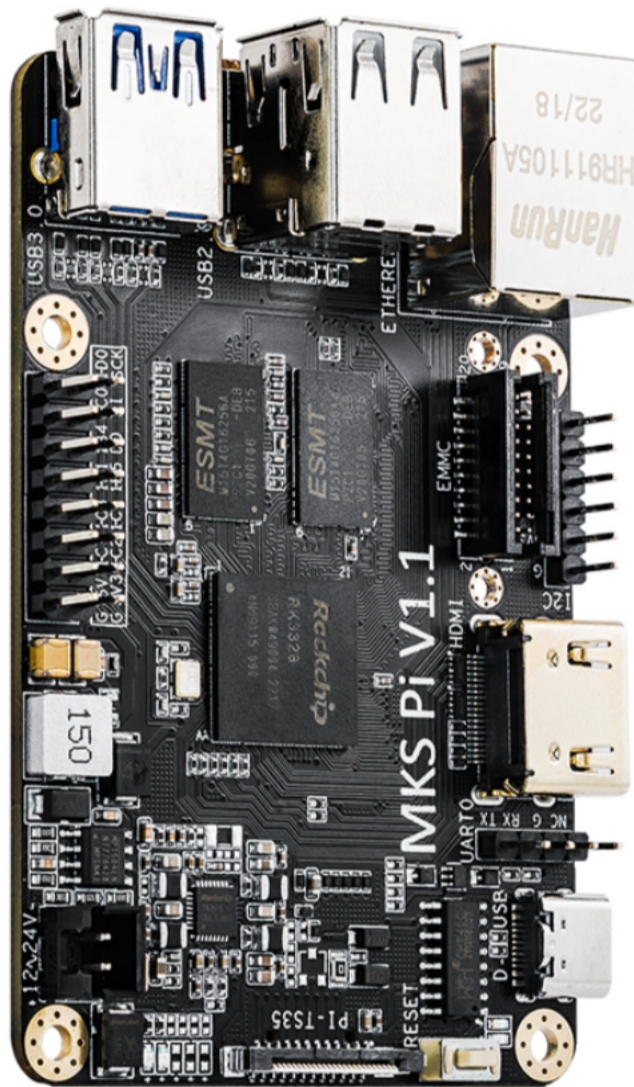


# MKS PI User Manual

*This document is the basic hardware and firmware description of MKS PI, which is convenient for beginners or users who are not familiar with 3D printing.*

*If your question is deeper, or the documentation doesn't mention it.*

*Please don't worry, you can contact us through **Makerbase.store** information or email ([service@makerbase.store](mailto:service@makerbase.store)), we will try our best to help you solve the problem.*



***This document is divided into 3 parts***

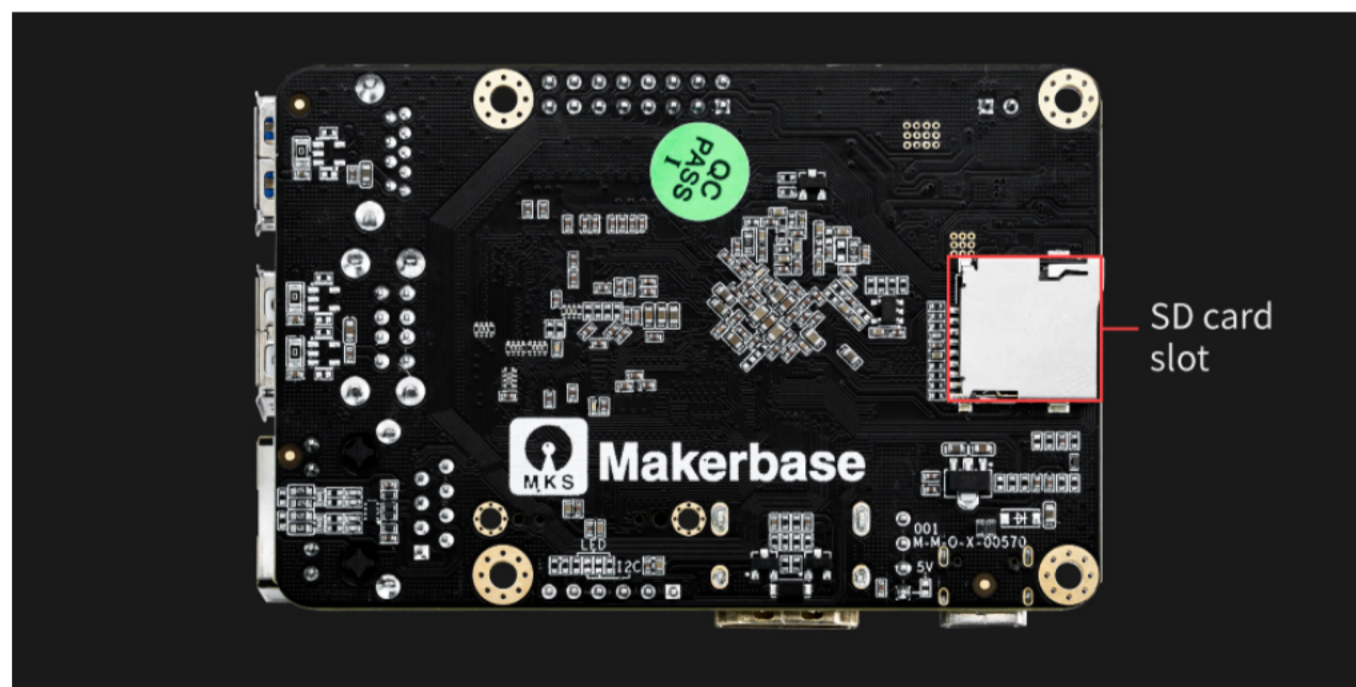
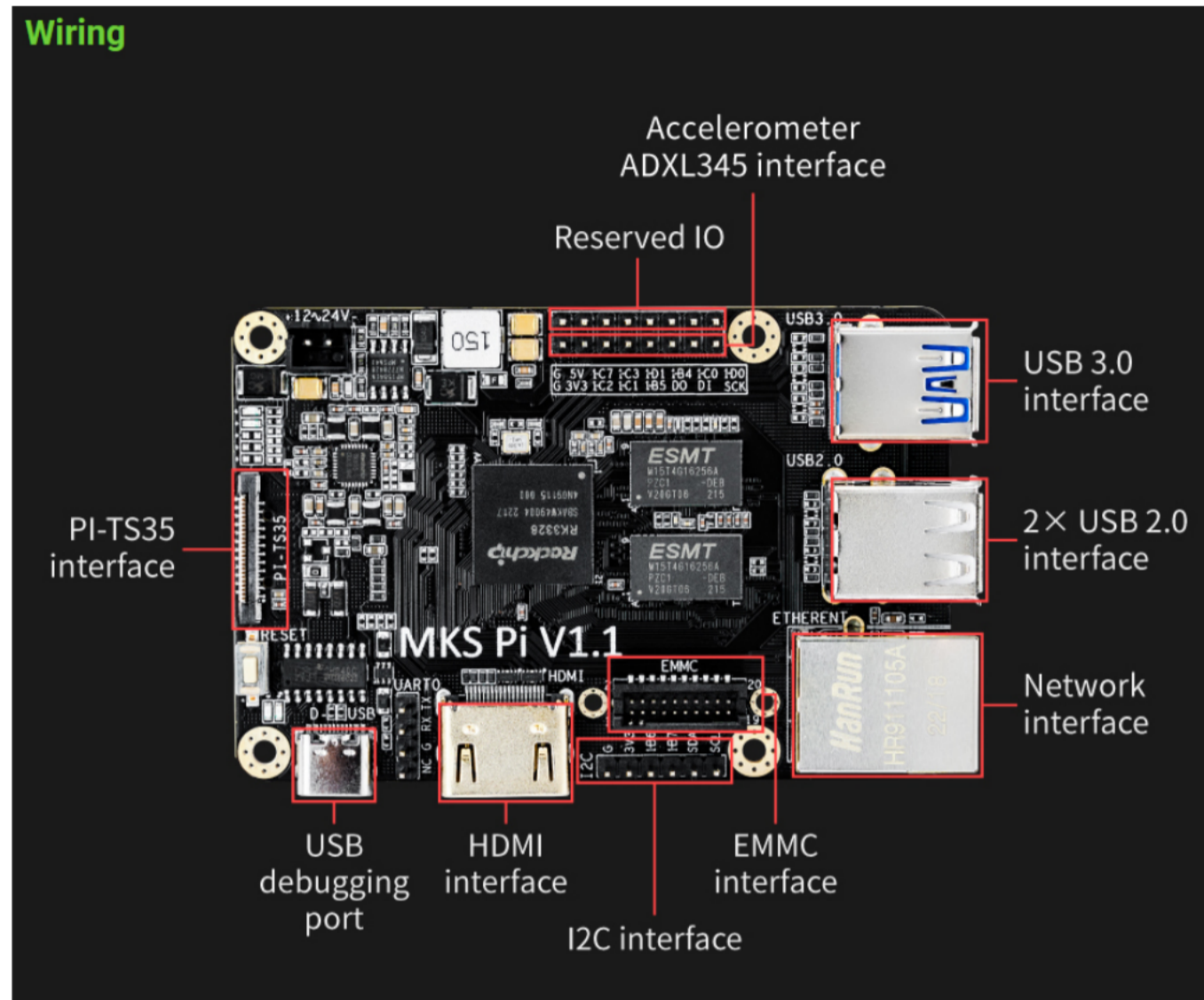
***MKS PI Hardware Interface***

***MKS PI Operation Process***

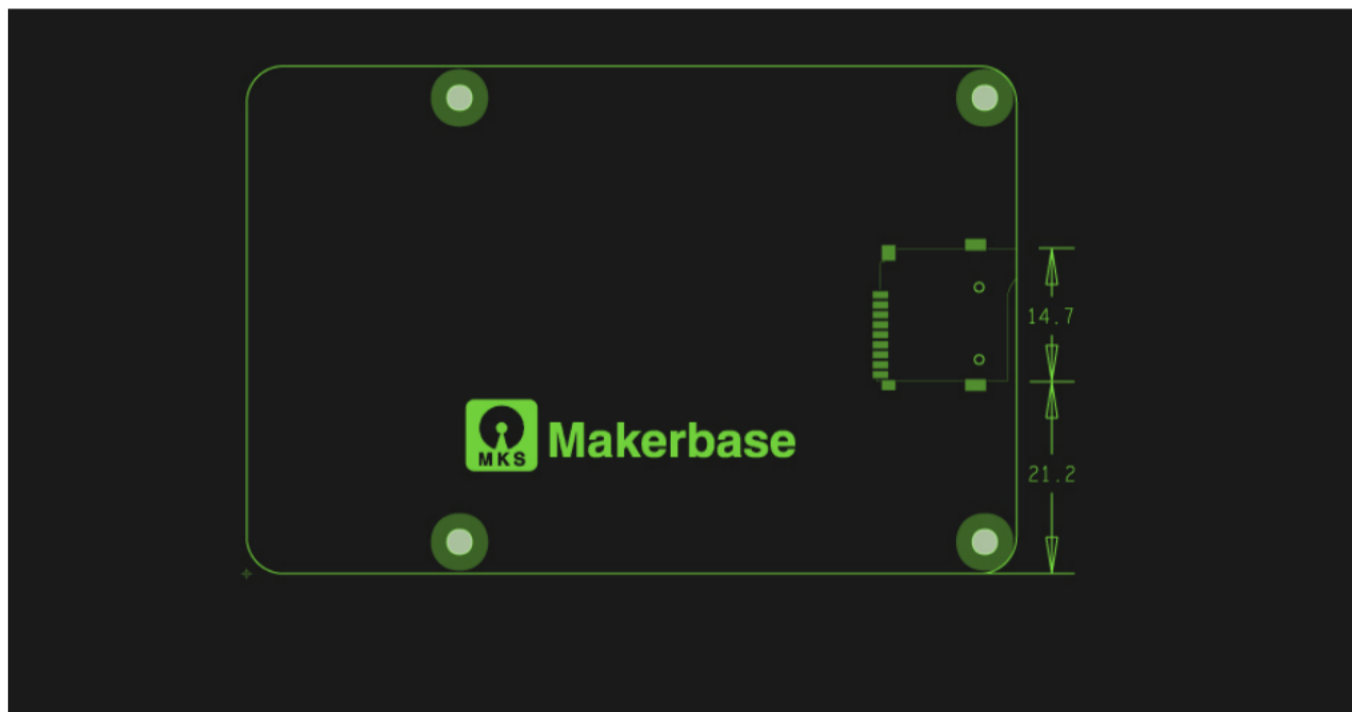
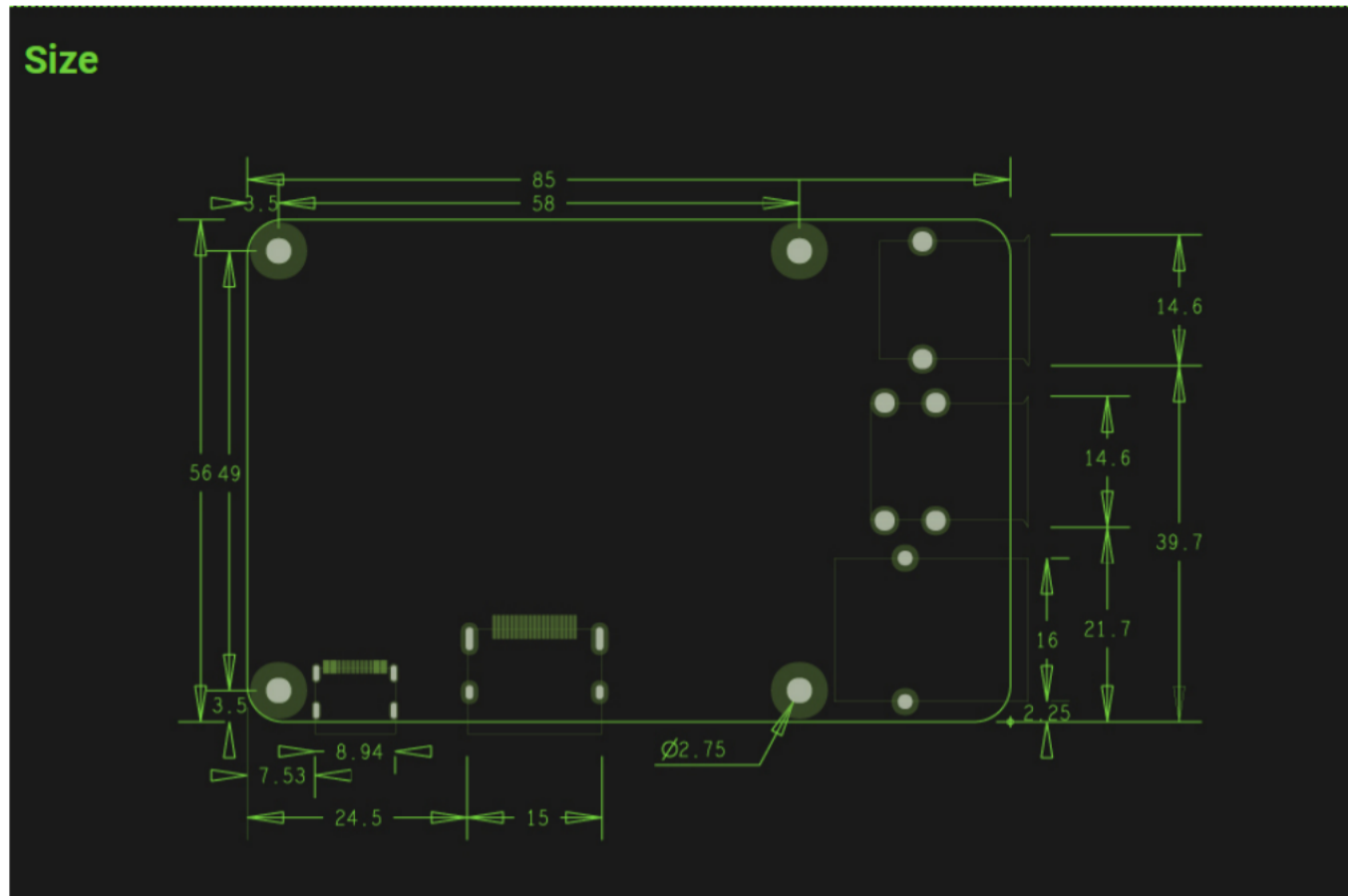
***Q&A of MKS MKS PI***

# MKS Pi Hardware Interface

Wiring :



Size



*After you receive the motherboard, first check whether the appearance of the motherboard is complete. Then you can connect according to the interface marked in the picture according to the wiring of your printer.*

Note:

1. During the connection process, you need to pay attention to the power supply, hotbed, hotend, fan and other interfaces, all of which have a distinction between "+" and "-", so you must pay attention to the wiring process to prevent the positive and negative connections from being reversed, resulting in damage to the motherboard.

2. MKS PI needs to be connected to the sd card or emmc module that has updated the MKS image file. After the connection is completed, it will be powered on to start normally. If there is no sd card or emmc with image file connected, MKS PI cannot run

3. Any wiring or adjustment operation, please do it when the power is off.

4. The operation of MKS PI module needs to provide 12-24v power supply, and it is not recommended to use 5v for power supply. (Because of the usb-5v power supply, the power is too low to load the operation of the module).

If you need information such as the schematic diagram of MKS ROBIN Nano v3, you can download it from this website:

<https://github.com/makerbase-mks/MKS-PI>

## **MKS PI Operation Process**

### **Image file download**

Image file download link:

<https://drive.google.com/drive/folders/1tTuSvF9OL2qtPXElau8YOXn2sWbdxa9e?usp=sharing>

The latest version of the file can be downloaded from this link

### **Image file update**

You can update the image file to the **SD card** through the corresponding software, or the **EMMC** module included in the package. (The emmc module has already updated the image file by default and can be used directly. If you need to update the new version of the image file, you can also refer to this operation)

### **Hardware Preparation**

- A TF memory card not less than 8G
- TF card reader
- PC with windows operating system installed
- Wireless network card or network cable
- Type\_C cable

### **Software preparation**

System image download link:

<https://drive.google.com/drive/folders/1tTuSvF9OL2qtPXElau8YOXn2sWbdxa9e?usp=sharing>

Install balenaEtcher v1.5 and above, download link:

<https://www.balena.io/etcher/>

Install putty, download link:

<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

The operation process can refer to this link :

<https://github.com/makerbase-mks/MKS-PI#flash-system-files>

*After the image file is updated, connect the corresponding sd card or emmc module to the MKS PI, and then provide 12-24v power supply. MKS PI will read the image file and enter the system, and the general boot time needs to wait for 40-50s. It is not recommended to cut off the power while waiting.*

### **MKS PI network connection**

*MKS PI network connection has 2 ways: Ethernet and USB WiFi Adapter*

*Ethernet: Just set your router to using DHCP, plug the network cable into the MKS PI, done.*

*USB WiFi Adapter: Connect the usb wifi network card to MKS Pi, and then set up the corresponding router in the system*

*Please refer to this link for the USB WiFi Adapter setup process:*

<https://github.com/makerbase-mks/MKS-PI#using-usb-wifi-adapter>

*Note: During the process, you need to update the sd card or emmc module that already has an image file, and connect it to the PC through the sd card reader to modify the parameters. It is recommended to use the SD card reader with **USB3.0** protocol to connect, because the emmc module is a high-speed storage module, if you use usb2.0 or a card reader with a low reading rate, the PC may not be able to recognize it .*

## MKS PI control interface

There are two types of control pages for MKS PI:

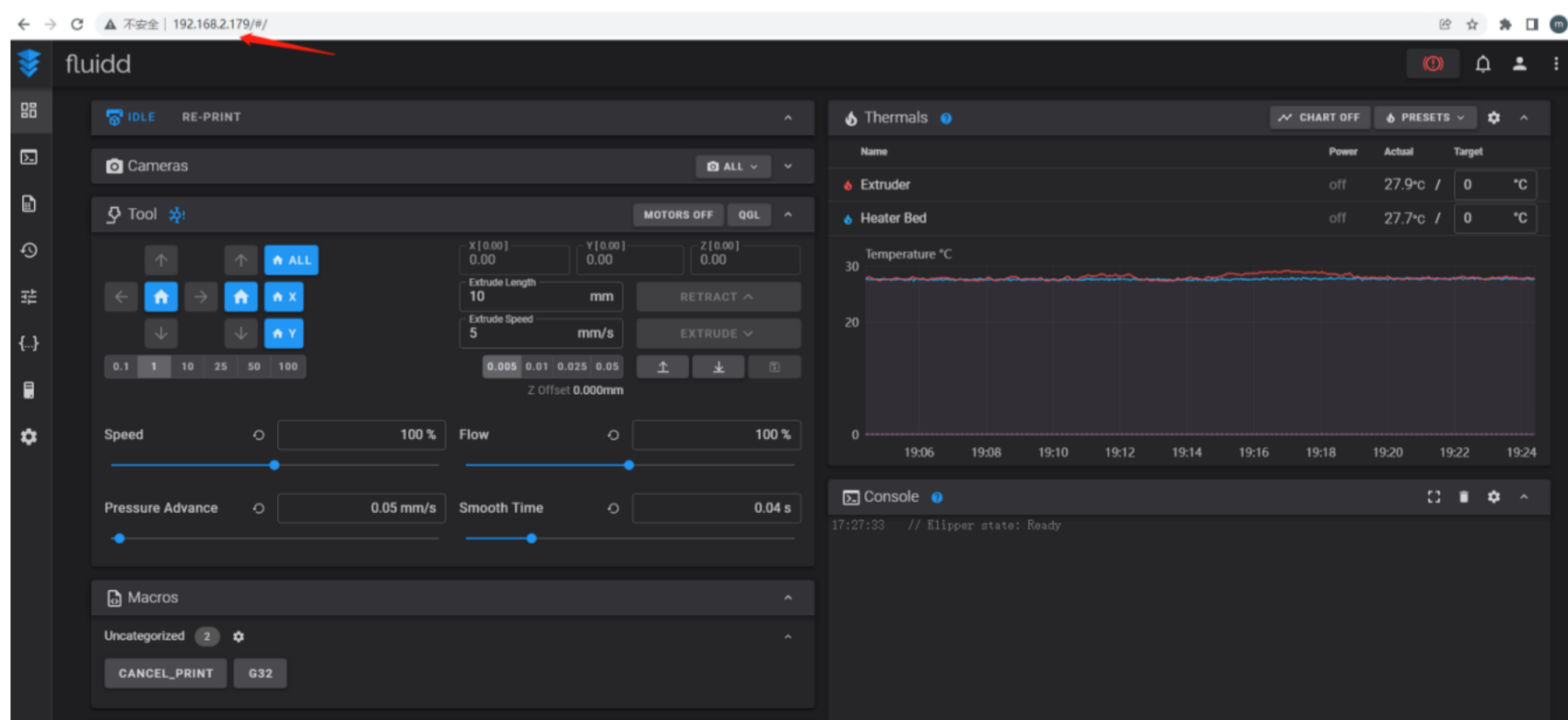
**Touch screen control and web control**

**Touch screen control:** connect the **MKS PI-TS35** screen to the MKS PI, when the system starts, the screen will display the corresponding control page.

<https://www.youtube.com/watch?v=0aAxuZX9t6A>



**Web page control:** When MKS PI is connected to a router, the corresponding IP can be displayed on the screen (if there is no router, you can query the corresponding IP in the router). Then you can enter the corresponding IP in the browser on the PC on the same router network to enter the **FLUIDD** control interface to control





## Q&A of MKS PI

**Q1: Why the MKS PI is connected to the MKS PI-TS35 screen is not bright.**

**A1 :** 1. Check whether the MKS PI is connected to the SD card or emmc module with the image file.

2. Check whether the MKS PI has 12-24v power supply (if only 5v power supply may not be able to drive the screen normally)

3. Check whether the connection direction of the connection line of the screen MKS PI-TS35 is correct.

**Q2: Why is the USB wireless network module connected, but the screen does not display the IP?**

**A2 :** 1. MKS PI still has the factory default network and password, so the connection is not successful. Follow the above procedure again to set up the wifi connection.

2. Check the stability of the network, and try to keep the module at an appropriate distance from the router.

**Q3: Why does the screen or fluid report an error after the MKS PI is connected to the 3D printed motherboard?**

**A3:** It may be because the corresponding klipper firmware has not been updated for the 3D printed main board, or the parameters set by cfg conflict, you can consult the corresponding 3D printed main board manufacturer to obtain the corresponding file for updating. If it is an error in the parameter part, you can refer to the official document description of klipper for corresponding modification. (<http://www.klipper3d.org/>)

**Q5: what if my question is not covered in this one?**

A5: You can contact us directly through [makerbase.store](https://makerbase.store).

Or send questions to our email, or leave a message on our github

Email: [service@makerbase.store](mailto:service@makerbase.store)

Github: <https://github.com/makerbase-mks>

FACEBOOK: <https://www.facebook.com/Makerbase.mks/>