

Questions?

1. How to calibrate location?

- Go to coordinates.py
- Use mainsail to find the right coordinates
- Change parameters in coordinates.py

2. How to calibrate volume?

- Go to volumes.py
- The prep parameter is for how much the rack should go down the first time. Currently, 39.25 will go to the first stop and 46 goes to the second stop.

3. How to change web app IP?

- Go to movement.py
- Change "MOONRAKER_URL=" to the manta IP

4. Where to find functions for kit manufacturing?

- Go to protocols.py
- "kitTest()" is responsible for handling the kit manufacturing testing
- kitTest is called on app.py under the server() function. It is called when you click the kit manufacturing button on the website

5. Where to find functions for kit sample prep?

- Go to protocols.py
- "sample_test()" is responsible for handling the sample preparation testing

6. Web app is not working what should I do?

- Check MOONRAKER_URL IP if it is correct (Use Angry IP Scanner or similar software to get IP)
- Make sure you are able to open mainsail

7. How to modify the "kitTest()" function?

- Go to protocols.py
- At the very bottom, there is a volumes list that can be passed on to the kitTest function.
- Change this list based on what kit to make.

- Now under the kitTest() function, splice the vial coordinates list to match the length of the volume array.
- Note that the vial coordinates are initialized from left to right then down the rows.

8. How do I change spacings of wells/vials/tips?

- Go to pipettev2.py
- There are classes for each of the stuff used for protocols (vial holders, well plates, tip boxes) for modularity.
- Change parameters "row_spacing" and "col_count" to the correct distance
- **Note: All distances are in millimeters (mm)

9. How do I change the board network/get started?

Set up WiFi

Note: If you are using an Ethernet connection, please skip this step.

CB1 cannot directly use the Raspberry Pi Imager software to set up Wi-Fi name and password like CM4. After the OS image is burned, there will be a FAT32 partition recognized by the computer on the MicroSD card. In this partition, there is a configuration file named "system.cfg".

名称	修改日期	类型	大小
dtb	2022/11/9 2:50	文件夹	
dtb-5.16.17-sun50iw9	2022/11/9 2:50	文件夹	
gcode	2022/11/9 10:35	文件夹	
.next	2022/11/9 2:50	NEXT 文件	0 KB
BoardEnv.txt	2022/11/9 2:53	文本文档	1 KB
boot.bmp	2022/11/9 2:52	BMP 图像	10 KB
boot.cmd	2022/11/9 2:48	Windows 命令脚本	4 KB
boot.scr	2022/11/9 2:53	屏幕保护程序	4 KB
config-5.16.17-sun50iw9	2022/11/9 2:39	17-SUN50IW9 ...	176 KB
Image	2022/11/9 2:39	文件	20,631 KB
initrd.img-5.16.17-sun50iw9	2022/11/9 2:54	17-SUN50IW9 ...	9,171 KB
system.cfg	2022/11/10 17:52	文本文档	1 KB
System.map-5.16.17-sun50iw9	2022/11/9 2:39	17-SUN50IW9 ...	4,239 KB
ulnitrd	2022/11/9 2:54	文件	9,171 KB
vmlinuz-5.16.17-sun50iw9	2022/11/9 2:39	17-SUN50IW9 ...	20,631 KB

Edit in Notepad and set WIFI-SSID and PASSWORD.

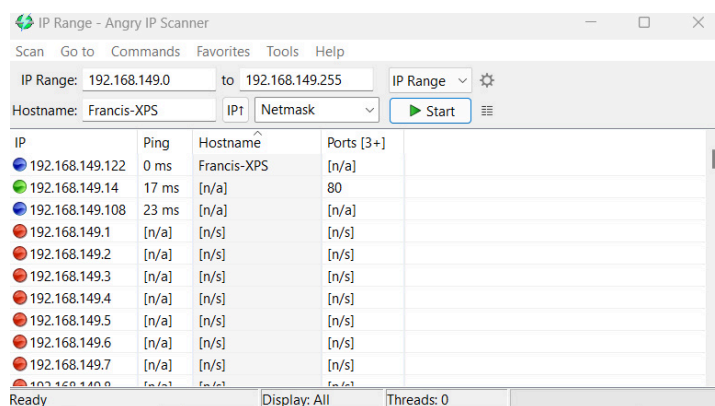
```

system.cfg
j: > system.cfg
1 |-----#
2 |check_interval=5      # Cycle to detect whether wifi is connected, time 5s
3 |router_ip=8.8.8.8     # Reference DNS, used to detect network connections
4 |
5 |eth=eth0             # Ethernet card device number
6 |wlan=wlan0           # Wireless NIC device number
7 |
8 |#####
9 |# wifi name
10 |WIFI_SSID="Your SSID"
11 |# wifi password
12 |WIFI_PASSWD="Your Password"
13 |
14 |#####
15 |WIFI_AP="false"       # Whether to open wifi AP mode, default off
16 |WIFI_AP_SSID="rtl8189" # Hotspot name created by wifi AP mode
17 |WIFI_AP_PASSWD="12345678" # wifi AP mode to create hotspot connection password

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Part 1

- Read BIGTRETECH MANTA M8P v2 Manual
- Take the SD Card from the Manta board and plug into computer
- Follow the steps on the left to change config file



- Use this address for the “MOONRAKER_URL” parameter under movement.py