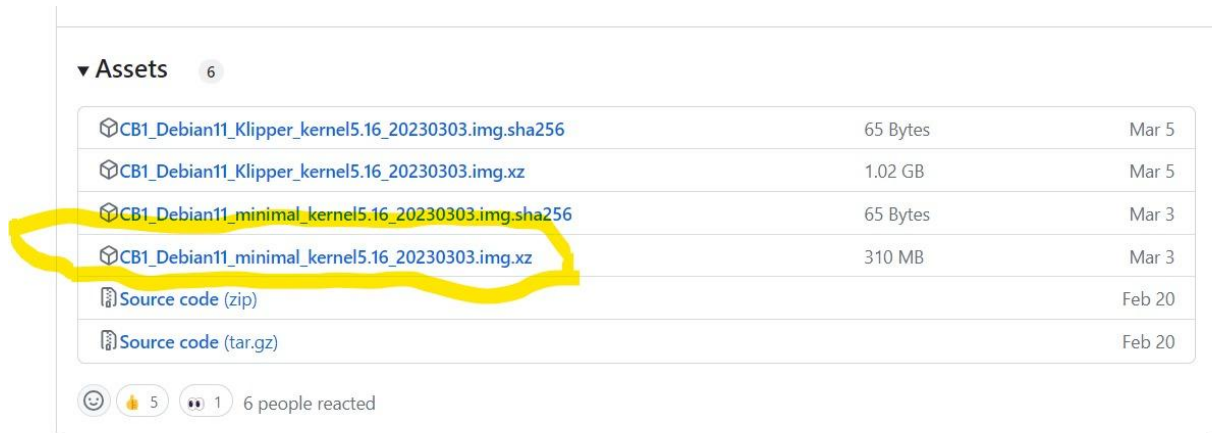


BTT CB1 Klipper Setup Steps

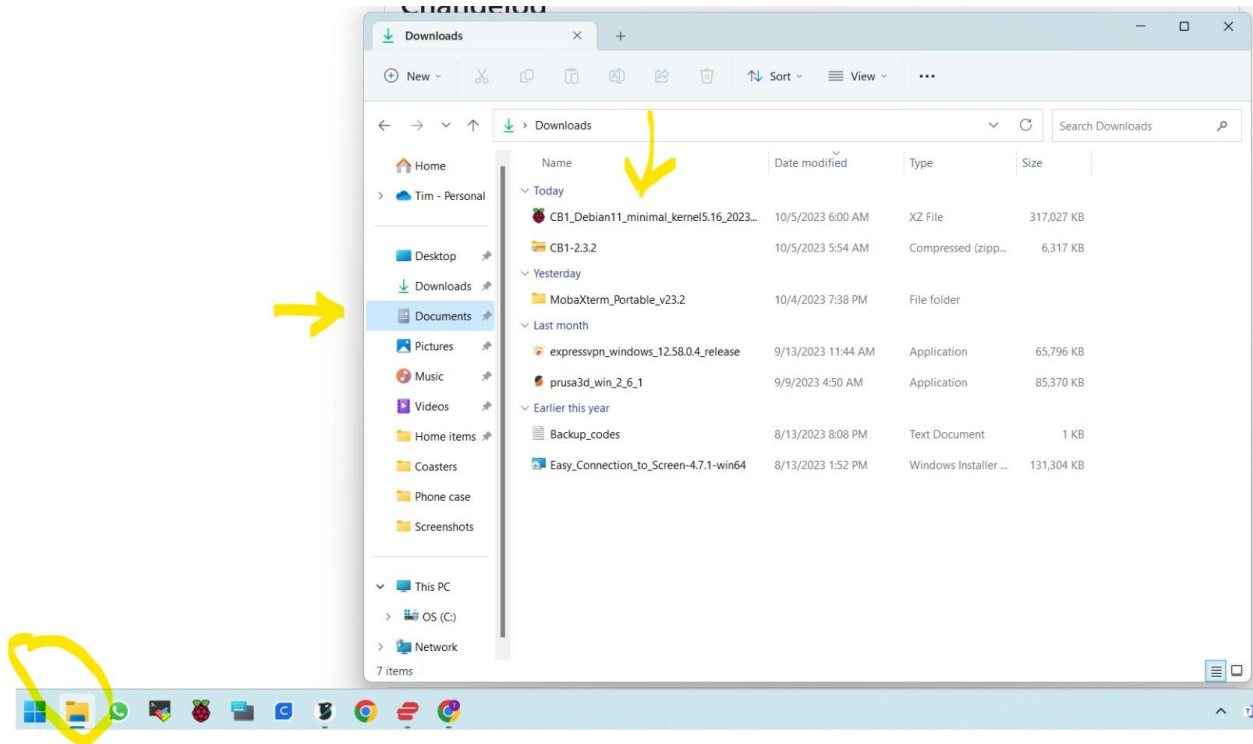
Step 1:

Download the minimal image file from the Bigtree github page:

<https://github.com/bigtreetech/CB1/releases>

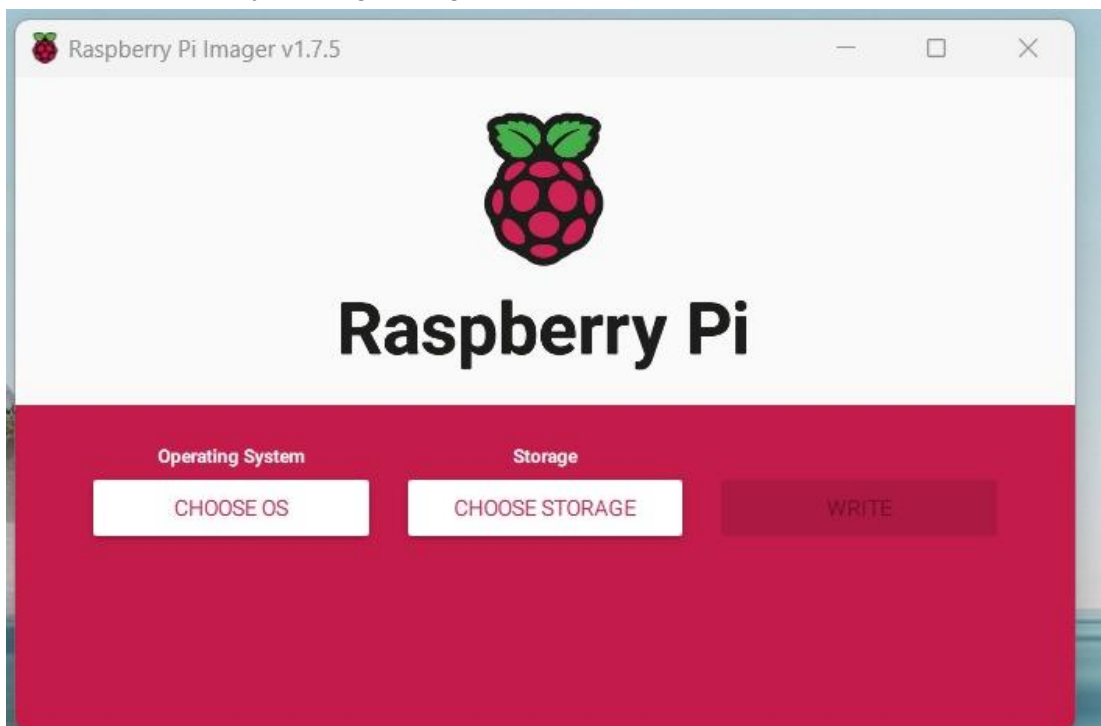


- Make sure it saves to the download folder of your computer

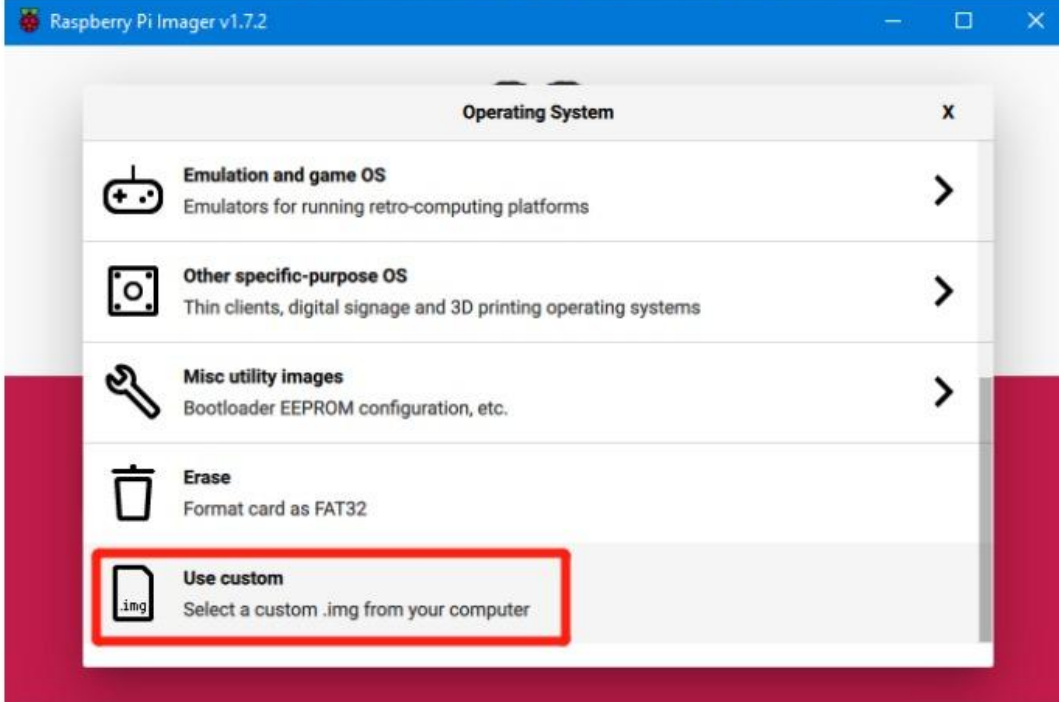


Step 2:

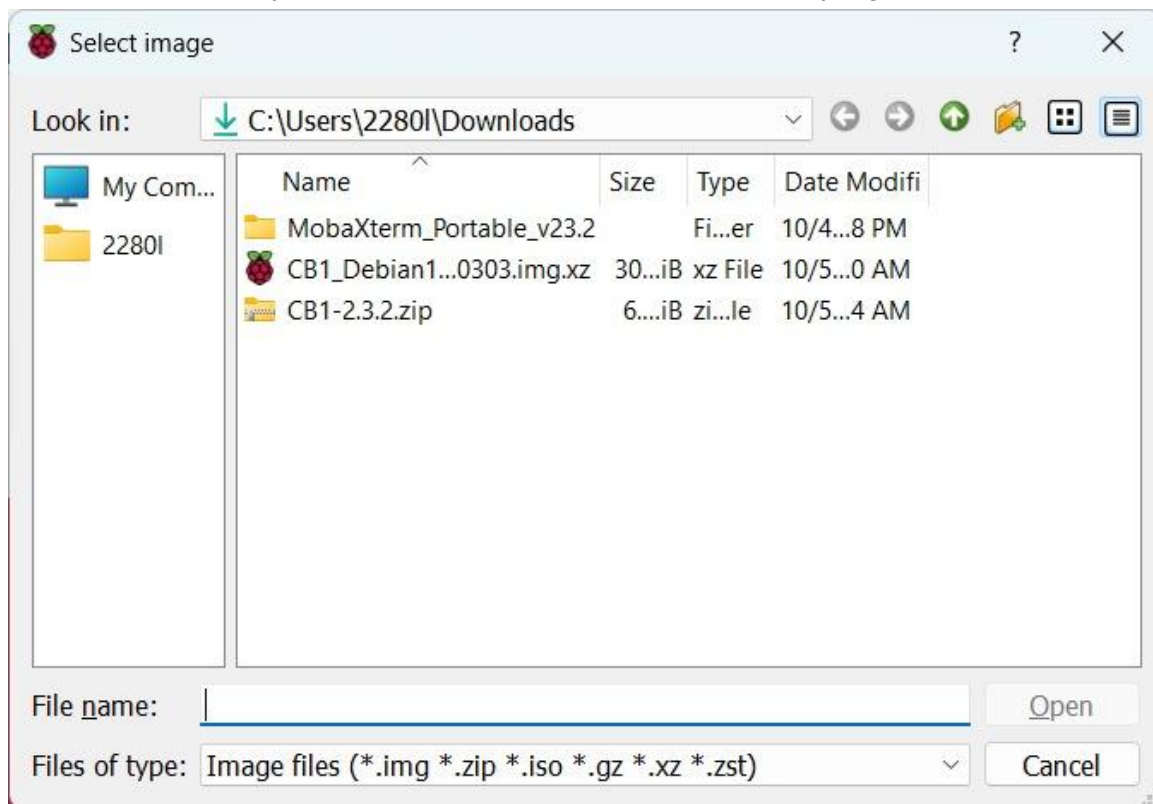
Open the Raspberry pi Imager program:



Select "Use custom", then select the image that you downloaded.



It should show up in your download folder with the red raspberry logo:




Select the microSD card and click "WRITE" (WRITE the image will format the microSD card. Be careful not to select the wrong storage device, otherwise the data will be formatted).



Step 3:


Navigate to the SD Drive folder on your computer and open the system.cfg file with Notepad:

After the OS image writing is completed, the microSD card will have a FAT32 recognized by the computer, find "system.cfg".



BOOT (J:)			
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
uinitrd	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

Open it with Notepad, replace WIFI-SSID with your WiFi name, and PASSWORD with your password.



```
system.cfg X
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
```

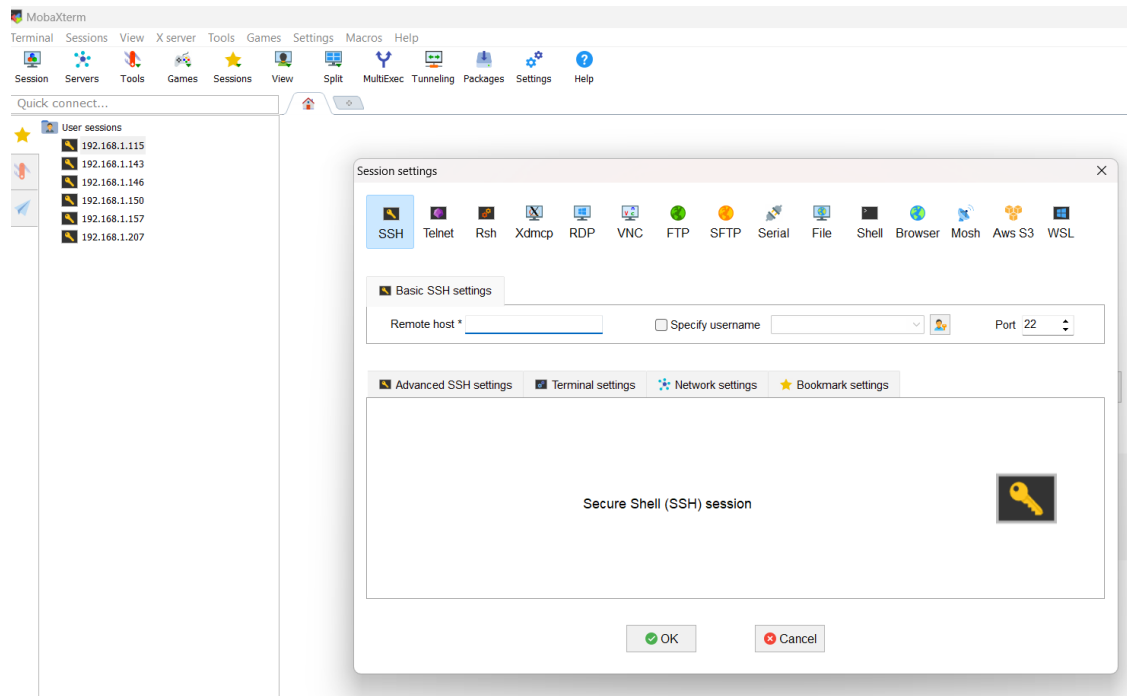
Enter the Wifi name and password then save the file.

Step 4:

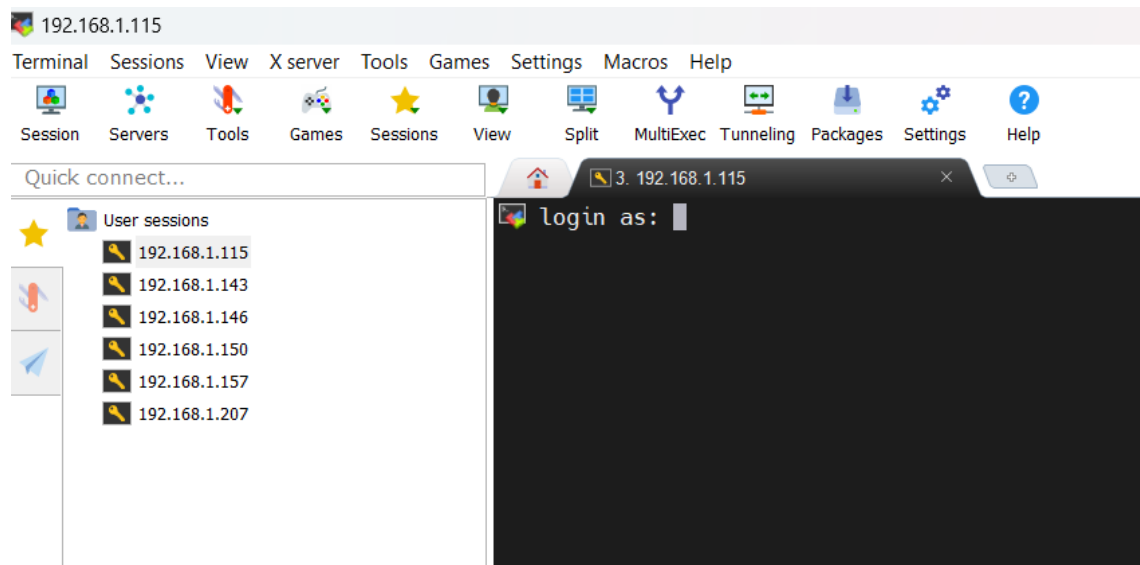
Insert the SD card into the pi slot and power up the pi.

Using Angry IP scanner or Advanced IP scanner, find the IP address of your pi.

Launch MobaXterm and Start a SSH session:

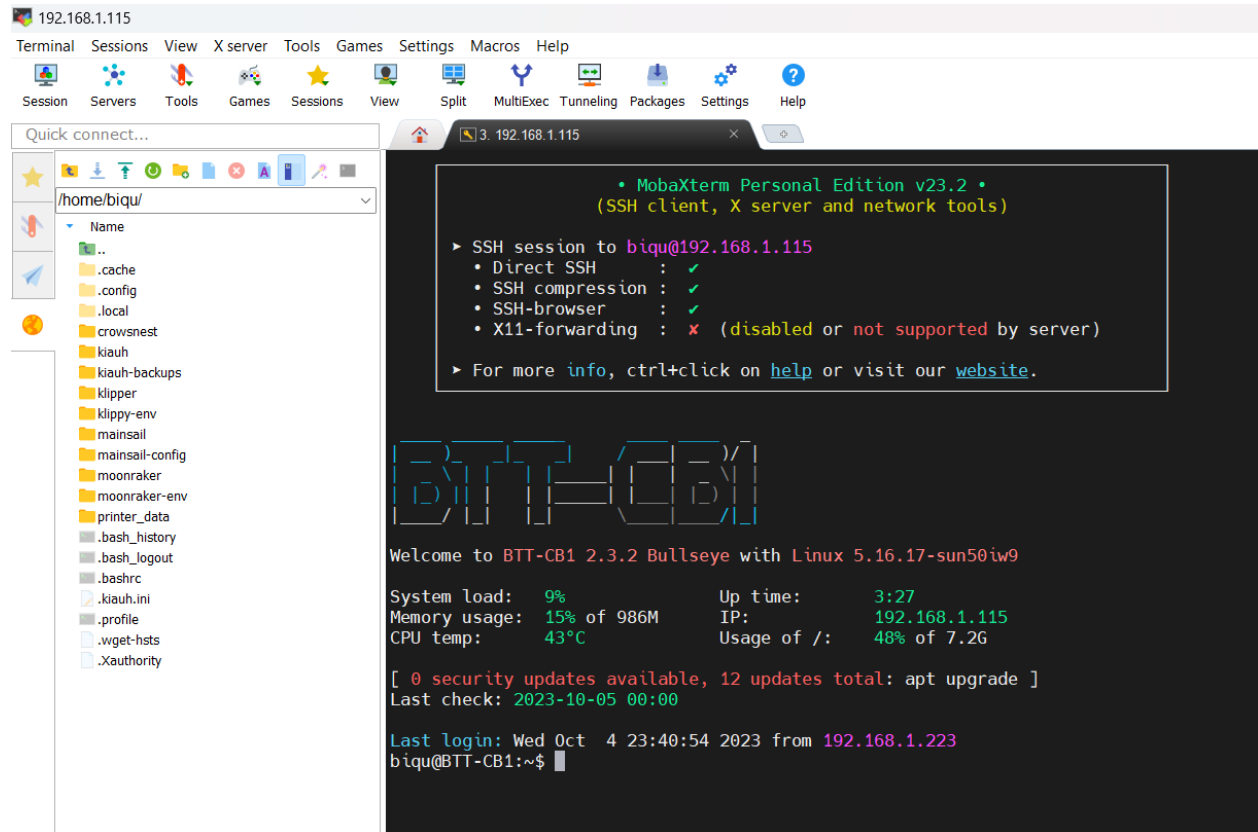


Enter the IP address of your pi in the Remote Host field and click OK. If you see this screen, CONGRATS, you are in!



The user name and password are biqu

You should see this screen:



Step 5:

Go to the KIAUH github site:

<https://github.com/dw-0/kiauh>

Scroll down and run these three commands, one at a time:

- **Step 1:**

To download this script, it is necessary to have git installed. If you don't have git already installed, or if you are unsure, run the following command:

```
sudo apt-get update && sudo apt-get install git -y
```



- **Step 2:**

Once git is installed, use the following command to download KIAUH into your home-directory:

```
cd ~ && git clone https://github.com/dw-0/kiauh.git
```



- **Step 3:**

Finally, start KIAUH by running the next command:

```
./kiauh/kiauh.sh
```



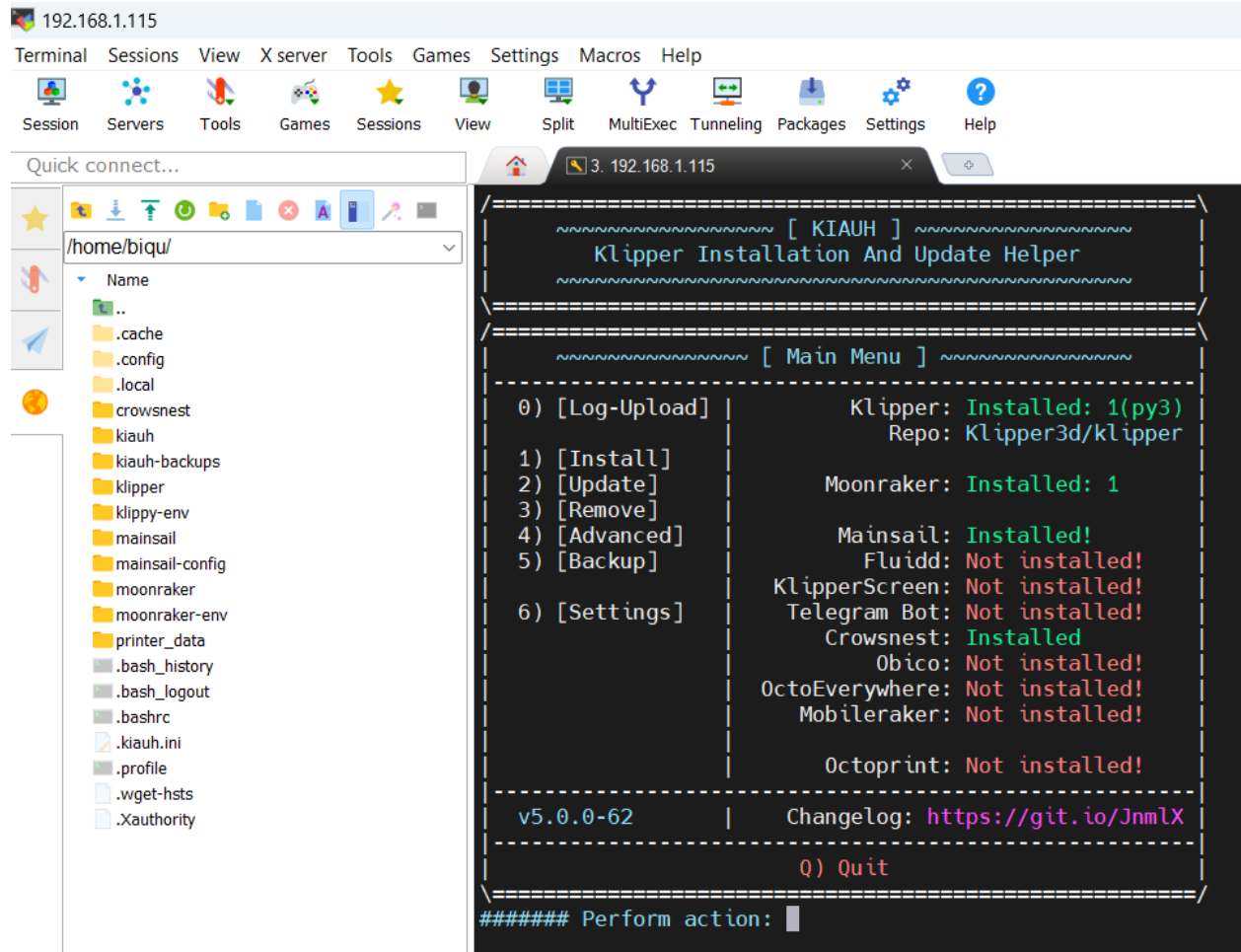
- **Step 4:**

NOTE:

To paste into the pi, use your right mouse button, then hit return

```
Last login: Wed Oct  4 23:40:54 2023 from 192.168.1.223
biqu@BTT-CB1:~$ ^[[200~./kiauh/kiauh.sh~
-bash: ./kiauh/kiauh.sh: No such file or directory
biqu@BTT-CB1:~$ ./kiauh/kiauh.sh
```

If you did everything correctly, you will be at the KIAUH main screen:



Install:
Klipper
Moonraker
Mainsail

Now open a browser and enter the IP address of your pi. The Mainsail home screen will open.

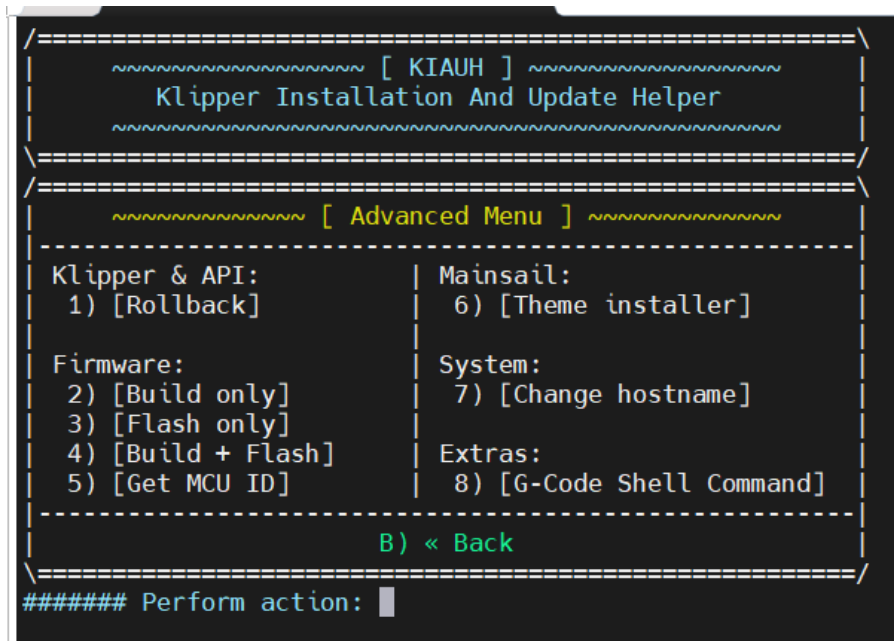
(installing a cfg file, finding your mcu, creating macros, and customizing your Mainsail layout are not covered here...

APPENDIX A - Compile MCU File

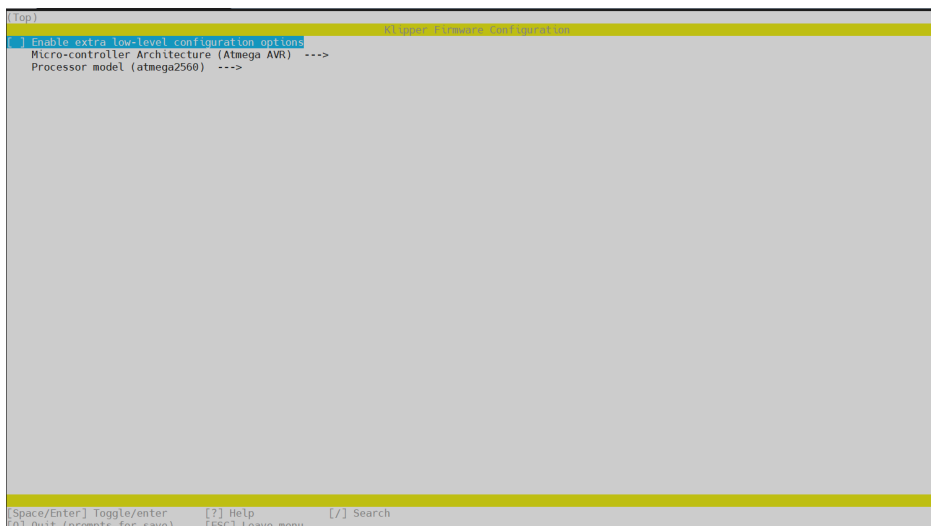
Search the Klipper github of config examples page for an cfg file that matches your printer control board:

<https://github.com/Klipper3d/klipper/tree/master/config>

In Kiauh, select 4 [Advanced]



Then select 2 [Build Only]



Compile the MCU firmware following this method. NOTE: Use the recommended settings for YOUR board. This is only a sample...

Compile MCU Firmware

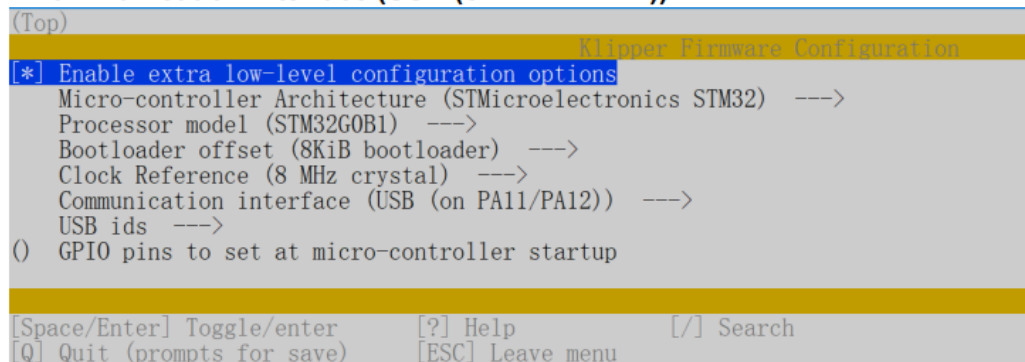
1. After SSH is successfully connected to the device, enter in the terminal:

```
cd ~/klipper/
```

```
make menuconfig
```

The firmware is compiled based on the motherboard configuration, here we take Manta M4P as an example:

- * [*] Enable extra low-level configuration options
- * Micro-controller Architecture (STMicroelectronics STM32) --->
- * Processor model (STM32G0B1) --->
- * Bootloader offset (8KiB bootloader) --->
- * Clock Reference (8 MHz crystal) --->
- * Communication interface (USB (on PA11/PA12)) --->

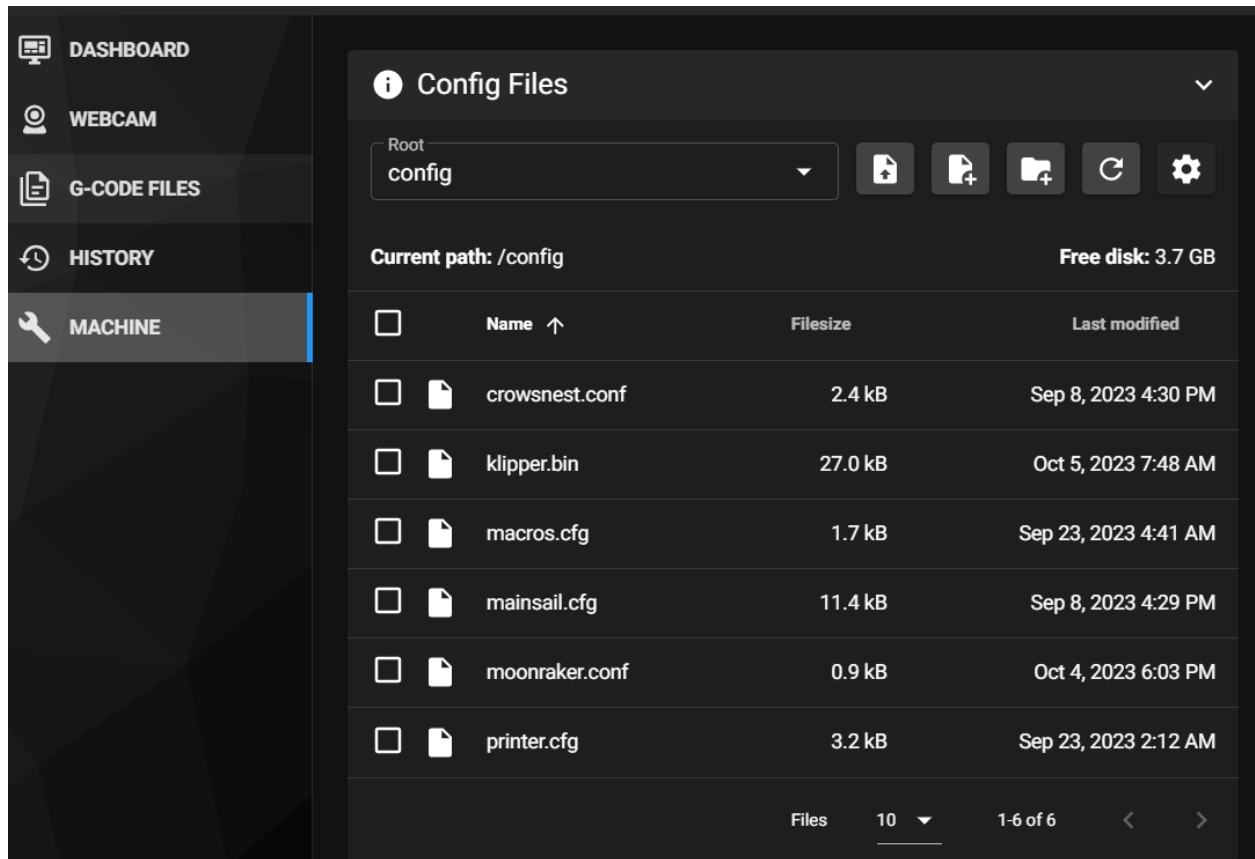


1. When you Quit and Save this screen, Kiauh automatically runs “make” to build the bin file.
2. Exit Kiauh and enter this command into the pi
`cp klipper/out/klipper.bin /home/biqu/printer_data/config`

screenshot:

```
biqu@BTT-CB1:~$ cp klipper/out/klipper.bin /home/biqu/printer_data/config
```

Open your Mainsail and navigate to the **Machine** menu:



Now you can use Mainsail to download the klipper.bin file to a SD card.
Flash your printer with this klipper.bin file (you may need to change the name to firmware.bin)

If the directory isn't found, then enter:

`'ls /dev/serial/by-path/*'`

As an example your string might look like this:

`serial: /dev/serial/by-path/platform-fd500000.pcie-pci-0000:01:00.0-usb-0:1.3:1.0`

Copy this into the [mcu] section of your printer.cfg file

Appendix B - Find your MCU Address

Navigate to the KIAUH advanced menu by entering “4 [Advanced]”

Enter “5” [Get MCU ID]

```
===== [ KIAUH ] =====
Klipper Installation And Update Helper
=====

===== [ Advanced Menu ] =====

Klipper & API:      | Mainsail:
  1) [Rollback]     | 6) [Theme installer]

Firmware:          | System:
  2) [Build only]   | 7) [Change hostname]
  3) [Flash only]   |
  4) [Build + Flash]| Extras:
  5) [Get MCU ID]   | 8) [G-Code Shell Command]

-----
                        B) << Back
=====

##### Perform action: █
```

Enter “1” USB

```
===== [ KIAUH ] =====
Klipper Installation And Update Helper
=====

Make sure that the controller board is connected now!

-----

How is the controller board connected to the host?
1) USB
2) UART
3) USB (DFU mode)

-----
                        B) << Back      |      H) Help [?]
=====

##### Connection method: 1█
```

Copy this line and paste it into the [mcu] section of your printer.cfg file

KIAUH result:

```
##### Identifying MCU connected via USB ...  
● MCU #1: usb-Klipper_stm32g0b1xx_3D00560002504B5735313920-if00
```

Pasted into printer.cfg:

```
[mcu]  
serial: /dev/serial/by-id/usb-Klipper_stm32g0b1xx_3D00560002504B5735313920-if00
```

BE SURE to paste the result AFTER **serial: /dev/serial/by-id/**