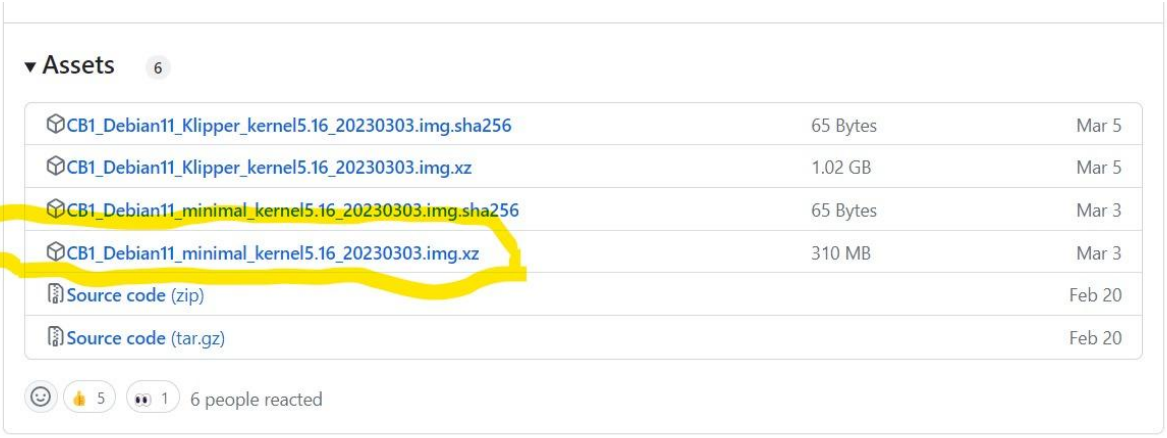
BTT CB1 Klipper Setup Steps

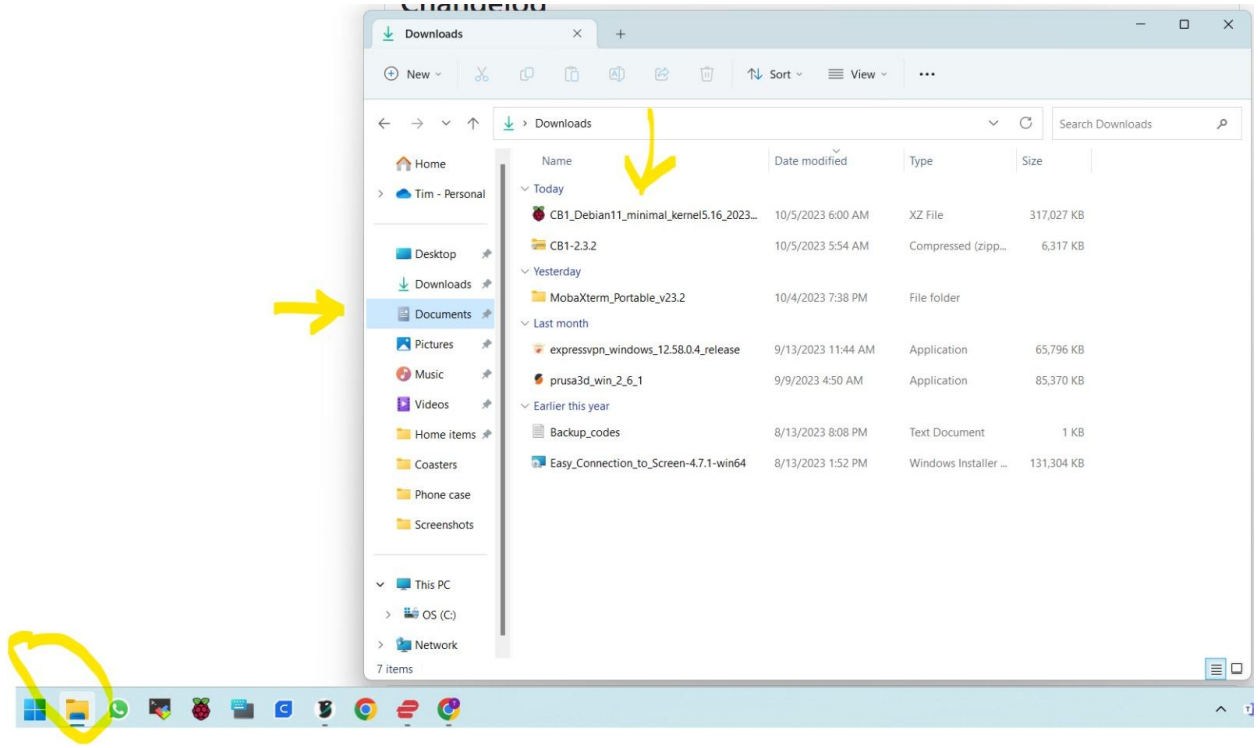
Step 1:

Download the minimal image file from the Bigtree github page:

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

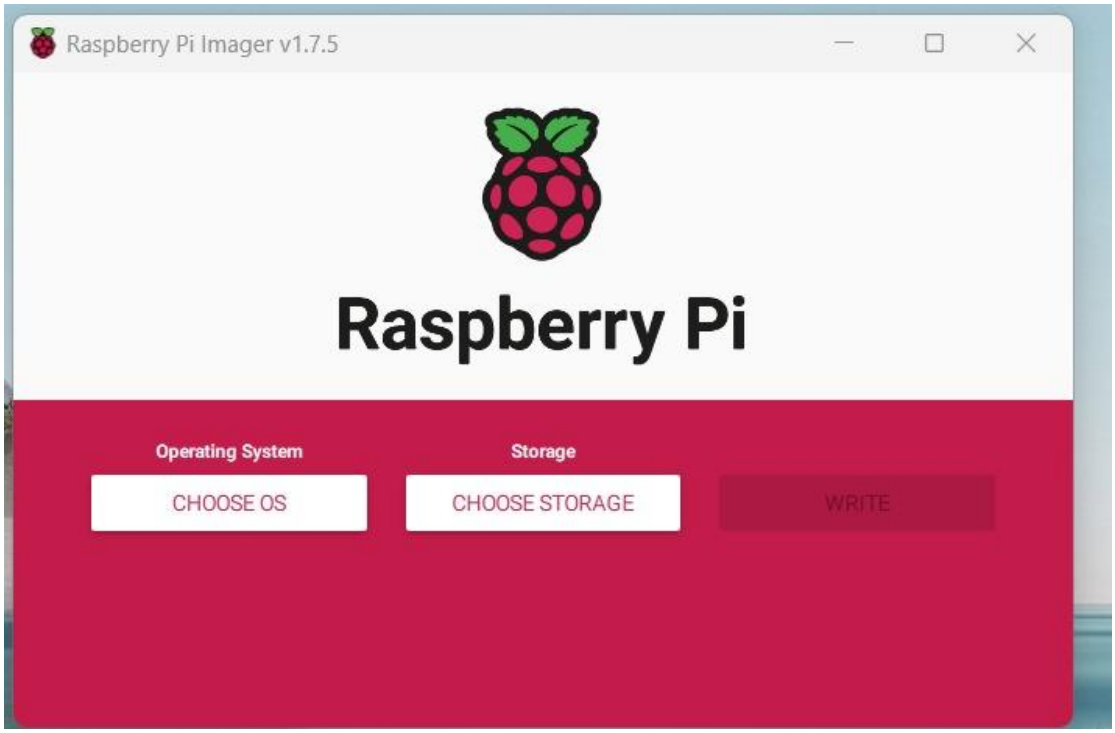


- Make sure it saves to the download folder of your computer

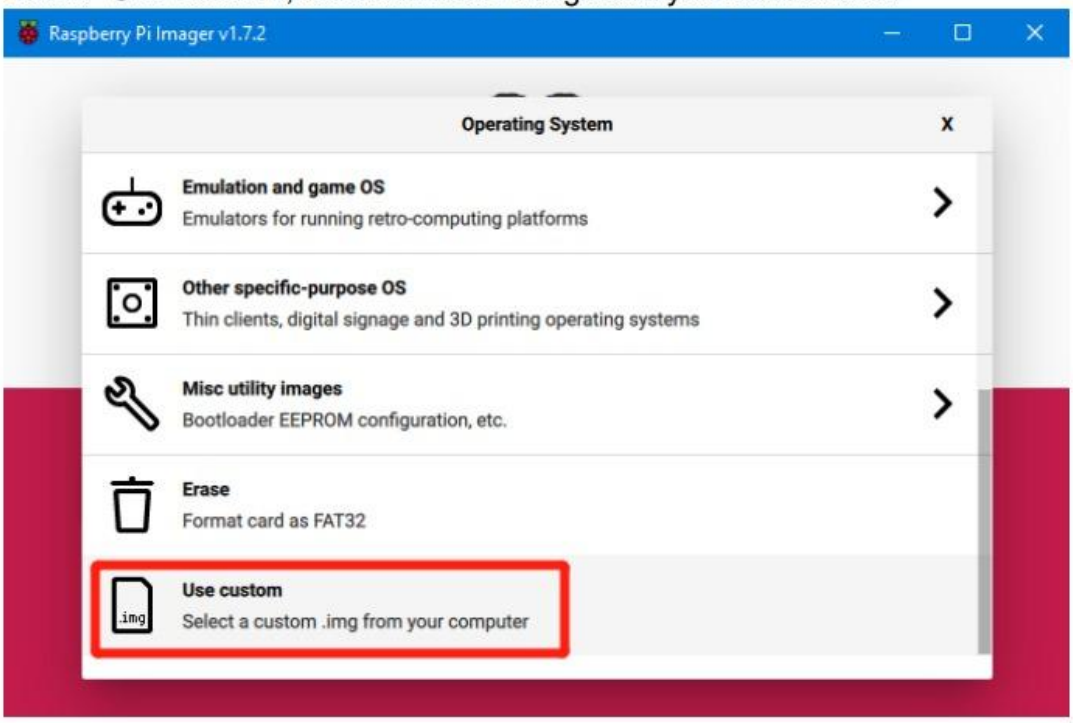


Step 2:

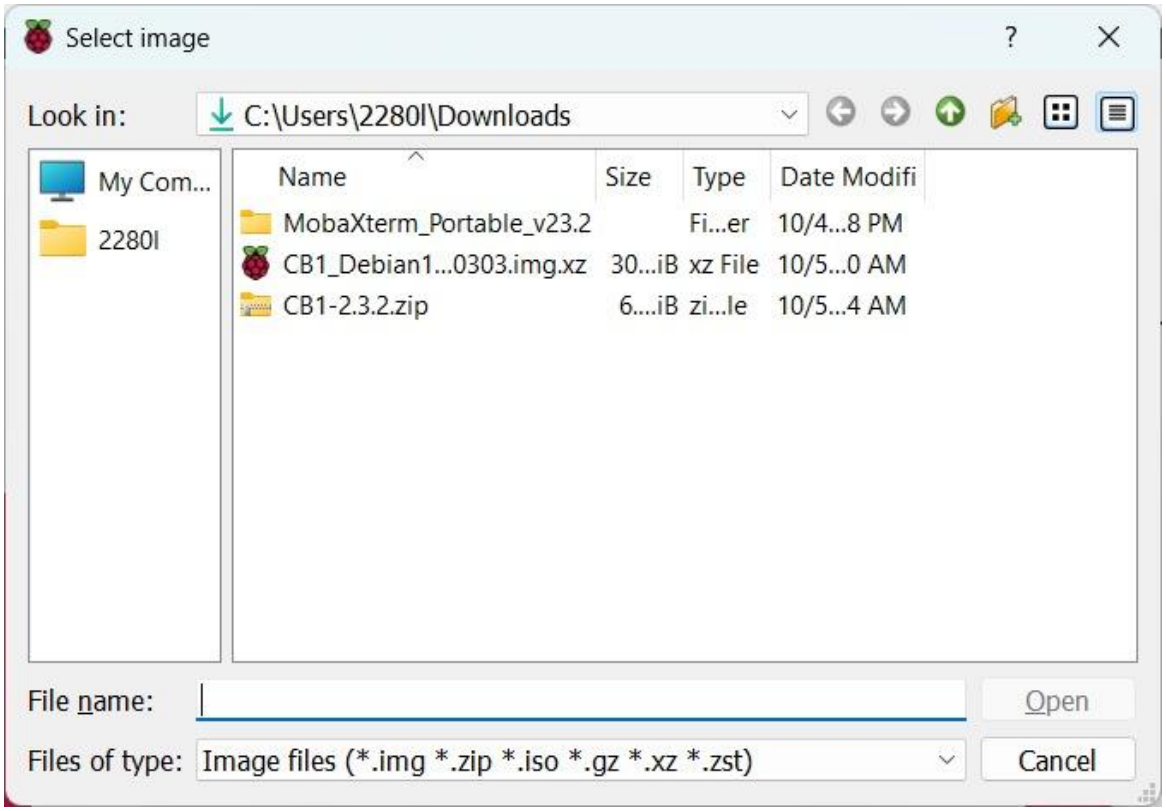
Open the Raspberry pi Imager program:



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



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

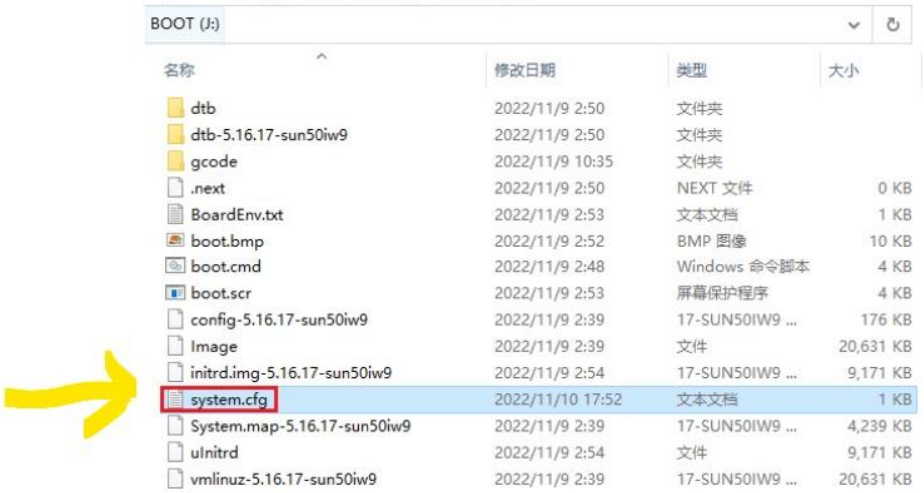


Select the microSD card and click "WRITE" (WRITE the image will format the microSD card. Be careful not to select the wrong storage device, otherwise the data will be formatted).

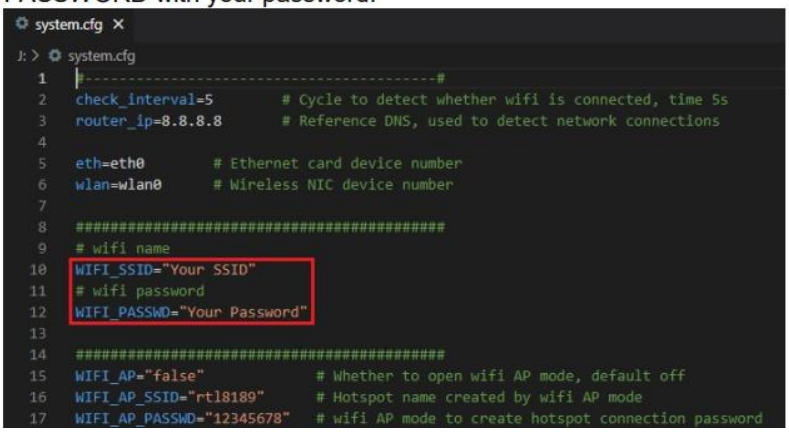
Step 3:

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".



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

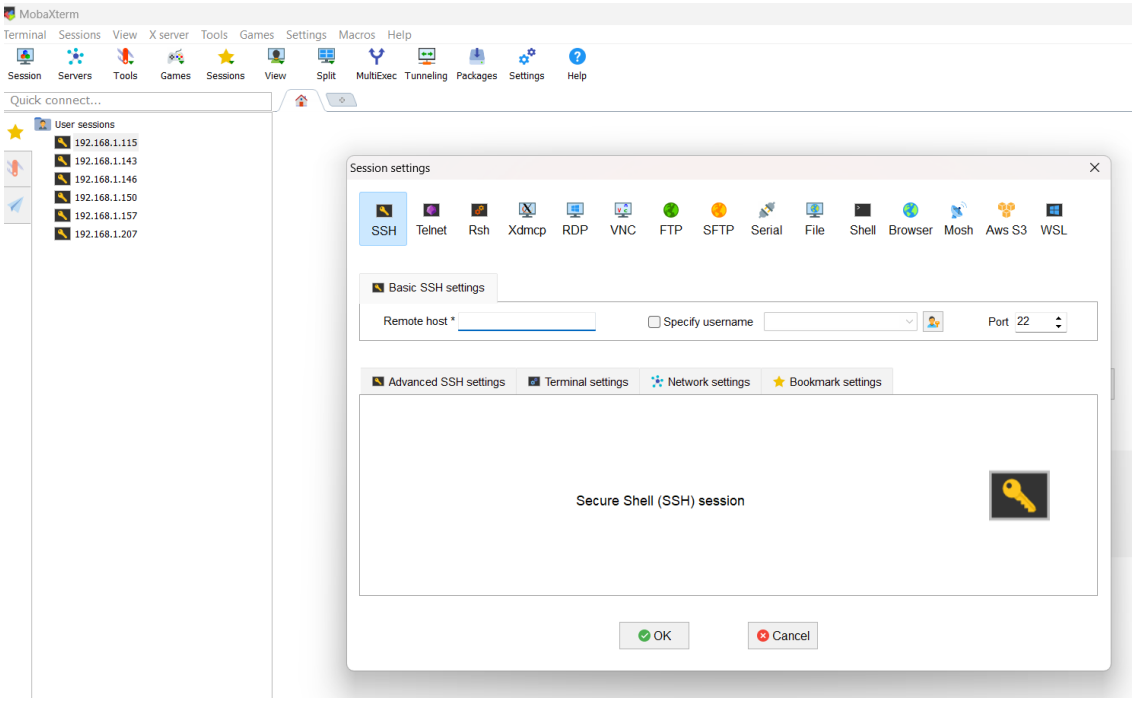


Enter the Wifi name and password then save the file.

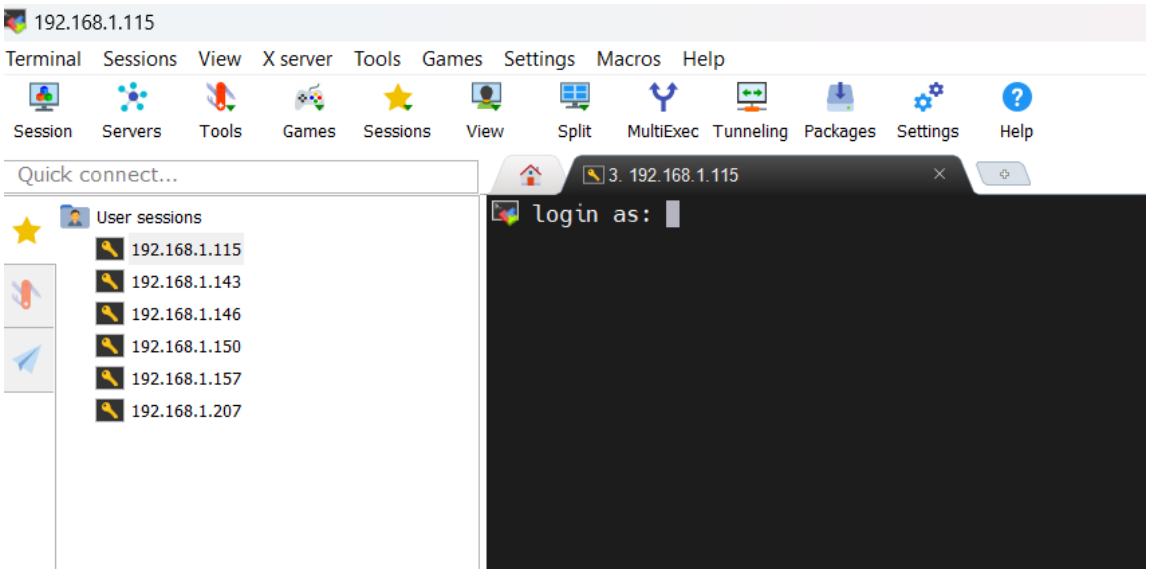
Step 4:

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:

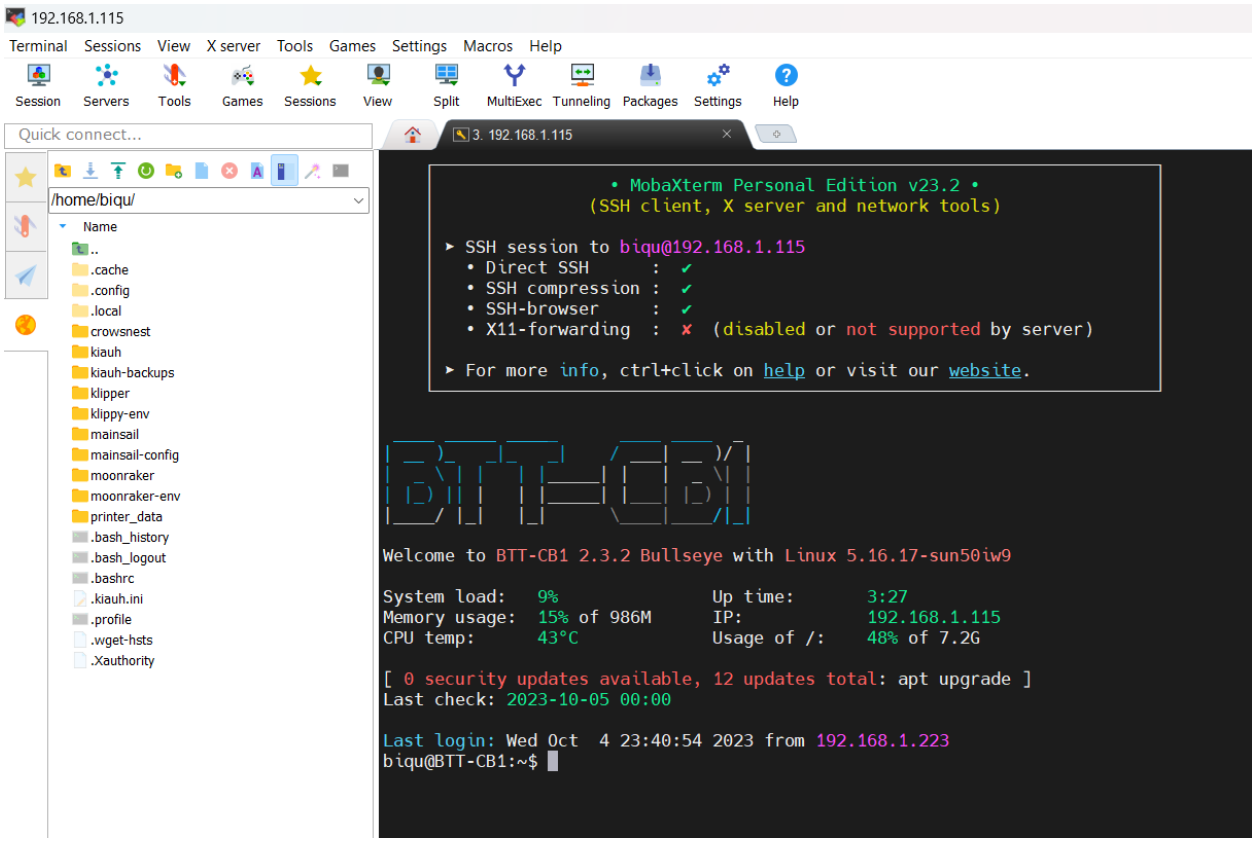


Enter the IP address of your pi in the Remote Host field and click OK. If you see this screen, CONGRATS, you are in!



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:

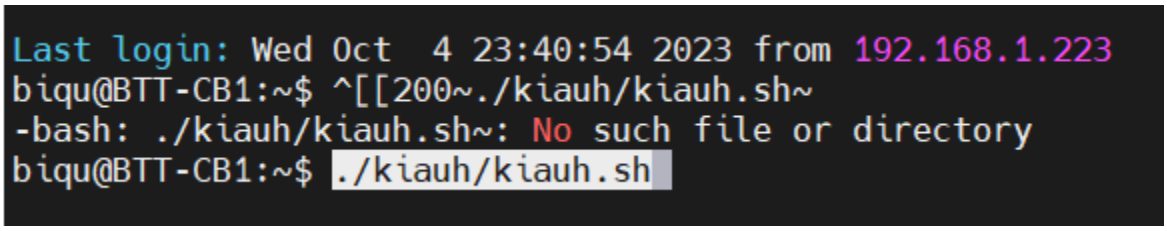
```
cd ~ && git clone https://github.com/dw-0/kiauh.git
```

- **Step 3:**
  Finally, start KIAUH by running the next command:

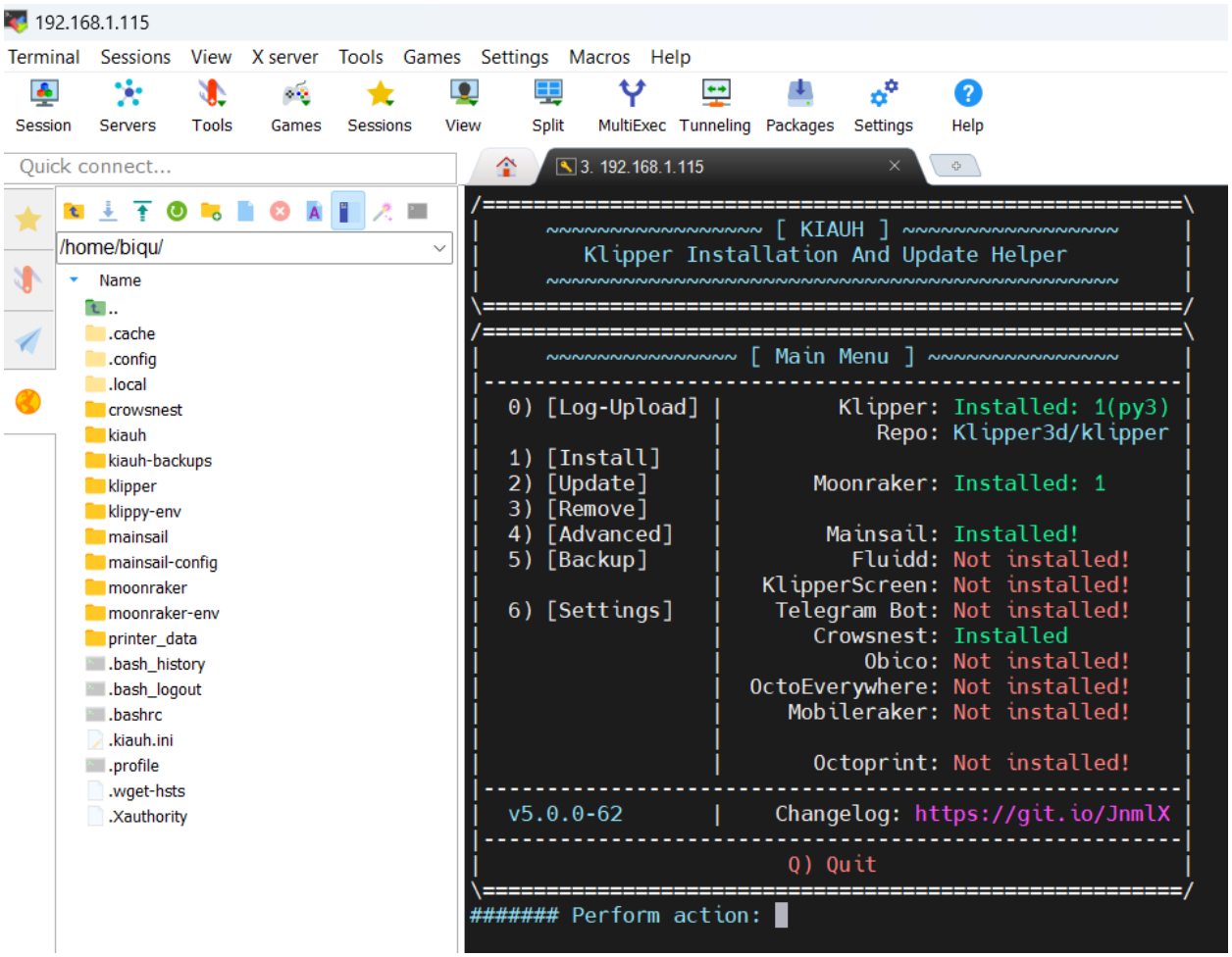
```
./kiauh/kiauh.sh
```

- **Step 4:**

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



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



Install:
Klipper
Moonraker
Mainsail

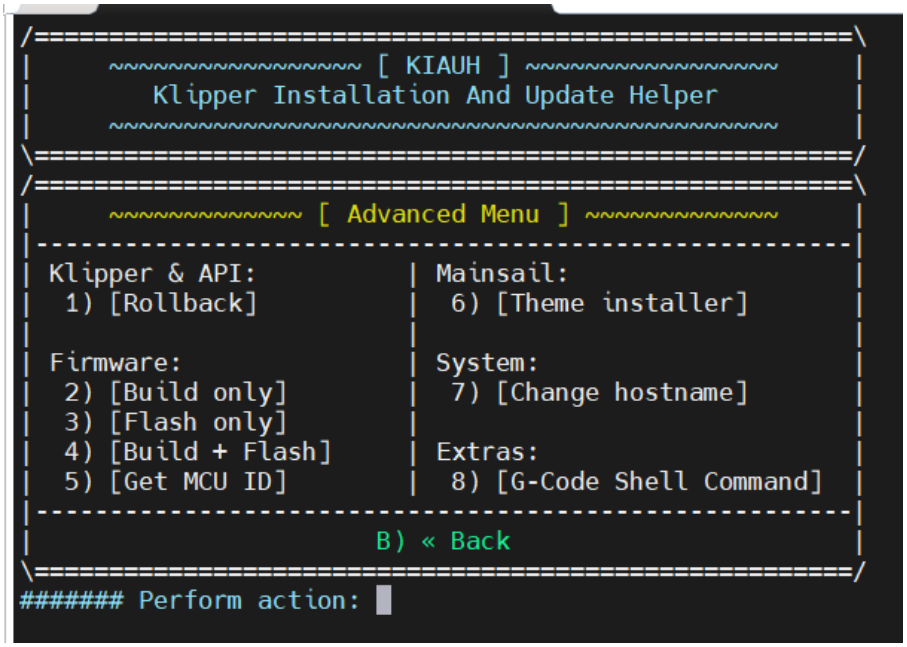
Now open a browser and enter the IP address of your pi. The Mainsail home screen will open.

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

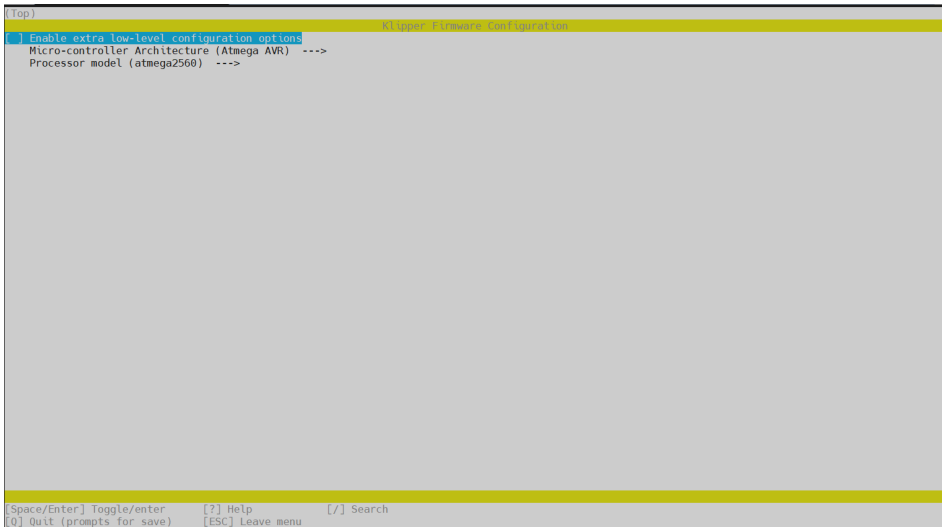
APPENDIX A - Compile MCU File

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]

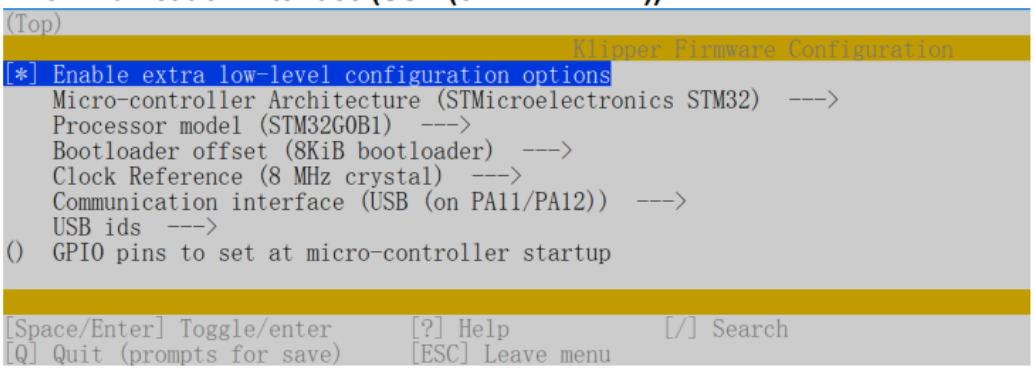


Compile the MCU firmware following this method. NOTE: Use the recommended settings for YOUR board. This is only a sample…

Compile MCU Firmware

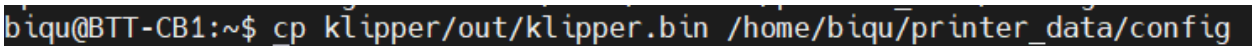
1. After SSH is successfully connected to the device, enter in the terminal:
   cd ~/klipper/
   make menuconfig
   The firmware is compiled based on the motherboard configuration, here we take Manta M4P as an example:

   *** [*] 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)) --->**

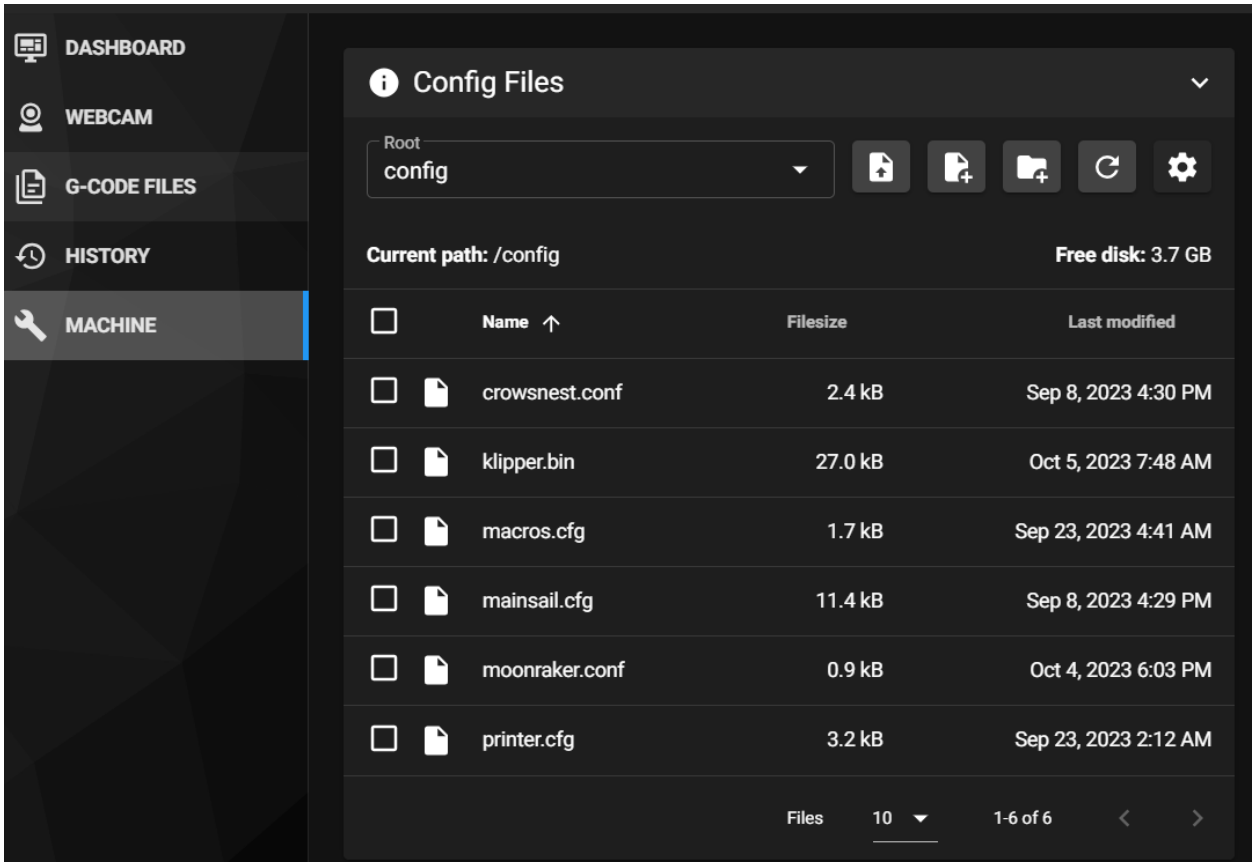


1. When you Quit and Save this screen, Kiauh automatically runs “make” to build the bin file.
2. Exit Kiauh and enter this command into the pi
   cp klipper/out/klipper.bin /home/biqu/printer_data/config

   screenshot:



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/*

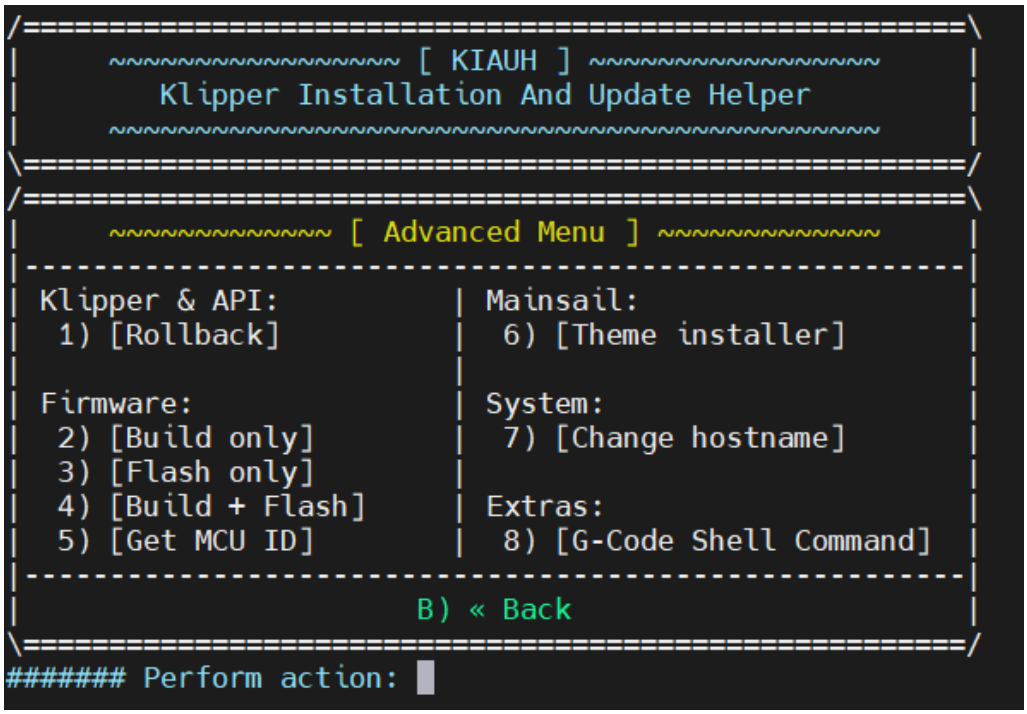
As an example your string might look like this:
serial: /dev/serial/by-path/platform-fd500000.pcie-pci-0000:01:00.0-usb-0:1.3:1.0

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

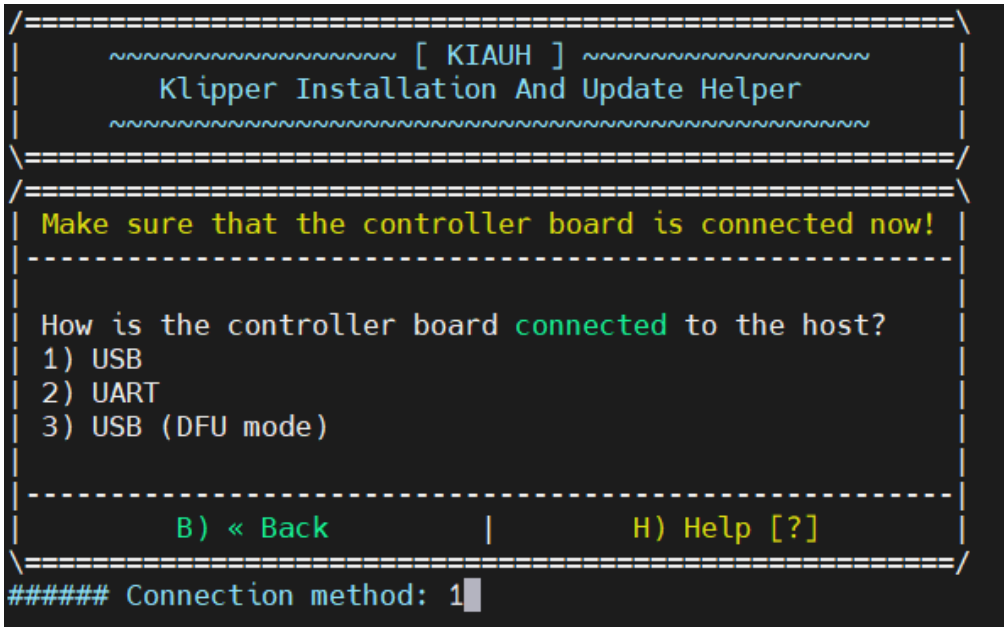
Appendix B - Find your MCU Address

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

Enter “5” [Get MCU ID]



Enter “1” USB



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/