Raspberry Pi Setup Documentation

Step 1: Make sure you have all the hardware required

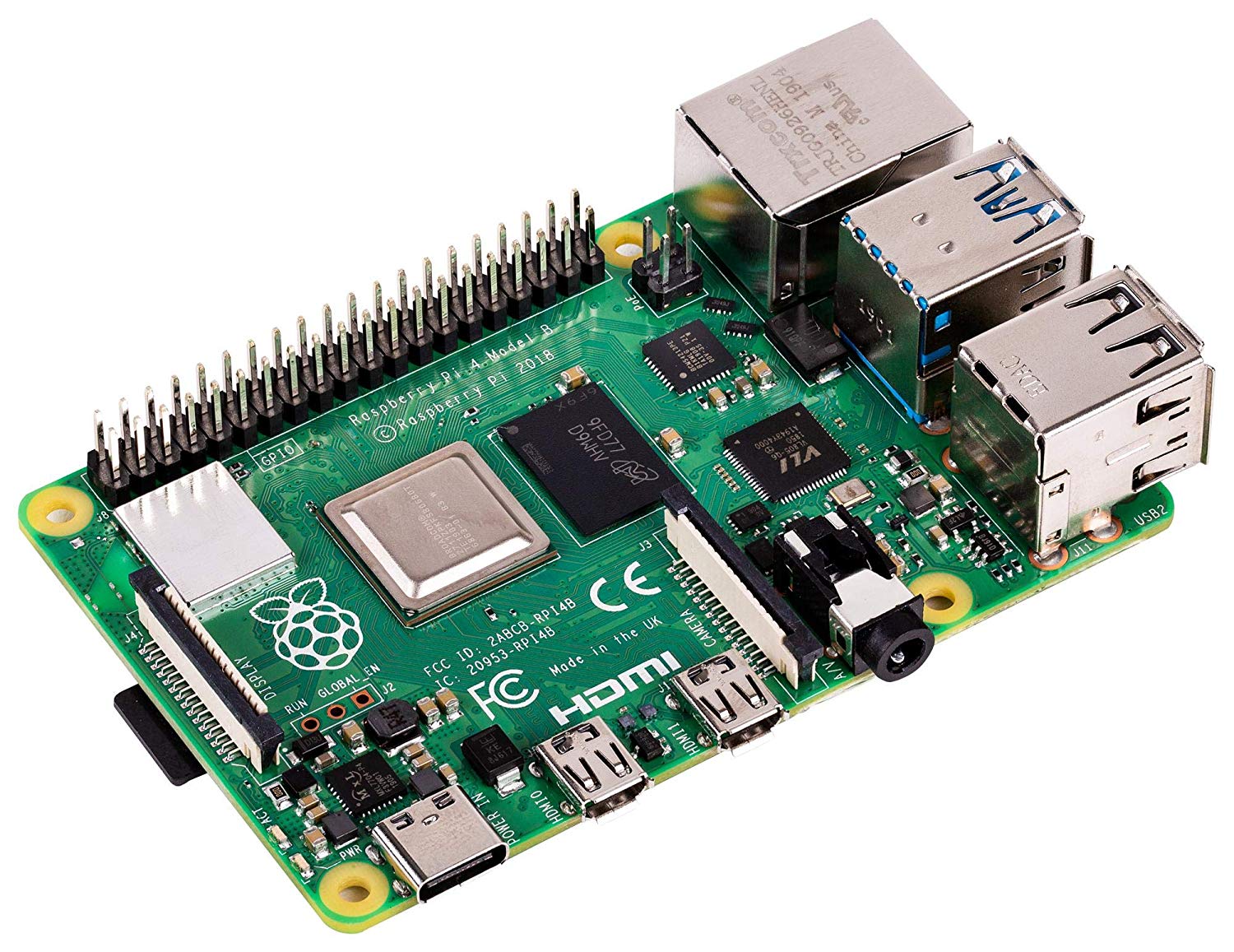
Hardware (existing):

Microscope

Hardware to mount (3D print):

Hardware (to buy):

1. Raspberry Pi 4 Model B
2. Raspberry Pi case (with open section)
3. Raspberry Pi charger
4. Raspberry Pi camera
5. Raspberry Pi fan
6. Raspberry Pi heatsink
7. Raspberry Pi HDMI adapter
8. MicroSD card (at least 8GB)







Step 2: Setting up the microSD card

This step will install the operating system Noobs into the microSD card so it can be used in the Raspberry Pi.

1. Open microSD card and insert into computer.
2. Go to <https://www.raspberrypi.org/downloads/noobs/> and download Noobs zip file.
3. Go to <https://www.raspberrypi.org/help/noobs-setup/2/> and follow the directions.
   1. When download is finished extract the files from the zip.
   2. Go to <https://www.sdcard.org/downloads/formatter/> and download the SD Formatter 4.0 for either Windows/Mac.
   3. Install SD Formatter 4.0 and then run it.
   4. In SD Formatter 4.0, format microSD card.
   5. Move the extracted Noobs files into the now formatted microSD card. You need to have the files inside the Noobs folder inside the microSD card, NOT
   6. Remove microSD card safely.
4. Remove microSD card safely.

Step 3: Setting up Raspberry Pi and its corresponding hardware

1. Insert microSD card into Rasberry Pi slot and set aside.
2. Follow the instructions of the Raspberry Pi case (included with the case).
   1. Before closing the top/lid attach the Raspberry Pi, feed the camera strip through the slot and connect it to the Pi. When connecting the camera, lift the black strip of insert on the pi device, insert strip, then secure black strip.
3. Remove film on camera.
4. Attached Micro HDMI adapter to HDMI cord connected to a display monitor.
5. Insert the HDMI micro adapter end to the micro slot on the raspberry pi.
6. Insert the power chord into the power slot on the raspberry pi.
7. Once completed, you will see your monitor populate a message pop up window.

Step 4: Setting Raspberry Pi Operating System

1.Click install for Noobs. (This could take awhile).

2. After installation is complete you will see a message that will say “OS(es) installed successfully” then click OK..

3. The raspberry pi will restart

4. see gallery picture to complete this section

PLACEHOLDER : Setting up Eduroam Configuration

1. Open up a terminal by clicking on the following symbol in the tool bar.

2. Add in wifi credentials by typin in the following: sudo nano ../../etc/wpa\_supplicant/wpa\_supplicant.conf

3. Type in the following and fill in your credentials where the fields are “”

4. Press control + o to save

5. Press control + x to close the file.

6. Kill the process that is currently running

7. Type in ps aux | grep supplicant to find the process number to kill

8. The number we would like to kill has something like this in the message

9. type in Kill plus the number

10. type in

Step 5: Setup Internet Connection