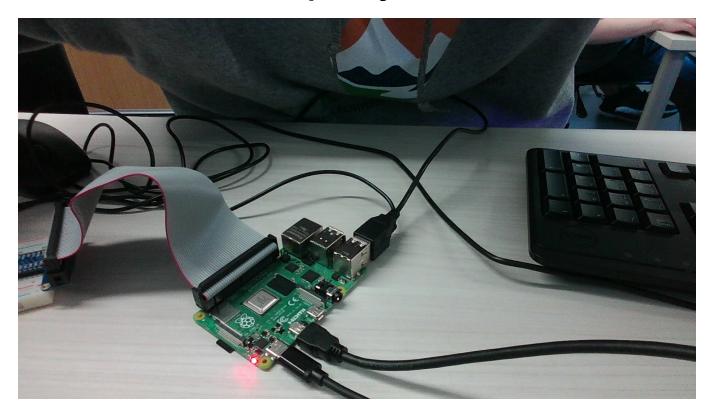
Lab 2 - Meet Your Raspberry Pi



As you can see there is multiple part to the Raspberry Pi and I'm going to be listening them.

- 1. 40 pin General-purpose Input/output header This part is the longest part on the Raspberry pi and it purpose is to act as a physical connection and allowing the Pi to send signals to a device like LED's.
- 2. 2.4/5GHz Wi-Fi Bluetooth 5.0 this device is used for Wi-Fi the 2.5Ghz provides my internet access, has a longer rang allowing connection to other rooms, and it can connect far form a router. the 5Ghz provides faster internet speeds, less interference, and better connection.
- 3. Micro SD Card Slot It used as primary storage and holding the operating system, user files and the applications.
- 4. 2-Lane MIPI DSI Display port it's a 15 pin connector for connecting compatible displays and has a touchscreen or custom LCD and OLED panels.
- 5. USB-C Power Port 5V/3A It's Used to supply power to the device for a compatible power adapter, with 3A being the current for a stable operation and support for the peripherals also could be used for transfer and acting like a USB and will be able to share resources with other computers.
- 6. 2x mirco HDMI ports (up to 4kp60) They are used for connecting to two separte displays at the same time and being able to have extended desktops or multi- monitor setups and each port can produce high resolution outputs.

- 7. 2- lane MIPI CSI camera port It's used to connecting camera modules and get highspeeds, high- bandwith video and image data for the camera sensors to the Raspberry Pi's processor for image.
- 8. 4-polr stereo audio This is for conecting headphones or speakers for audio playback and also provides a video signal.
- 9. 2 x USB 2.0 These are used for connecting low- bandwidth peripherals like keyboards and mic as other devices that dont need a really fast speeds.
- 10. 2 x USB 3.0 These are used for connecting high- speed devices like SSDs, external hard drivers, and fast USB network adapters.
- 11. Gigabit Ethernet this is used for high- speed internet and network like media servers, VPN servers, and custom routers.
- 12. PoE HAT Header This is used to connect the Raspberry Pi PoE HAT to the Pi and allwoing it to recieve both power and network data through a single Ethernet cable.