Raspberry Pi Crash Course

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Contents

Choosing to PI

What's a PI?

- It runs Linux :)

Building the PI

Downloading software to your computer

- Install Raspberry Pi Imager version 2(adds cool features like RaspiConnect)
- Install VSCode
  - Install the **Remote - SSH extension** package to enable coding over SHH connection

Flash the SD card

- If you're using a screen, maybe pick one of the graphical options
  - Otherwise, pick a "lite" version
- Customisation options (heh heh, Br'ish spelling)
  - Hostname: Something fun, unique, and memorable
  - User: Something memorable (can't recover if you forgor)
  - WiFi: Use either your mobile hotspot or mine
  - Remote access: provide a public key if you have one, otherwise don't bother
- Send it!

Using your PI

- Updating your dependencies
  - `$ sudo apt update`: Update your dependency lists
  - `$ sudo apt upgrade`: Update your dependencies
- Ensure **gpiozero** is installed:
  - `$ sudo apt install python3-gpiozero`
- Use either Nano (if you're new) or Vim (if you're based and linux-pilled). Don't use Emacs…
  - `$ vi main.py`
  - `$ nano main.py`

- Connect the LED to pins GPIO 21 (long end) and GND

Source Code

```
from gpiozero import LED
from time import sleep

led = LED(21)

while True:
    led.on()
    sleep(1)
    led.off()
    sleep(1)
```

Switching an LED

- Connect the LED to pins GPIO 21 (long end) and GND
- Connect the button to pins GPIO 2 and GND

Source Code

```
from gpiozero import LED, Button
from signal import pause

led = LED(21)
button = Button(2)

button.when_pressed = led.on
button.when_released = led.off

pause()
```

What next?