Installing Micropython onto ESP

Download the micropython software: https://micropython.org/download/esp8266/

Install esptool: `pip install esptool` (or use your distro's package manager)

Put ESP into bootloader mode. Pull GPIO0 low (D3) and repower device.

```
$ esptool.py --port /dev/ttyusb0 erase_flash
$ esptool.py --port /dev/ttyUSB0 --baud 460800 write_flash --flash_size=detect 0 esp8266-20170108-v1.8.7.bin
```

To check if it worked, `ls /dev | grep ttyUSB` should return a value.

Then `ampy --port /dev/ttyUSB0 --baud 115200 get boot.py` should return the contents of boot

Put files onto ESP

Install adafruit-ampy `pip install adafruit-ampy` (use virtual environment if possible)

Create a file `main.py` and add the following:

```
# main.py

import time
import machine

pin = machine.Pin(16, machine.Pin.OUT)

while 1:
    pin.value(1)
    time.sleep(0.5)
    pin.value(0)
    time.sleep(0.5)
```

Connect an LED + resistor from D0 to ground (GPIO16 is pin D0 on the board).

Upload it: `ampy --port /dev/ttyUSB0 --baud 115200 put main.py`

Check if it was uploaded correctly: `ampy --port /dev/ttyUSB0 --baud 115200 get main.py`

The unplug the board and plug it in again. The LED should start blinking