

# micropython

## esptools adn ampy

```
pip install esptool  
pip install adafruit-ampy
```

identify

```
esptool.py chip_id
```

## esp8266

download micropython from <http://micropython.org/download#esp8266>

```
wget http://micropython.org/resources/firmware/esp8266-20171101-v1.9.3.bin
```

erase (optional ?) and upload

```
esptool.py --port /dev/ttyUSB0 erase_flash  
esptool.py --port /dev/ttyUSB0 --baud 460800 write_flash --flash_size=detect  
0 esp8266-20171101-v1.9.3.bin
```

access from serial over USB

```
sudo apt install picocom  
picocom /dev/ttyUSB0 -b115200
```

network wifi STA

```
import network  
sta_if = network.WLAN(network.STA_IF)  
sta_if.active(True)  
sta_if.connect('<your ESSID>', '<your password>')  
sta_if.ifconfig()  
  
( '192.168.2.32', '255.255.255.0', '192.168.2.1', '192.168.2.1' )
```

enable webrepl

```
import webrepl_setup
```

reboot and connect to webrepl using <http://micropython.org/webrepl/>

## main

```
ampy -p /dev/ttyUSB0 put blink.py /main.py
```

## led

```
from machine import Pin
from time import sleep

# GPIO16 (D0) is the internal LED for NodeMCU
led = Pin(16, Pin.OUT)

# The internal LED turn on when the pin is LOW
while True:
    led.value(not led.value())
    #led.on()
    sleep(1)
    #led.off()
    #sleep(1)
```

## jupyter

[https://github.com/goatchurchprime/jupyter\\_micropython\\_kernel/](https://github.com/goatchurchprime/jupyter_micropython_kernel/)

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