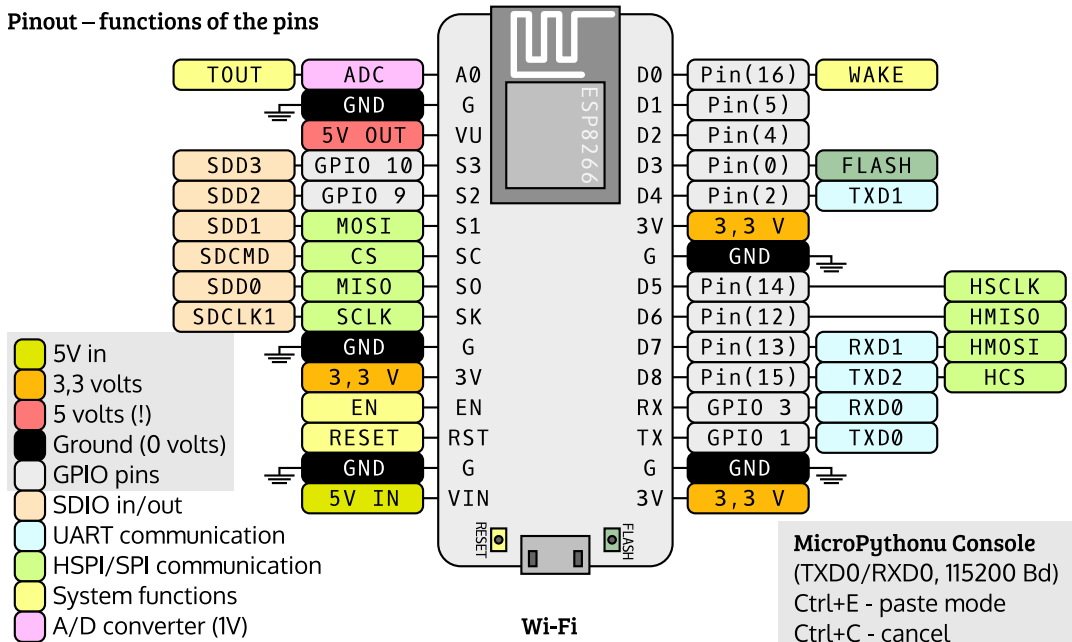


# MicroPython on the NodeMCU (ESP8266)

## Pinout – functions of the pins



## GPIO - controlling the pons

```
from machine import Pin
pin_read = Pin(0, Pin.IN)
value = pin_read.value()
pin_write = Pin(1, Pin.OUT)
pin_write.value(1)
pin_write.value(0)
```

## PWM – fast blinking

```
from machine import Pin, PWM
pwm = PWM(Pin(0), freq=50)
pwm.duty(77) # 0-1024
pwm.duty(115) # cca 40-115 for a servo
pwm.freq(100)
pwm.deinit()
* PWM won't work on Pin(16)
```

## NeoPixel - colorful lights

```
from machine import Pin
from neopixel import NeoPixel
pin = Pin(0, Pin.OUT)
np = NeoPixel(pin, 8)
np[0] = (255, 255, 255)
np.write()
```

## Wi-Fi

```
import network
```

```
# Connect to an existing network
wlan = network.WLAN(network.STA_IF)
wlan.active(True)
wlan.scan()
wlan.isconnected()
wlan.connect('essid', 'password')
wlan.ifconfig()
```

```
# Own network
ap = network.WLAN(network.AP_IF)
ap.active(True)
ap.config(essid='micropy')
```

```
# Web console
import webrepl
webrepl.start()
```

## More at:

<http://docs.micropython.org/en/v1.8.3/esp8266/esp8266/quickref.html>