Agenda

Arduino y Protocolo MQTT:

- Manejo avanzado de Arduino
- Sensores, actuadores y microcontroladores
- Taller de conectividad

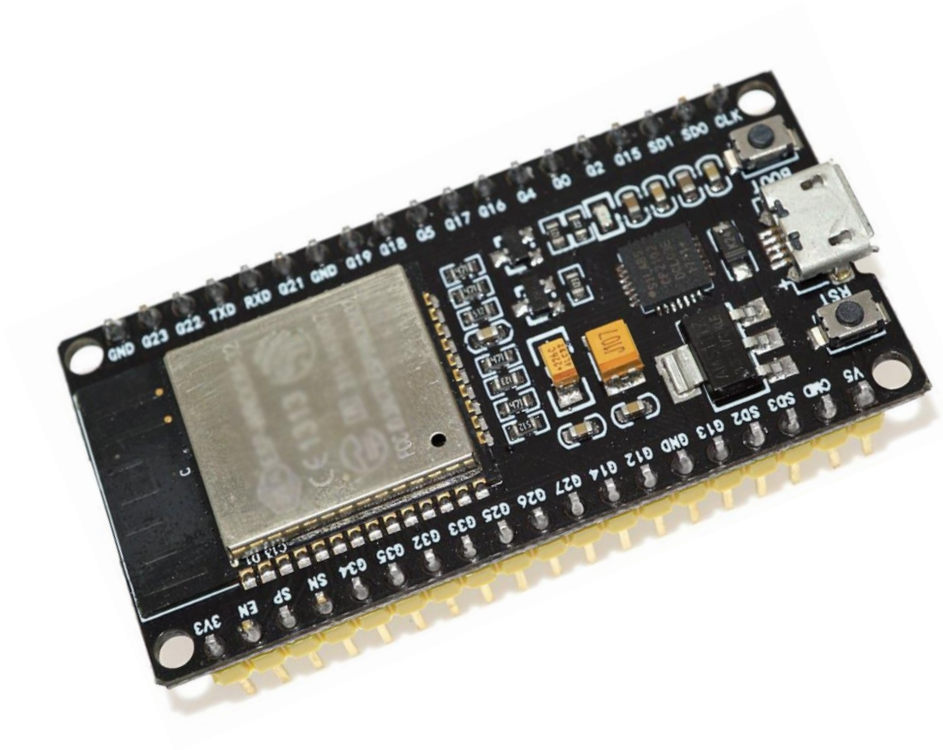
  Tracking usando GPS y RFID

  Bluetooth Low Energy
- Creación de Cliente/Servidor con MQTT

  Contralando dispositivos mediante MQTT

2

WIFI

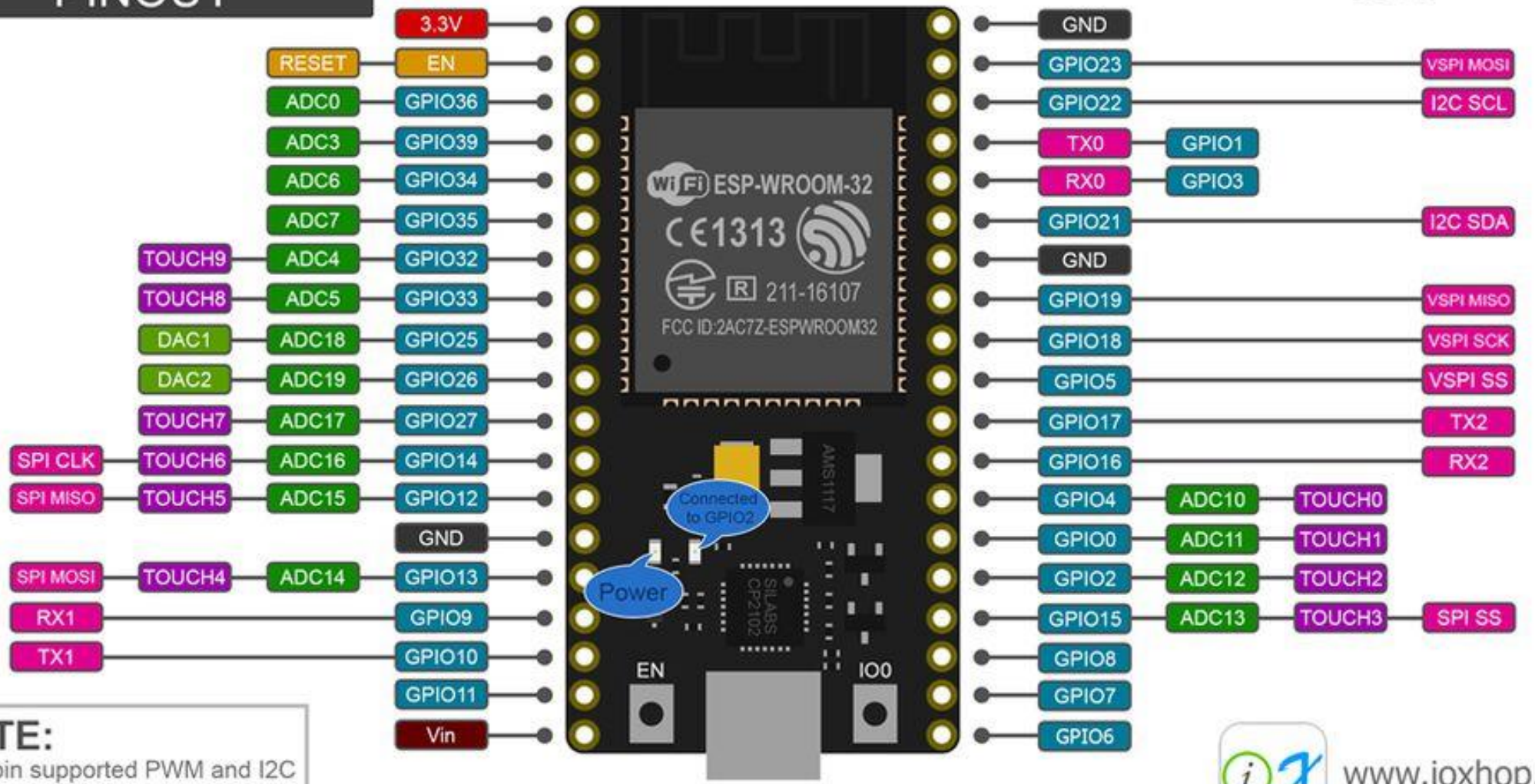

GND G23 G22 TXD RXD G21 GND G19 G18 G5 G17 G16 G4 G0 G2 G15 SD1 SD0 CLK
3V3 EN SP SN G34 G35 G32 G33 G25 G26 G27 G14 G12 GND G13 SD2 SD3 CMD 5V
BOOT
RST


Wi Fi
TM

NodeMCU-32S

PINOUT

CC BY 4.0



NOTE:

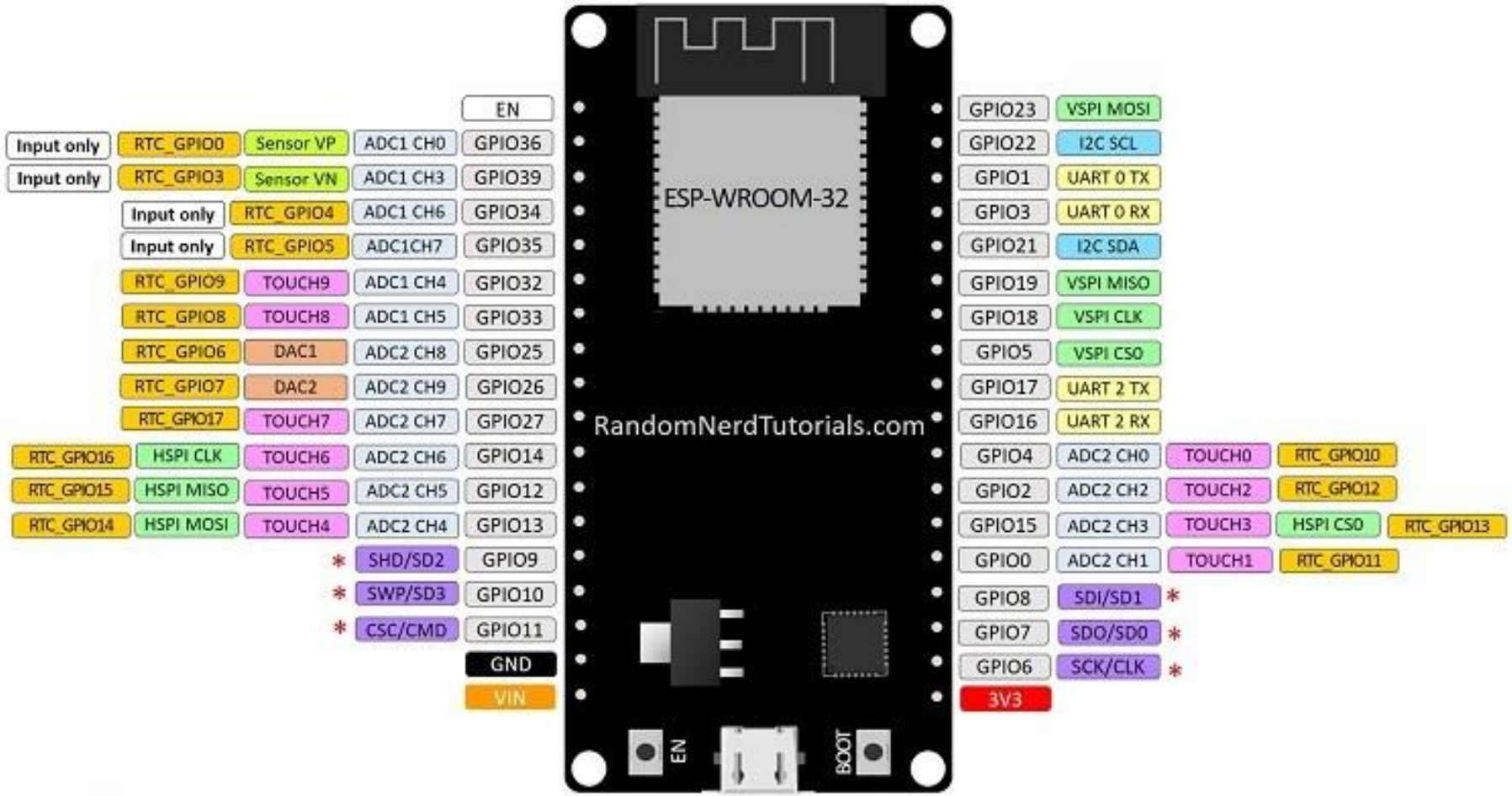
All pin supported PWM and I2C

Pin current 6mA (Max. 12mA)

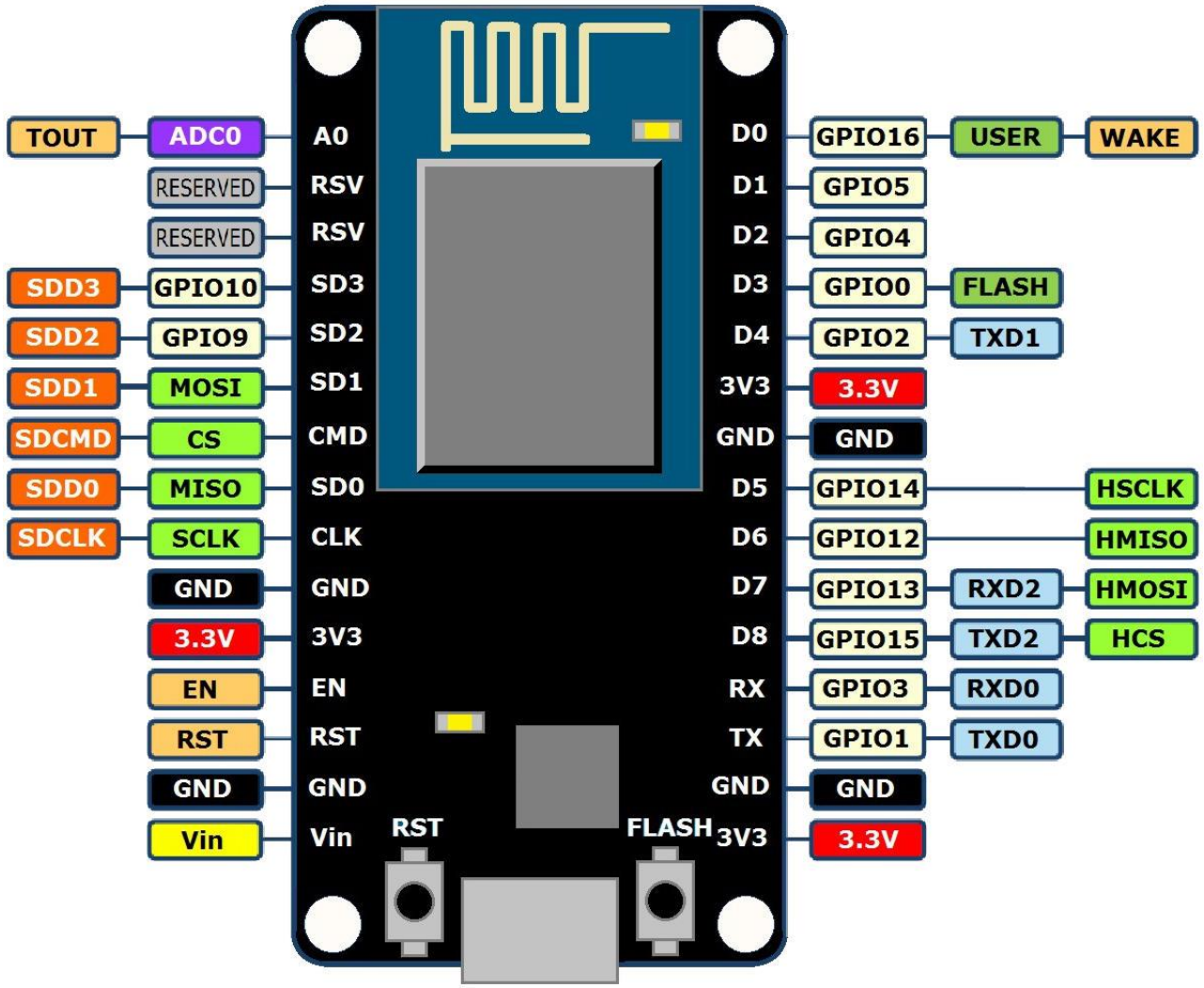
www.ioxhop.com

ESP32 DEVKIT V1 – DOIT

version with 36 GPIOs

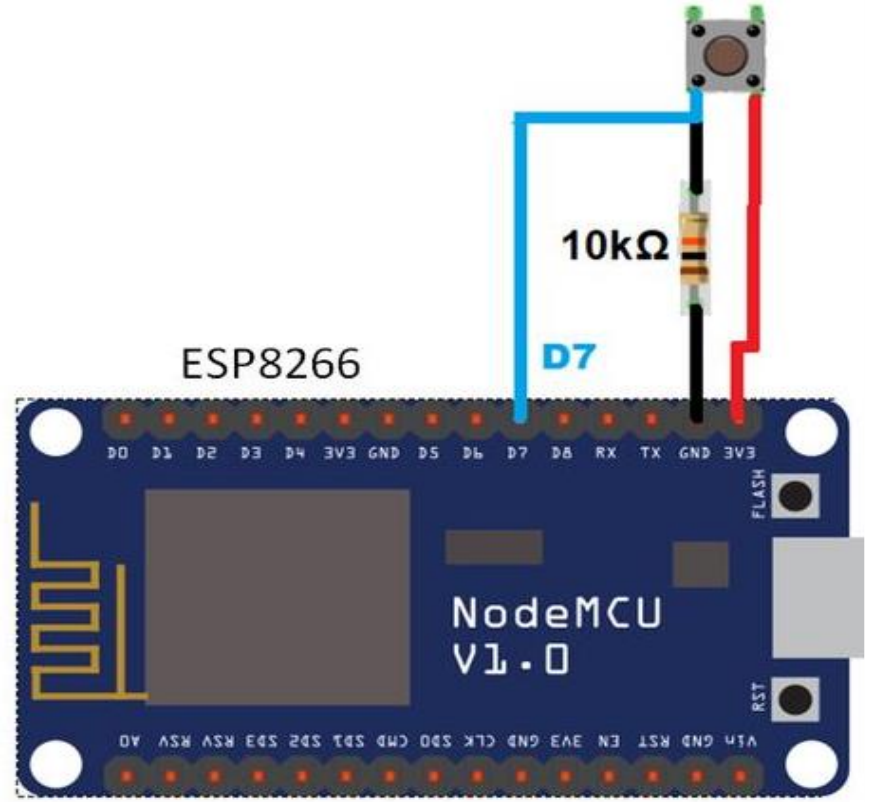


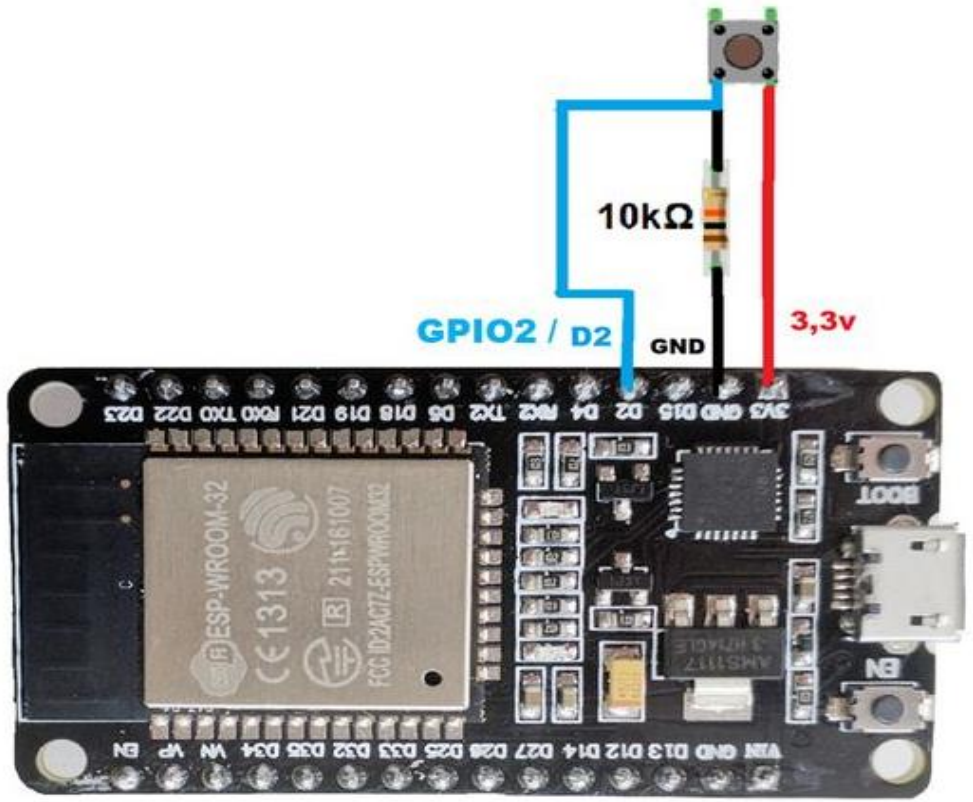
* Pins SCK/CLK, SDO/SD0, SDI/SD1, SHD/SD2, SWP/SD3 and SCS/CMD, namely, GPIO6 to GPIO11 are connected to the integrated SPI flash integrated on ESP-WROOM-32 and are not recommended for other uses.


TOUT
ADC0
A0
RESERVED
RSV
RESERVED
RSV
SDD3
GPIO10
SD3
SDD2
GPIO9
SD2
SDD1
MOSI
SD1
SDCMD
CS
CMD
SDD0
MISO
SD0
SDCLK
SCLK
CLK
GND
GND
GND
3.3V
3V3
EN
EN
RST
RST
GND
GND
Vin
Vin
RST
FLASH
D0
GPIO16
USER
WAKE
D1
GPIO5
D2
GPIO4
D3
GPIO0
FLASH
D4
GPIO2
TXD1
3V3
3.3V
GND
GND
D5
GPIO14
HSCLK
D6
GPIO12
HMISO
D7
GPIO13
RXD2
HMOSI
D8
GPIO15
TXD2
HCS
RX
GPIO3
RXD0
TX
GPIO1
TXD0
GND
GND
3V3
3.3V

2

AP/Config WIFI





DHT11

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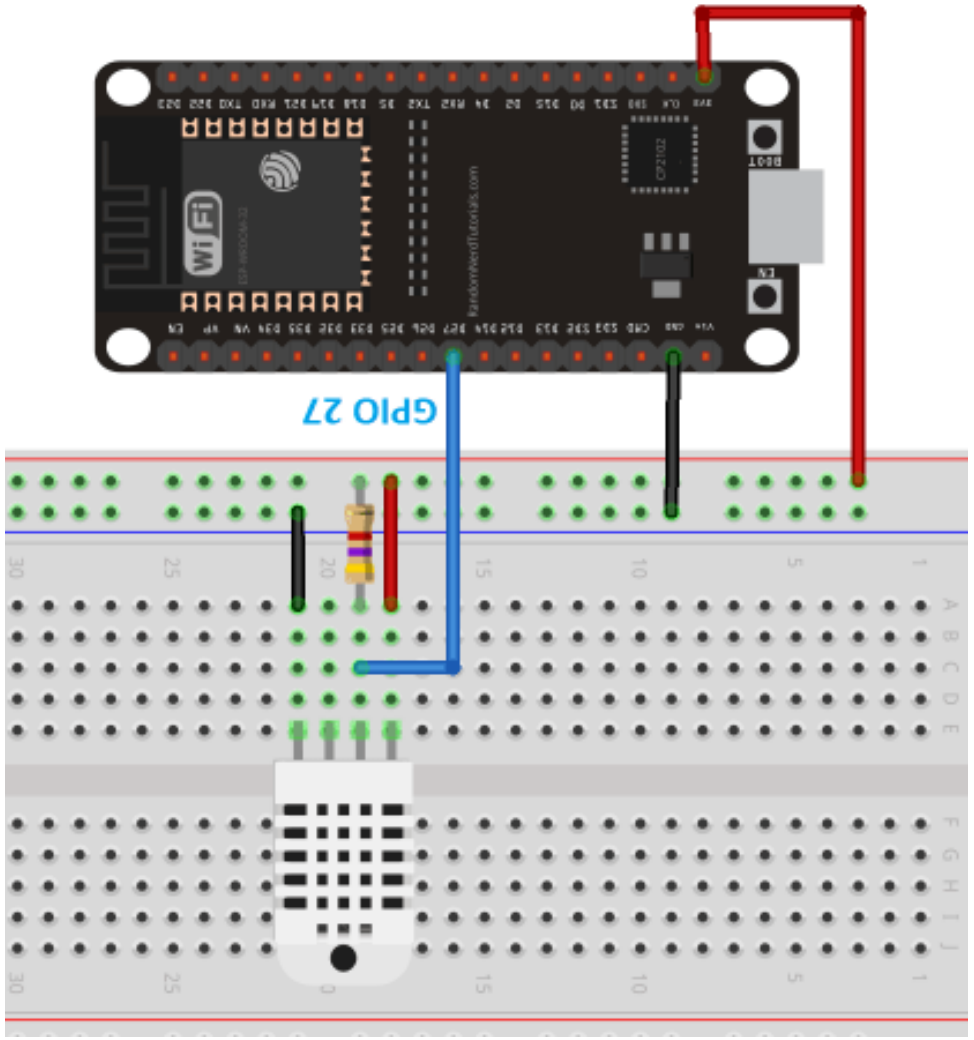


Reto:

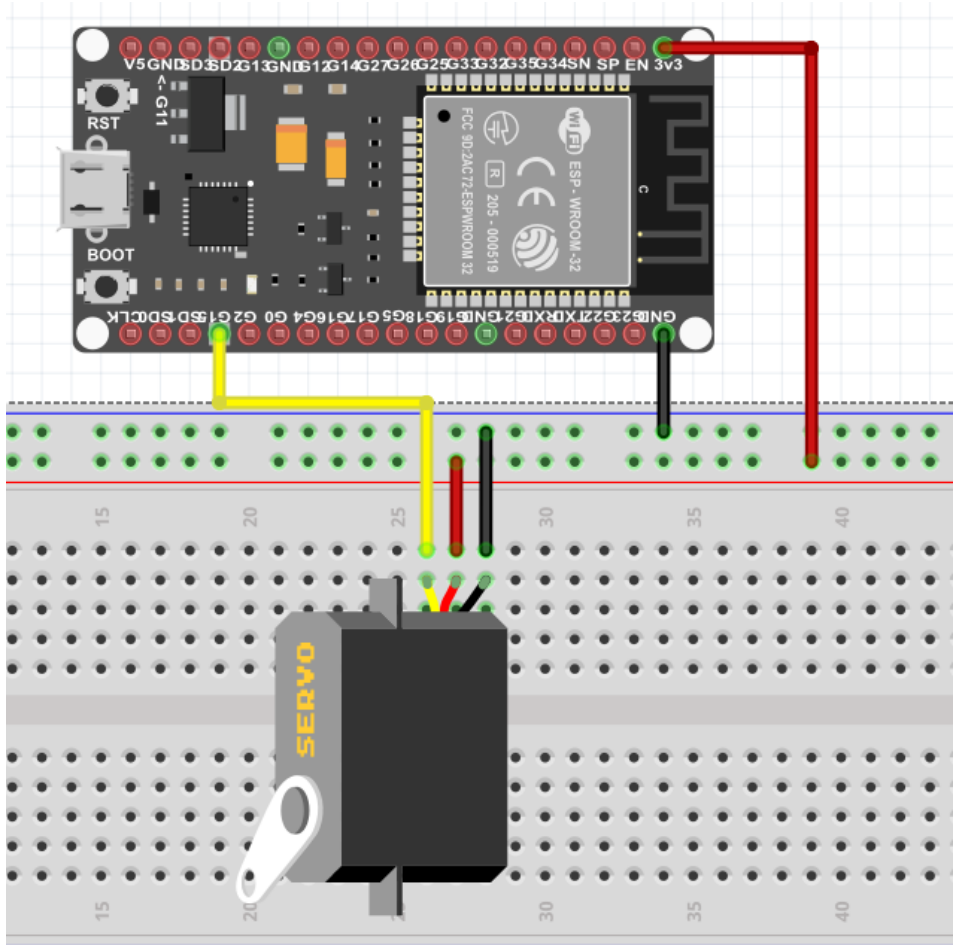
Usar el web server para mostrar la información del sensor

Servo

2

Reto:

Usar la información del sensor para mover el servo



GPS

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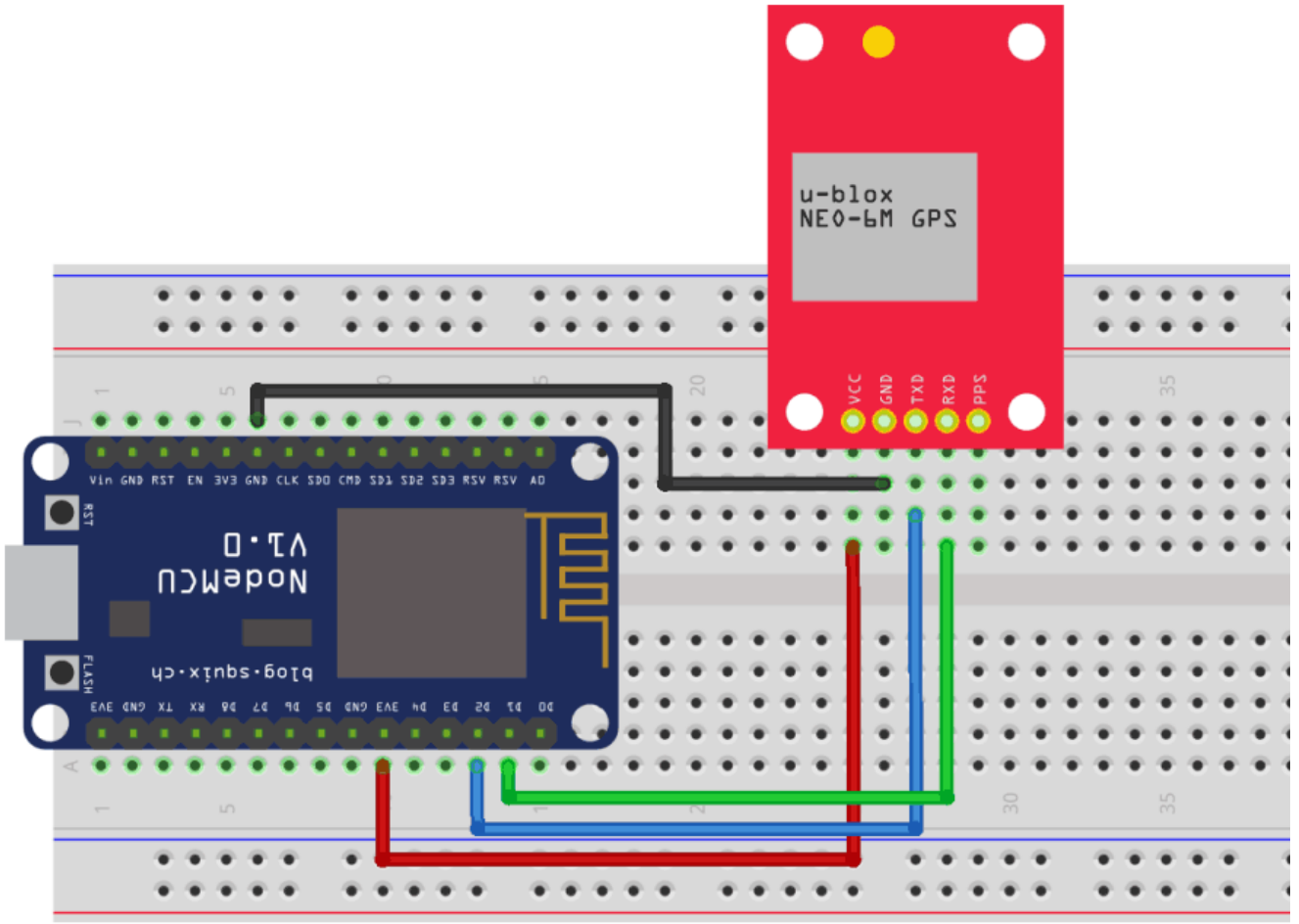
Reto:

Envía la ubicación de tu dispositivo



RFID

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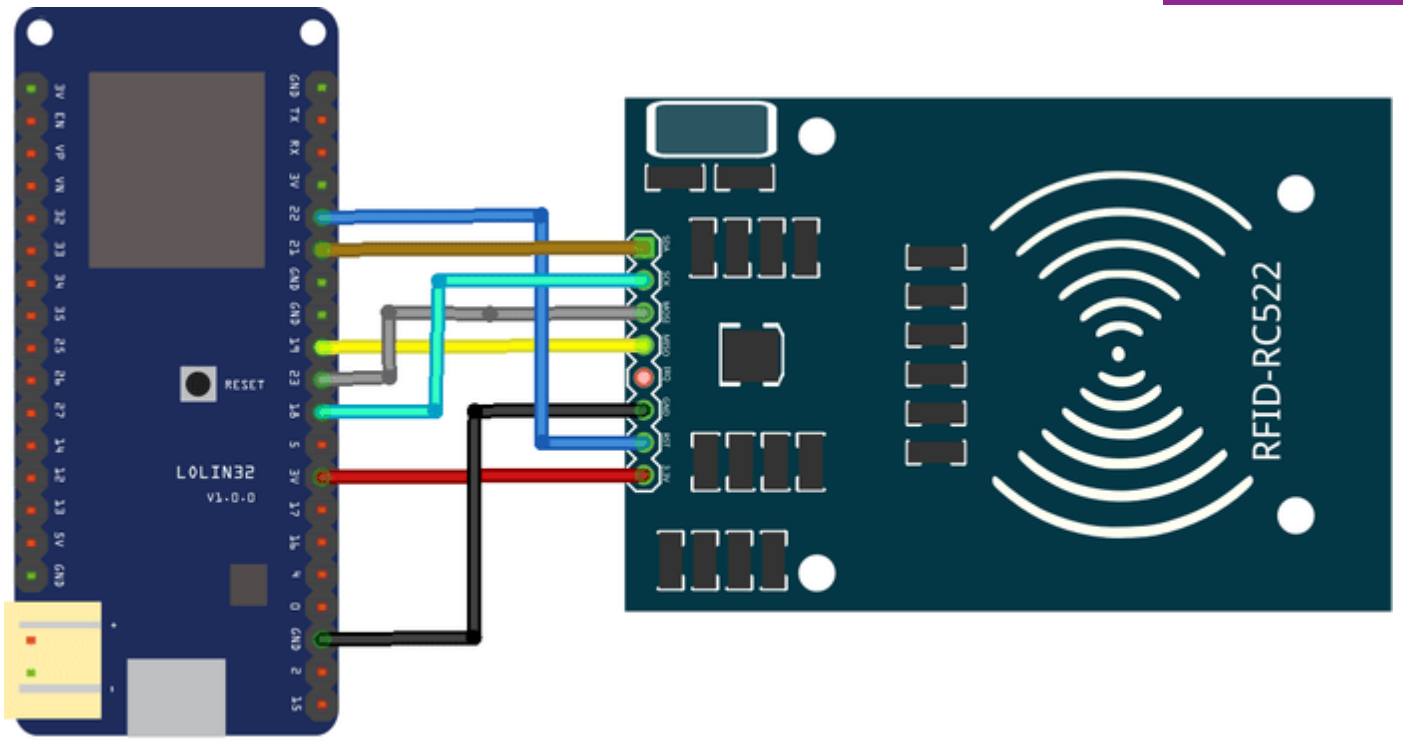
Reto:

Obtén información de la tarjeta o el tag



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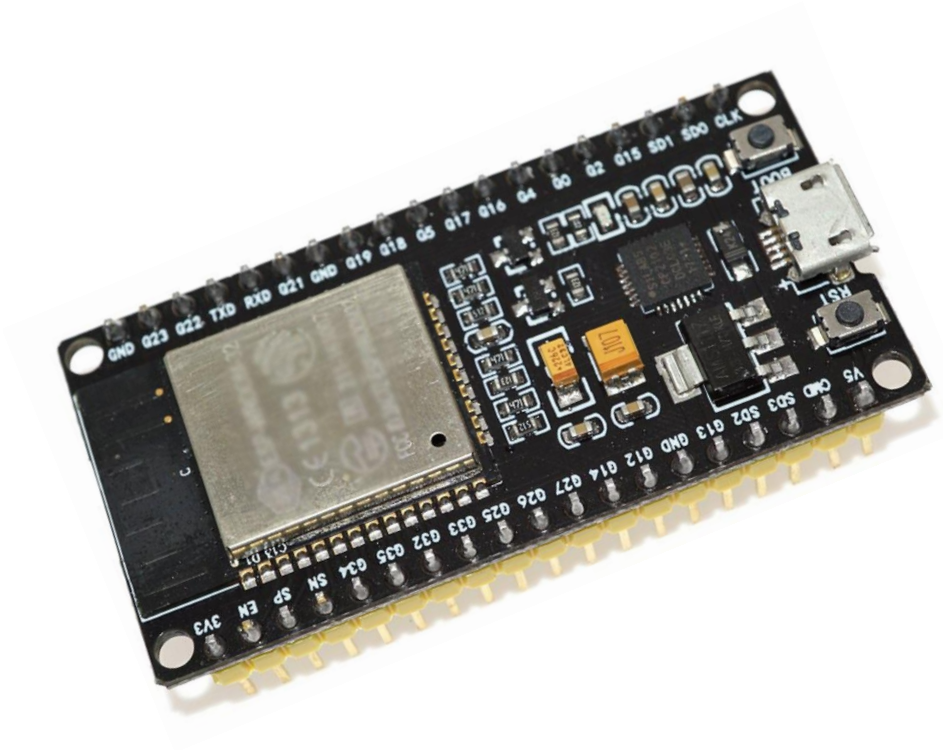
Bluetooth Low Energy



Bluetooth
SMART