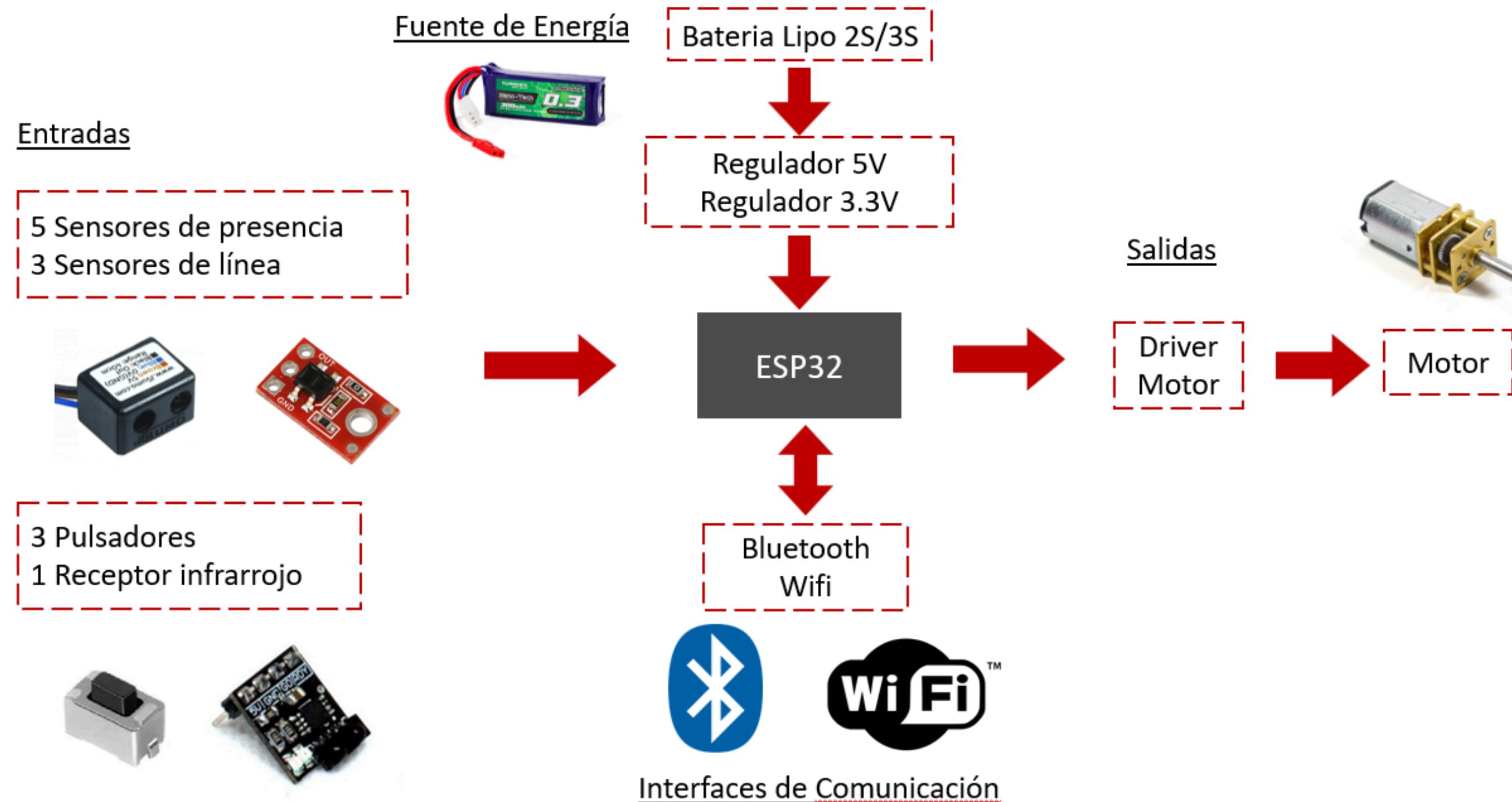


MINISUMO COMPONENTS GUIDE

RAS UNAC '24

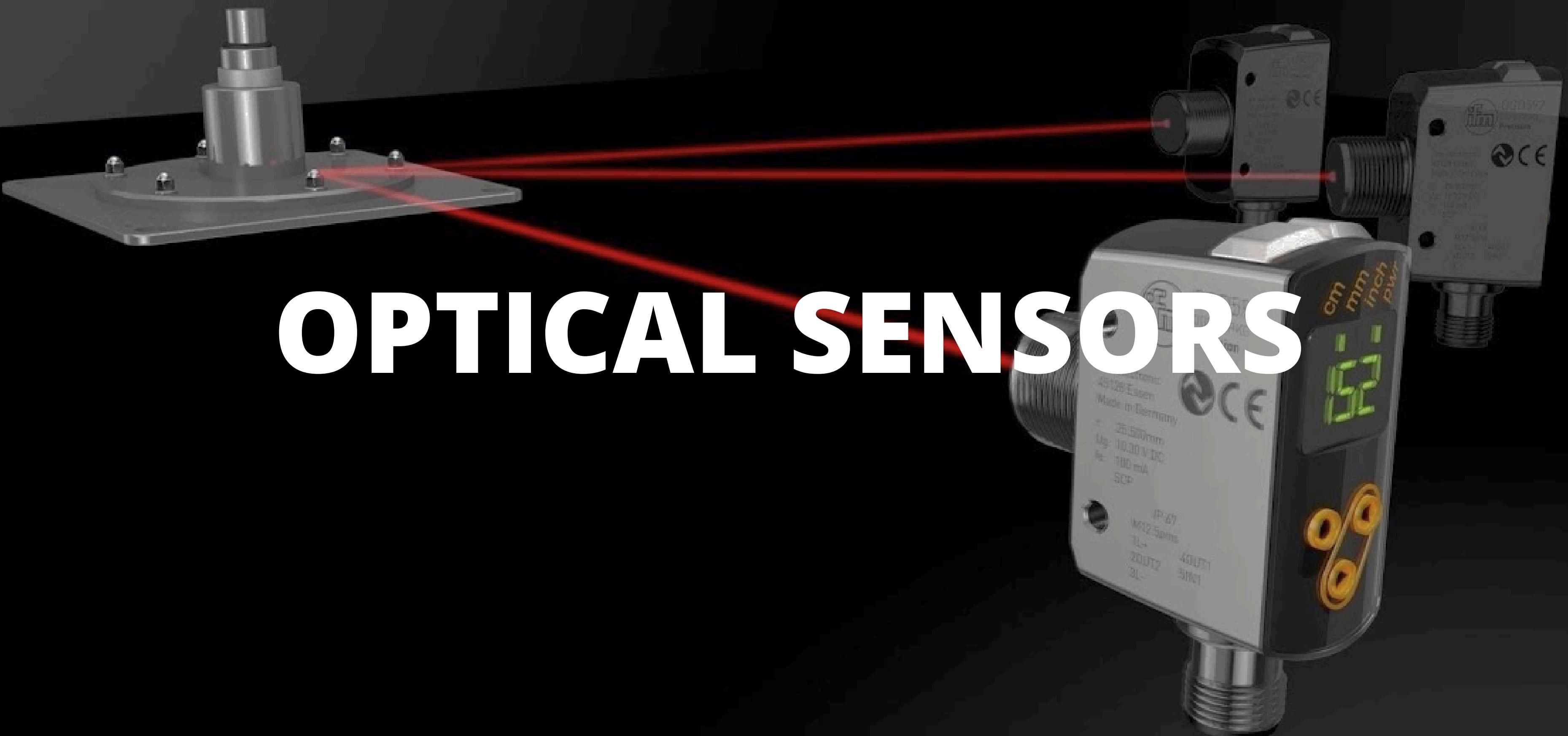
By: Juan Rosadio

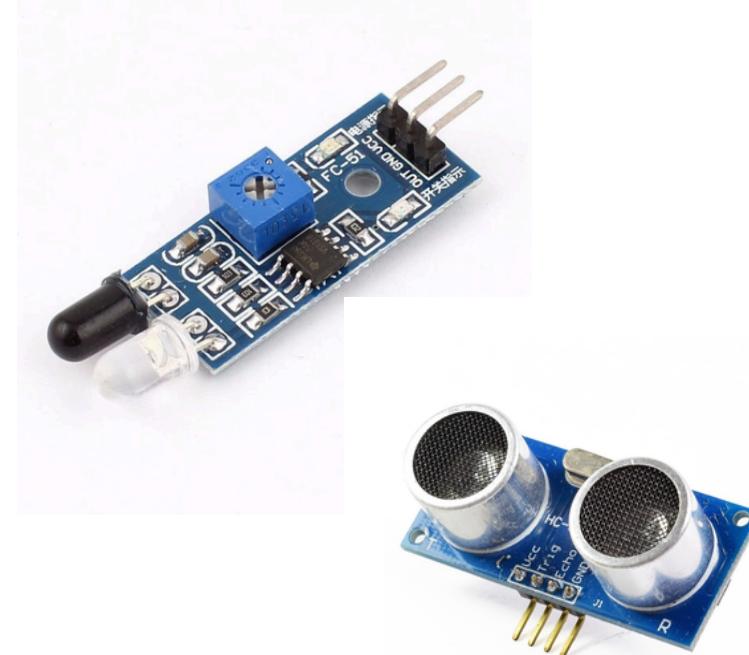




Robot Minisumo Diagrama de componentes

OPTICAL SENSORS





-Sensor de proximidad IR
-Sensor Ultrasonico

Nivel: ★★★



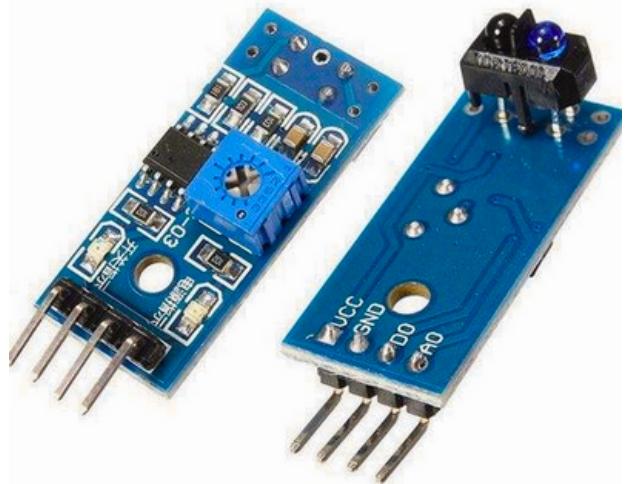
-JS40F Digital Distance Sensor
-RZ60S Digital Infrared Sensor

Nivel: ★★★★



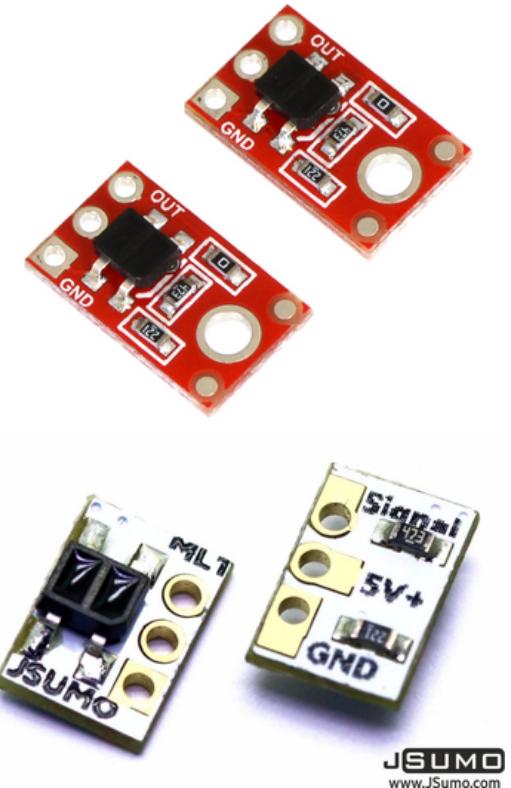
-Sensor Omron E3Z-D82
-Sensor MS70

Nivel: ★★★



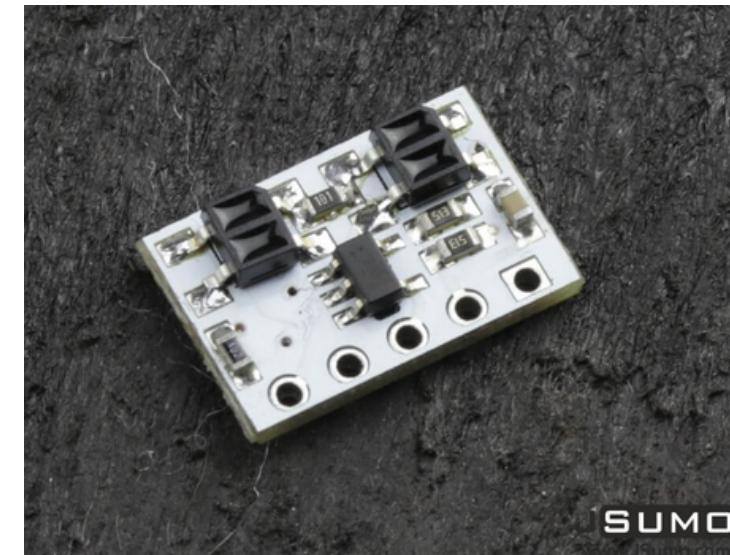
Modulo de Sensor
TCRT5000

Nivel: ★★★



-QTR1A
-Micro Line Sensor ML1

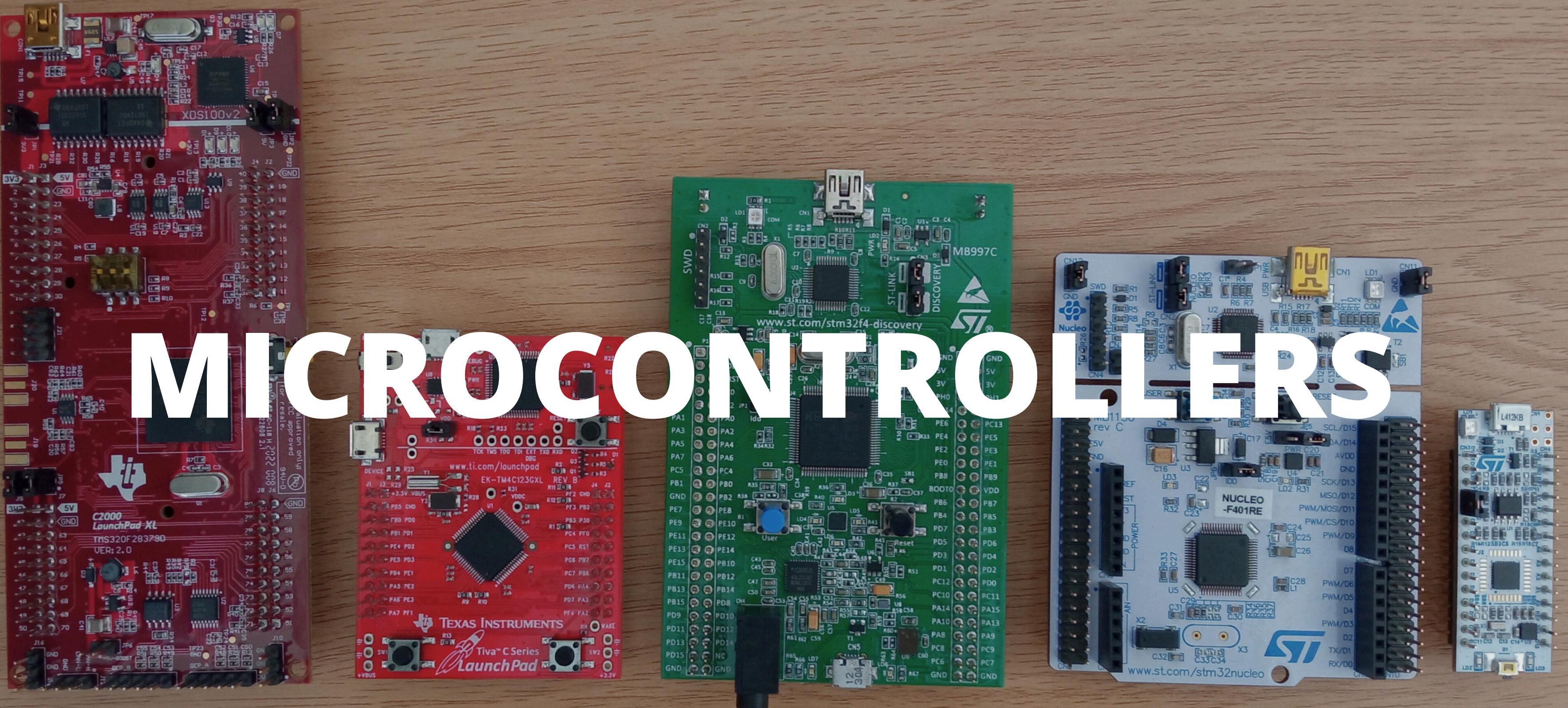
Nivel: ★★★★

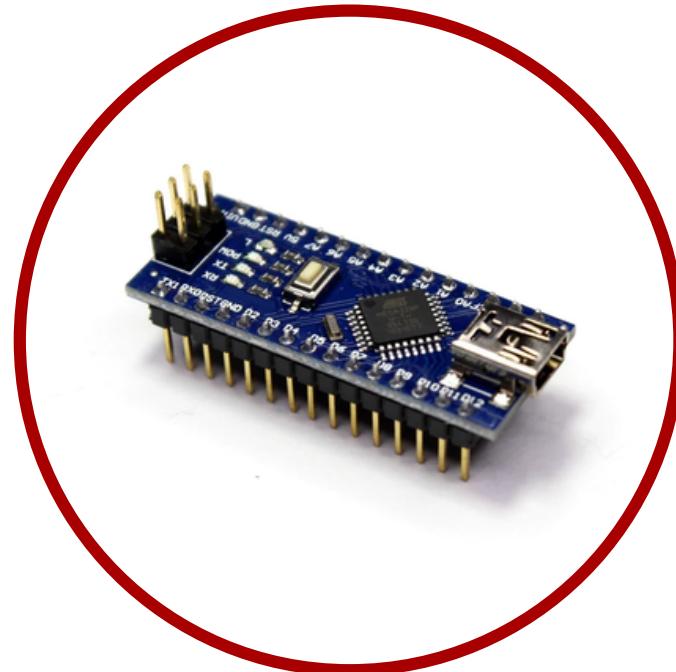


Dual Micro Line Sensor ML2

Nivel: ★★★★

MICROCONTROLLERS



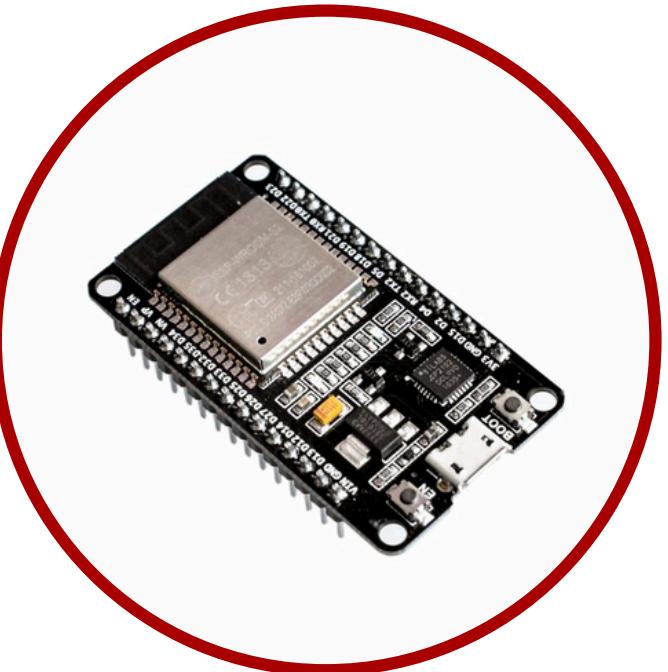


Arduino Nano

Atmega328P

Nivel: ★★★

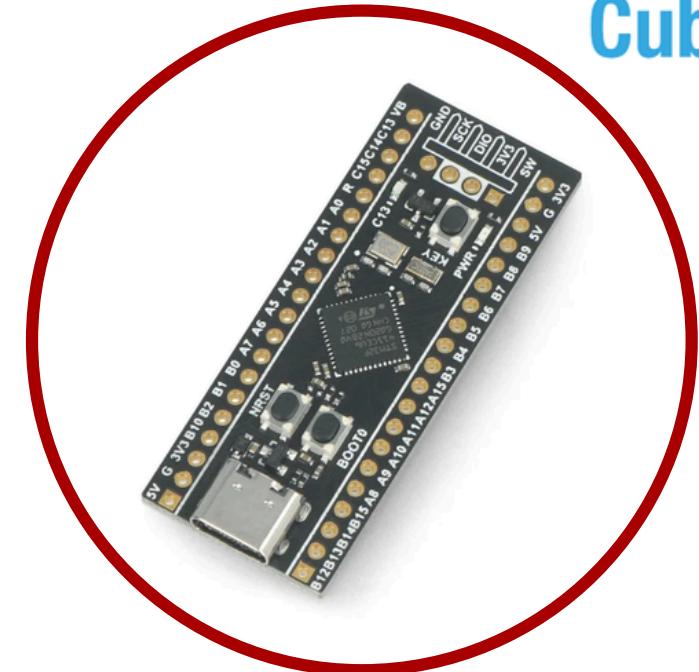
[Link1](#)



ESP32 DevKit

Nivel: ★★★★

[Link1](#)



BlackPill

STM32F401

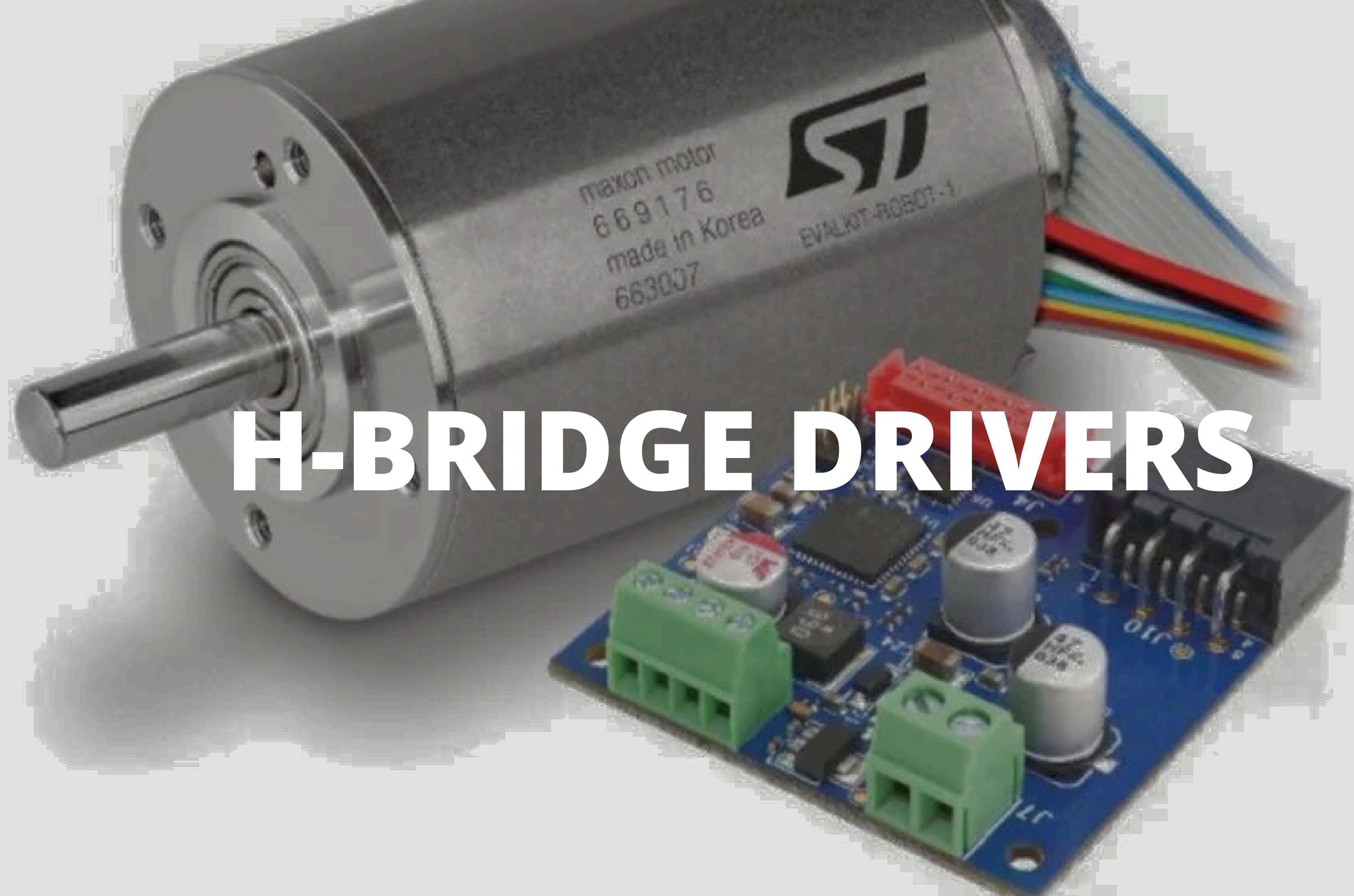
Nivel: ★★★★

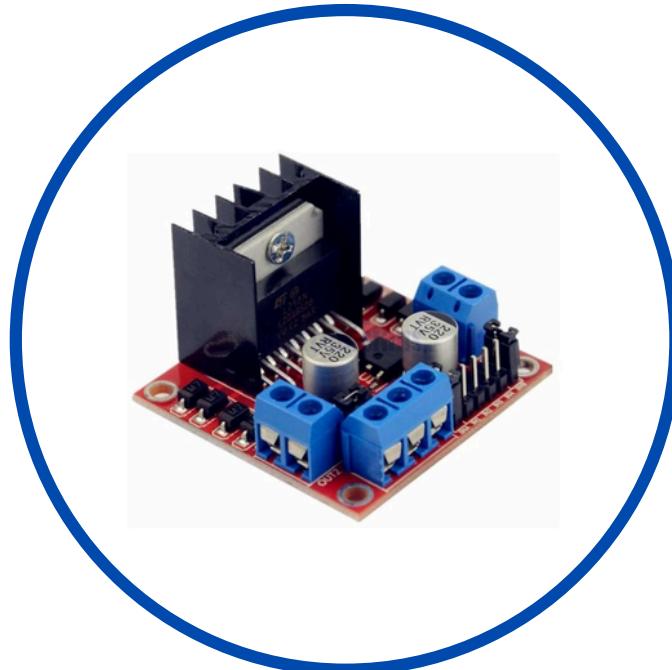
[Link1](#)



Tomar en cuenta los voltajes logicos de operacion del microcontrolador (3.3V o 5V)

H-BRIDGE DRIVERS

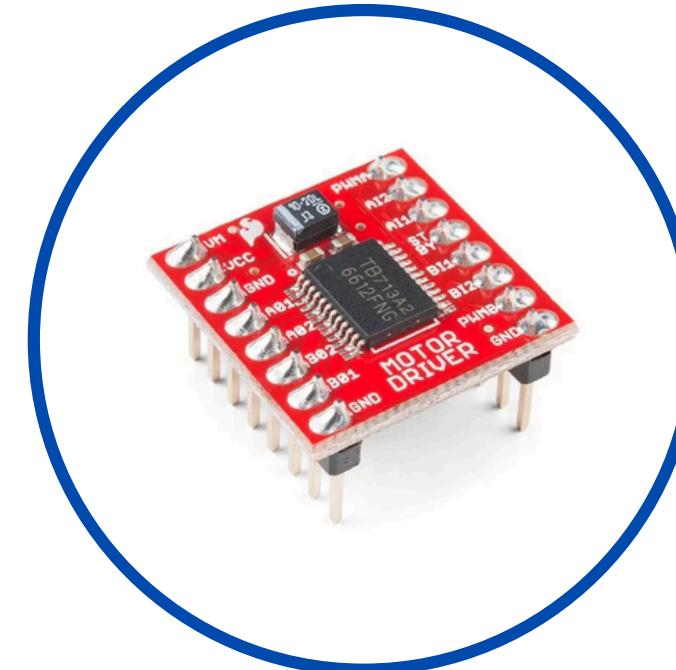




L298N

Nivel: ★★★

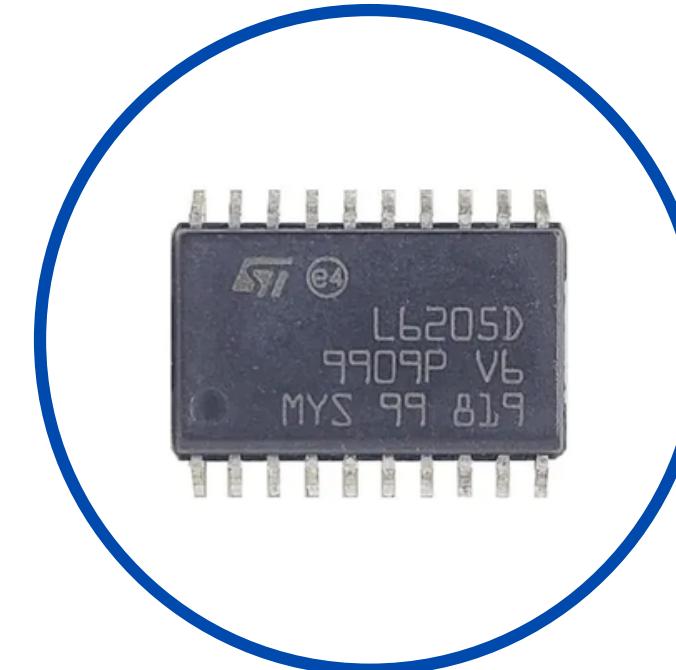
[Link1](#)



TB6612FNG

Nivel: ★★★★

[Link1](#)



L6205D

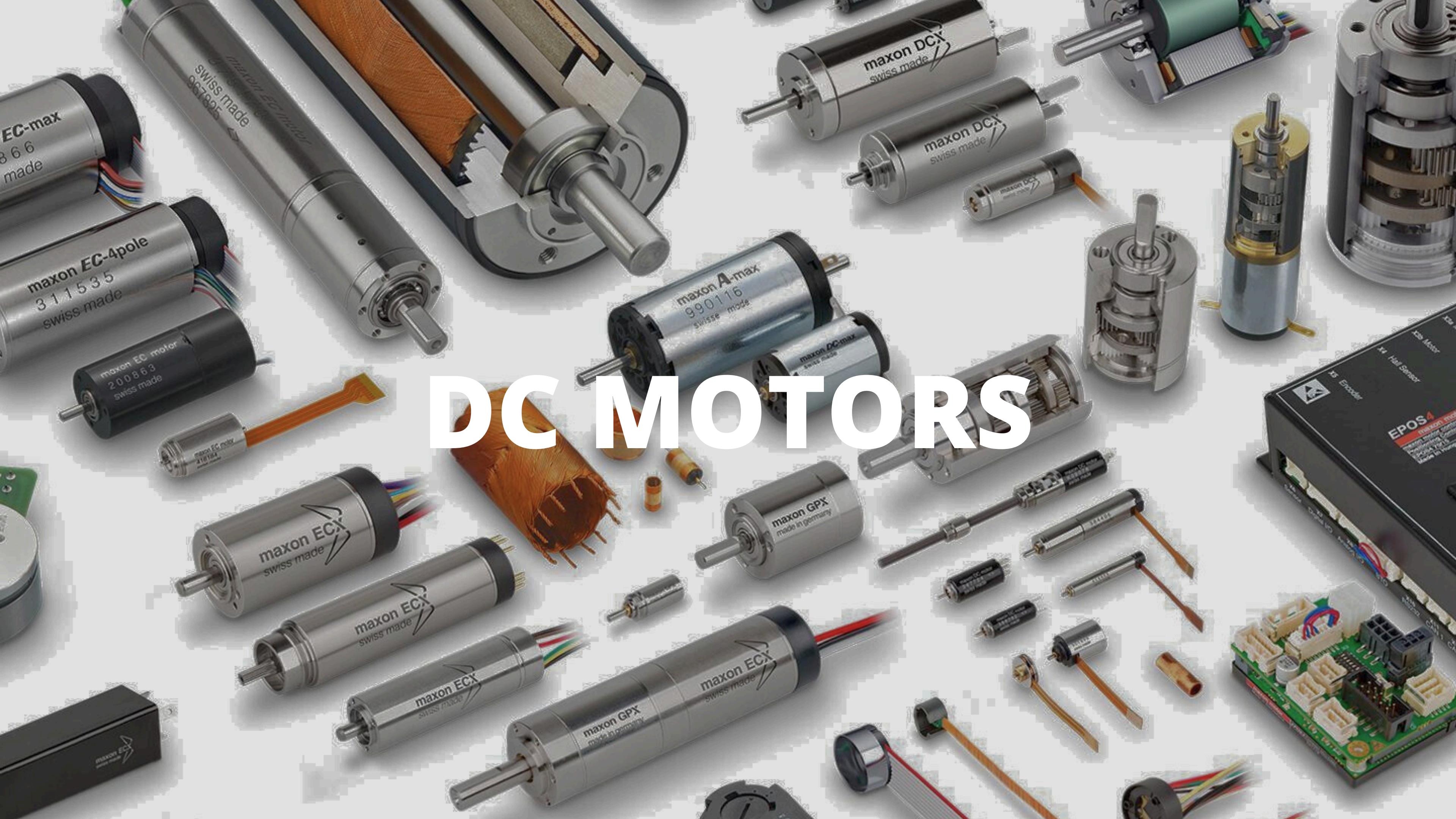
Nivel: ★★★★

[Link1](#)



El driver de motor se elige de acuerdo al voltaje de operación y corriente de consumo del motor seleccionado.

DC MOTORS





Motor DC
200RPM

Nivel: ★★★

[Link1](#)



Motor Pololu
50:1/650RPM

Nivel: ★★★★

[Link1](#)



Core Dc Motor (6V 750RPM)
Core Dc Motor (6V 400RPM)

Nivel: ★★★

[Link1](#)

[Link2](#)



Es importante mantener un equilibrio entre velocidad y controlabilidad
Si se desea usar encoders el motor seleccionado debe tener eje extendido.

BATTERIES





Bateria Alcalina
9V

Nivel: ★★★



Bateria 18650
3000mAh-3.7V

Nivel: ★★★★

[Link1](#)



Bateria Lipo Nanotech
2S

Nivel: ★★★★

[Link1](#)



La gran ventaja de las baterías de litio y lipo es su alta densidad de energía y su capacidad de ser recargables, pero pueden ser peligrosas si entran en corto circuito.