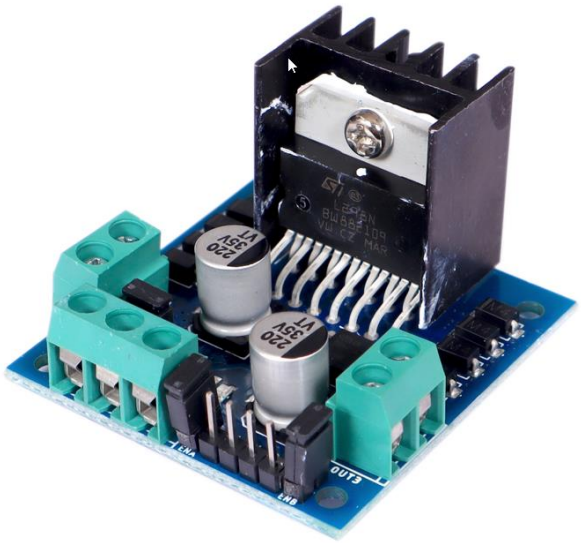
ADIY

L298 Motor Driver Module



Description:

ADIY L298 Motor Driver module is based on the L298 Dual Full-Bridge Driver IC and can control the speed and direction of two DC motors (Motor A and Motor B) simultaneously. The voltage rating of these motors can be between 5V to 35V and the peak current value can be up to 2A.

Features:

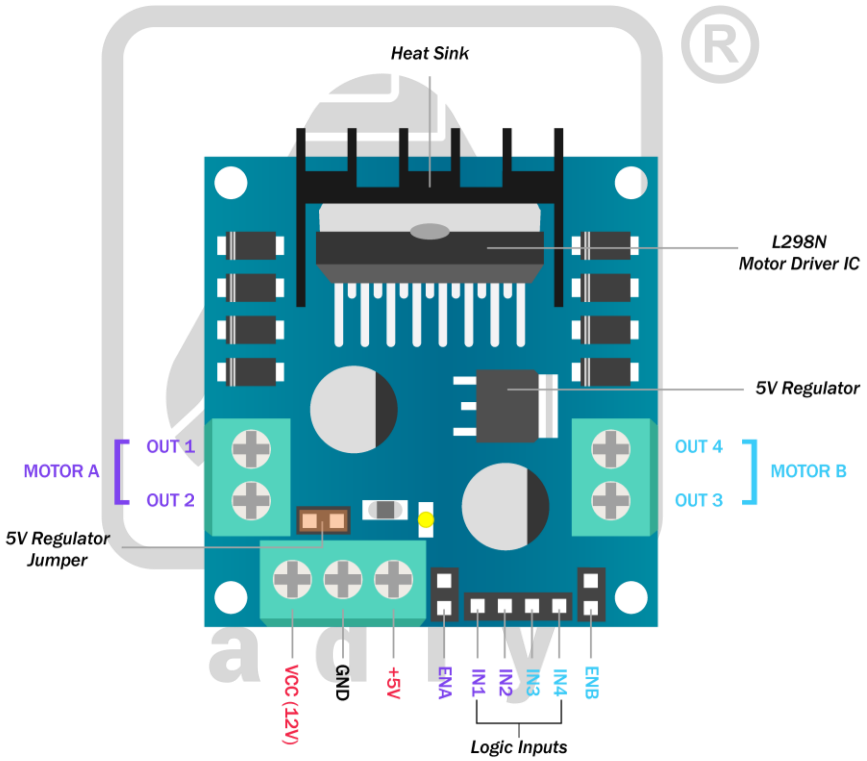
1. Speed Control: PWM
2. Driver: L298N Dual H Bridge DC Motor Driver
3. Over Temperature Protection
4. Logical ”0” input voltage up to 1.5 v (High Noise Immunity)
5. PTR connector for easy connection

Specifications:

- Input Voltage: 3.2V to 40Vdc
- Operating voltage: DC 5V – 35V
- Peak Current: 2 Amps

- Control Signal input Low voltage range: 0.3V ≤ Vin ≤ 1.5V
- Control Signal input High voltage range: 2.3 ≤ Vin ≤ Vss
- Enable signal input low voltage range: 0.3V ≤ Vin ≤ 1.5V (enable signal inactive)
- Enable signal input high voltage range: 2.3V ≤ Vin ≤ Vss (enable signal active)
- Maximum power consumption: 20W (when the temperature T = 75°C)
- On board +5V regulated Output supply

Pin Configuration:



The L298N motor driver has two input power pins: VS and VSS.

VS: This pin powers the IC's internal H-Bridge, which drives the motors. This pin accepts input voltages ranging from 5 to 12V.

VSS: This is used to power the logic circuitry within the L298N IC, and can range between 5V and 7V.

GND: This the common ground pin.

Output pins: OUT 1 and OUT 2 for motor A and OUT 3 and OUT 4 for motor B, are broken out to the edge of the module with two 3.5mm-pitch screw terminals. You can connect two 5-12V DC motors to these terminals.

Direction Control Pins: The direction control pins allow you to control whether the motor rotates forward or backward. These pins actually control the switches of the H-Bridge circuit within the L298N chip.

The module has two direction control pins. The IN1 and IN2 pins control the spinning direction of motor A; While IN3 and IN4 control the spinning direction of motor B.

Speed Control Pins: The speed control pins ENA and ENB are used to turn on/off the motors and control their speed.

Pulling these pins HIGH will cause the motors to spin, while pulling them LOW will stop them. However, with Pulse Width Modulation (PWM), the speed of the motors can be controlled.

The module usually comes with a jumper on these pins. When this jumper is in place, the motor spins at full speed. If you want to control the speed of the motors programmatically, remove the jumpers and connect them to the Controller's PWM-enabled pins.

Applications:

- Used in Robotics.
- It control the speed and spinning direction of DC motor.