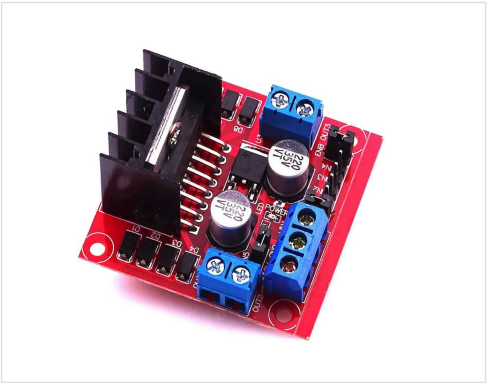
MOTOR DRIVER

L298N Dual H-Bridge Motor Driver Module

The L298N dual H-bridge motor driver module handles up to 2 A per channel. It controls two DC motors (speed and direction) or one stepper motor and comes with a heat sink and an onboard 5 V regulator. It's the standard driver for robot cars.



Key Features

- Drives 2 DC motors (2 A each) or 1 stepper
- PWM speed control through ENA / ENB
- Onboard 5 V regulator (can power an Arduino)
- Large heat sink
- Screw terminals for easy wiring

Technical Specifications

IC	L298N
Motor supply (+12V terminal)	5–35 V
Logic	5 V
Output current	2 A per channel (3 A peak)
Voltage drop	approx. 2 V across the driver
5 V regulator	78M05, active when the jumper is fitted

Pinout / Connections

OUT1 / OUT2	Motor A
OUT3 / OUT4	Motor B
+12V	Motor supply
GND	Common ground
+5V	5 V out (jumper on) or 5 V logic in (jumper off)
ENA / ENB	Speed (remove jumper, connect to a PWM pin)
IN1–IN4	Direction control from the Arduino

Typical Applications

- 2WD / 4WD robot cars
- Stepper motor control
- Conveyor and actuator projects

Usage Notes & Safety

! Above 12 V supply, REMOVE the 5 V jumper and power the logic separately.

! Motors get about 2 V less than the supply. Use a slightly higher supply voltage to compensate.

! Always join the Arduino GND to the L298N GND.