

DRV8833 Dual Channel DC Motor Driver Module

The DRV8833 Dual Channel DC Motor Driver Module is a compact, efficient, and highly reliable motor driver solution designed for controlling DC motors and stepper motors in a wide range of electronics and robotics applications. Built around the powerful DRV8833 motor driver IC, this module offers dual H-bridge functionality, allowing independent control of two DC motors or one bipolar stepper motor with ease.

Engineered for flexibility and performance, the DRV8833 module operates across a wide voltage range, making it suitable for battery-powered projects as well as embedded systems. Its low on-resistance MOSFETs ensure minimal power loss and efficient operation, even under continuous load conditions. The module supports PWM (Pulse Width Modulation), enabling precise speed control and direction management for motors, which is essential in robotics and automation systems.

Another standout feature of this module is its built-in protection mechanisms, including overcurrent protection, thermal shutdown, and undervoltage lockout. These features ensure the safety of both the driver and the connected motors, significantly enhancing the durability and reliability of your projects. Its compact design makes it easy to integrate into space-constrained applications such as mobile robots, smart cars, and portable devices.

Whether you are a hobbyist, student, or professional developer, the DRV8833 Dual Channel DC Motor Driver Module offers an ideal balance of performance, protection, and ease of use. It is compatible with popular microcontrollers such as Arduino Uno, Raspberry Pi, and other development boards, making it a versatile choice for various control systems.

Features:

- Dual H-bridge motor driver capable of controlling two DC motors or one stepper motor
- Wide operating voltage range suitable for multiple power sources
- Supports PWM for precise speed control
- Built-in thermal shutdown protection
- Overcurrent protection for safe operation
- Undervoltage lockout to prevent unstable behavior
- Low RDS(ON) MOSFETs for high efficiency
- Compact and lightweight design

- Easy interface with microcontrollers
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Specifications:

- Motor Supply Voltage: 2.7V to 10.8V
 - Logic Voltage: 2.0V to 7V
 - Continuous Output Current: 1.5A per channel
 - Peak Output Current: 2A per channel
 - Output Channels: 2 (Dual H-Bridge)
 - Control Interface: PWM / Digital Logic
 - Operating Temperature Range: -40°C to +150°C
 - Dimensions: Typically ~20mm x 15mm (varies by board version)
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Applications:

- Robotics projects and mobile robots
- Arduino-based motor control systems
- DIY smart cars and automation kits
- Conveyor and small actuator control
- Stepper motor driving applications
- Educational electronics projects
- Battery-powered motor systems