# **RPi Motor Driver Board**



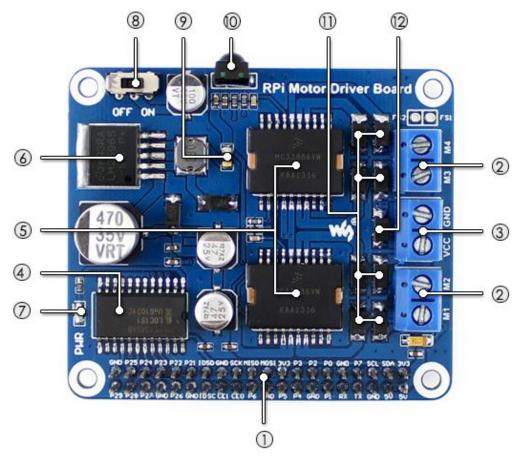
### **Overview**

The RPi Motor Driver Board gives your Pi the ability to drive two DC motors OR one stepper motor. It's an ideal choice to DIY mobile robot based on Raspberry Pi.

### **Features**

- Supports Raspberry Pi A+/B+/2B/3B
- Freescale H-bridge driver MC33886, controls DC motors to turn in both directions
- Onboard 5V regulator, provides power to Raspberry Pi
- Onboard IR receiver, used for remote control robot
- Multi protection circuit, excellent stability
  - 2A self-recovery fuse, keep your Pi safe
  - Driver chip features Short-Circuit Shutdown for Large Output Current, Undervoltage Disable Function
  - o Reversed polarity protection for motor output
  - Anti-reverse diode for power supply
- Power input range: 7V~40V
- Single motor output current: up to 5A
- Power supply current for Raspberry Pi: up to 2A

# What's on Board



- 1. Raspberry Pi GPIO interface: for connecting Raspberry Pi
- 2. Motor screw terminal: for connecting motors
- 3. External power input
- 4. 74LVC4245AD: voltage level conversion chip, buffer device
- 5. MC33886: motor driver chip
- 6. LM2596-5.0: 5V regulator
- 7. Power indicator
- 8. Raspberry Pi power selection
  - $\circ$  ~ OFF: Raspberry Pi powers the Motor Driver Board
  - o ON: Motor Driver Board powers the Raspberry Pi
- 9. 2A self-recovery fuse
- 10. IR receiver
- 11. Schottky diodes: protects the motor driver
- 12. Power supply anti-reverse diode

## **Photos**



RPi Motor Driver Board



RPi Motor Driver Board back view



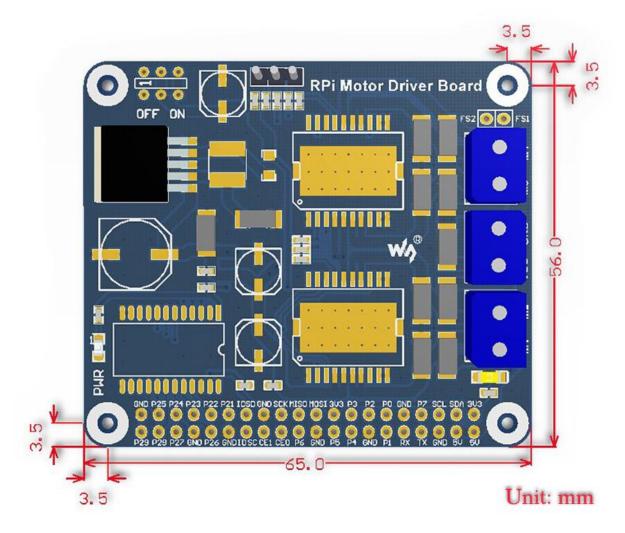
RPi Motor Driver Board connecting with Raspberry Pi



Control the mobile robot remotely

Note: photos are FOR REFERENCE ONLY, the other boards/modules/accessories are NOT included in the price.

# Dimensions



**Development Resources** 

Wiki : <u>www.waveshare.com/wiki/RPi\_Motor\_Driver\_Board</u>