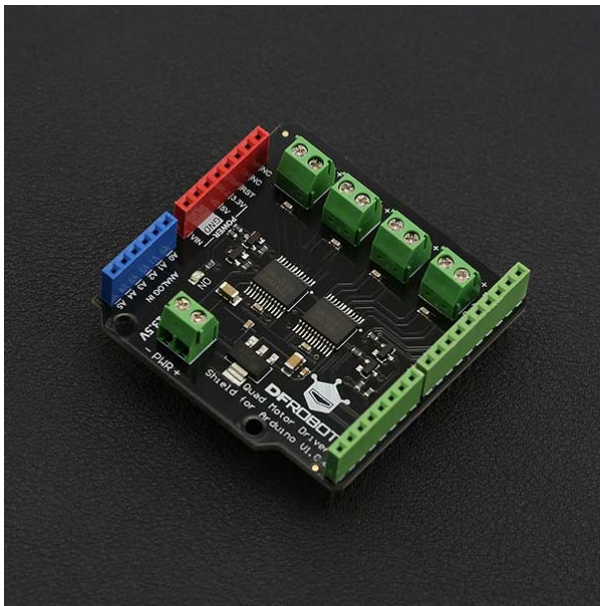


SKU:DRI0039 (<https://www.dfrobot.com/product-1513.html>)



(<https://www.dfrobot.com/product-1513.html>)

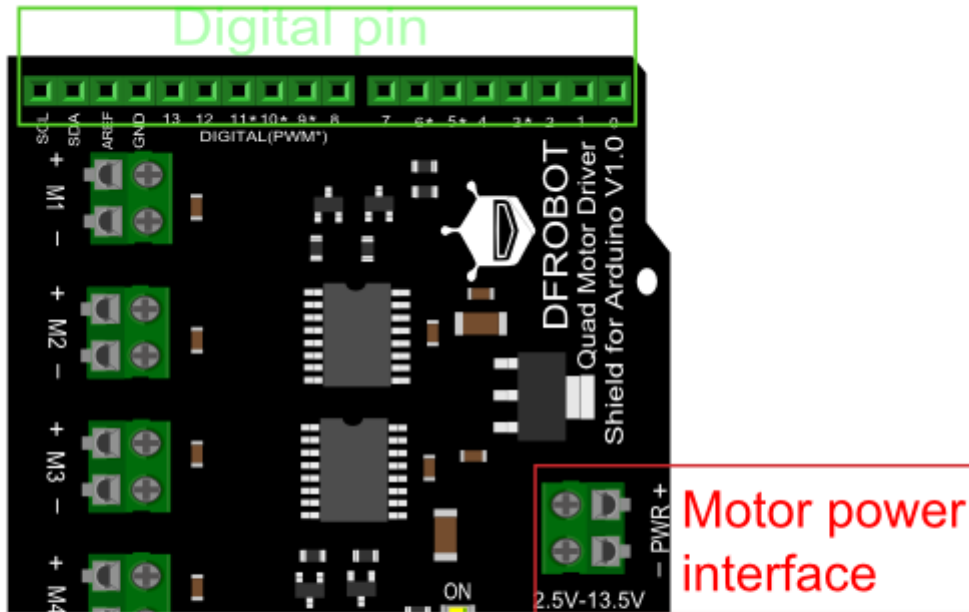
Introduction

The latest quad motor driver shield for Arduino, compatible with 5V/3.3V Arduino controller, can control up to four DC motors with 8 pins at the same time. The shield supports PWM speed control and polarity control. The driver shield includes two TB6612FNG motor driver chips, compared with the traditional L298N chip, efficiency is improved and the component size also greatly reduced. The chip doesn't heat in to the rated range, and a single path maximum output 1.2A continuous current. The module includes a built-in low voltage detection circuit and thermal shutdown protection circuit, which is safe and reliable. This module is suitable for all kinds of DIY production.

Specification

- VM Motor Power Supply: 2.5 V ~ 13.5 V
- VCC Logic Power Supply: 2.7 ~ 5.5 V
- Output Current: 1.2A continuous current (per channel)
- Start/Peak Current: 2A (continuous pulse) / 3.2A (single pulse)
- Arduino Control Port: Digital pins 3, 4, 5, 6, 7, 8, 11, 12
- Working Temperature: -20 ~ 85 °C
- Dimensions: 53mm x 52mm/2.09 x 2.05

Board Overview



||

Motor	Direction	Forward	Backward	Speed	Speed range

M1	4	LOW	HIGH	3	0-255
M2	12	HIGH	LOW	11	0-255

M3	8	LOW	HIGH	5	0-255
M4	7	HIGH	LOW	6	0-255

Motor I/O

Tutorial

You Will Need

- **Hardware**
 - DFRduino UNO R3 x 1
 - Quad Motor Shield for Arduino x 1
 - DC motor x 4
 - Jumper Wires
- **Software**
 - Arduino IDE Click to download Arduino IDE (<https://www.arduino.cc/en/Main/Software>)

Connection Diagram



Sample Code

```
/*!
 * @file QuadMotorDriverShield.ino
 * @brief QuadMotorDriverShield.ino Motor control program
 *
 * Every 2 seconds to control motor positive inversion
 *
 * @author linfeng(490289303@qq.com)
 * @version V1.0
 * @date 2016-4-5
 */
const int E1 = 3; ///
```

```

}
void M3_advance(char Speed) ///

```

```
    pinMode(i,OUTPUT);
    for(int i=11;i<13;i++)
        pinMode(i,OUTPUT);
}

void loop() {
M1_advance(100);
M2_advance(100);
M3_advance(100);
M4_advance(100);
delay(2000); ///
```

Result

You should see the motor go forwards and backwards every two seconds

FAQ

For more questions or interesting projects, you can **Visit the forum** (<https://www.dfrobot.com/forum/viewforum.php?f=8>)!

More


Schematic

(https://github.com/Arduinolibrary/DFRobot_Quad_Motor_Driver_Shield/raw/master/Quad%20Motor%20Driver%20Shield%20for%20Arduino.pdf)

Layout (https://github.com/Arduinolibrary/DFRobot_Quad_Motor_Driver_Shield/raw/master/Layout.pdf)

TB6612 Datasheet (https://github.com/Arduinolibrary/DFRobot_Quad_Motor_Driver_Shield/raw/master/TB6612FNG.pdf)

SVG files (https://github.com/Arduinolibrary/DFRobot_Quad_Motor_Driver_Shield/raw/master/QuadMotorDriverShield.zip)

 Shopping from **Quad Motor Driver Shield for Arduino** (<https://www.dfrobot.com/product-1513.html>) or **DFRobot Distributor**.
(<https://www.dfrobot.com/index.php?route=information/distributorslogo>)

Turn to the Top