

# DFRobot DFR0502 Gravity: IO Expansion & Motor Driver Shield

DFR0502

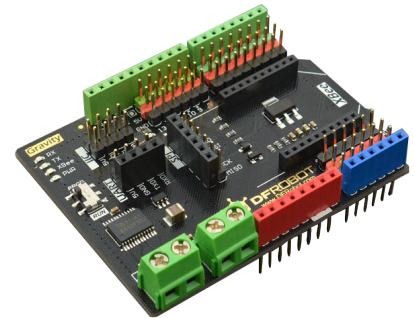
## Product Overview

07-08-2022

For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

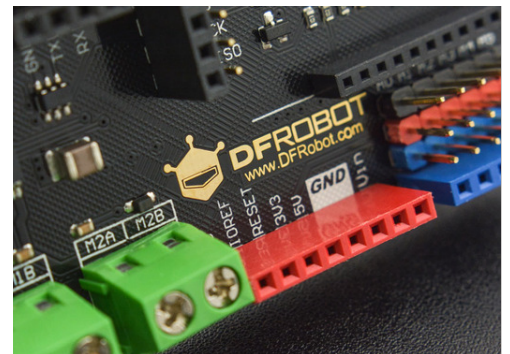
DFRobot DFR0502 Gravity: IO Expansion and Motor Driver Shield is a development board that combines an IO expansion shield and DC motor driver shield. This expansion board is designed for Arduino boards and integrates TB6612FNG dual channel motor driver IC. The IO expansion board offers 14 digital interfaces and 6 analog interfaces. The TB6612FNG Driver IC supports PWM speed control and up to 3.2A peak current.



This Motor Driver Shield features a gravity sensor interface, an integrated XBee socket, and a UART port for communication to external devices. This expansion board is compatible with most micro-DC motors available. The DFR0502 module is available in 68.5mm x 53.3mm board size and is a solid choice for small intelligent robot controls.

## Features

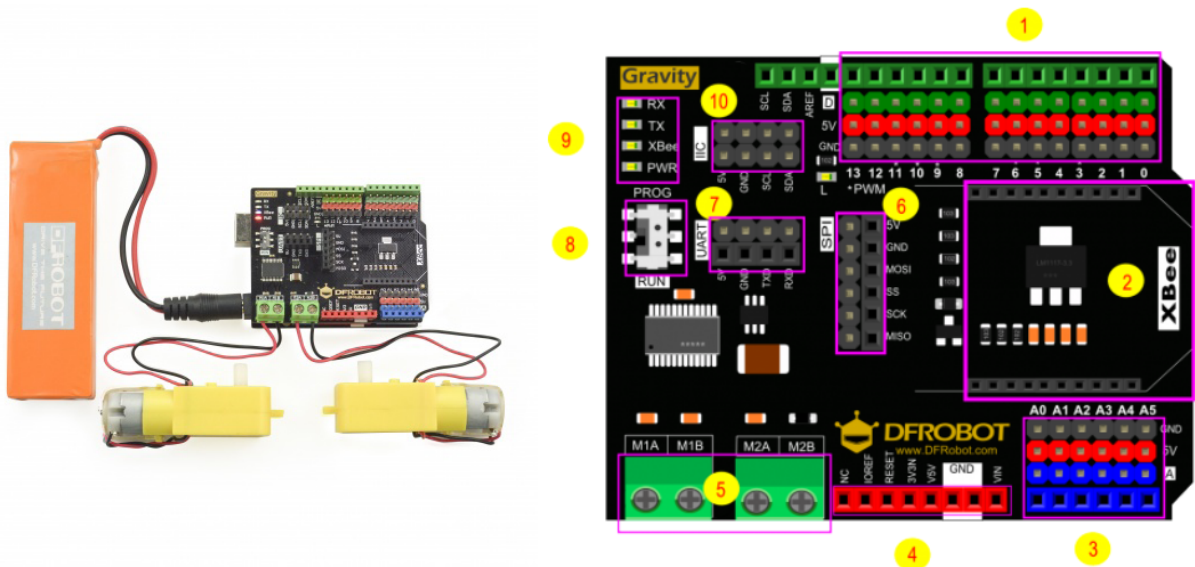
- Compatible with Arduino UNO R3 pinmap
- Gravity-3Pin interface, plug & play, and easy to use
- Integrated XBee slot, XBee, Wi-Fi Bee, and Bluetooth Bee
- Program download switch avoids serial occupancy during Arduino UNO/Mega downloading
- 2x1.2A TB6612FNG DC motor driver
- 1.2A single-channel continuous driving current



## Specifications

- 2 I<sup>2</sup>C interfaces
- 2 SPI interfaces
- 1 serial port
- 14 digital interfaces
- 6 analog interfaces
- 1 XBee slot
- 2A (continuous pulse)/3.2A (monopoles) start/peak current
- 12V (peak value) input voltage
- 68.5mm x 53.3mm board size

## Board Overview and Connection Diagram



## Schematic

[DFRobot DFR0502 Gravity: IO Expansion and Motor Driver Shield Schematic](#)

## Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-dfr0502-shield/>