Description

- Versatile, programmable robot tank kit
- Onboard LiPo battery charger
- Complete Arduino board built-in (Arduino Uno)
- Dual H-bridge and onboard voltage regulator (only one battery needed)
- Compatible with a variety of shields
- Two XBee areas ([2mm 10pin XBee Socket](#) sold separately) and solder prototyping area
- No soldering required
- Please verify the polarity of the connector before using this battery as it may differ from the image
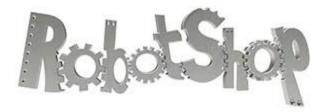
The DFRobotShop Rover V2 – Arduino Compatible Tracked Robot (Basic Kit) is a versatile mobile robot tank based on the popular [Arduino Uno R3 USB Microcontroller](#) microcontroller. The Rover uses the popular Tamiya twin motor gearbox and the Tamiya track and wheel set. The DFRobotShop Rover PCB incorporates a standard Arduino Uno (surface mount ATMega328), L293B motor driver (connected to pins 5 to 8), voltage regulator and prototyping area while contributing to the mechanical structural of the robot. The onboard voltage regulator allows the entire board to be powered using as little as 3.7V to ~9V*.

Important Note: If you are using the 4xAA battery pack, please remove the LiPo jumper located at the left rear of the board.

The board does NOT include [2mm 10pin XBee Socket](#).

In order to make assembly as easy as possible, solderless quick connect terminals have been included to give customers the option of crimping the wires to the motors (soldering is still preferable). The DFRobotShop Rover is compatible with a variety of shields when used at the same time as the motor driver, and is compatible with all shiels when not using the motor driver. Additional features include 2x encoder connectors connected to A0 and A1 for use with the [Encoder Pair for Tamiya Twin Motor Gearbox](#) , pinout for DFRobot Bluetooth and DFRobot APC220 RF modules as well as 6x cool blue LEDs (jumper selectable) placed around the board. "DFRobotShop" = "DFRobot" + "RobotShop" (a.k.a. "DFRover").

*Note that the [Tamiya Twin-Motor Gear Box](#) included with the kit operates at 4.5V nominal. For 6V motors purchase 2x RB-Pol-202.

Features

- Arduino compatible and shield stackable
- Based on ATMEGA328 surface mount chip (Uno design) and L298P H Bridge
- Incorporates dual H-bridge for bi-directional motor control (digital pins 5, 6, 7 and 8)
- Voltage regulator included (connected to battery input and 3.5mm barrel connector)
- Two XBee slots with breakout pins (switch selects which is connected to Tx/Rx) - headers sold separately
- Solder prototyping area
- Easy connection to DFRobot Bluetooth and APC220 wireless modules
- "Universal connection point" at the front of the robot (see user guide for compatibility)
- 6x Blue LEDs around the board for effect (selectable via jumper LED_SEL)
- In-system programming via ICSP
- 4x LEDs to indicate motor direction

What's Included

- Fully assembled DFRobotShop Rover PCB
- DFRobotShop Rover aluminum frame (left and right sides) and hardware
- Tamiya Twin-Motor Gear Box
- Tamiya Track and Wheel Set
- 4xAA Battery holder (batteries and charger sold separately)

Looking for products to experiment with? Consider purchasing one or more of the following:

- 3.7V, 1000mAh, 5C LiPo Battery (Rover already has an onboard LiPo charger!)
- Gravity I/O Expansion Shield for Arduino v7
- Lynxmotion Aluminum Multi-Purpose Sensor Bracket MPSH-01
- Sharp IR Range Sensor - 10cm to 80cm W/ Cable
- Encoder Pair for Tamiya Twin Motor Gearbox
- Gravity Sound Sensor

- [DFRobotShop Rover Line Follower Sensor](#)
- [DFRobot Serial Bluetooth Module](#)

Useful Links

PDF Files

- [DFRobotShop Rover Manual](#)
- [DFRobotShop Rover Schematic](#)
- [Light sensor datasheet](#)
- [DFRobotShop Rover Metal Bracket Dimensions](#)
- [2014 Scouts Canada - Robotics Guide Using DFRobotShop Rover](#)
- [DFRobotShop Rover V2 Schematics](#)
- [Tamiya Gearbox Type C - DFRobotShop Rover](#)

Website

- [Arduino 5 Minute Tutorials](#)
- [Robot Magazine - DFRobotShop Rover Review](#)
- [Robotics Education](#)

Forum

- [DFRobotShop Rover on RobotShop Forum](#)

ZIP Files

- [DFRobotShop Rover PCB](#)
- [Hypertem (for Windows 7)](#)
- [DFRobotShop Rover Sample Code](#)

Blog

- [DFRobotShop Rover Tutorials](#)

Dimensions

• PCB Dimensions: 57mm x 195mm
• Overall dimensions: 200mm long x 108mm wide x 58mm high
• Weight (not including batteries): 250g

Multimedia

https://www.youtube.com/watch?v=L5cmJo9BEnw
https://www.youtube.com/watch?v=MWWoEuI9Qsk