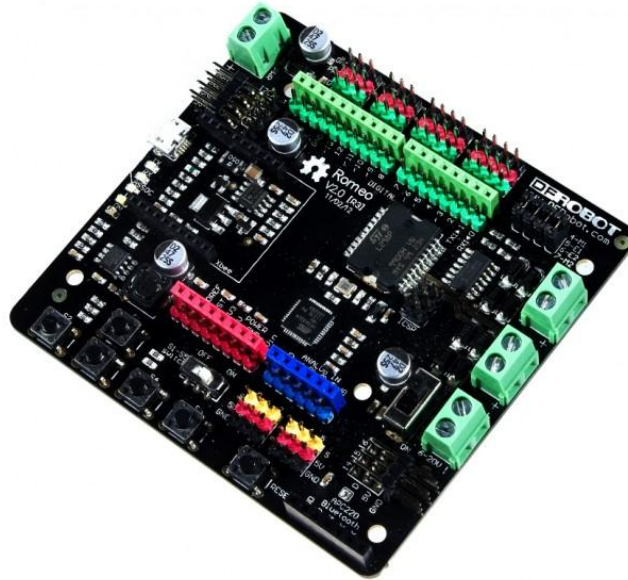


RB-Dfr-212

Romeo V2 All-in-one Microcontroller (ATMega32U4)



Description

RoMeo V2[R3] is an All-in-One Arduino compatible microcontroller especially designed for robotics applications from DFRobot. The Romeo benefits from the Arduino open source platform, it is supported by thousands of open source codes, and can easily be expanded with Arduino Shields. The integrated 2 way DC motor driver and Xbee socket allows you to start your project immediately without the need for an additional motor driver or wireless shield.

Another improvement of Romeo V2 is that it supports stepper motor control.

The RoMeo V2[R3] behaves like Arduino Leonardo based on the ATmega32u4 chip, You can program it directly from the Arduino IDE 1.0.1 or later version. Because of the ATmega32U4 as its sole microcontroller, allows the RoMeo V2 to be simpler to use. Also, The 32U4 is handling the USB directly, code libraries are available which allow the board to emulate a computer keyboard, mouse, and more using the USB-HID protocol! The best advantage is that ATmega32u4 has two serial ports which allows you uploading sketches without removing wireless modules. Debugging is no longer a pain work.

Romeo V2 also improves the power supply, it has now a switch to select power source either from USB or external power.

Warning: The analog sensor port pin mapping on RoMeo v2 is different from the old version. Please select Arduino Leonardo board when using Arduino IDE.

Specification

- DC Supply:USB Powered or External 6V~23V DC
- DC Output:5V(2A) / 3.3V DC
- Motor driver Continuous Output Current:2A
- Microcontroller:ATmega32u4
- Bootloader: Arduino Leonardo
- Compatible with the Arduino R3 pin mapping
- Analog Inputs: A0-A5, A6 - A11 (on digital pins 4, 6, 8, 9, 10, and 12)
- PWM: 3, 5, 6, 9, 10, 11, and 13. Provide 8-bit PWM output
- 5 key inputs for testing
- Auto sensing/switching external power input
- Serial Interface

- TTL Level

- USB

- Support Male and Female Pin Header
- Built-in Xbee socket
- Integrated sockets for APC220 RF Module and DF-Bluetooth Module
- Three I2C/TWI Interface Pin Sets(two 90°pin headers)
- Two way Motor Driver with 2A maximum current
- One Stepper Motor Drive with 2A maximum current
- Size:89 x 84 x 14mm
- Improvement compared with Romeo v1.1
- Wide operating input voltage
- Directly support Xbee and XBee form factor wifi,bluetooth and RF modules
- ON/OFF switch to control the system power from external motor power
- 3 Digital I/O extension(D14-D16)
- S1-S5 switch replace jump cap
- Micro USB instead of A-B USB connector
- Analog sensor extension port: Orange for Signal,Red for Vcc,Black for GND