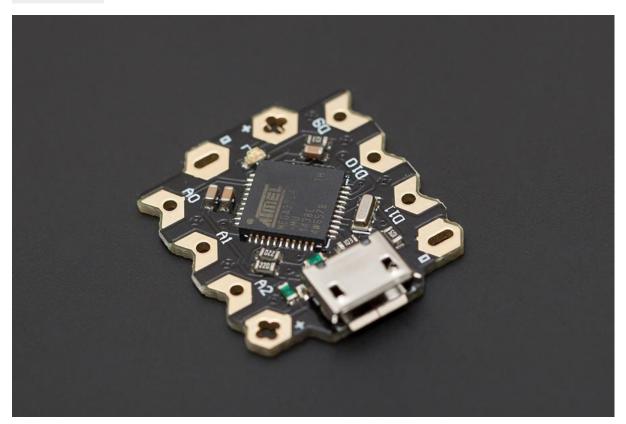# DFRobot Beetle Board - Compatible with Arduino Leonardo - ATmega32U4

SKU:DFR0282

INTRODUCTION

Beetle is fully compatible with the [Arduino Leonardo board](#). It derives its core notion from minimalism without compromising functionality.

It comes with Atmel ATmega32U4 ([datasheet](#)) @16MHz clock time and has expanded amounts of interfaces: 10 digital pins, 5 analog pins, and 4 pwn pins. To further make it user-friendly, it is compatible with Micro USB so that direct programming and testing is no longer a headache. Select "Arduino Leonardo (tools - board - Arduino Leonardo in Arduino IDE), the ATmega32U4 comes pre burned with a bootloader that allows you to upload any new code that is applicable to Arduino Leonardo.

As the DFRobot smallest board compatible with Arduino Leonardo, it enjoys similar powerful functionalities. Beetle aims to solve problems of the low-cost controller, ease-of-using properly, and to provide a low-cost solution for disposable projects, such as DIY projects, workshops, gift projects, E-Textiles, and educational. For students and makers who can not afford too much on hardware purchasing, Beetle can be a great solution for them.

FEATURES

- 20mm X 22mm compact size

- Direct downloading and testing via Micro USB

- V-shaped large-size gold-plated IO ports make it convenient for the user to twist wires upon, and can also be directly sewn on clothes with conductive thread.

- Two honeycomb shape gold-plated power interface

- Magic light blue soft BLINK indicator

SPECIFICATION

- Microcontroller: ATmega32u4

- Clock Speed: 16 MHz

- Operating Voltage: 5V DC

- Digital I/O Pins: 10

- PWM Channels: 4

- Analog Input Channels: 5

- UART: 1

- I2C: 1

- Micro USB: 1

- Power Ports: 2

- Flash Memory: 32 KB of which 4KB used by bootloader

- SRAM: 2.5 KB

- EEPROM: 1 KB

- Size: 20mm*22mm*3.8mm