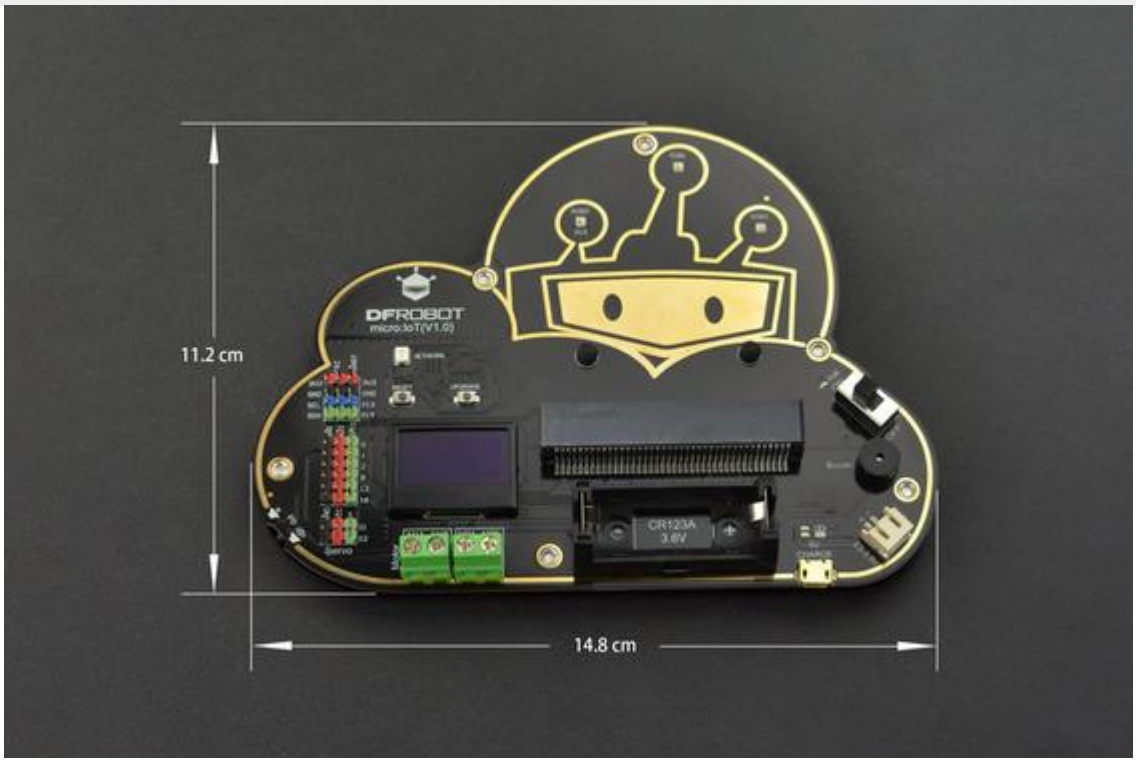
micro: IoT - micro:bit IoT Expansion Board

SKU:MBT0012



INTRODUCTION

With the development of IoT, there are so many mature IoT platforms emerging in both domestic and overseas market, but most of them are mainly designed for the professional, which could be very hard for the non-experts to get started. Therefore, we specifically developed this micro: IoT, a micro:bit-based IoT expansion board. Use the board together with DFRobot Easy IoT platform, lower the barrier of using IoT.

This micro: IoT board is pretty cute and delicate, on which we integrated Wi-Fi, OLED, 2-way motor drive, 6-way IO port, 2-way IIC, 1-way serial port, 1-way buzzer, 3-way RGB, 2-way servo, Li-ion battery holder, charging circuit, emergency power interface, etc. So many resources for you to program! Even without complicated background knowledge, you can build your IoT applications in few steps!

We designed the board as a cloud shape to make it more suitable for the theme of IoT. As for power supply, we selected CR123A 3.6V lithium rechargeable battery. This kind of battery features small size, high capacity, and high safety. What’s more, we add short circuit and reverse connection protection for the product to further improve the safety in using Li-ion Battery.

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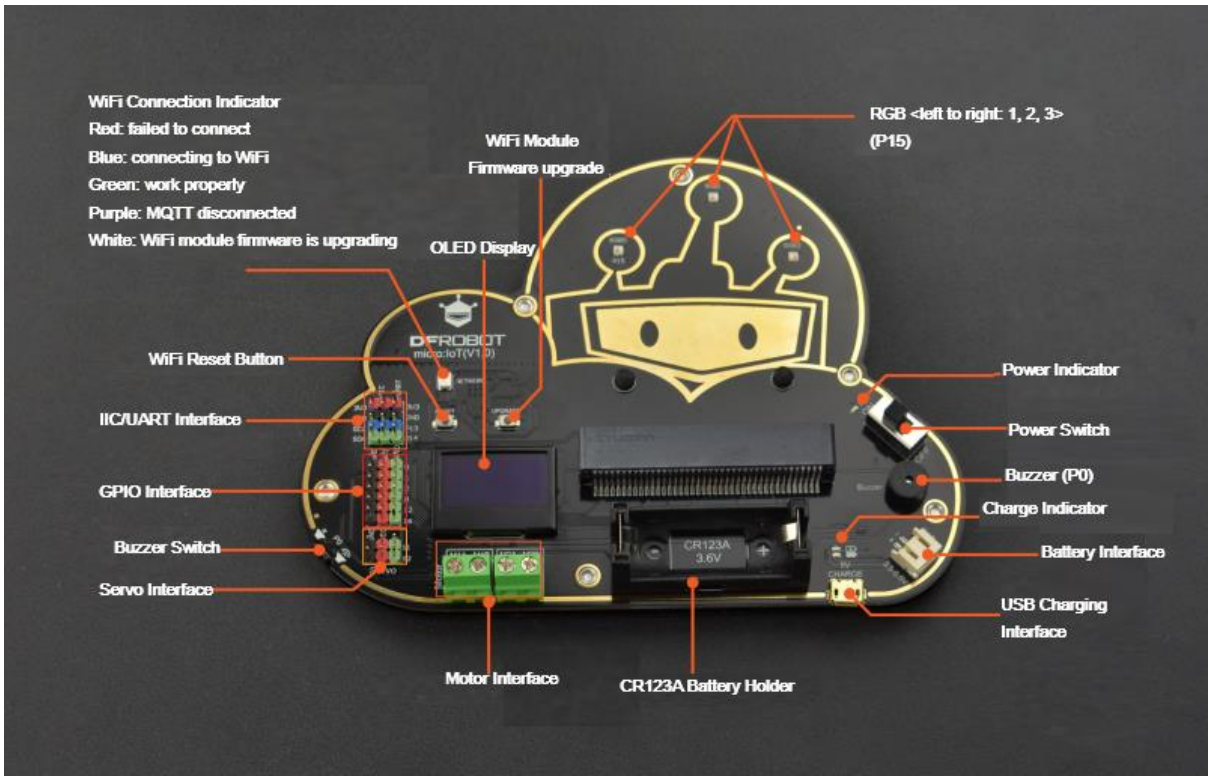

It's a **easy-to-use and efficient IOT teaching tool**, using this product, you can learn lessons related to IoT, such as:
1. Weather forecast
2. Light and temperature monitor
3. Remote Watering System for IoT
4. Environmental monitoring and automatic ventilation system
5. Send an Email via IFTTT
6. Record notes to Evernote via IFTTT
7. Send Message to Twitter via IFTTT
8. Send cellphone sms via IFTTT
9. Automatic airer
10. Entrance guard system for IoT
11. Traffic flow analysis system for IoT
and so on. Check details on product wiki page.

FEATURES

- Large size and function integration making teaching easier.
- Lovely shape can trigger students' interest for learning.
- Abundant extensions, such as wifi, motor driver, servo driver, OLED, GPIO, etc. making teaching content more diversified and abundant.
- Integrated Wi-Fi IoT module, OLED screen, easy to update data.

- 2-way motor drive, 2-way servo, 6-way IO port, 3-way RGB LED, more options for programming.
- PMMA Packaging, prevent damage to the inside components.
- Supports makecode, mind+, python etc.

SPECIFICATION

- Power Supply: Li-ion battery or External power
- STM8S IIC Address: 0×01
- Battery Type: CR123A 3.6V Rechargeable Li-ion Battery **(Note: do not use 3V CR123A battery and non-rechargeable. Recharging the non-rechargeable battery is dangerous.)**
- Digital Output Voltage: 0V/3.3V
- Analog Input Voltage: 0~3.3V DC
- Standard Gravity Pins
- Micro:bit Pins: P0 P1 P2 P8 P12 P16

  2-way Motor Drive

  2-way Servo Pins

  On-board 3-way RGB LED

  On-board buzzer and Switch
- Dimension: 148×112mm/5.83×4.41”
- Mount Hole: M3 Screw hole