

Micro:bit IoT Expansion Board

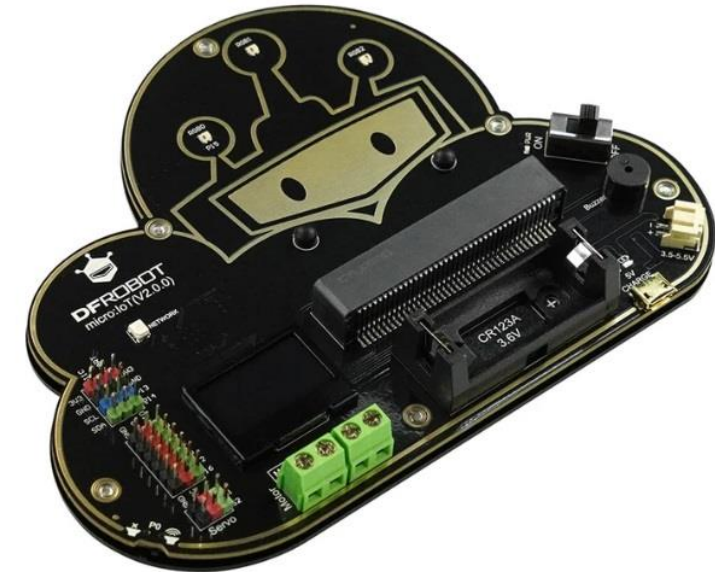
Overview

With the development of IoT, there are so many mature IoT platforms emerging in both domestic and overseas, 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 programme! Even without complicated background knowledge, you can build you IoT applications in few steps!

We designed the board as cloud shape to make it more suitable for the theme of IoT. As for power supply, we selected CR123A 3.6V lithium rechargeable battery of 1000mA. 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.

Supports makecode and Mind+ graphical programming platforms.



Order Code

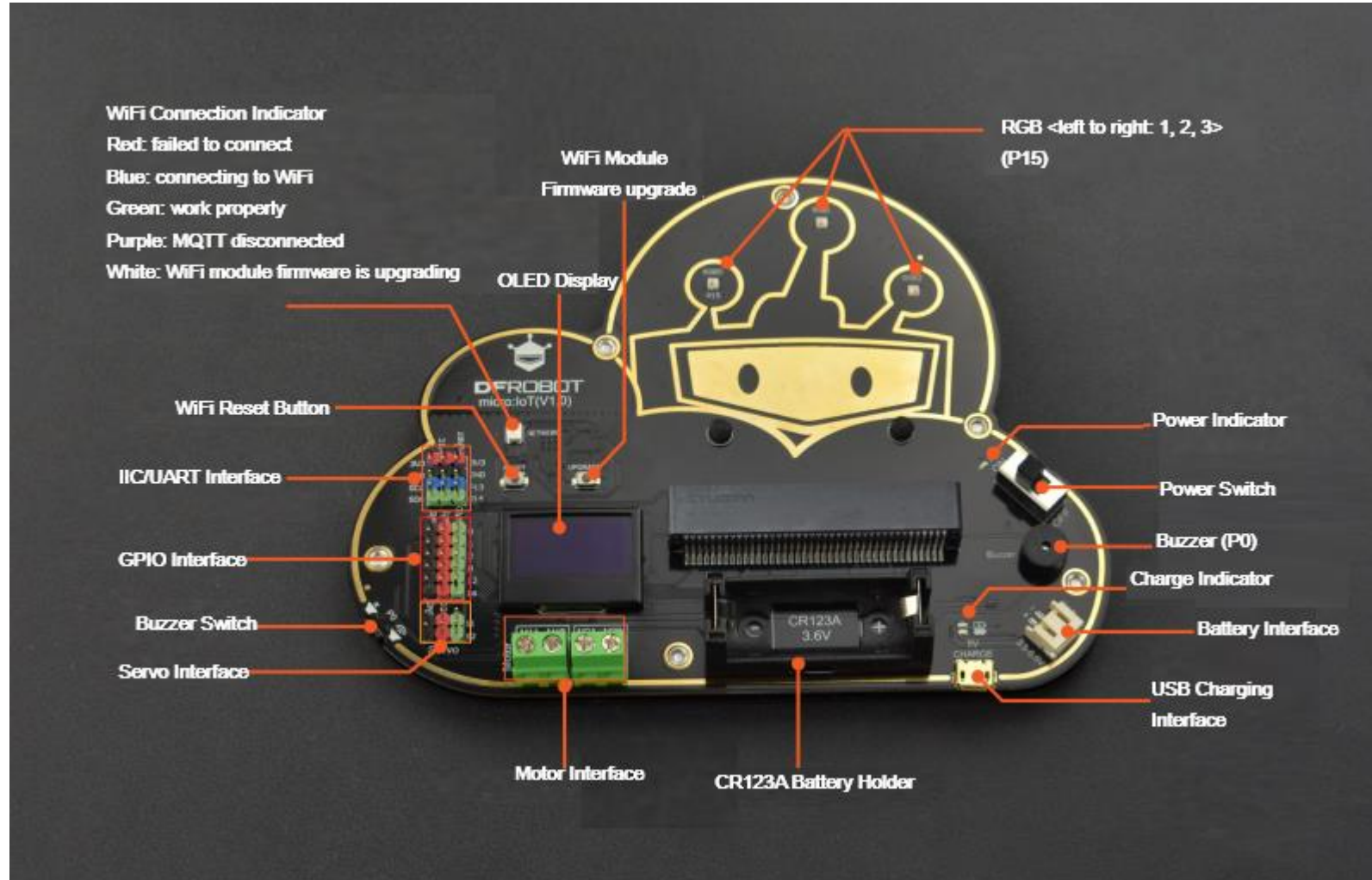
Order Code	Brand	Description
E04007-001	DFRobot	Micro:bit IoT Expansion Board

Specification

- 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.)
- Onboard charging circuit
- Interface: 2-way IIC, 1-way serial
- Micro:bit Interface: P0 P1 P2 P8 P12 P16
- Other Interface: two DC motor ports, two servo ports
- Standard Gravity Pins
- On-board 3-way RGB LED
- On-board buzzer and Switch
- On-board OLED display
- Dimension: 148×112mm/5.83×4.41"
- Weight: 104g
- Programming Platforms: makecode, Mind+

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Note: when the indicator turns purple, it means that MQTT is disconnected, and please check if the id account is correct.

Color	Indication
Red	failed to connect
Blue	connecting to WiFi
Green	Work properly
Purple	MQTT disconnected
White	WiFi module firmware upgrading

Revision History

Date	Revision	Change description
30/10/2025	1.0	Initial release