

Micro:bit Math & Automatic Touch Keyboard



Overview

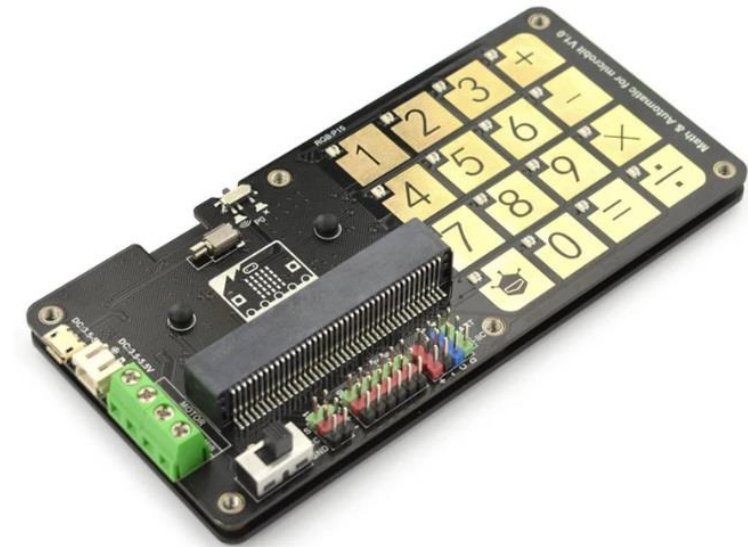
This is a Math & Automatic expansion board for micro:bit. Easy to use, and suitable for a wide range of applications. We designed this board for two sorts of application: fun math games and automation control.

There are following multiple functions integrated on the board:

- 16 touch control keyboards
- 16 RGB LEDs
- 2 Motor Ports
- 1 Vibration Motor
- 1 Buzzer
- 6 IO, 2 I2C, 1 UART Port
- 2 Servo Ports
- 2 Power supply methods, 3.5~5V

We add a acrylic cover at the bottom of the board to make it more durable and delicate, which is also perfect for using in class.

This product supports makecode graphical programming and Mind+ platform.



Order Code

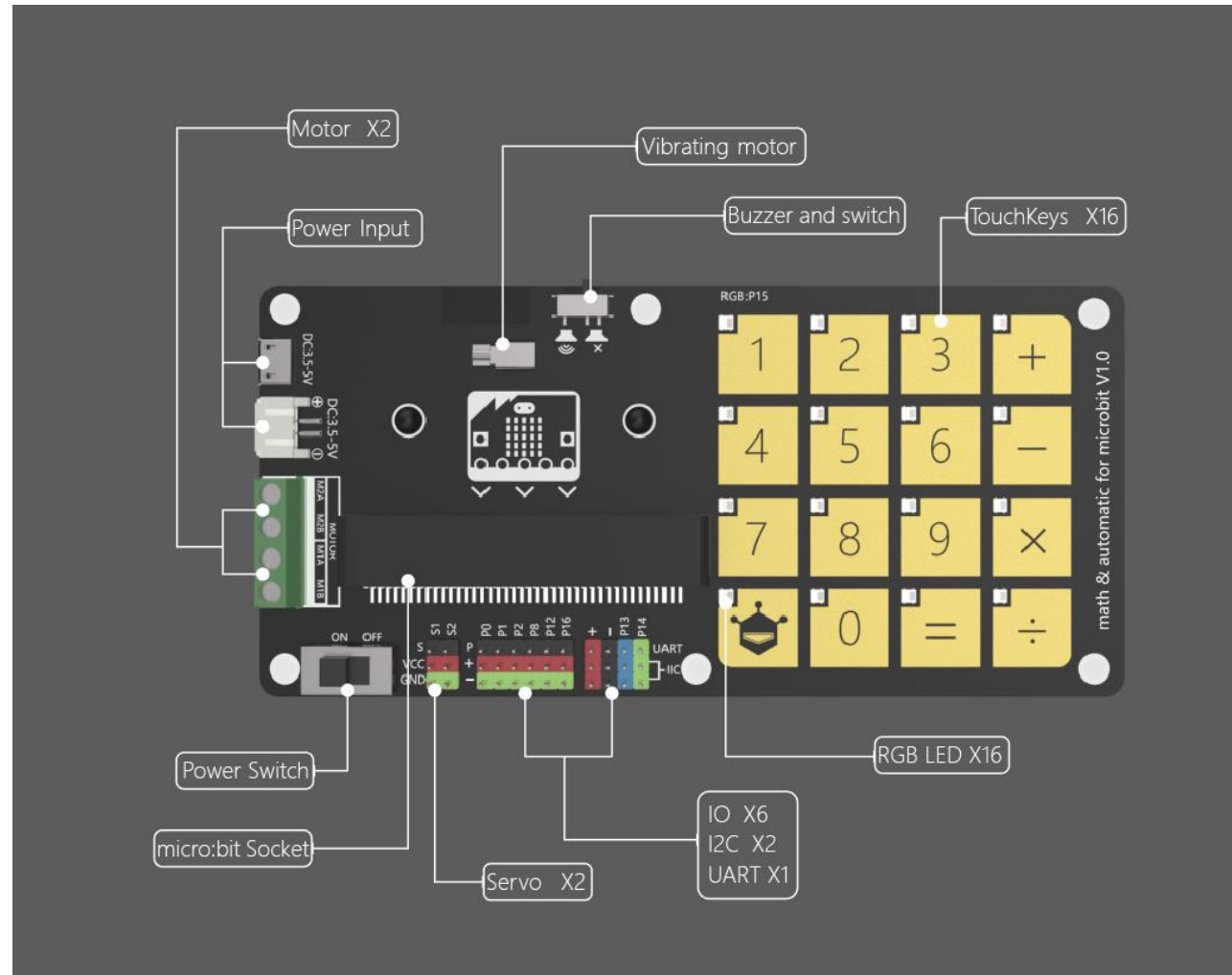
Order Code	Brand	Description
E04008-001	DFRobot	Micro:bit Math & Automatic Touch Keyboard

Specification

- Power Supply: 1. PH2.0, 3.5-5V(three 4.5V battery box or 3.7V li-ion battery); 2. External power via USB (3.5-5V)
- Buzzer ×1
- Vibration Motor ×1
- Servo ×2
- Motor ×2
- Touch Key ×16
- RGB LED ×16
- UART ×1
- I2C port ×2
- IO Expansion: P0, P1, P2, P8, P12, P16
- Dimension: 136×65mm/5.35×2.56"
- Programming Platform: Mind+, makecode

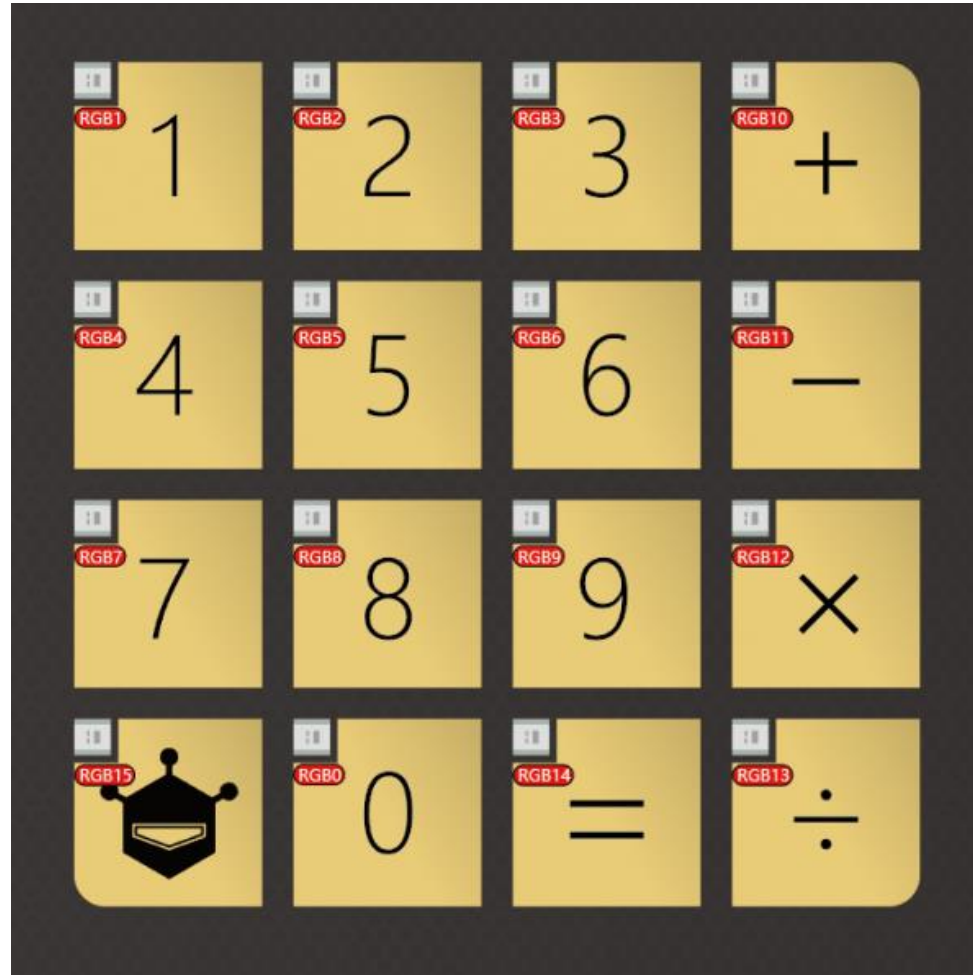
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Basic Tutorial

RGB LEDs

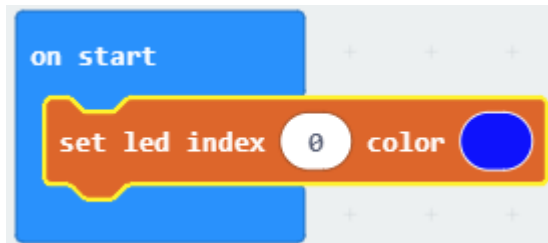
RGB LED is composed of three basic colors: red, green and blue. There are 16 RGB LEDs integrated on the top-left corner of every touch-key on the board. Connect the RGB LED to p15 of micro:bit.

1. Set the brightness of RGB (0~255)



Result: the brightness of the whole LEDs is 138

2. Set the LED No. 0 to blue



Result: the LED 0 lights up in blue.

Revision History

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