Microbit smart lighting brightness adjustment

1、Achieve the goal

2、Preparation before class

3、Wiring

4、Block prgramming

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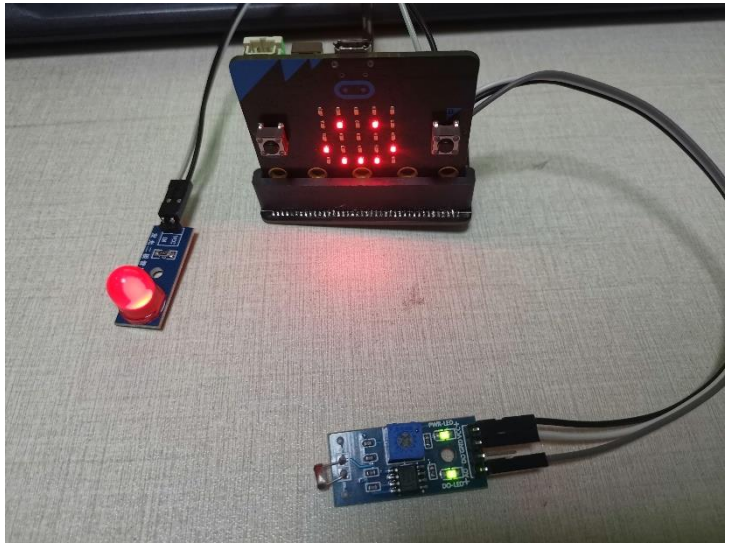

1、Achieve the goal

When the simulation value of ambient brightness is detected by microbit's photosensitive sensor, the brightness of LED lamp module can be adjusted through calculation to maintain the stability of ambient brightness of microbit

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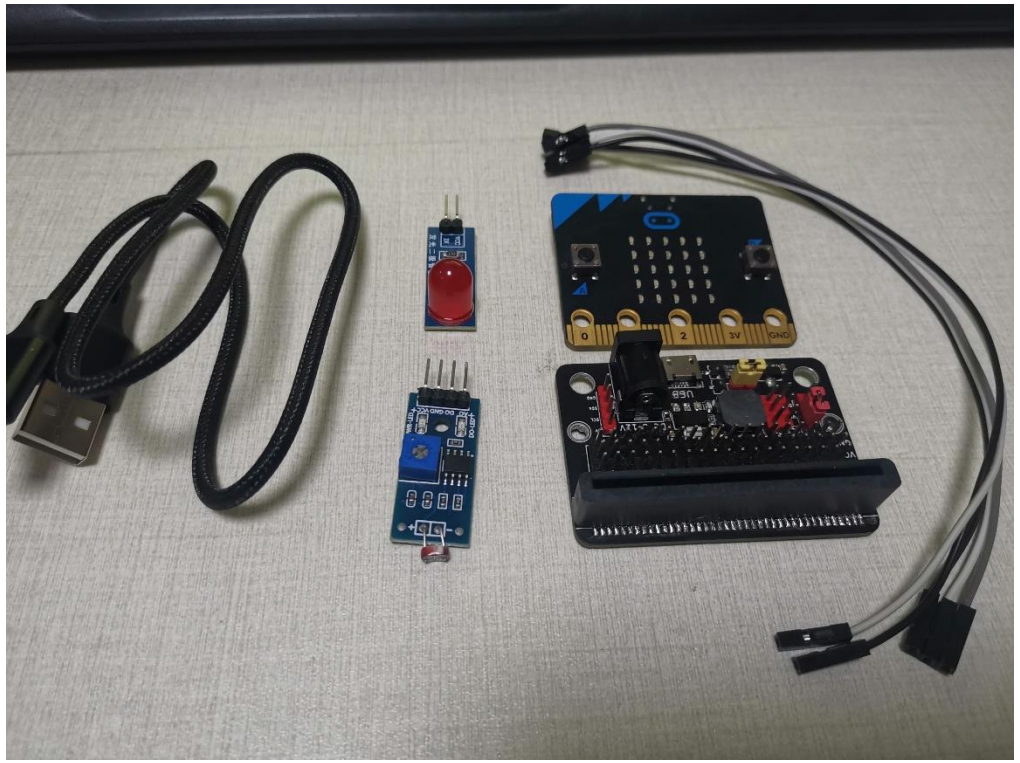

2、Preparation before class

Prepare microbit mainboard, USB cable, battery, light sensor module, LED lamp module, expansion board, dupont line.

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3、Wiring

The AO pin of the photosensitive sensor is connected to the P1 pin of the extension plate, the VCC pin is connected to the extension plate VCC pin, and the GND pin is connected to the extension plate GND pin

The LED lamp module is connected to the VCC on the extension board, and the IN is connected to the P2 on the extension board

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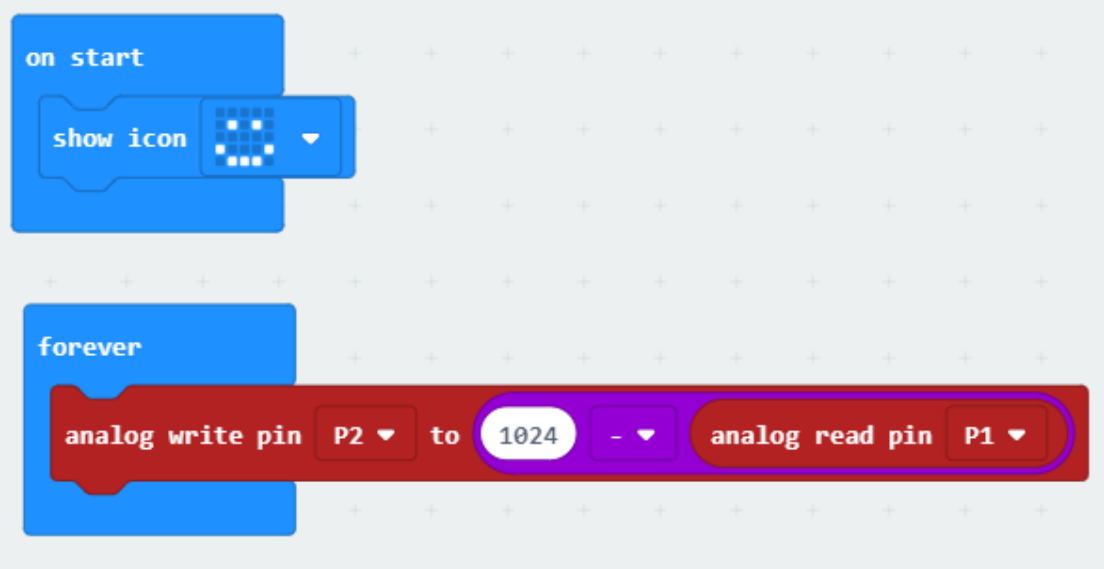
4、Block programming



1. When it is turned on, the microbit screen displays a smiley face and then enters an infinite loop
2. In the infinite loop, write the analog value of the light-sensitive sensor connected to P1 pin to the LED module connected to P2 pin through calculation

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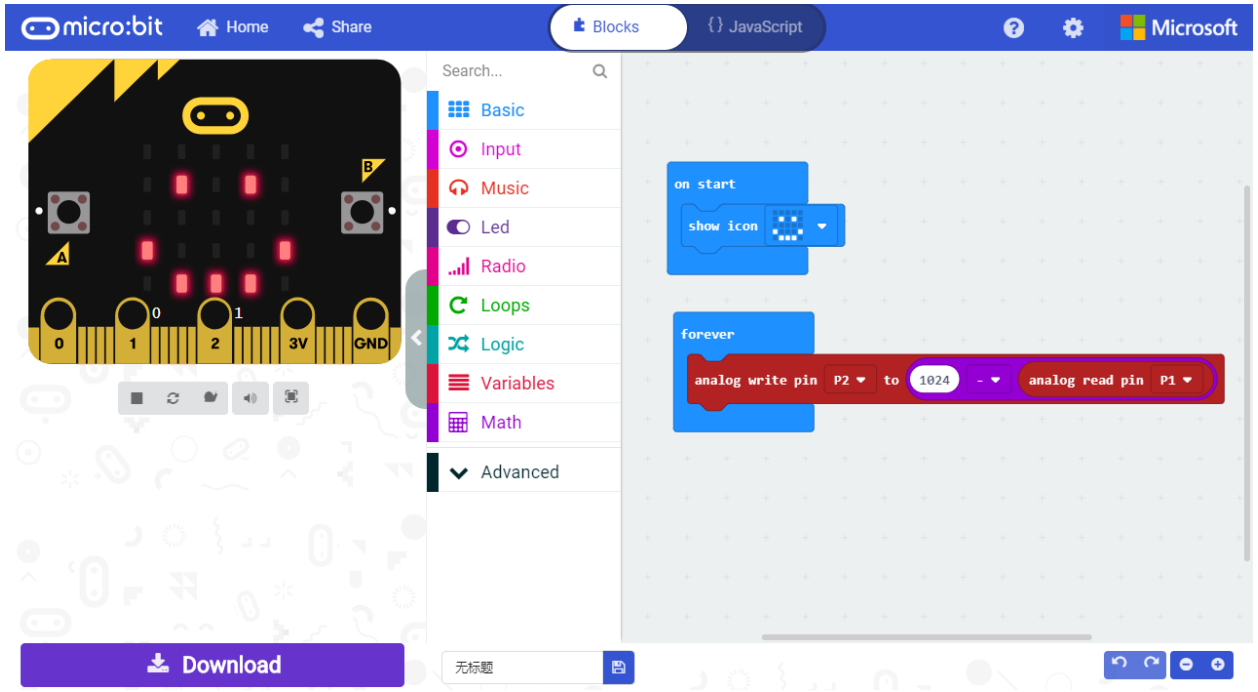

5、Download experience

1. Click "download", download the program to the microbit, connect the circuit, and you can see the result of your programming