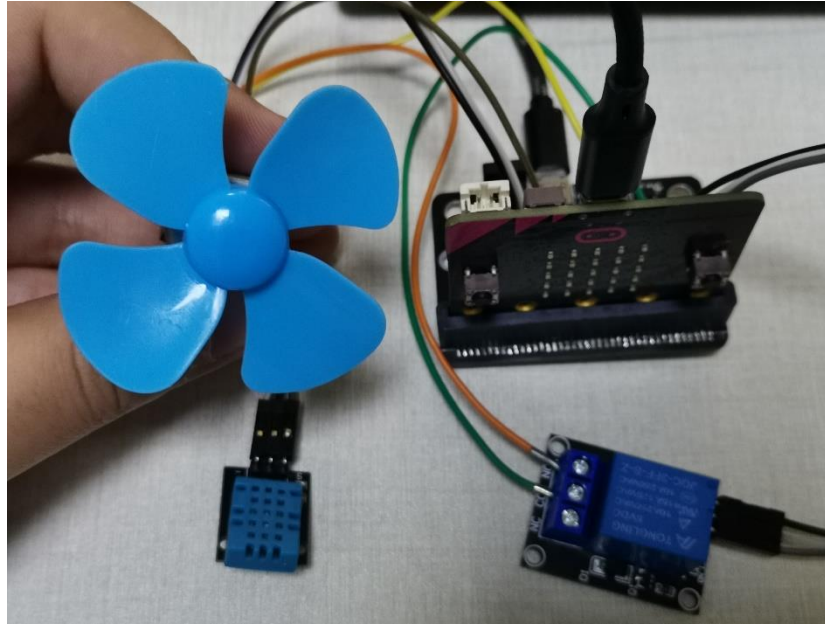


# Indoor humidity alarm system

- 1、 Achieve the goal
- 2、 Preparation before class
- 3、 Wiring
- 4、 Block programming

# Indoor humidity alarm system



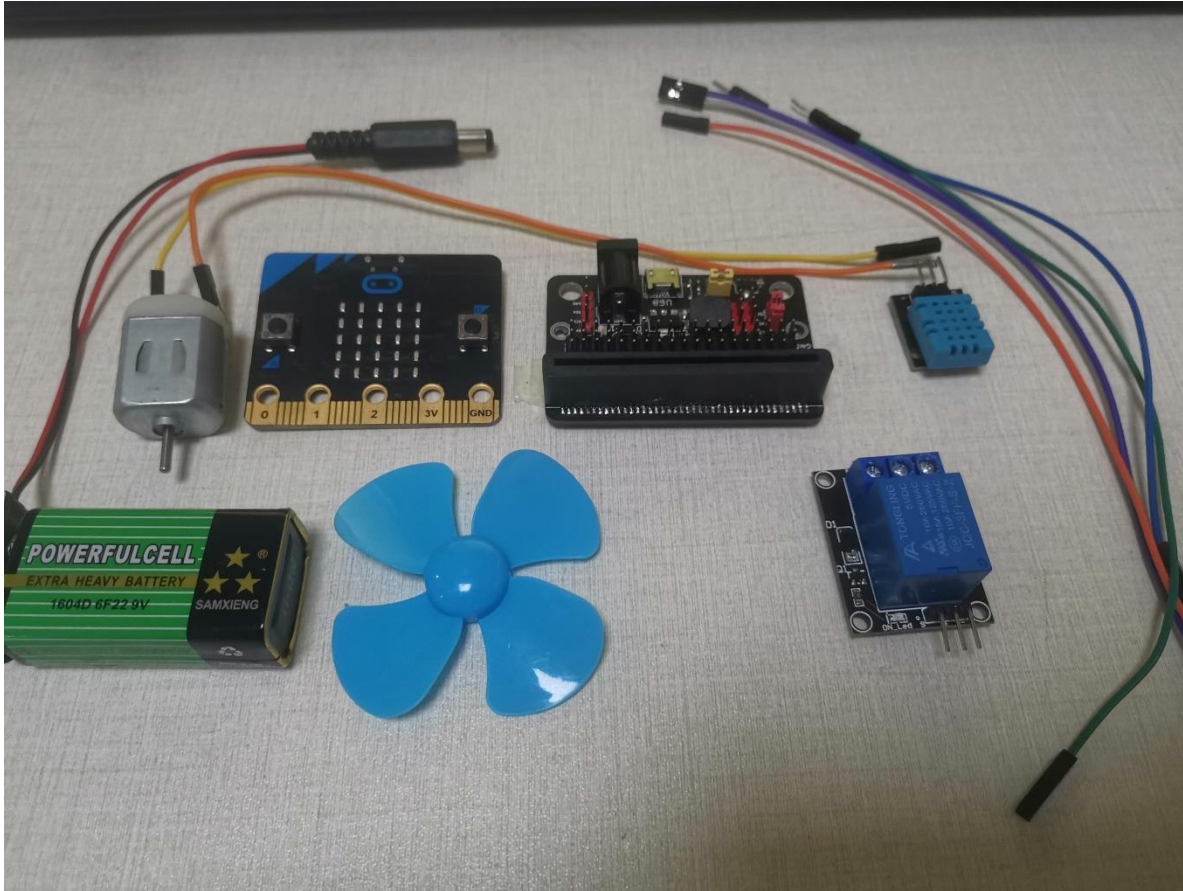
## 1、Achieve the goal

When humidity is too high, the buzzer of the expansion board will give out an alarm sound, and the microbit control turns on the relay switch to drive the motor to turn, reducing the humidity (when using the motor, be careful not to allow the motor to rotate for too long, or it will get hot and burn out)

# Indoor humidity alarm system

## 2、Preparation before class

Prepare microbit mainboard, USB cable, battery, DHT11 module, motor, fan blade, relay module, dupont line.



# Indoor humidity alarm system

## 3、Wiring

The S pin of DHT11 module is connected to the expansion board P2, -pin is connected to the expansion board GND, and + pin is connected to the expansion board VCC

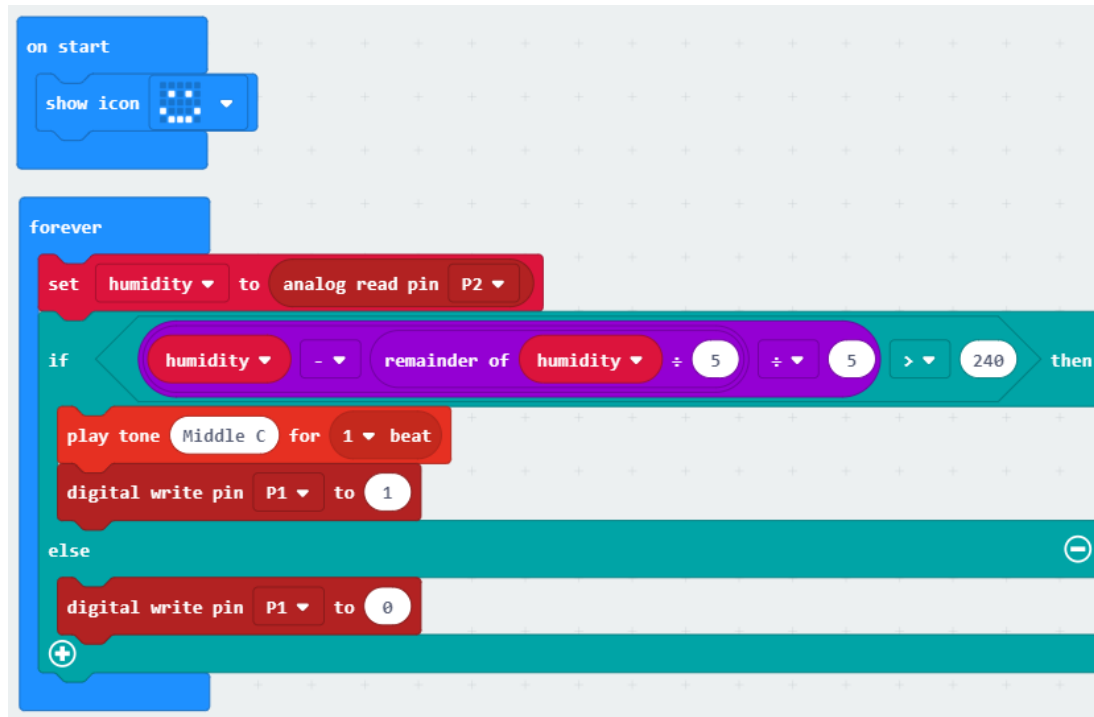
The S pin of the relay module is connected in the expansion board P1, -pin is connected in the expansion board GND, + pin is connected in the expansion board VCC, com pin is connected in 5V

One follower of the motor is connected to the extension board GND and the other to the relay NO

Dual power supply, using usb to power the microbit on one hand, and a battery or another usb cable to power the extension board on the other

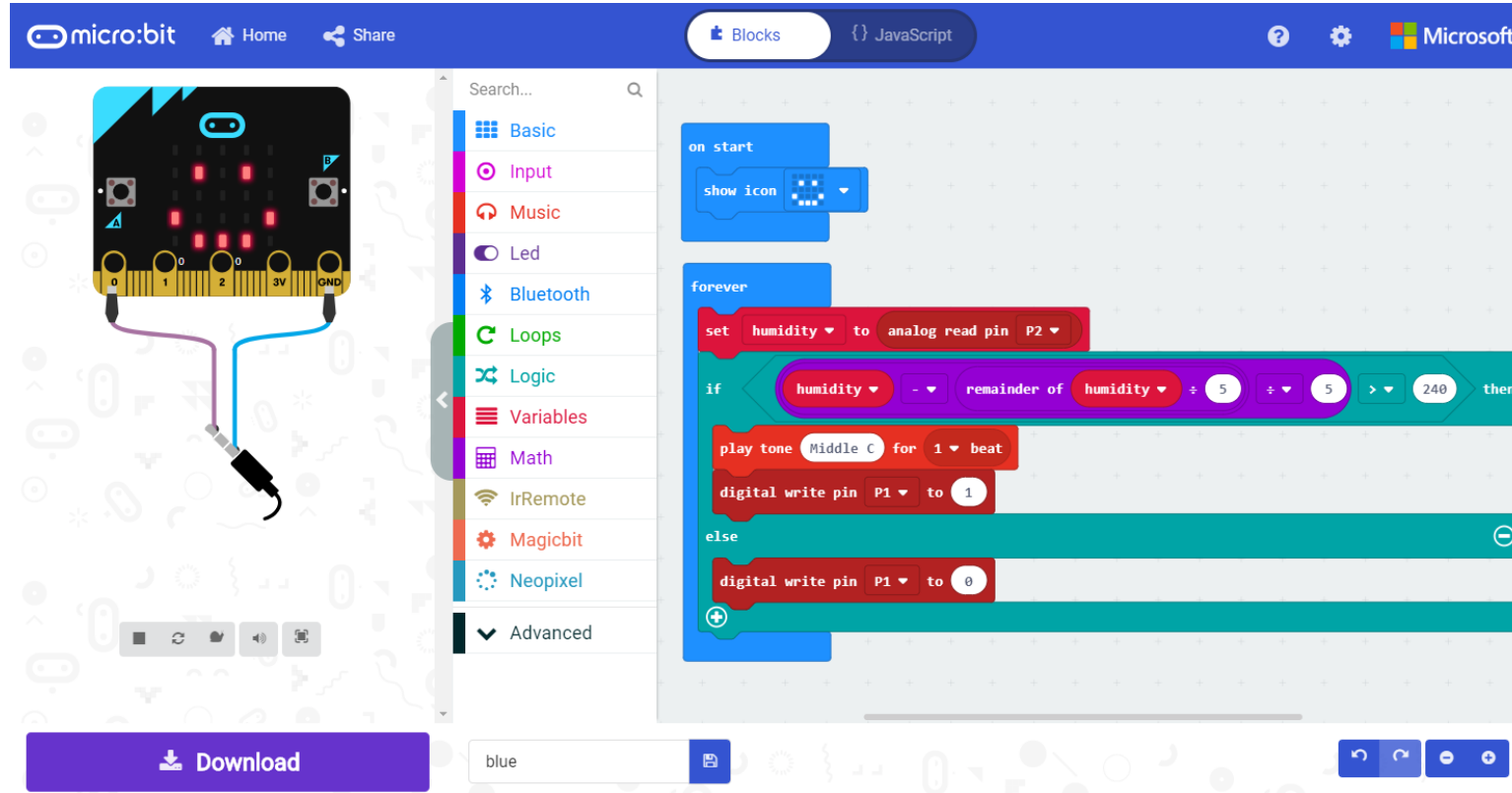
# Indoor humidity alarm system

## 4、Block programming



1. When turned on, the microbit screen displays a smiley face
2. In the infinite loop, read the value assigned to the variable of DHT11 connected to P2 pin, and then start to judge the humidity value after processing, so as to determine whether to play the alarm sound and whether to turn on the relay to drive the motor to rotate for ventilation and dehumidifier

# Indoor humidity alarm system



## 5、Download experience

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