Vibration detection system

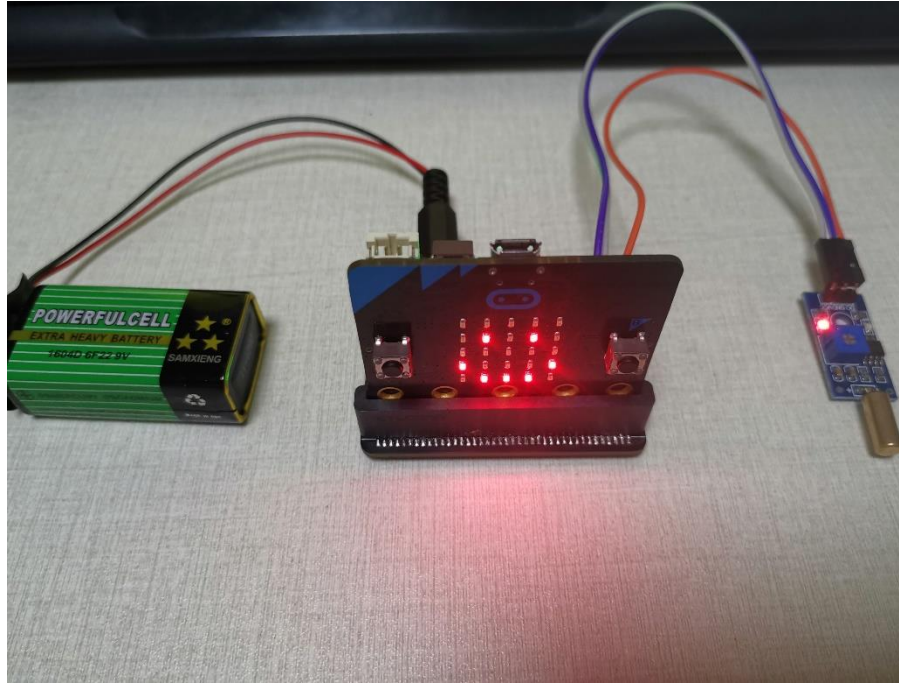1、 Achieve the goal

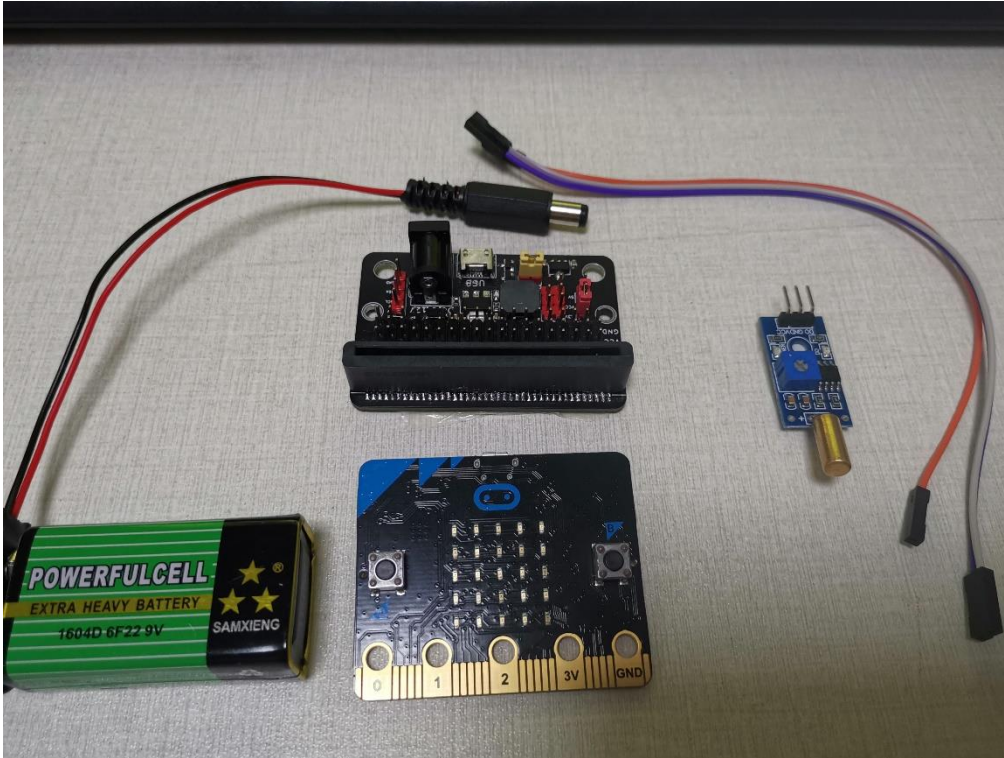2、 Preparation before class

3、 Wiring

4、 Block programming

1、Achieve the goal

When the vibration sensor senses A vibration, the expansion board buzzer will send out an alarm sound. The alarm will not stop until the vibration sensor stops vibrating and the microbit motherboard button A is pressed

2、 Preparation before class

Prepare microbit motherboard, USB cable, battery, vibration sensor module, expansion board, dupont cable.
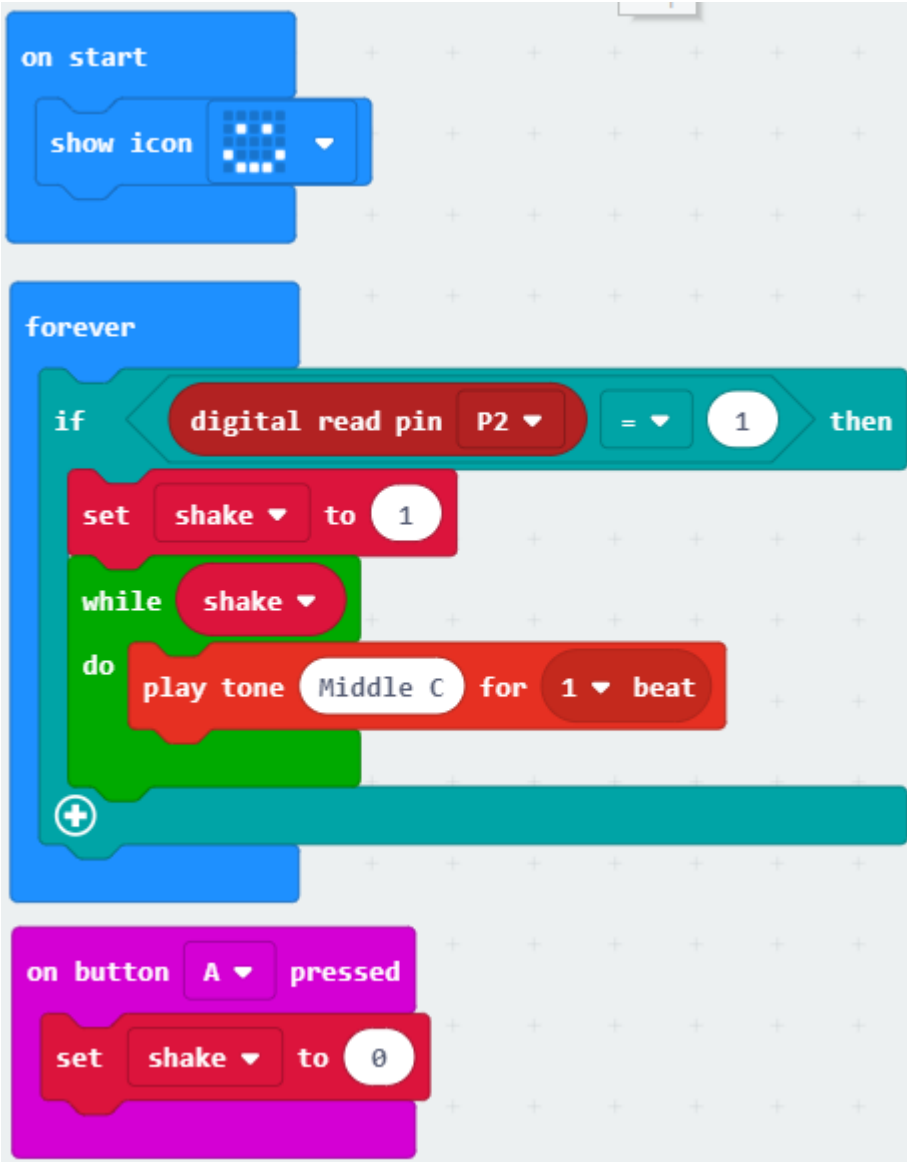
Vibration detection system

3、Wiring

Vibration sensor VCC pin connected with extension plate VCC, GND pin connected with extension plate GND, DO pin connected with extension plate P2
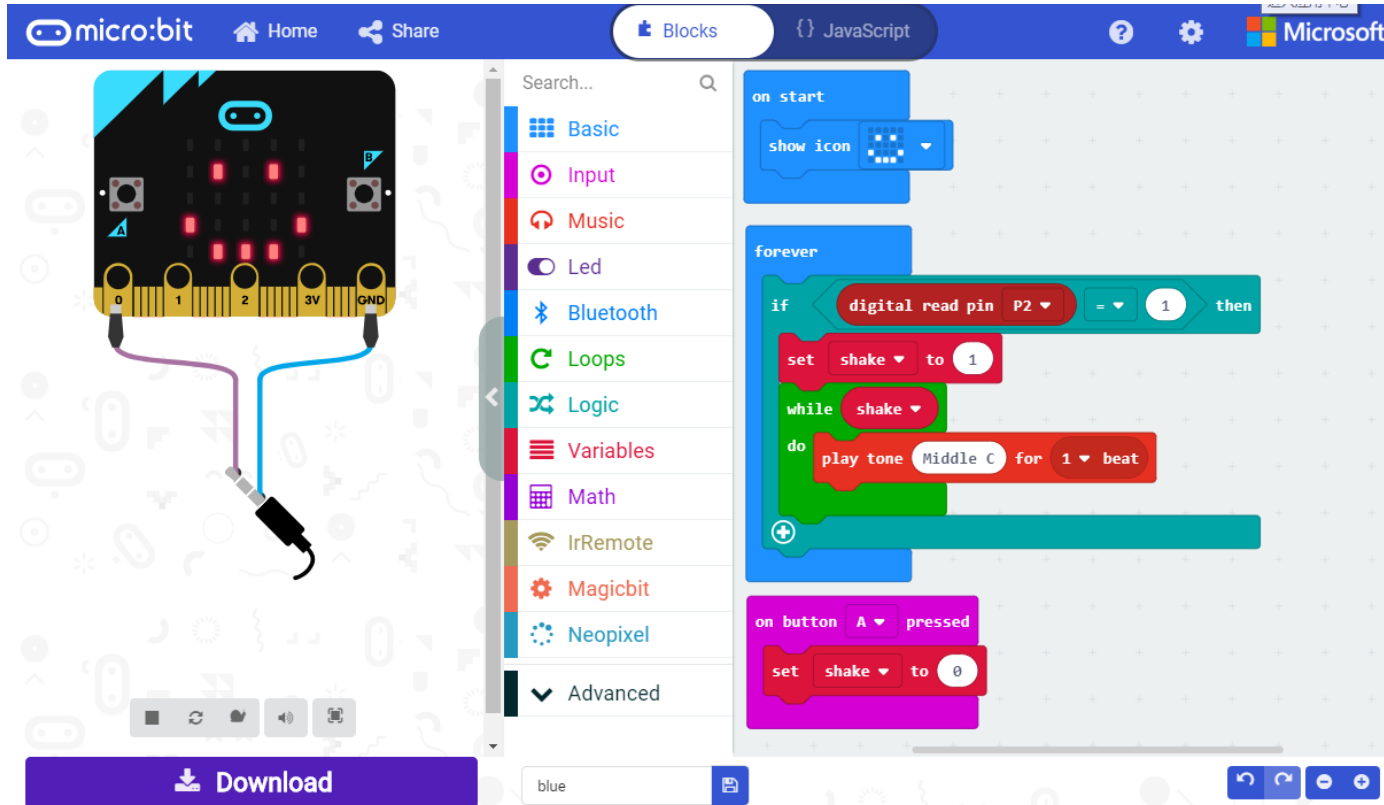
Vibration detection system

```
on start
    show icon [grid icon] ▼

forever
    if ⟨ digital read pin P2 ▼ = ▼ ( 1 ) ⟩ then
        set shake ▼ to ( 1 )
        while ( shake ▼ )
        do
            play tone Middle C for 1 ▼ beat
        ⊕

on button A ▼ pressed
    set shake ▼ to ( 0 )
```

4、Block programming

1. When the machine is turned on, the microbit screen displays a smiley face and then enters an infinite loop

2. In the infinite loop, the first block of the program is to judge whether the data read in pin P2 is 1. If so, set the variable to 1 and play the alarm sound in the loop

Vibration detection system

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