Temperature and humidity broadcaster

1. Learning objectives

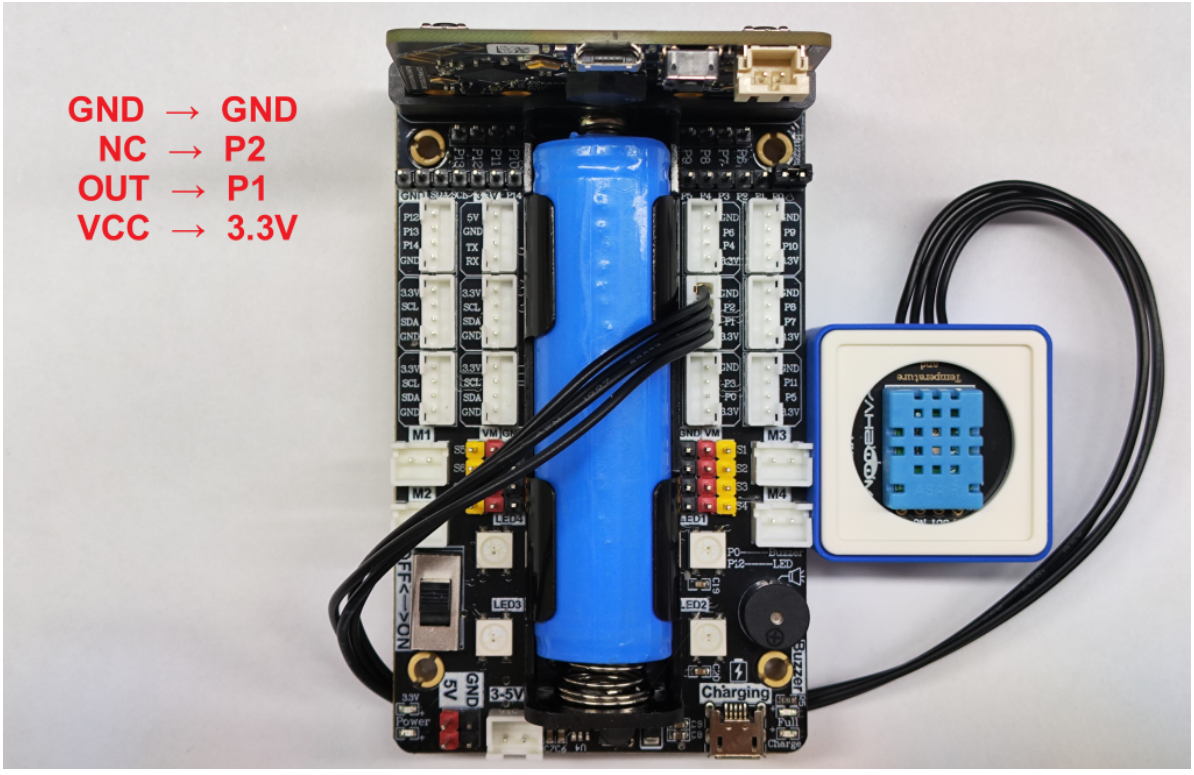
In this course, we mainly learn how to implement the temperature and humidity reminder function through MakeCode graphical programming.

2. Building blocks

For the building block steps, please refer to the installation drawings of [Assembly Course]--[Temperature humidity reminder] or the building block installation brochure in the materials.

3. Sensor wiring

The temperature and humidity sensor is connected to the P1P2 interface.



4. Programming

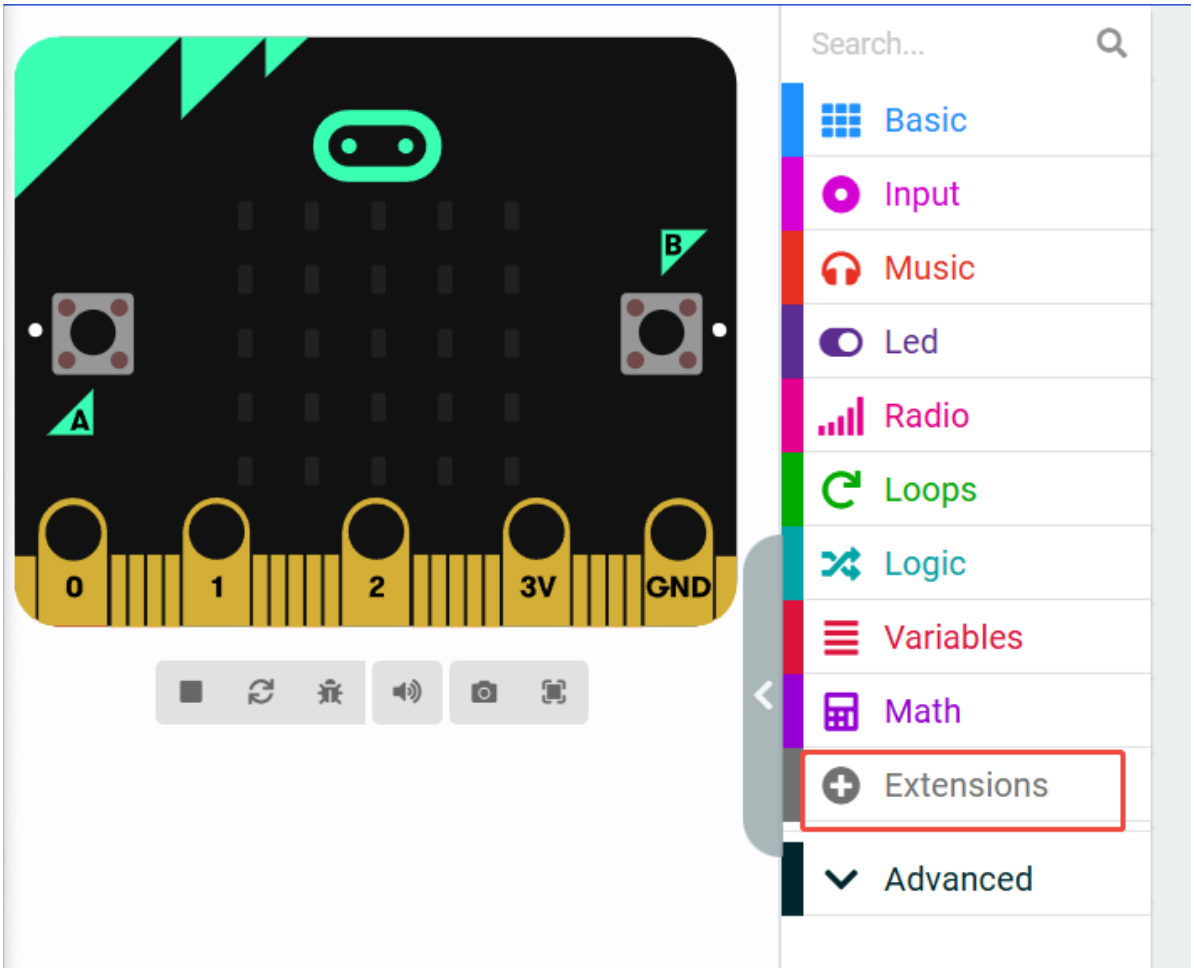
Method 1 Online programming:

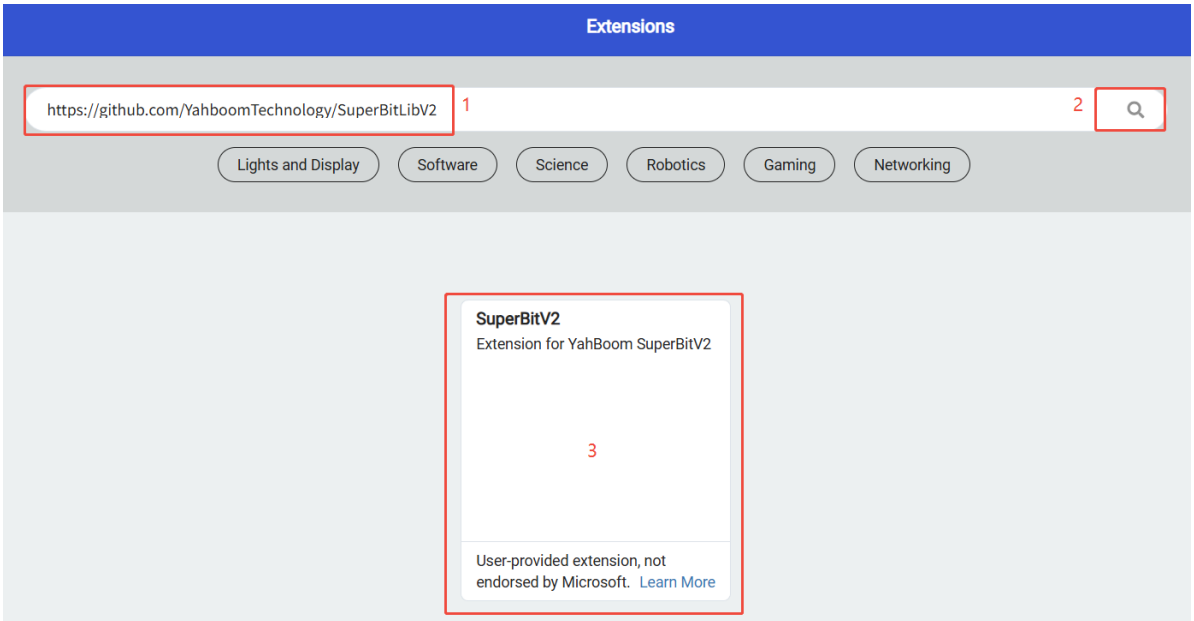
First, connect micro:bit to the computer via a USB data cable, and the computer will pop up a U disk. Click the URL in the U disk: https://makecode.microbit.org/ to enter the programming interface. Then, add the Yahboom software package **https://github.com/YahboomTechnology/SuperBitLibV2** to start programming.

Method 2 Offline Programming:

Open the offline programming software MakeCode and enter the programming interface. Click [New] and add the Yahboom software package **https://github.com/YahboomTechnology/SuperBitLibV2** to start programming.

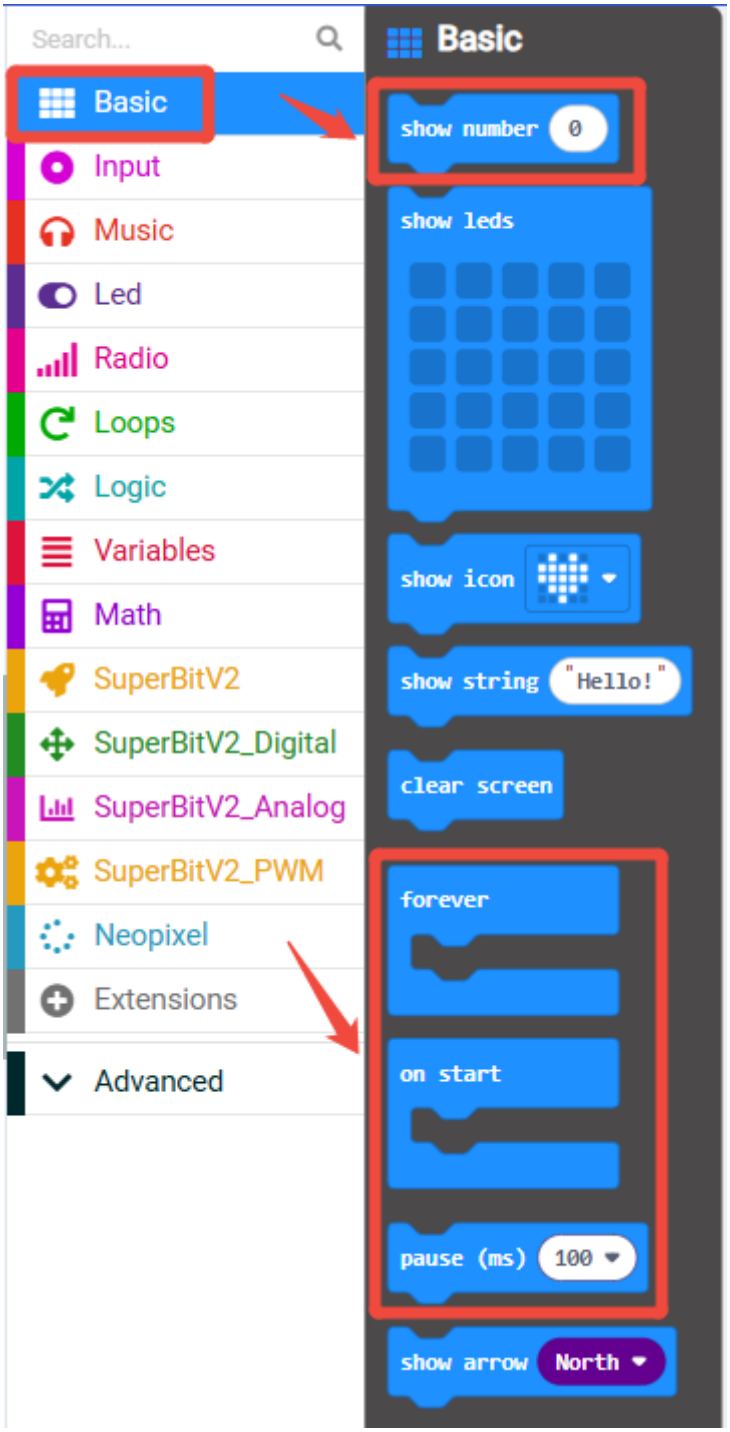
4.1 Add expansion package

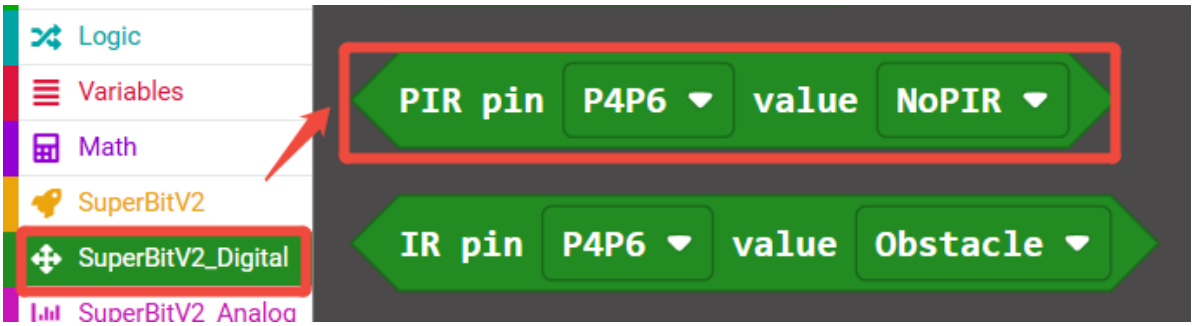


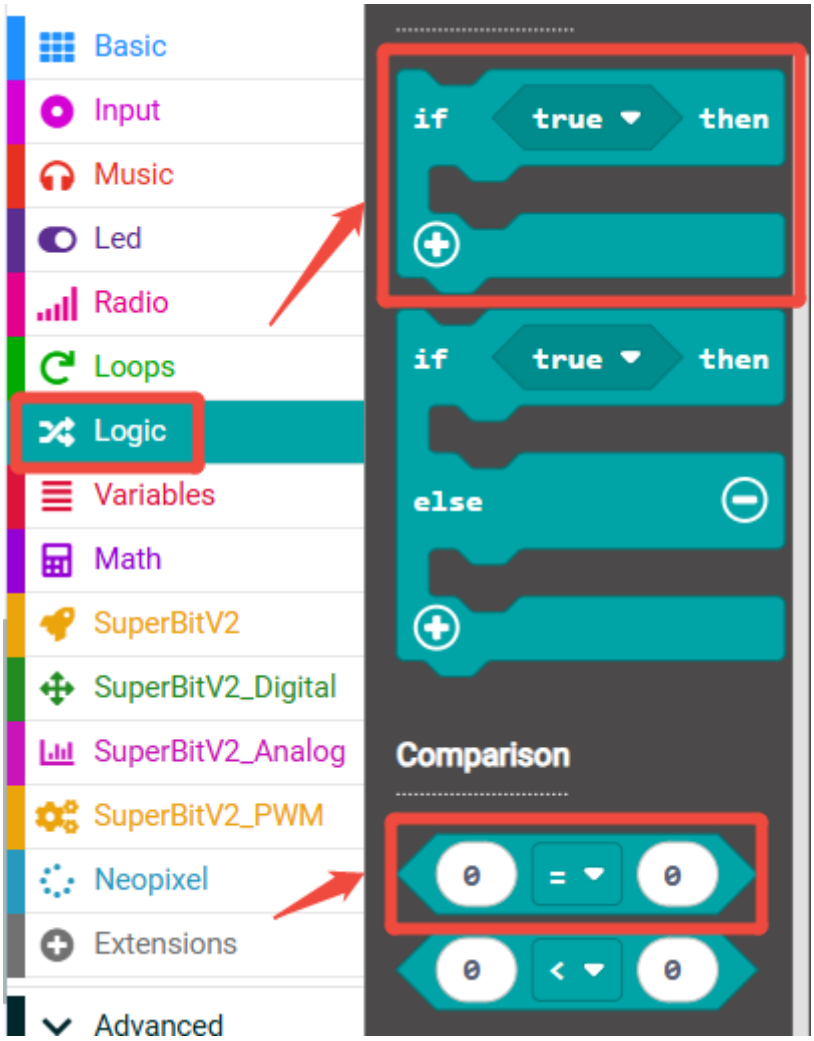


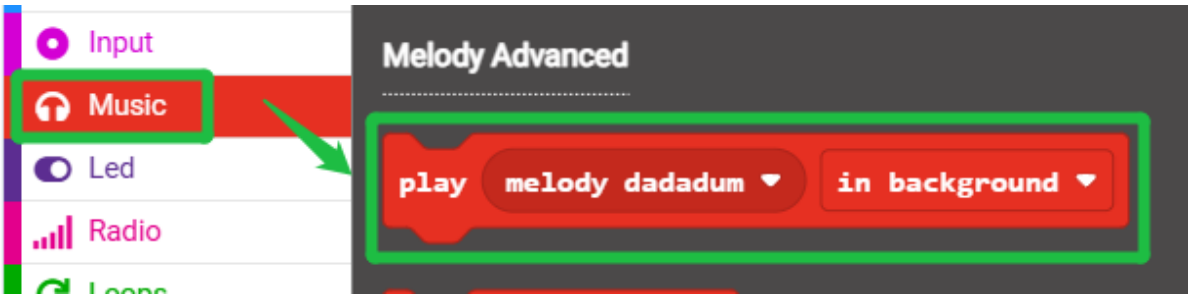
4.2 Blocks used

The location of the blocks required for this programming is shown in the figure below.



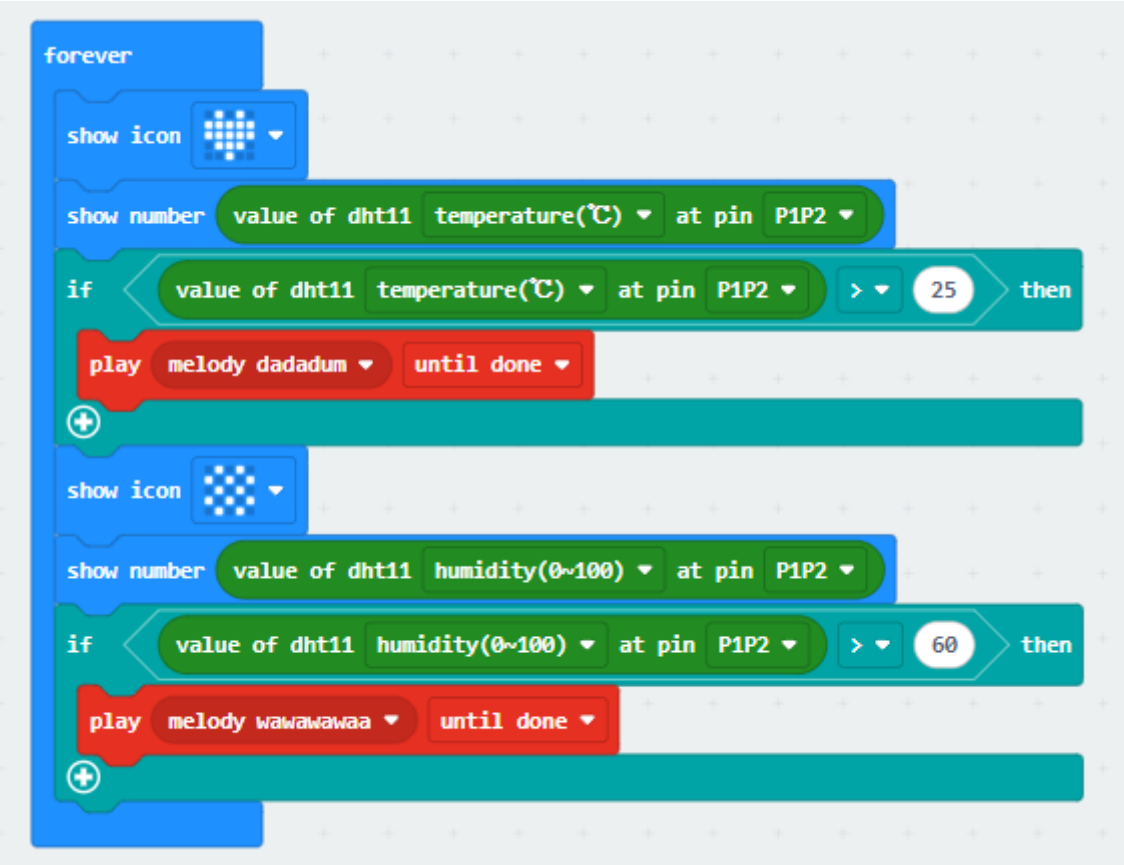






4.3 Combining blocks

The summary program is shown in the figure below.



You can also directly open the **Temperature-and-humidity-broadcaster.hex** file provided in this experiment and drag it into the browser that opens the URL, and the program diagram of this project source code will be automatically opened.

Since the temperature and humidity module is affected by the temperature and humidity of the environment, the obtained values will also be different. Please modify the sensor threshold according to your actual environment.

5. Experimental phenomenon

After the program runs successfully, the dot matrix displays a heart, and then displays the current temperature. When the temperature value is higher than 25 degrees, the music dadadum is played. If it is not reached, it will not be played.

Then the chessboard is displayed, and then the humidity is displayed. If the humidity value is greater than 60, the music wawawawaa is played. If it is not reached, it will not be played.