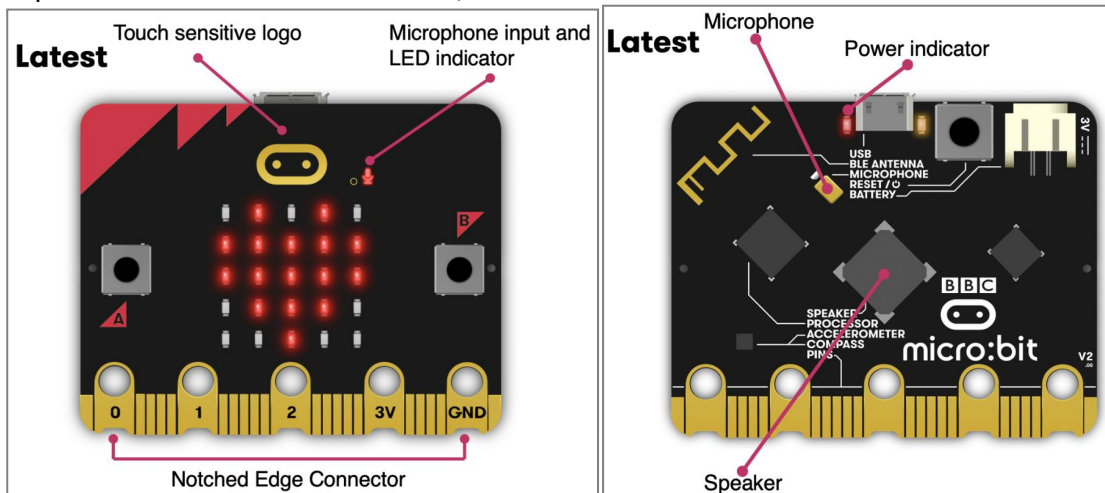


Temperature alarm

1. Learning goals

In this lesson, we will learn to use the micro:bit on board buzzer and thermometer. Micro:bit will detect the motherboard chip temperature in real time. When the chip temperature exceeds a certain value, the buzzer will sound an alarm.



2. Mode 1 online programming:

First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL <http://microbit.org/> in the USB flash drive to enter the programming interface to start program.

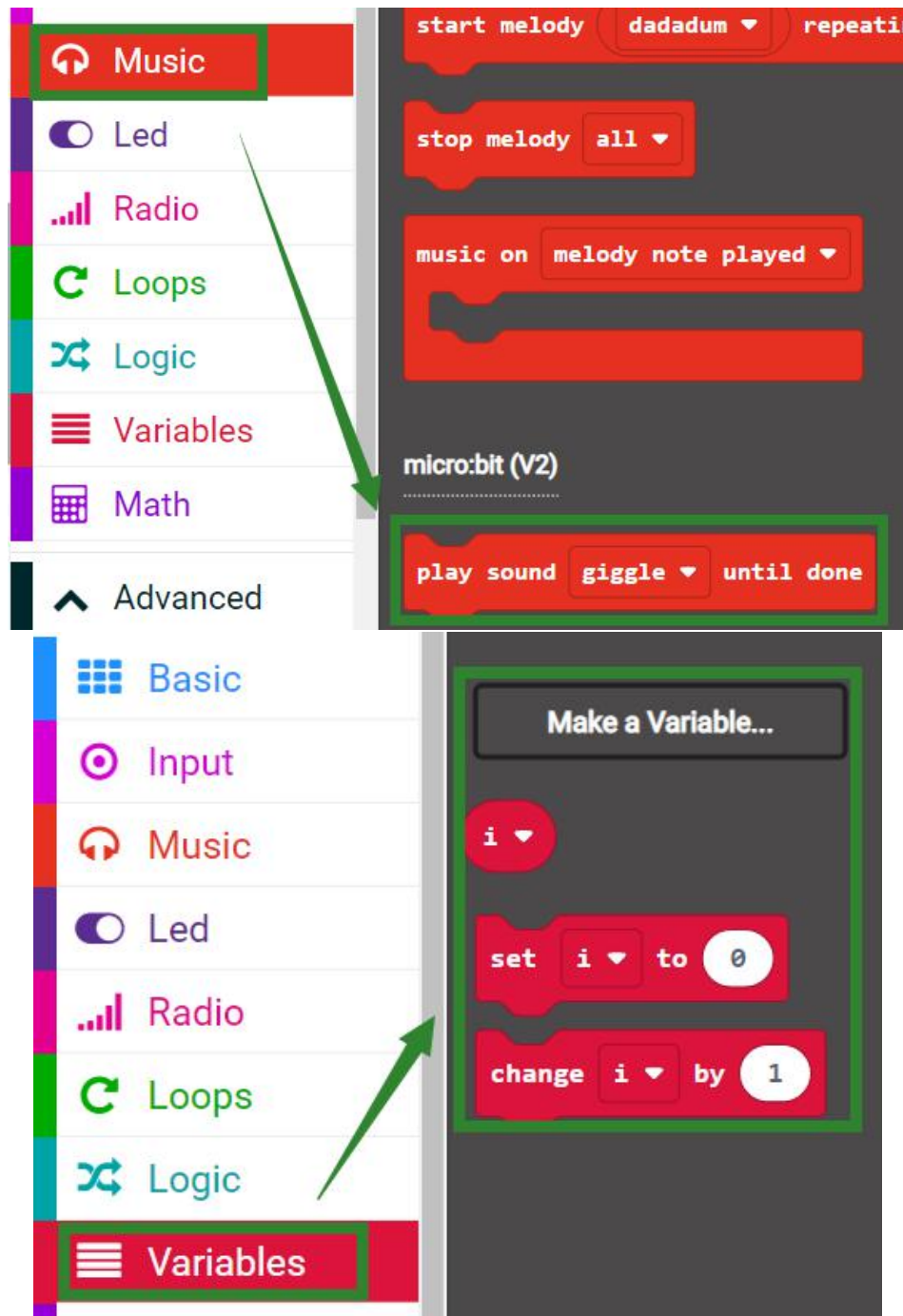
Mode 2 offline programming:

We need to open the offline programming software. After the installation is complete, enter the programming interface, click 【New Project】 , you can start program.

3.Looking for blocks

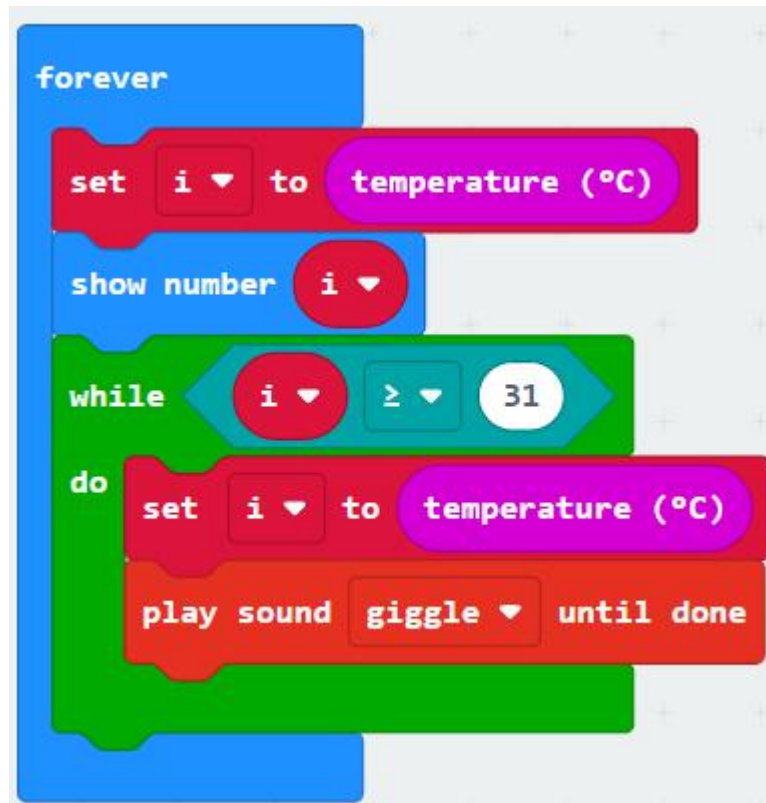
The following is the location of the building blocks required for this programming.





4.Combine block

The summary program is shown below.

**Program analysis:**

Set the temperature value to the variable "i" and display it on the LED dot matrix. When the chip temperature is greater than 31 °C, the alarm sound effect will be played. You can modify the temperature threshold according to the current use environment by yourself.

5.Experimental phenomena

After connecting the computer to the micro:bit board via the micro USB data cable. Click download or save on the programming interface, and the program can be successfully downloaded to the Micro:bit board.

We can see the micro:bit dot matrix displays the current temperature.

For example, my current temperature is 29 °C. After a while, the temperature of the Micro:bit chip will reach 31 °C. At this time, the buzzer will sound an alarm. Place the Micro:bit board in front of the fan. When the temperature of the board drops, the buzzer will stop the alarm.