

# Ultrasonic ranging

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## Ultrasonic ranging

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## 1.Learning objectives

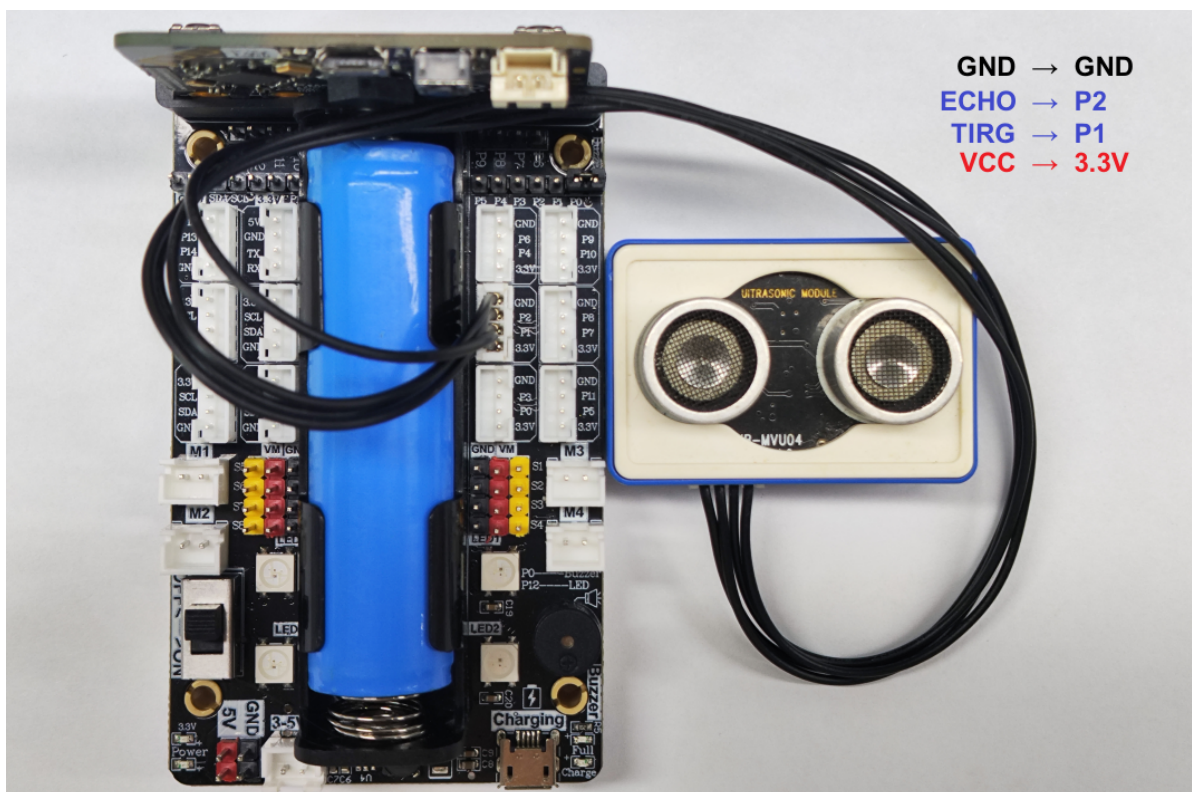
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In this course, we mainly learn how to realize ultrasonic module ranging through MakeCode graphical programming.

## 2.Sensor Wiring

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Ultrasonic connection is at P1P2 interface.



## 3.programming

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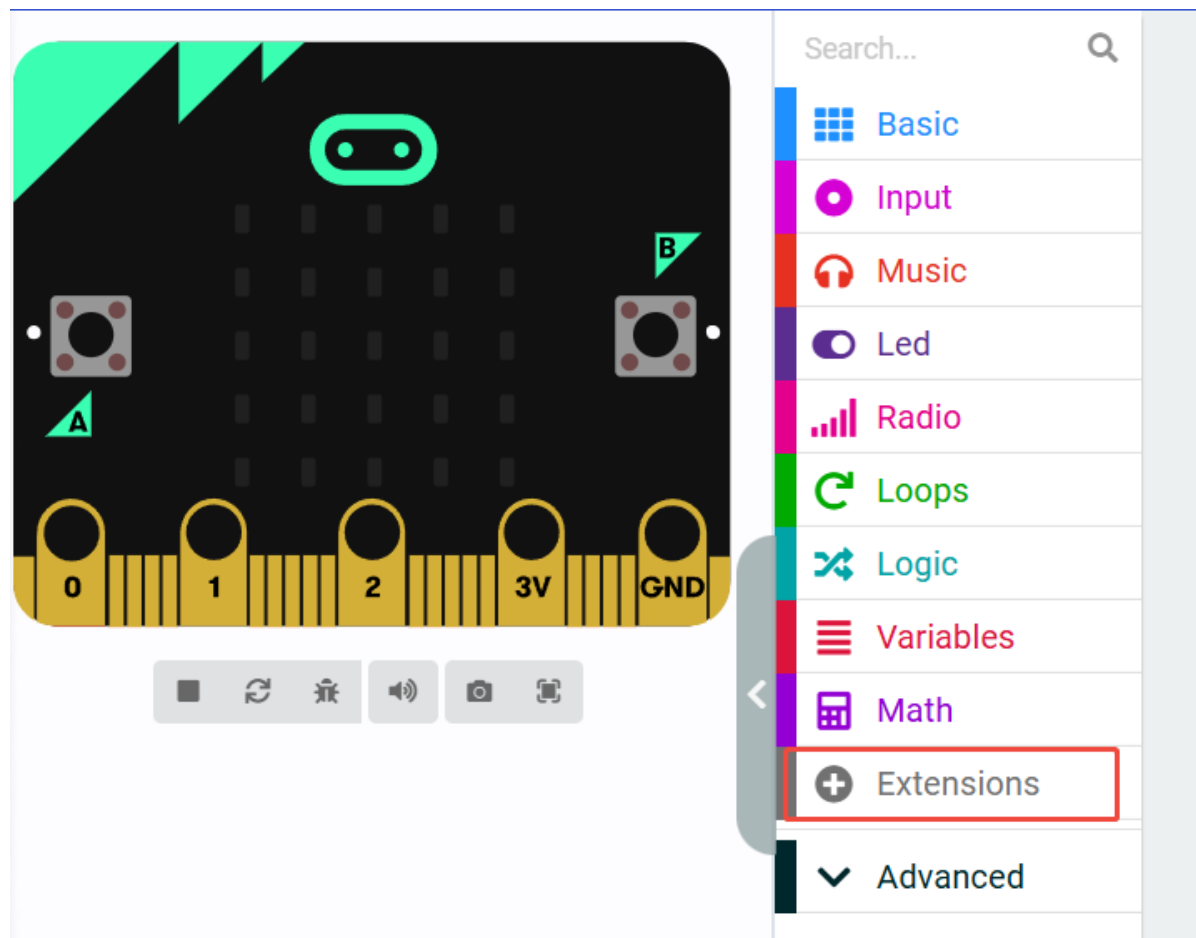
Method 1: Online programming:

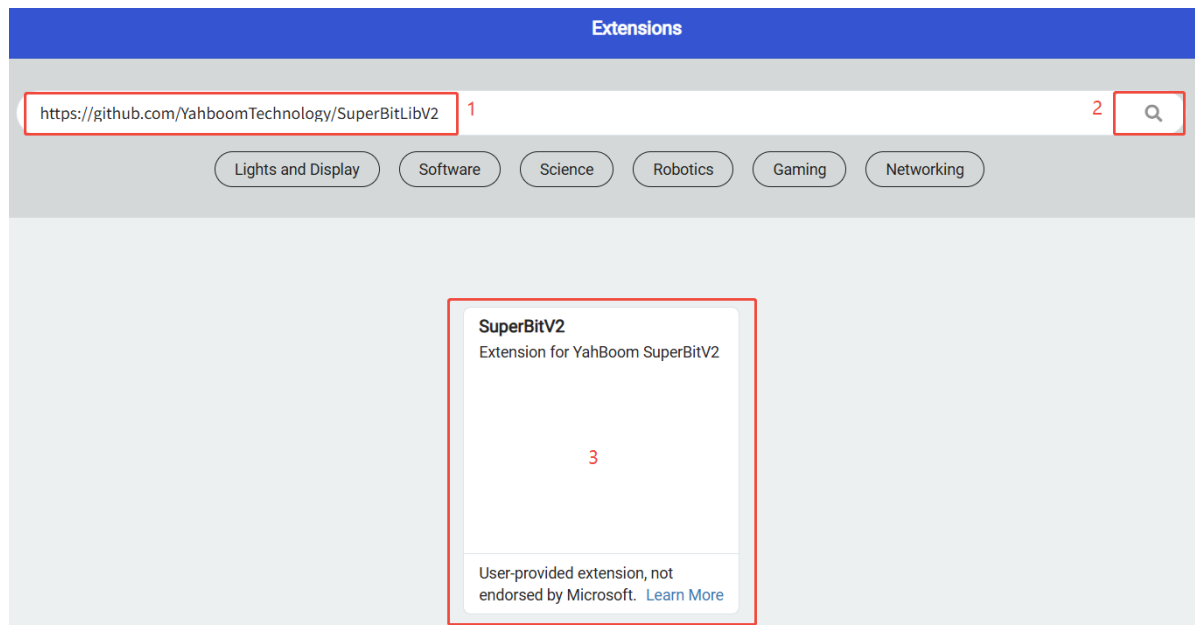
First, connect the micro:bit to the computer via a USB cable. A USB flash drive will pop up on the computer. Click the URL in the USB flash drive: <https://makecode.microbit.org/> to enter the programming interface. Then, add the Yahboom software package <https://github.com/YahboomTechnology/SuperBitLibV2> 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.

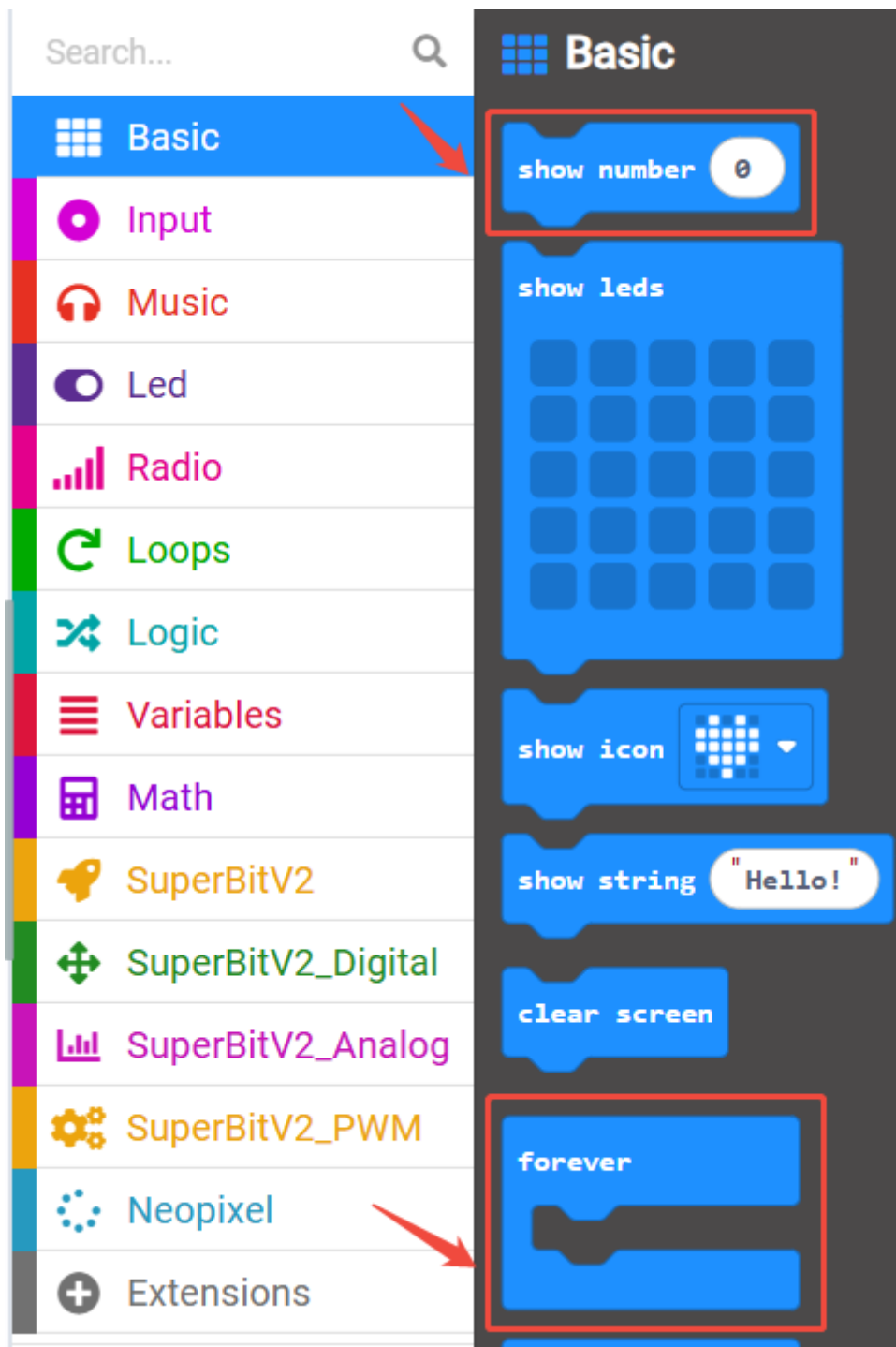
### 3.1 Adding an Extension Pack





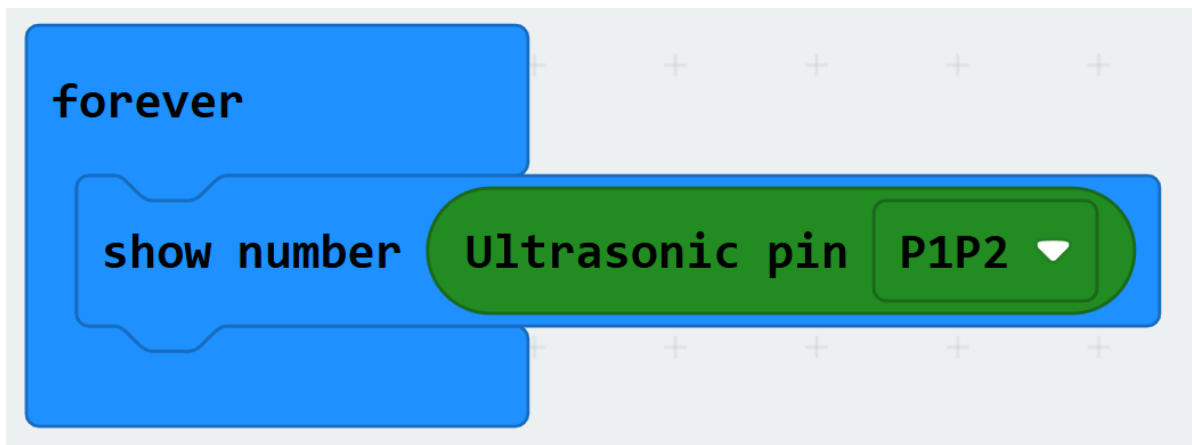
## 3.2 Bricks used

The locations of the building blocks required for this programming are shown in the figure below.



### 3.3 Combination building blocks

The summary procedure is shown in the figure below.



You can also directly open the **Ultrasonic-ranging.hex** Drag the file into the browser that opens the URL, and the program diagram of the project source code will be automatically opened.

## 4.Experimental phenomenon

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After the program runs successfully, the microbit dot matrix displays the distance measured by ultrasound.