

# Human body infrared detection broadcast

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## Human body infrared detection broadcast

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## 1. Learning objectives

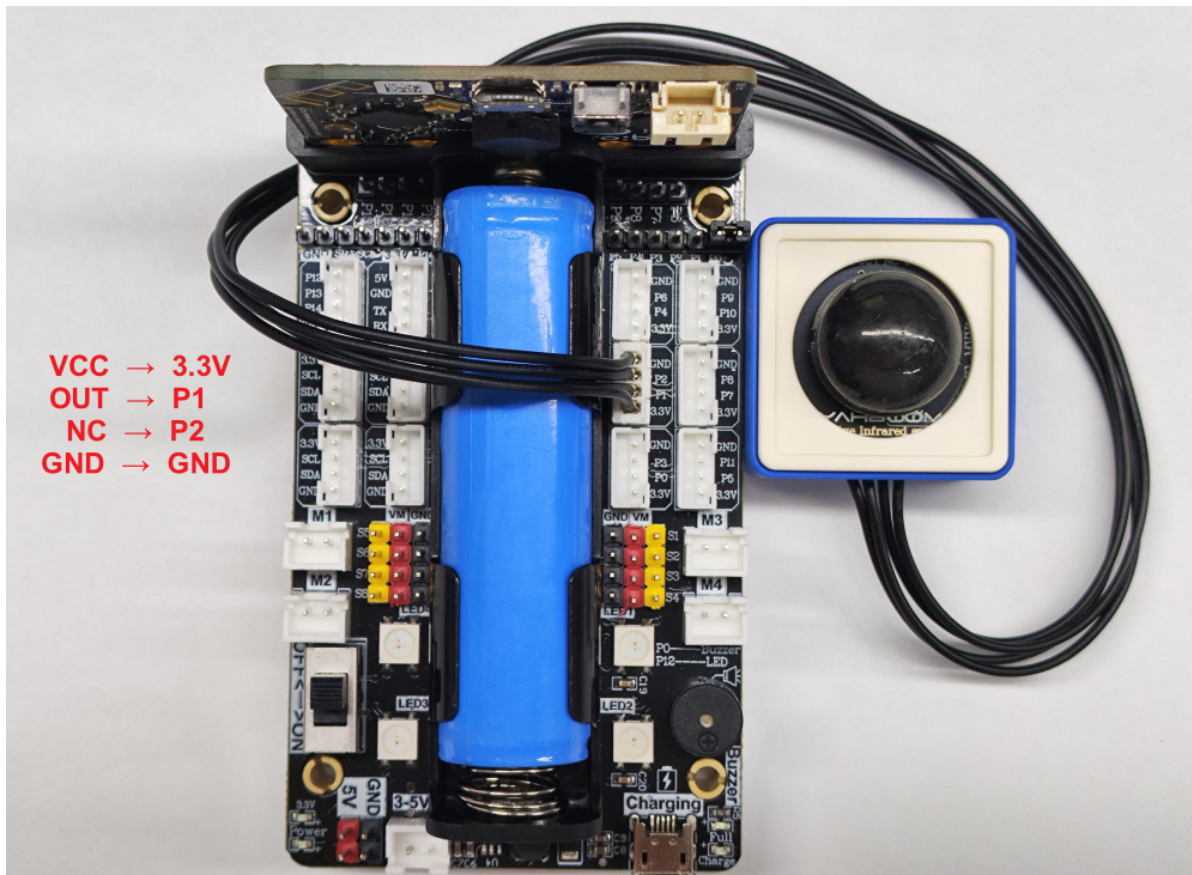
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In this course, we mainly learn how to use MakeCode graphical programming to realize the display of human infrared detection broadcast function.

## 2. Sensor wiring

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The human infrared sensing module is connected to the P1P2 interface.



## 3. Programming

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Method 1 Online programming:

First, connect micro:bit to the computer via a USB data cable. 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:

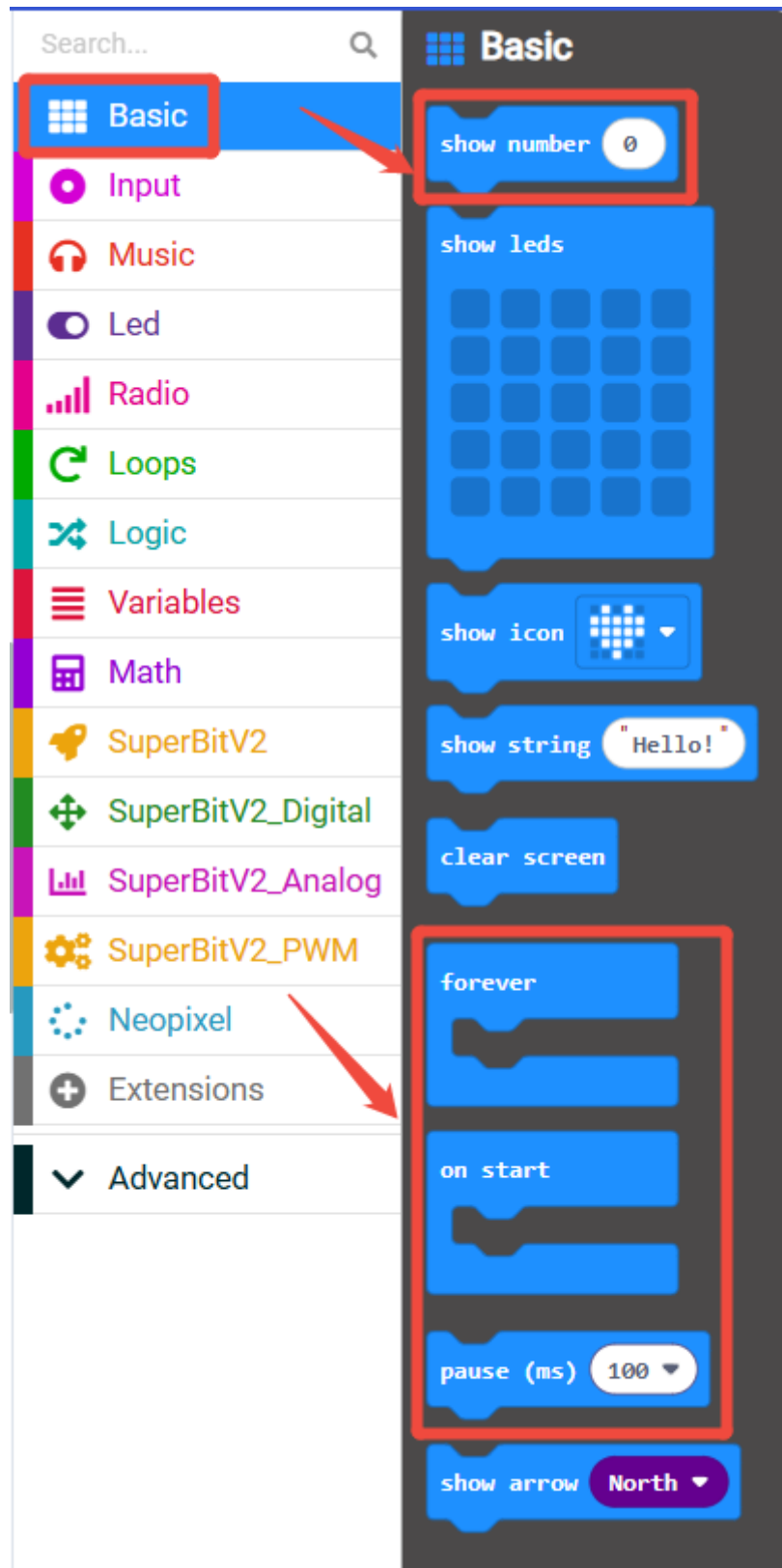
Open the offline programming software MakeCode and enter the programming interface. Click [New] and add the Yahboom software package <https://github.com/YahboomTechnology/SuperBitLibV2> to start programming.

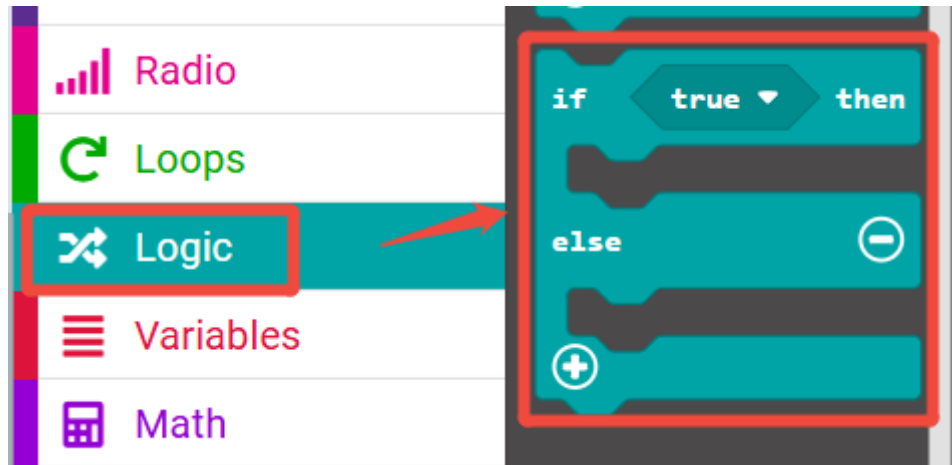
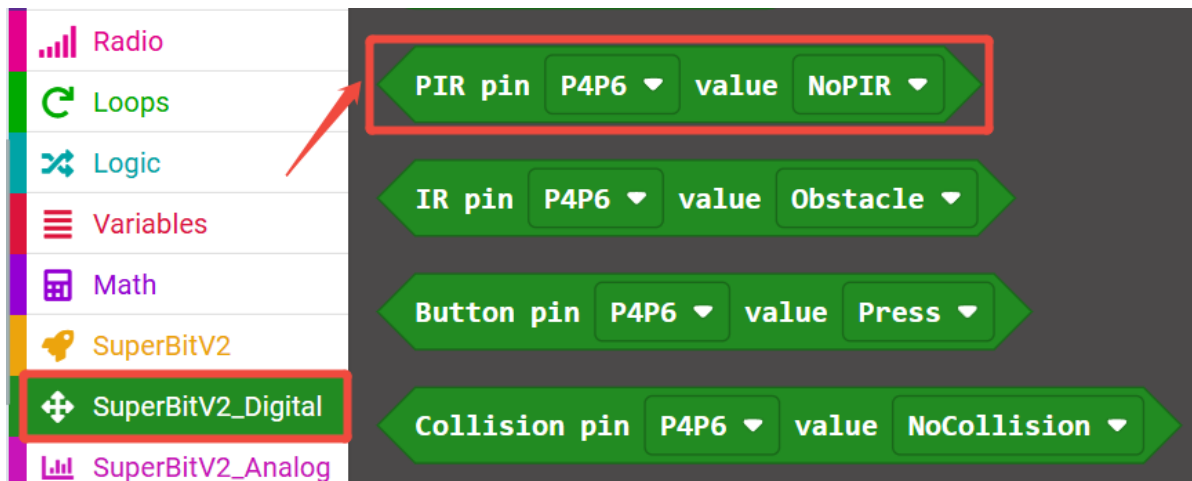
## 3.1 Add expansion package

The image shows the MakeCode web interface. On the left is a visual representation of a micro:bit board with various components like a screen, buttons, and pins labeled 0, 1, 2, 3V, and GND. On the right is a sidebar menu with categories: Basic, Input, Music, Led, Radio, Loops, Logic, Variables, Math, Extensions (highlighted with a red box), and Advanced. Below the sidebar, the 'Extensions' panel is open, showing a search bar (labeled 2) with the URL <https://github.com/YahboomTechnology/SuperBitLibV2> entered (labeled 1). Below the search bar are filters: Lights and Display, Software, Science, Robotics, Gaming, and Networking. The search results show 'SuperBitV2' (labeled 3) as an 'Extension for YahBoom SuperBitV2'. At the bottom of the result card, it states 'User-provided extension, not endorsed by Microsoft. Learn More'.

## 3.2 Building blocks used

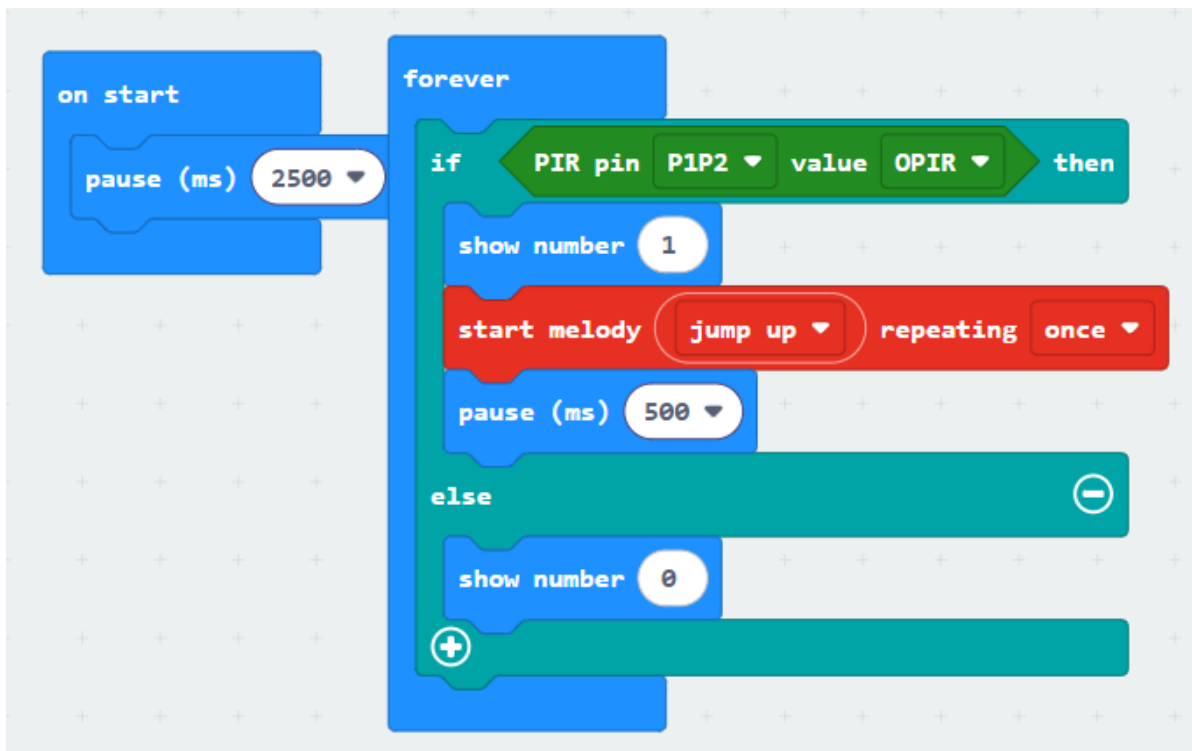
The location of the building blocks required for this programming is shown in the figure below.





### 3.3 Combining blocks

The summary program is shown in the figure below.



You can also directly open the **Human-body-infrared-detection-broadcast.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

## 4. Experimental phenomenon

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After turning on the computer, wait for a few seconds to initialize. After the dot matrix displays 0, the program runs successfully. When the human infrared detects someone, the dot matrix displays 1 and then plays jump up music, otherwise it displays 0.