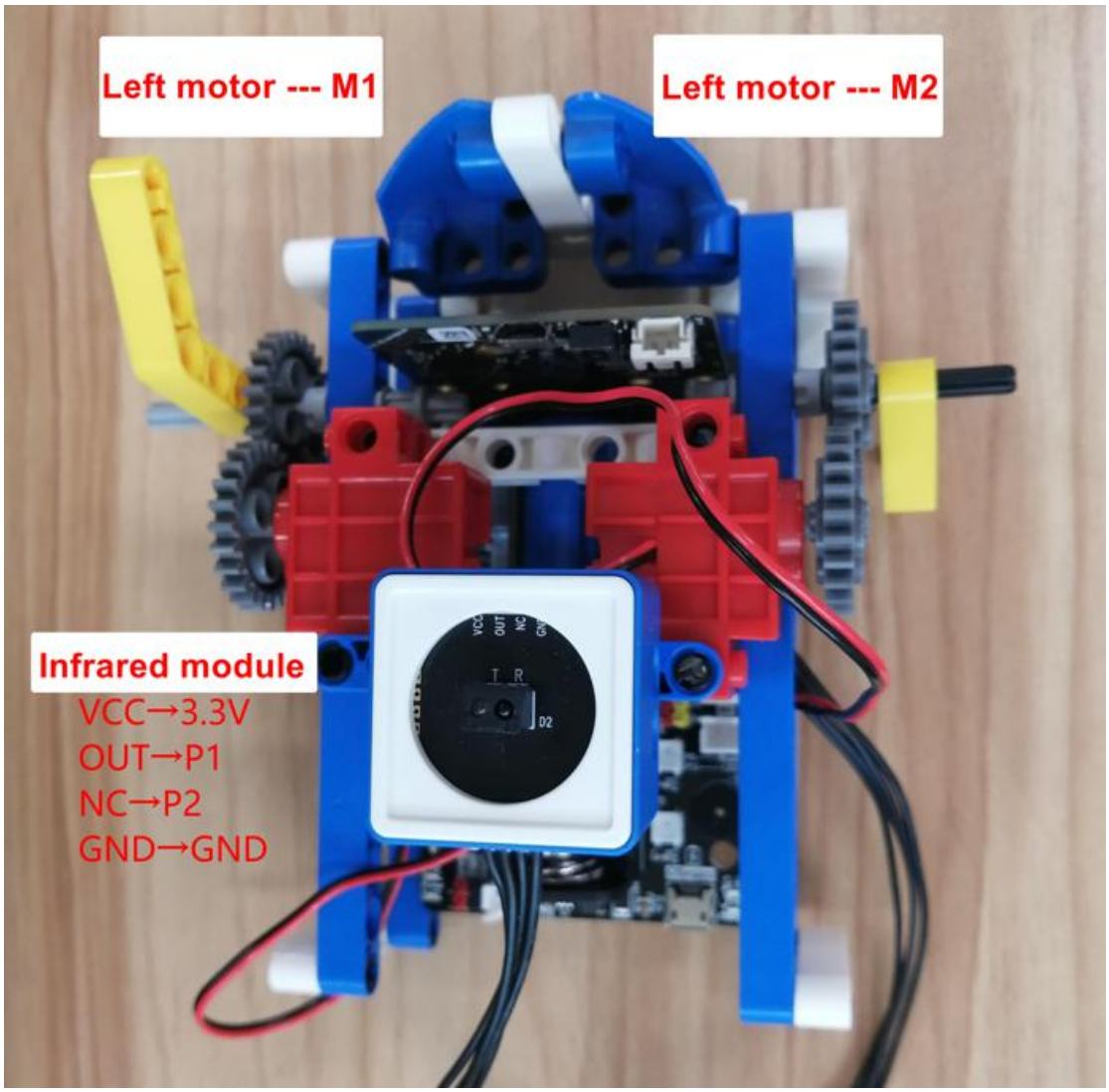
Swimming robot

1. Learning target

In this course, we will earn how to use Micro:bit and infrared detection sensor module to achieve swimming robot detect and avoid aerial obstacles.

2. Preparation

Connect the module to Micro:bit board by expansion board, as shown below.



3.Programming method

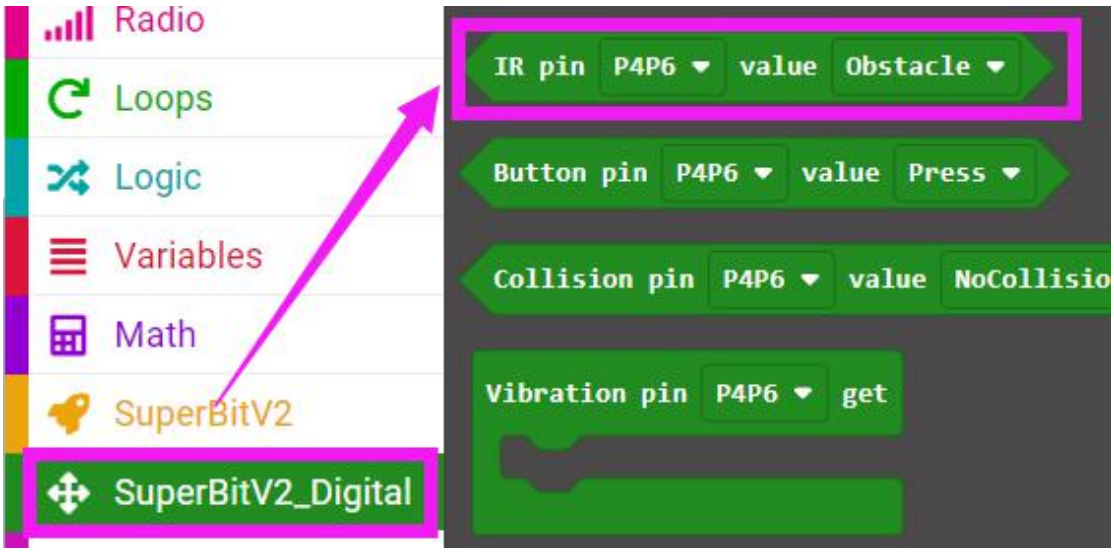
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: http://microbit.org/ to enter the programming interface. Add the Yahboom package https://github.com/YahboomTechnology/SuperBitLibV2 to program.

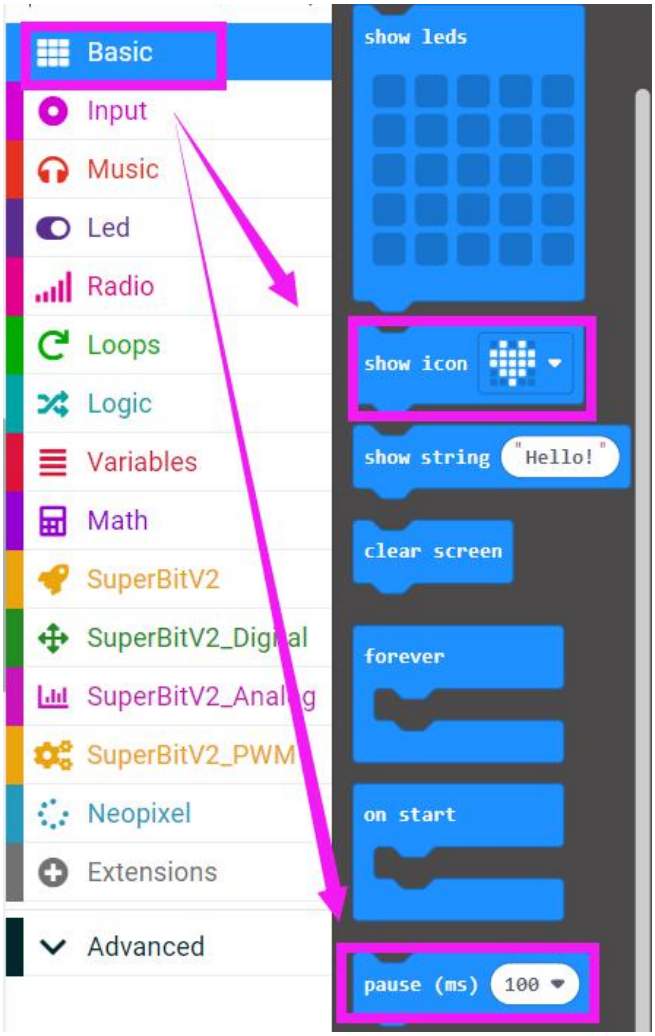
Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click【New

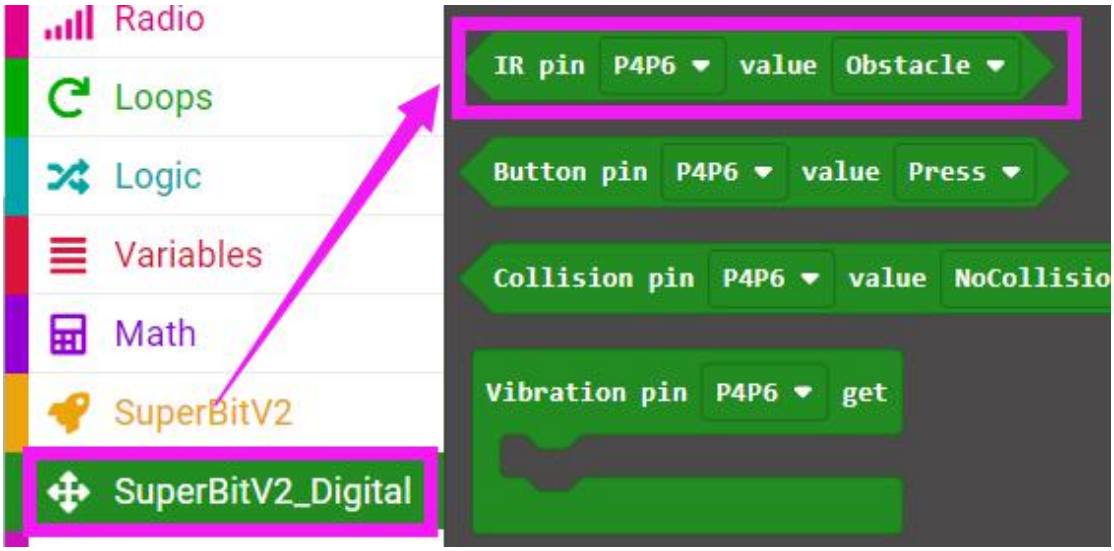
Project】, add Yahboom package:
https://github.com/YahboomTechnology/SuperBitLibV2 , you can start programming.

4.Looking for blocks

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

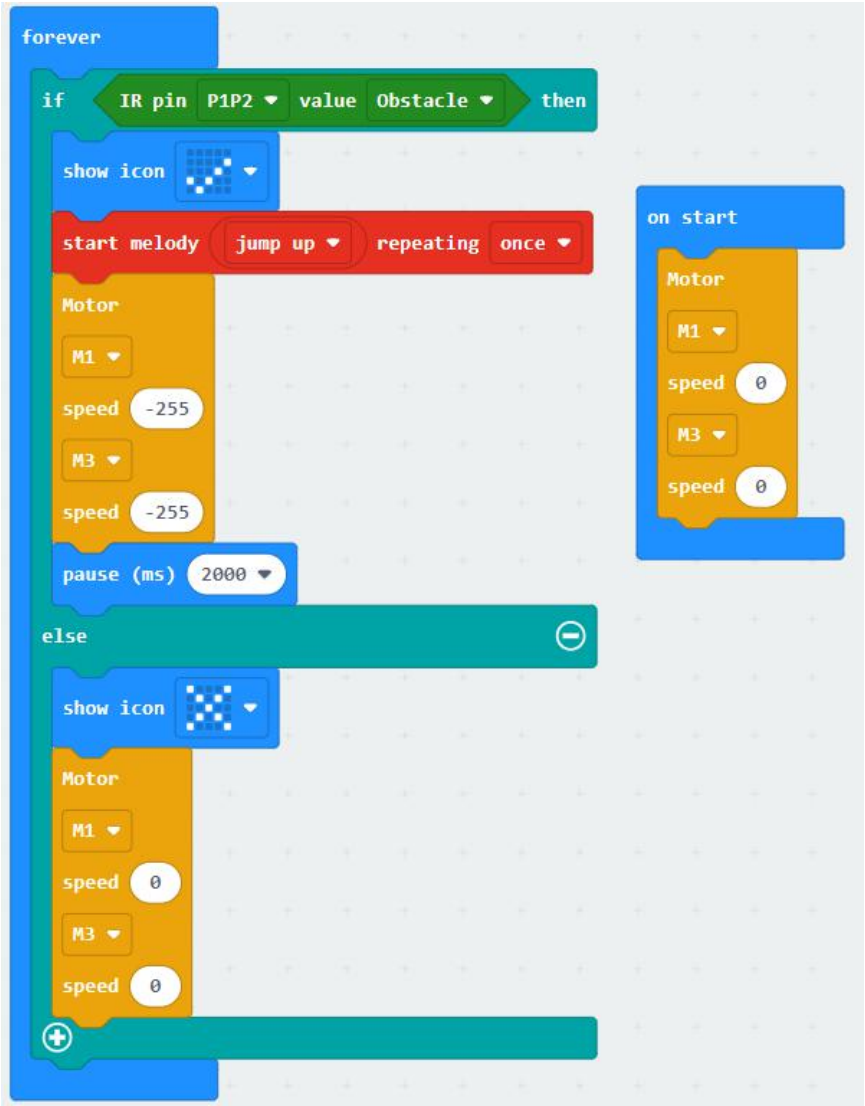






5.Combine block

The summary program is shown below.



6.Experimental phenomena

After the program is downloaded successfully. Turn on the power switch, and the micro:bit board will display “X”, When the infrared module of the swimming robot detects an object above, the dot matrix displays “√”, and the swimming robot sends a jump up alarm and paddles forward for 2 seconds, otherwise the swimming robot is in a stationary state and the micro:bit board displays “X”.