Bite the hand crocodile

1.Learning goals

In this course, we mainly learn how to use the MakeCode graphical programming to realize following function.

Function: When we press the A button or the B button, the changing face mask will fall off randomly.
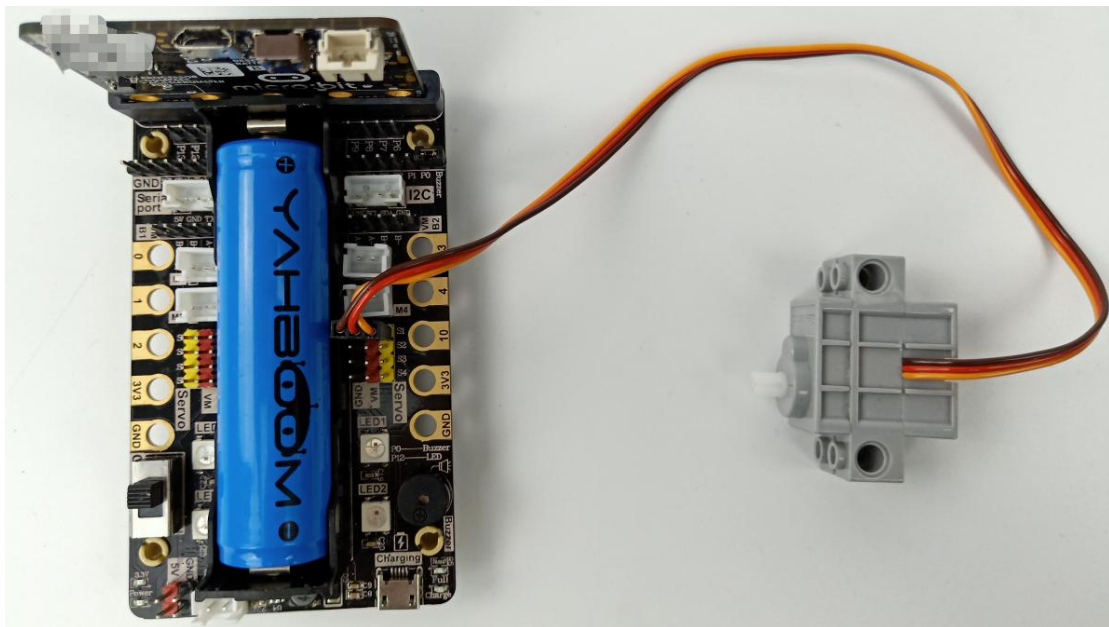
2.Building block assembly steps

For the building block construction steps, please refer to the installation manual or building block installation picture of [Assembly course]-[Changing face].

3.Wiring of servo

Building block servo insert into the Super:bit expansion board S1 interface, and the orange wiring connect the yellow pin of S1.

As shown below:

Note:

For the first course related to building block servo, we need to remove the gear on the servo and upload the program of this course to micro: bit. Then, turn on the power switch of the Super:bit expansion board and wait for the building block servo turn to the initial position. Next, we can turn off the power, and adjust the changing face mask to be off. Finally, install the servo. (If you have used programs related to clip robot before, you can skip this step)

4. 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/lzty634158/SuperBit** 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/lzty634158/SuperBit**, you can program.

5.Looking for blocks

The following is the location of the building blocks required for this programming.
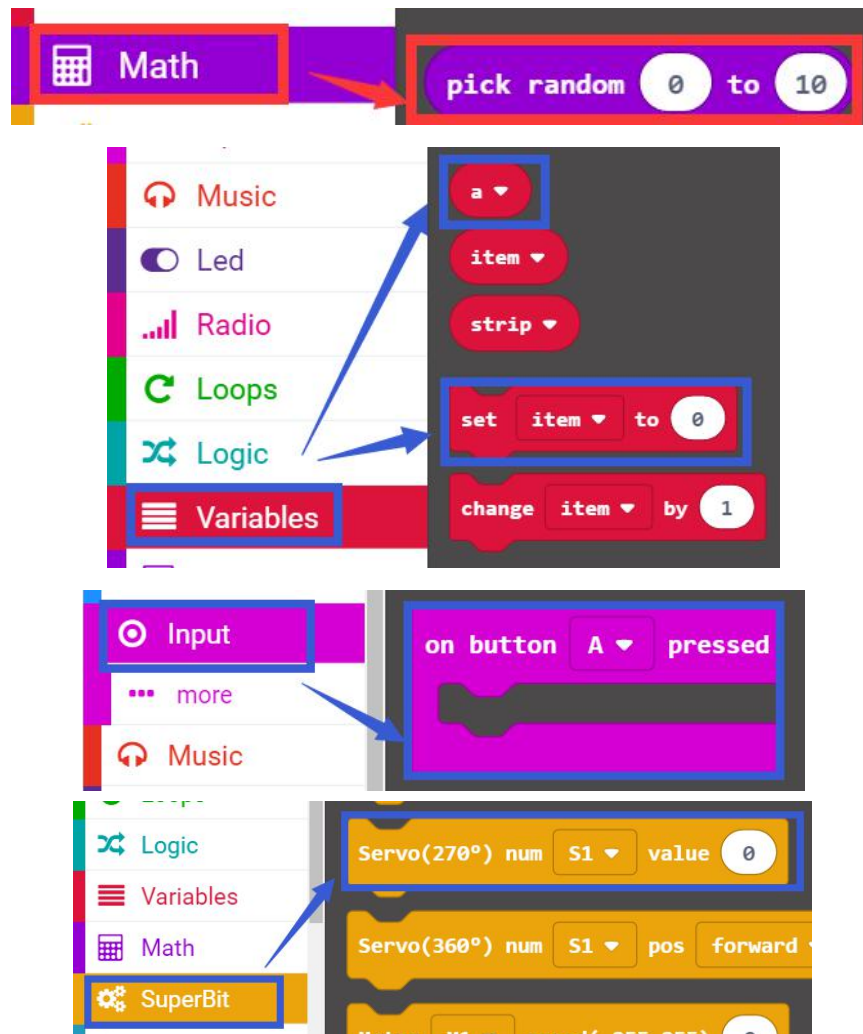
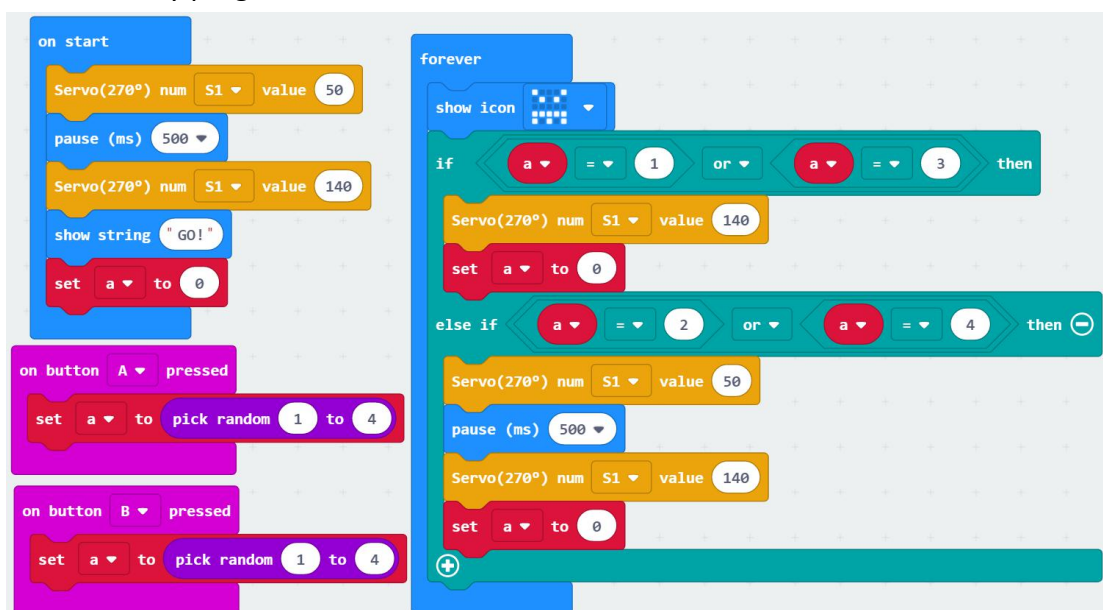### 6.Combine block

The summary program is shown below.

7.Experimental phenomena

After the program is successfully downloaded, turn on the power switch, and the servo will initialize to 50° (the changing face mask is closed). After 500 ms, the servo will turn to 140° (the changing face mask is on), and the dot matrix will display "GO!" Then, the micro:bit dot matrix will display a vicious emoticon, as shown below.
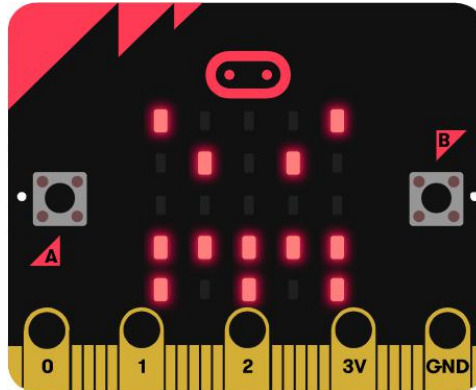
When we press the A button or the B button, the changing face mask will fall down randomly.

If you need to restart, press the reset button on the back of the micro:bit board.