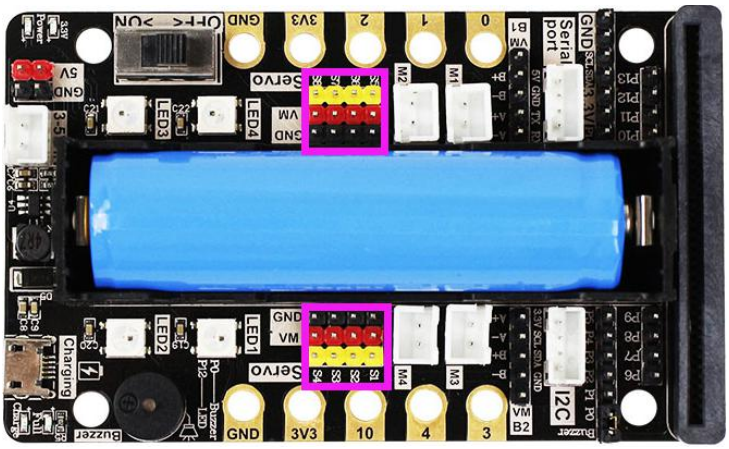
Drive 270°building block servo

1.Learning goals

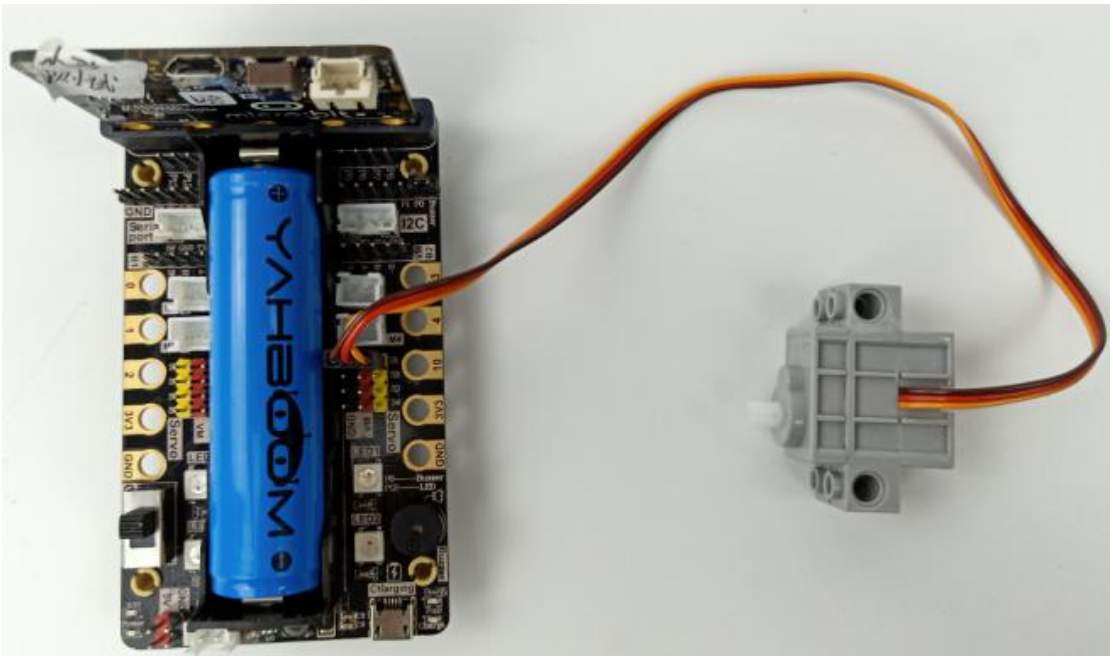
In this course, we mainly learn how to drive building block servo connected to the superbit expansion board through MakeCode graphical programming.

Servo interface is located on the expansion board as shown in the figure below.



2.Wiring of Servo

The building block servo wiring need to be inserted into the Super:bit expansion board S1 interface, and the orange wiring is inserted into the yellow pin of S1, as shown below.



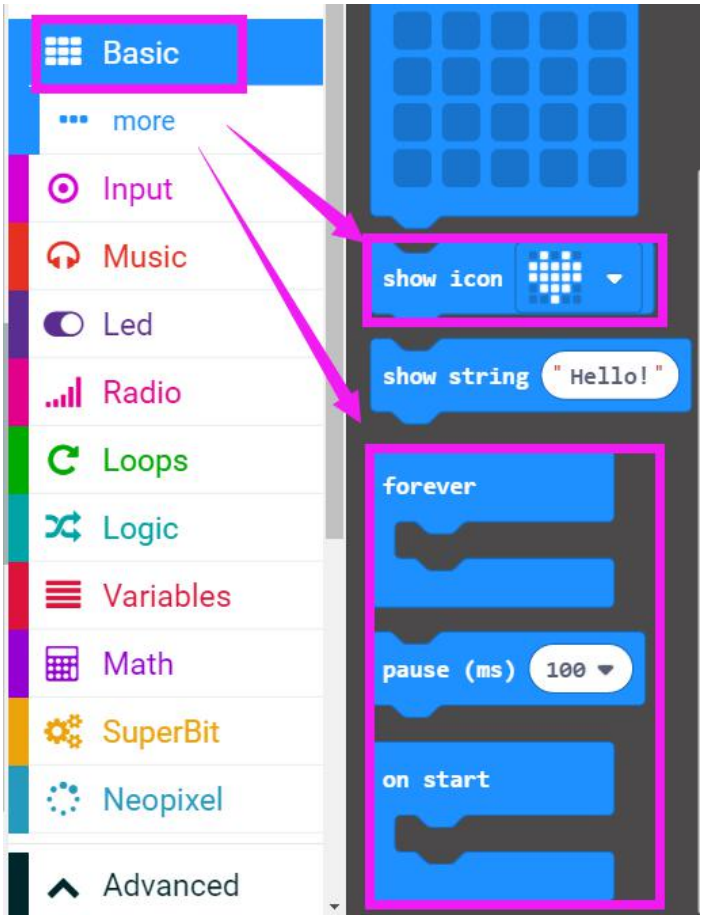
3. Programming method

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/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.

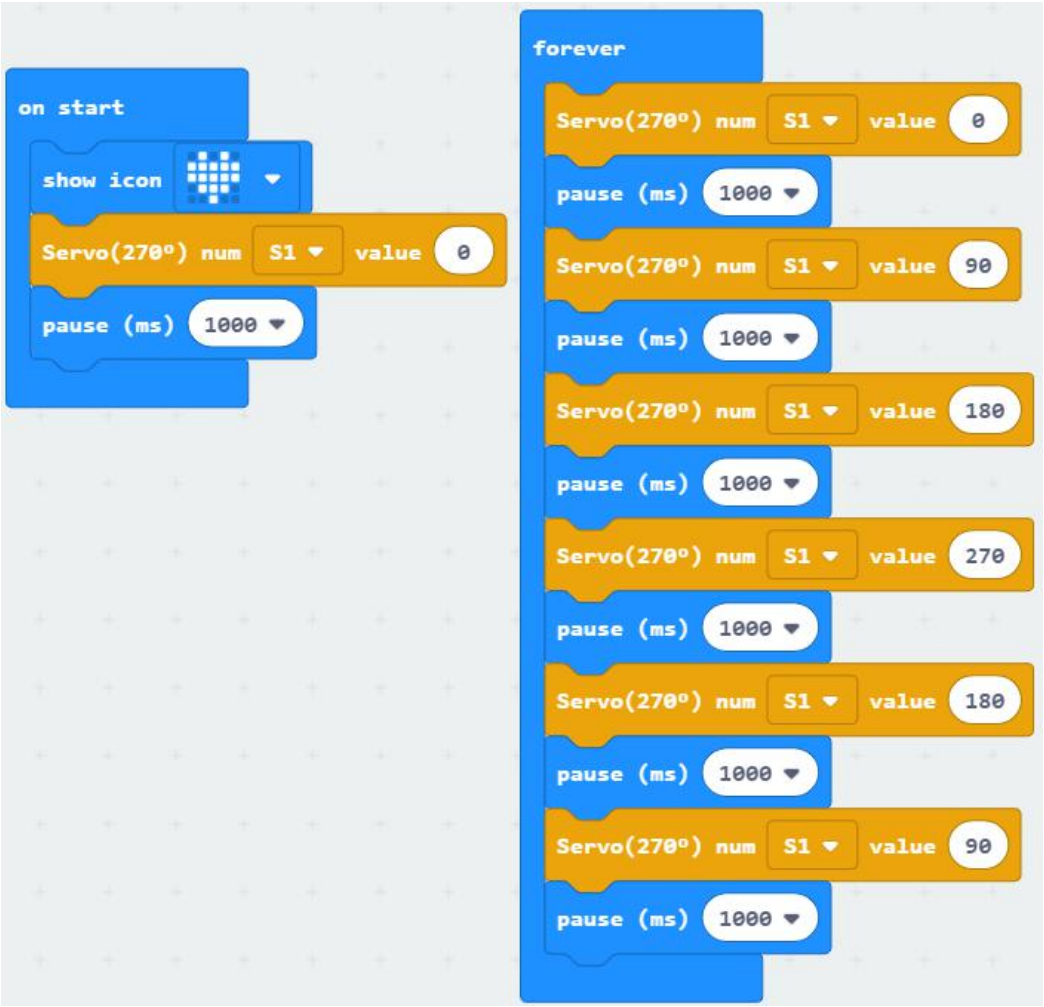
3.Looking for blocks

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



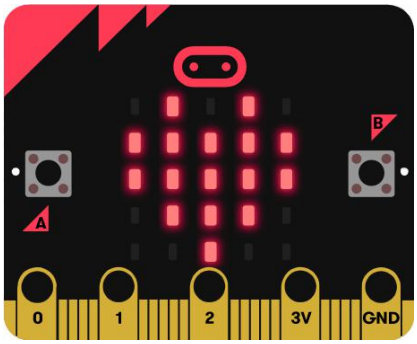
4.Combine block

The summary program is shown below.



5.Experimental phenomena

After the program is successfully downloaded, the micro: bit dot matrix will display the heart pattern, as shown below. The servo is initialized to 0 °, then, we can see that the servo starts to rotate, 0 °-> 90 °-> 180 °-> 270 °-> 180 °-> 90 °-> 0 °, the time interval is 1 second.



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