

Dancing and singing

1.Learning goals

In this lesson, we mainly learn how to make spider dancing and singing.

2.Programming method

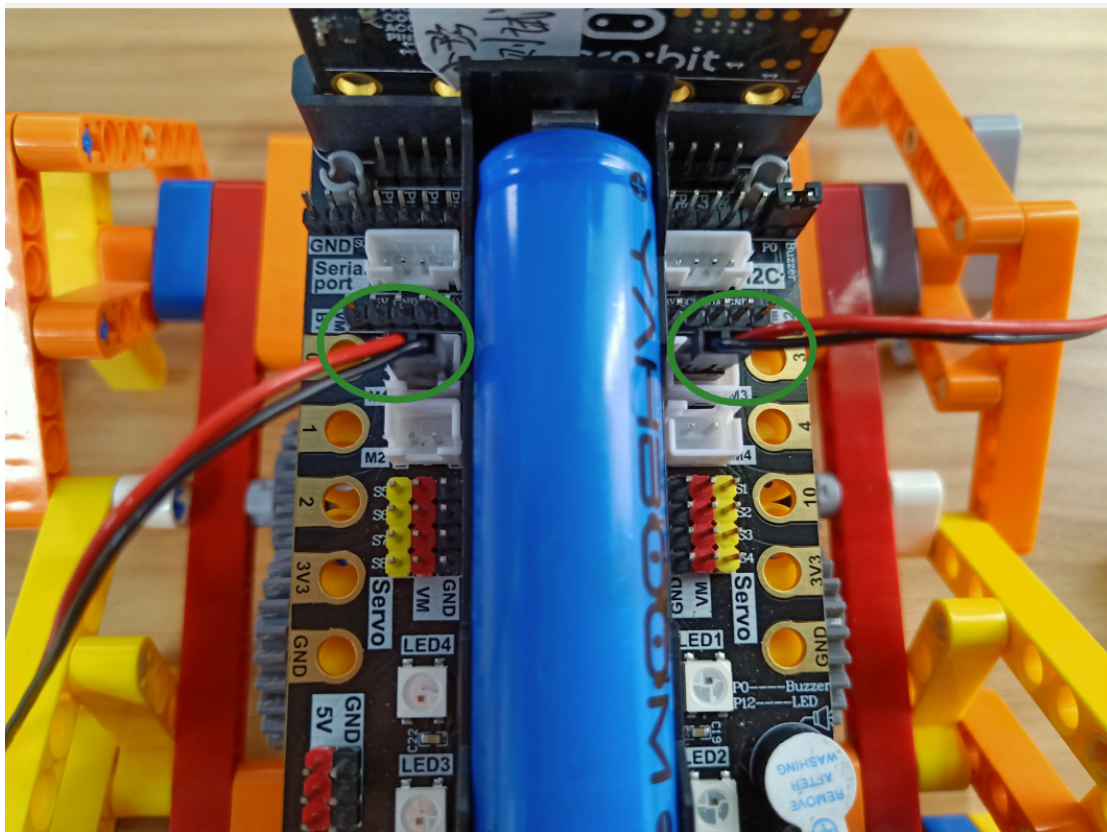
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: <http://microbit.org/> to enter the programming interface. Add the Yahboom package <https://github.com/lzty634158/SuperBit> 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.About wiring

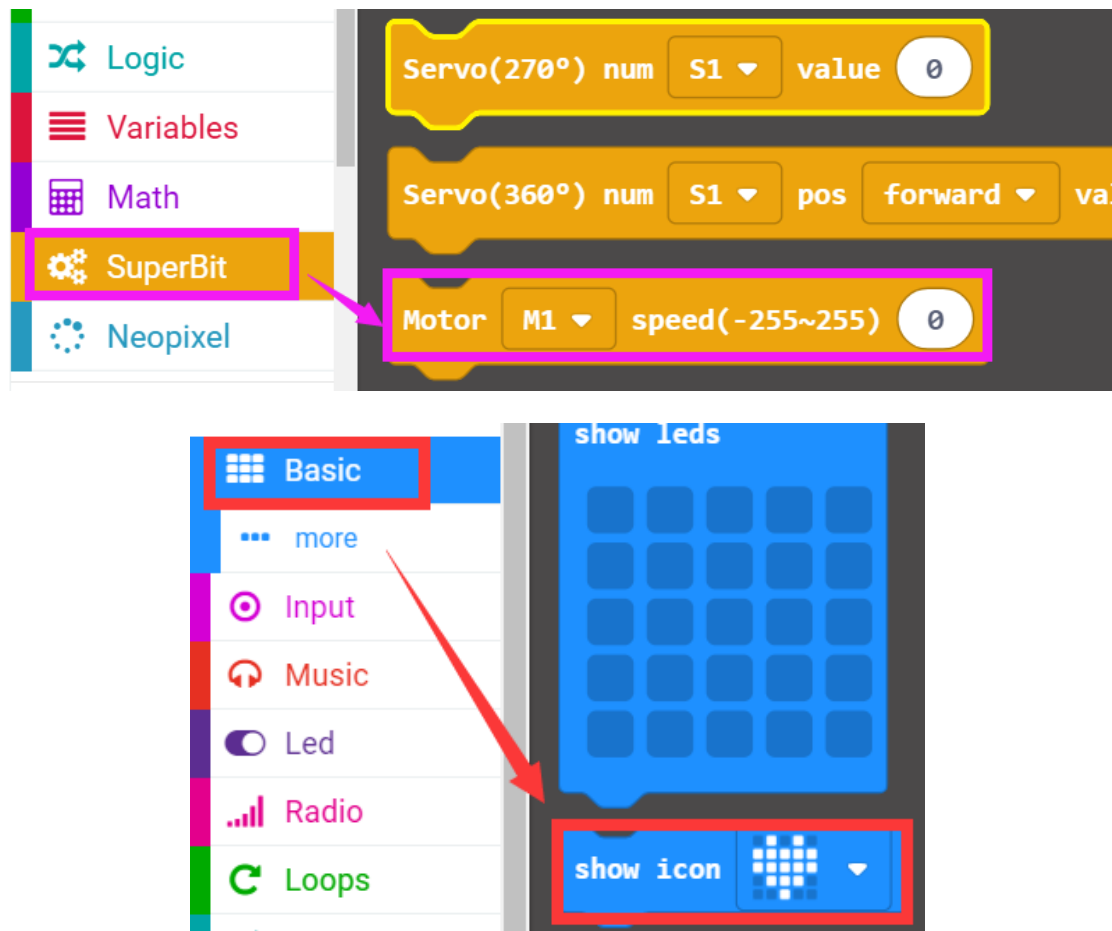
We need to connect two building block motors to the M1 and M3 interfaces of the Super:bit expansion board.

The black wiring of the motor is near the battery side. As shown below.



4.Looking for blocks

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



5.Combine building block

The summary program is [microbit-Dancing-and-singing.hex](#)

! Note:

Due to the problem of the building block structure, if you want the spider to move forward, the direction of the building block motor needs to be set backward.

5. Experimental phenomena

After program download is complete, micro: bit dot matrix will display a “smile” pattern and play the birthday song in a loop.

The spider advances for 0.5 seconds --> back for 0.5 seconds --> turn left for 1 second --> turn right for 1 second --> spin left for 0.2 seconds --> spin right for 0.2 seconds --> turn left 0.5 seconds --> turn right 0.5 seconds, the color of the RGB light is red-> green-> blue-> violet, and so on.

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

