Waving wings

1.Learning goals

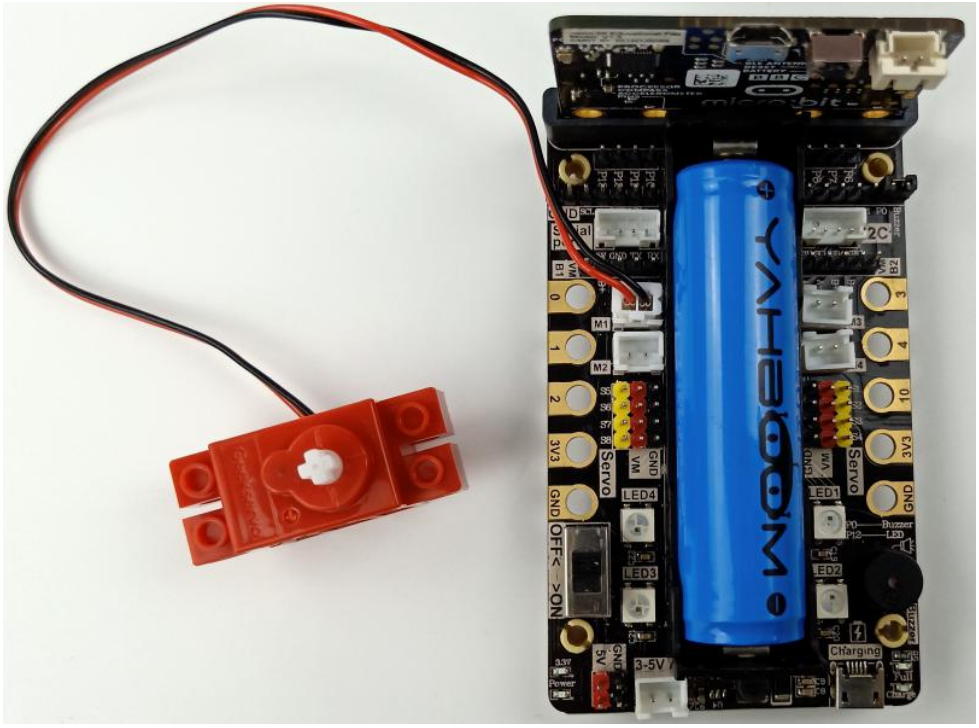
In this course, we mainly learn how to use the MakeCode graphical programming to realize the Dragon knight waving wings.

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]-[Biped robot].

3.Wiring of motor and servo

The motor wiring is inserted into the M1 interface of the Super:bit expansion board, and the black wire is close to the battery side;
As shown below.



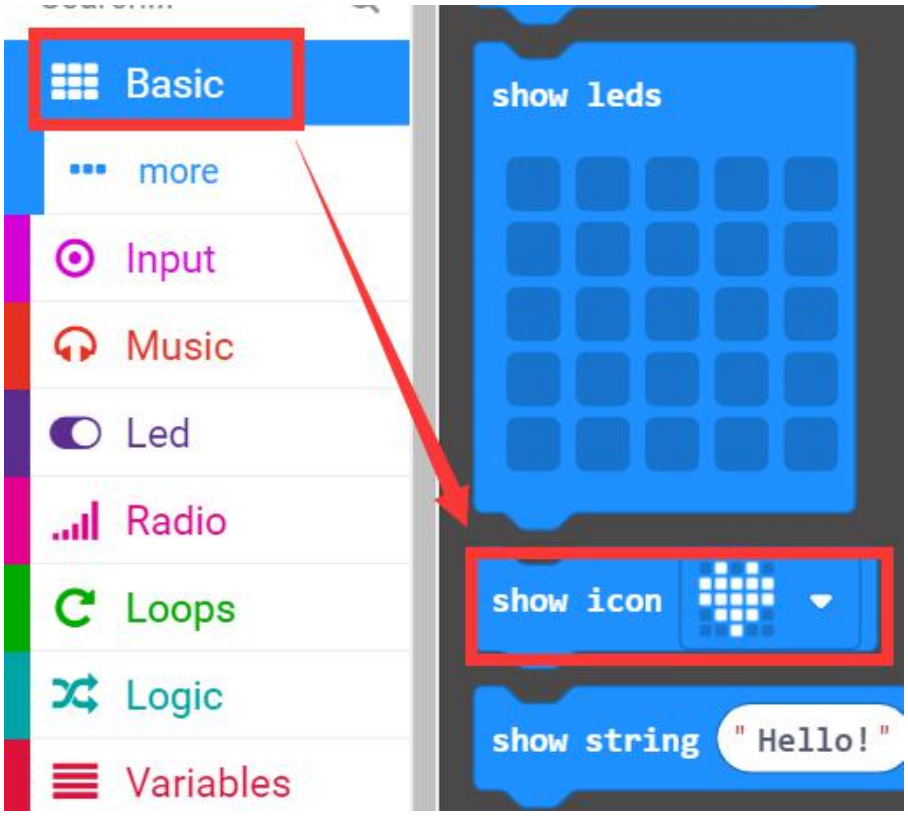
4.Programming method

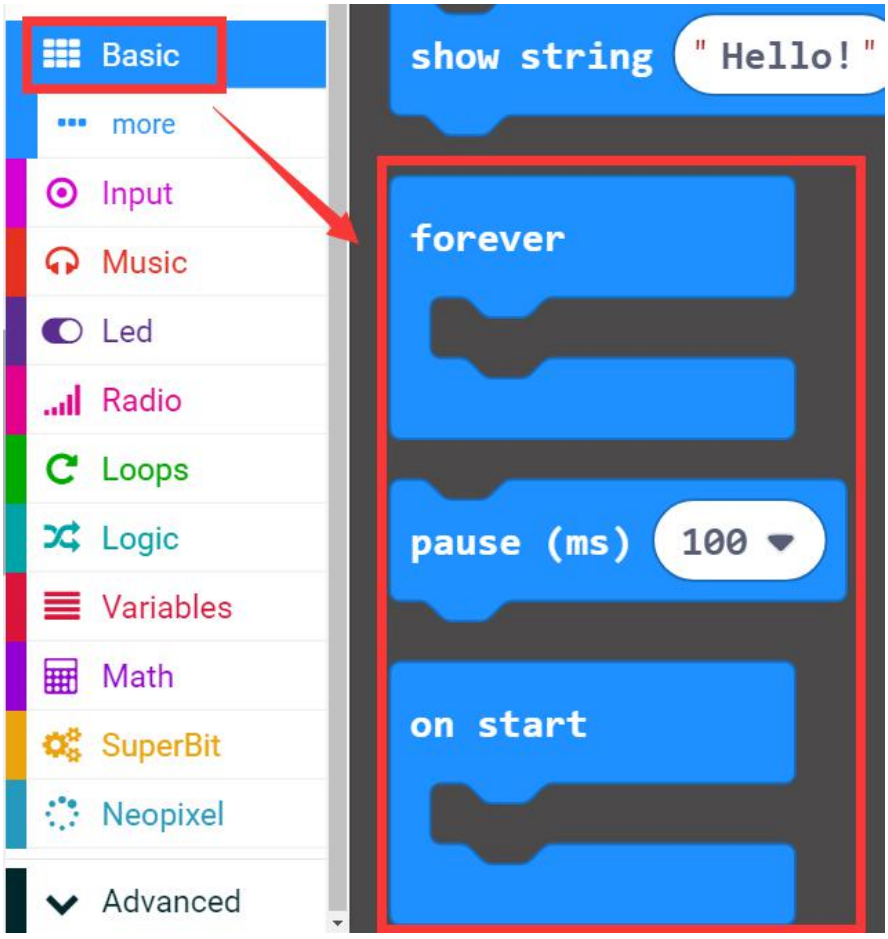
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: http://microbit.org/ to enter the programming interface. Add the Yahboom package **https://github.com/lzty634158/SuperBit**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

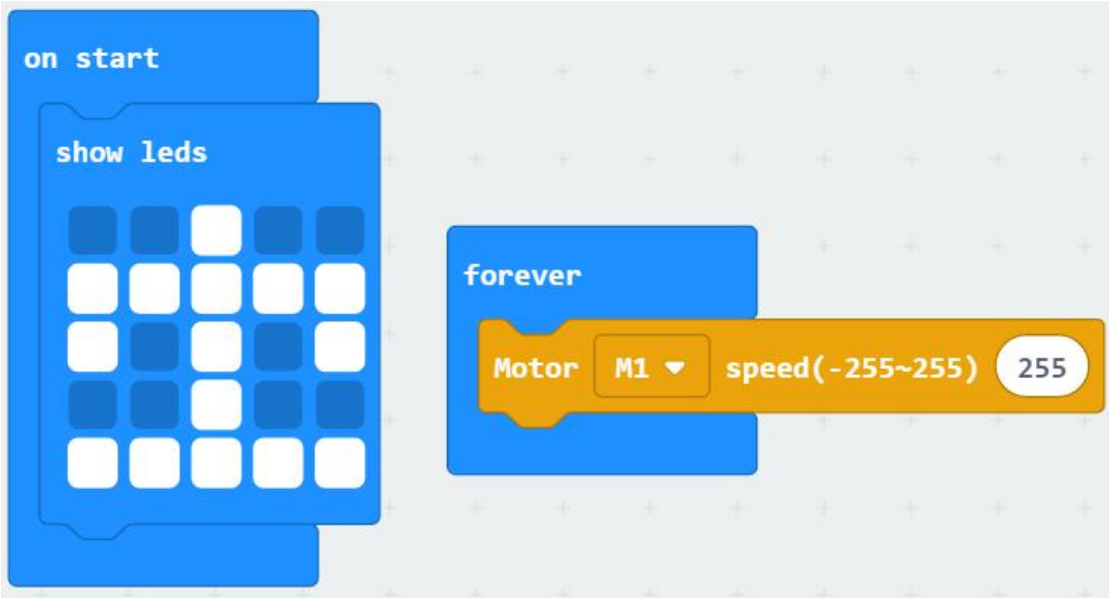
The following is the location of the building blocks required for this programming.


Basic
more
Input
Music
Led
Radio
Loops
Logic
Variables
show leds
show icon
show string
" Hello! "


Basic
more
Input
Music
Led
Radio
Loops
Logic
Variables
Math
SuperBit
Neopixel
Advanced
show string
" Hello! "
forever
pause (ms)
100
on start

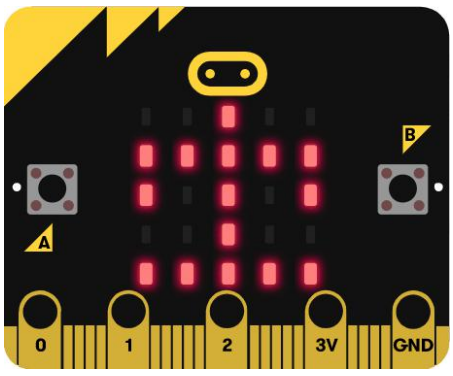
6.Combine block

The summary program is shown below.



7.Experimental phenomena

After the program is successfully downloaded. Open the power switch, the pattern shown in the figure below will be displayed on the micro:bit dot matrix, and the Dragon Knight will start waving wings.



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