Naughty_ghost

1.Learning goal

In this lesson, we mainly use the servo to conduct the experiment. When a pin is touched, the servo rotates with the LED: bit rises and the LED: bit will display the dynamic expression of the naughty tongue.

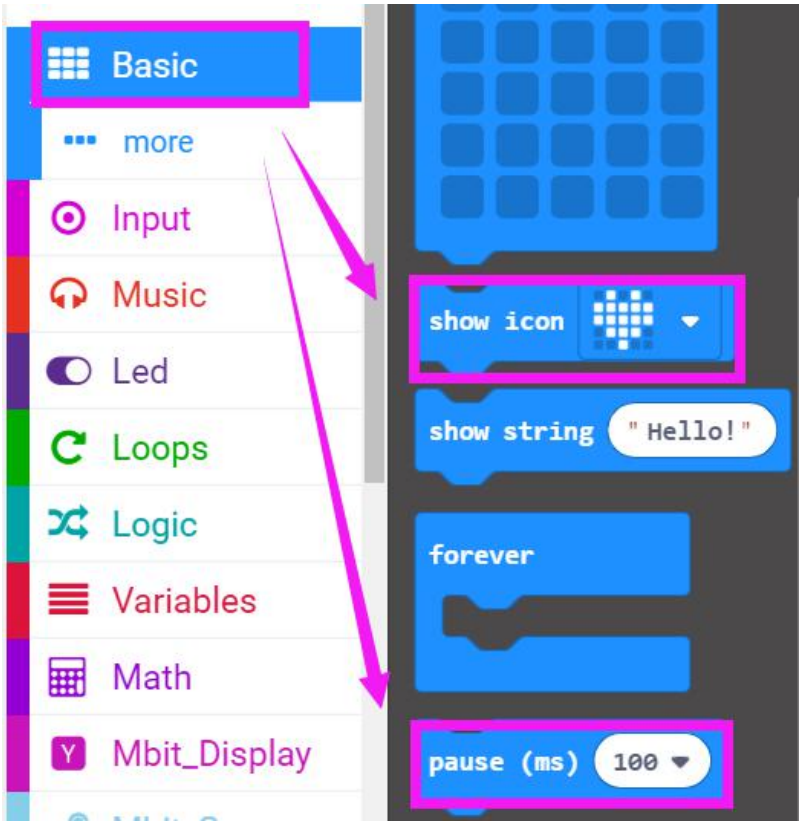
2.Programming method

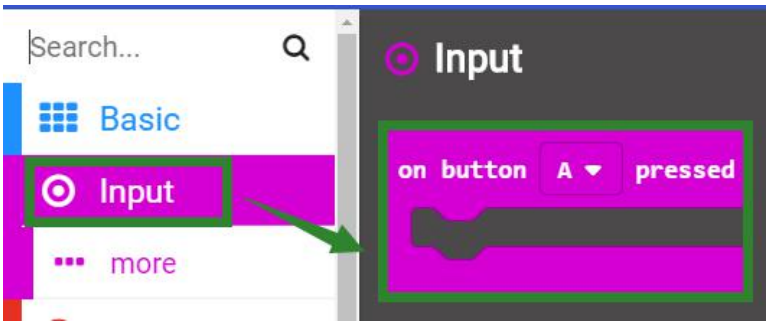
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: **http://microbit.org/** to enter the programming interface. Add the Yahboom package **https://github.com/lzty634158/LED-Bit**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

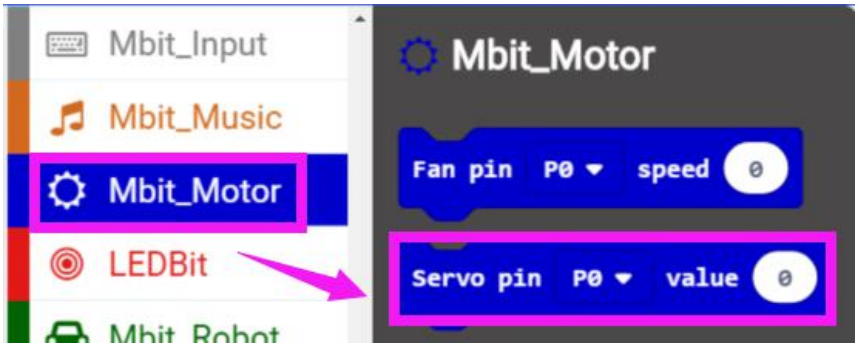
Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click【New Project】, add Yahboom package: **https://github.com/lzty634158/LED-Bit** and https://github.com/lzty634158/yahboom_mbit, you can program.

3.Looking for blocks

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

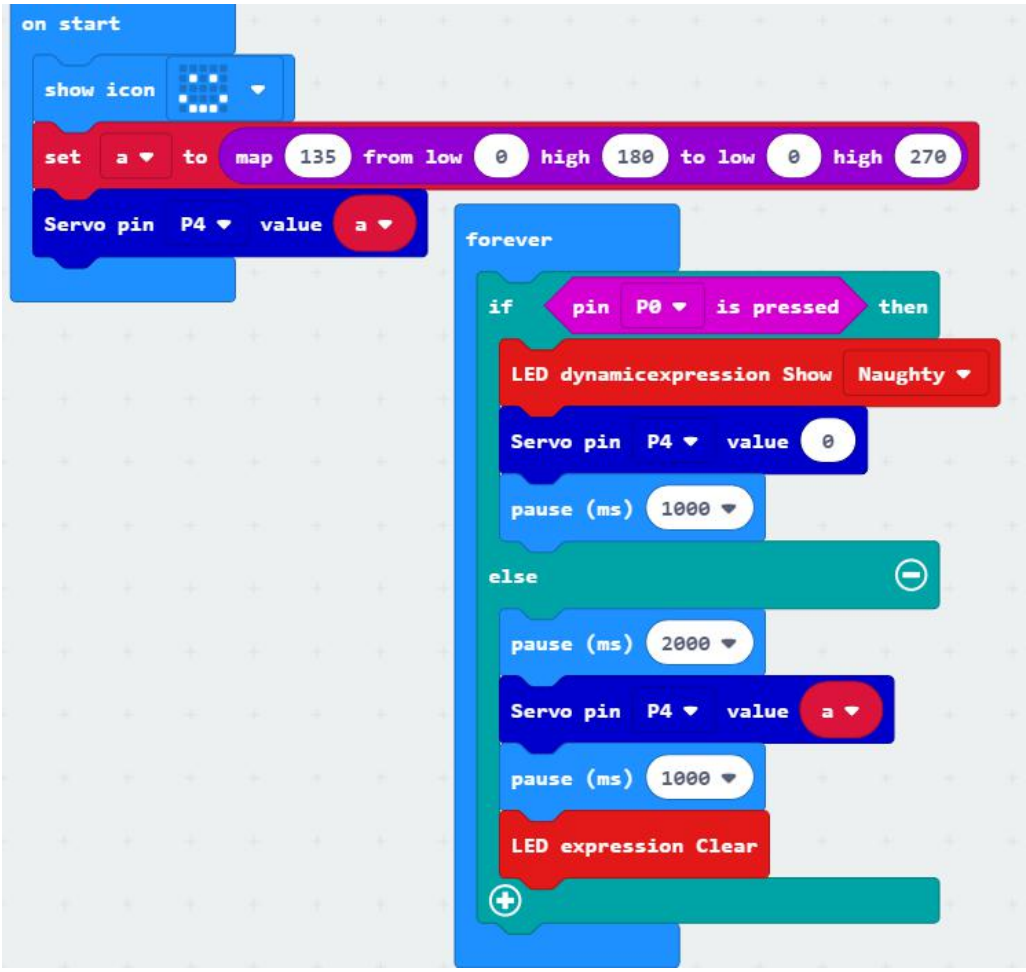




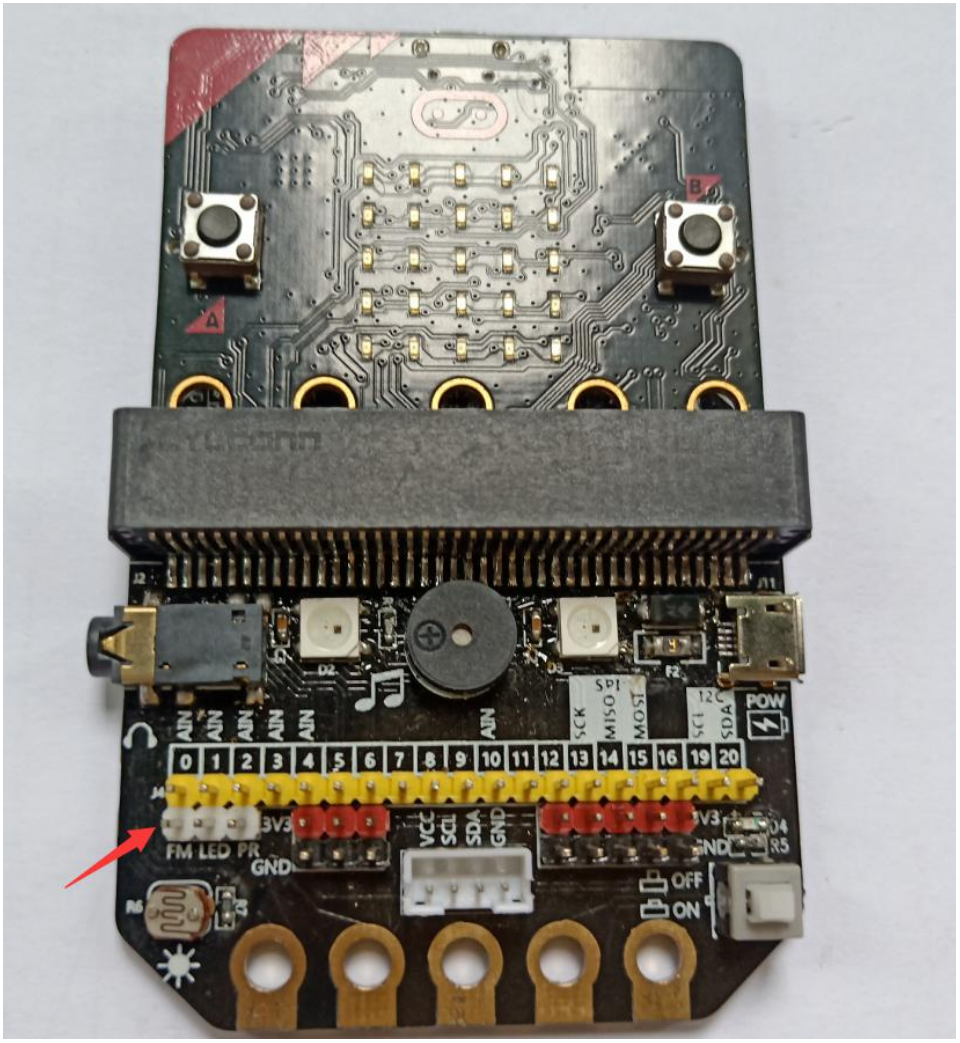


4.Combine building block

The summary program is shown below:

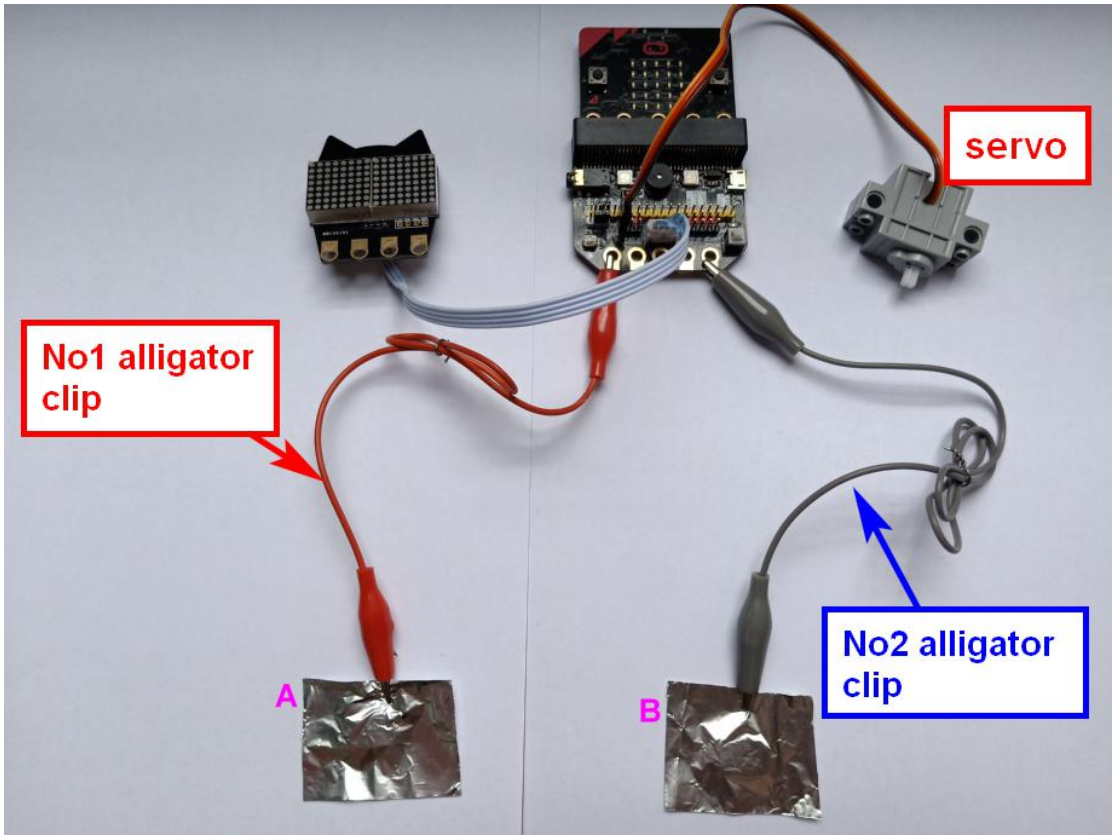


Note: The jumper cap needs to be removed to the P0 and FM pins. As shown below.

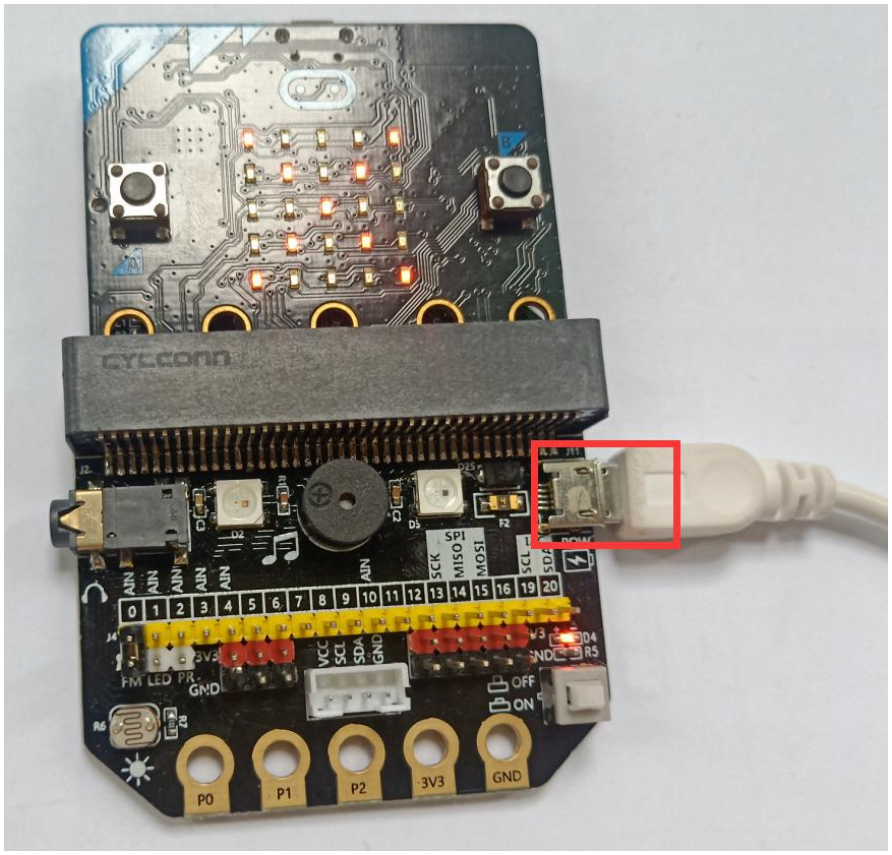


One end of the No1 alligator clip is connected to the P0 interface of the Basic:bit expansion board, and the other end is connected to the A tin foil;
One end of the No2 alligator clip is connected to the GND interface of the Basic:bit expansion board, and the other end is connected to the B tin foil;
The servo is connected to the P4 pin of the Basic:bit.

! ! ! Note: The wiring of the servo, the orange wire is connected to the yellow pin header, the red wire is connected to the red pin header, and the brown wire is connected to the black pin header.



! ! ! Note: This experiment requires USB data cable for power supply. You need to insert the data cable into the LED:bit matrix expansion board, as shown in the figure below.



5. Experimental phenomena

After the program is successfully downloaded, when the tin foil people steps on the A tin foil and the B tin foil, the LED:bit will rise, and the LED:bit dot matrix will display the dynamic expression of the naughty tongue.

When the people leaves, the servo turns again and the LED:bit will fall to its original position. As shown blew.