Button control speed

1.Learning goals

In this lesson, we mainly learn how to control motor speed by micro:bit button.

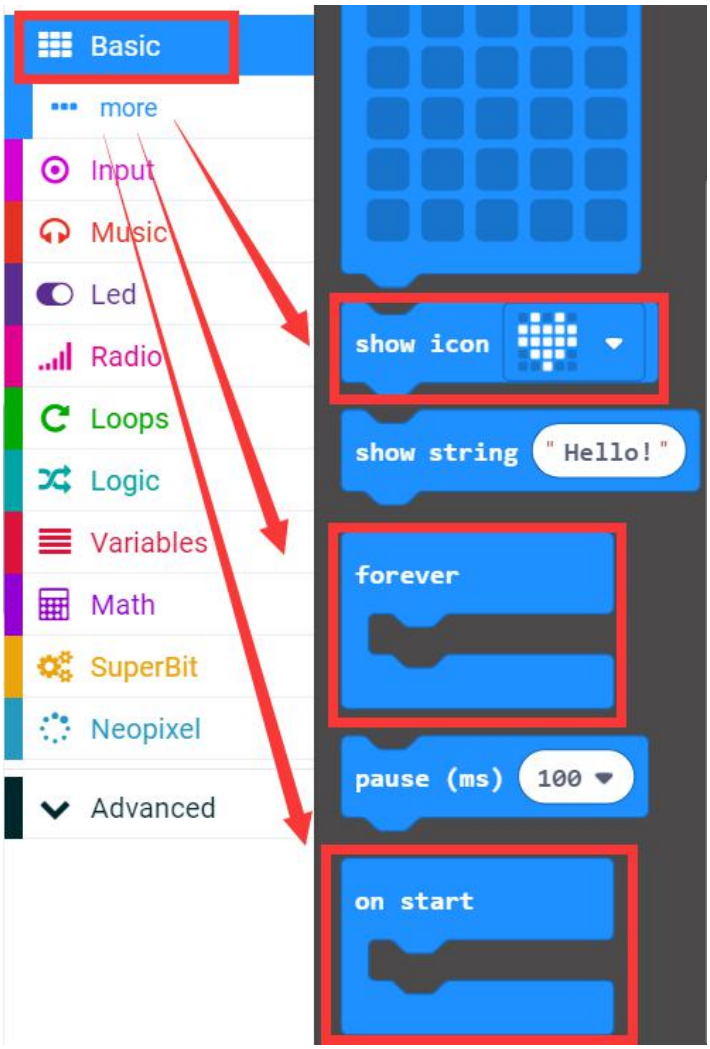
2.Programming method

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.

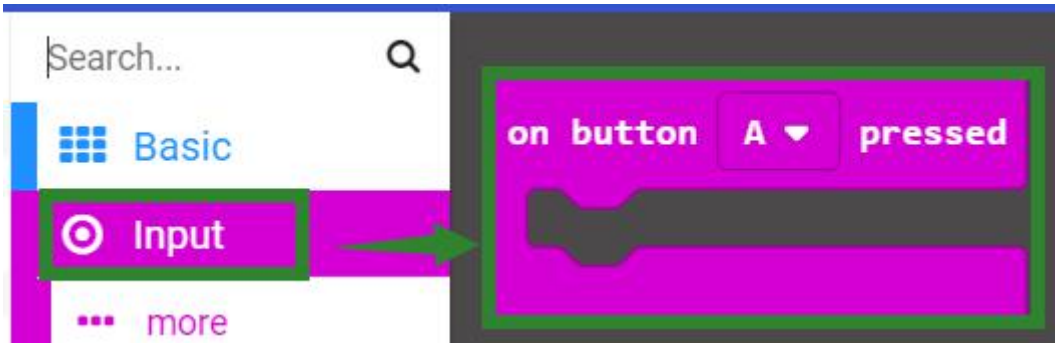
Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click【New Project】, add Yahboom package: https://github.com/lzty634158/SuperBit, you can program.

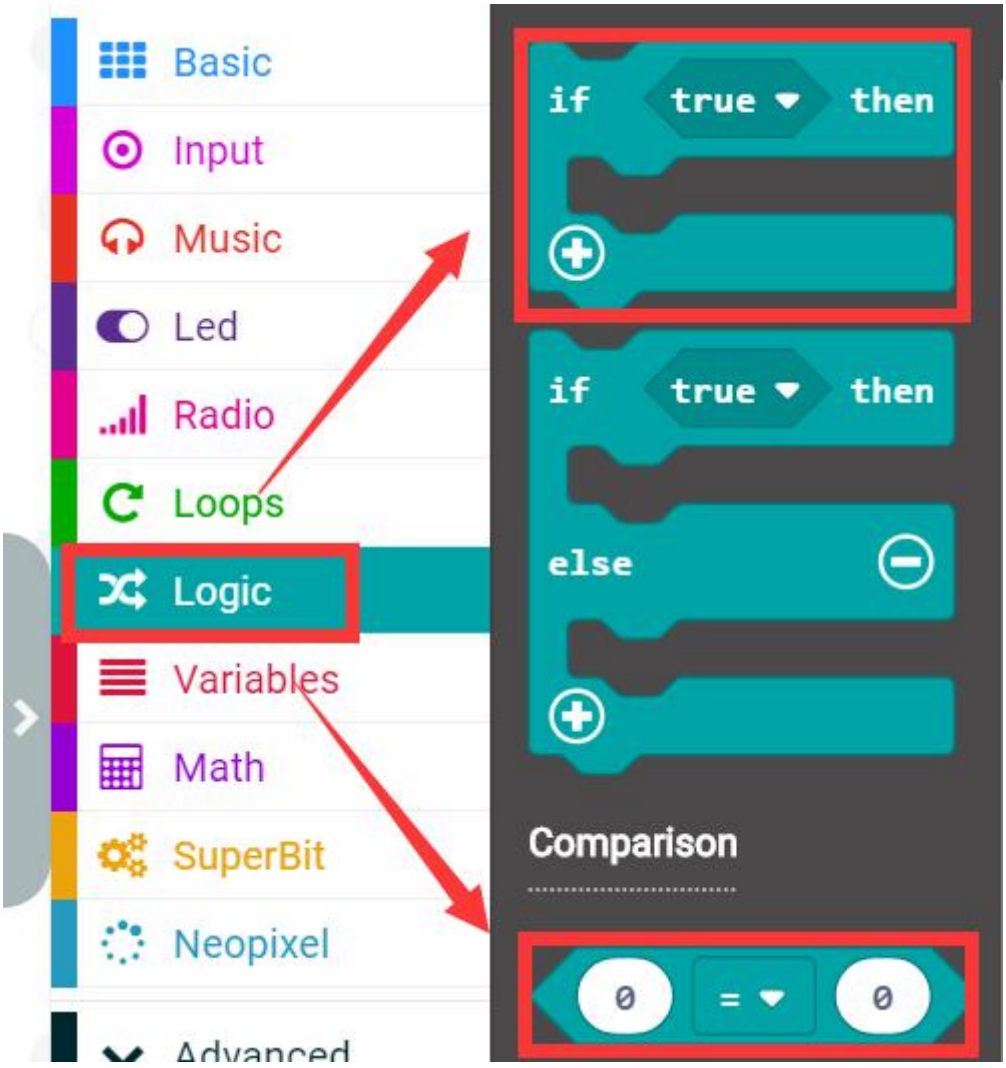
3.Looking for blocks

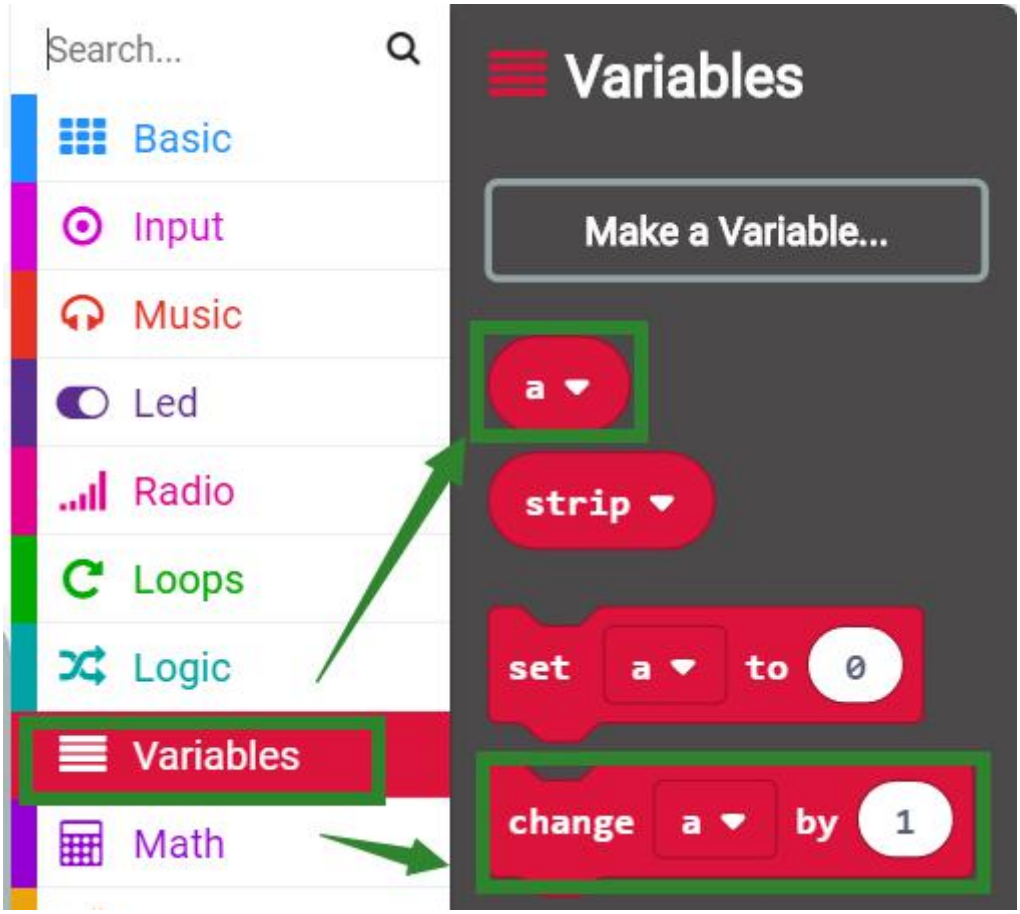
The following is the location of the building blocks required for this programming.




Variables
Math
SuperBit
Motor M1 speed(-255~255) 0
Motor

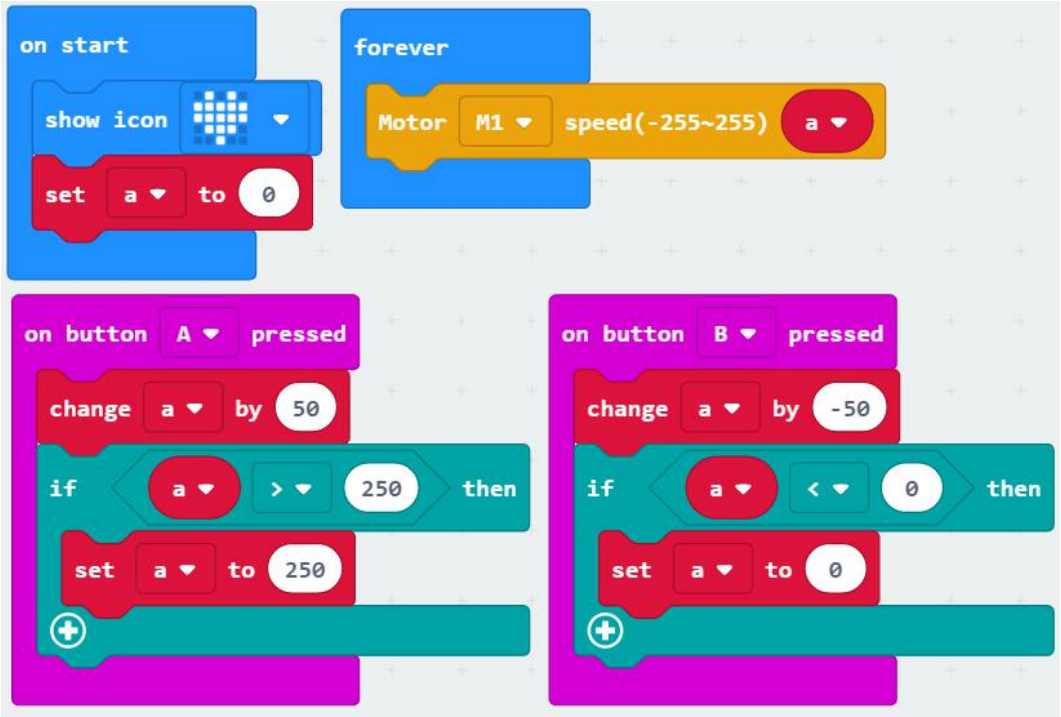

Search...
Basic
Input
more
on button A pressed


Basic
Input
Music
Led
Radio
Loops
Logic
Variables
Math
SuperBit
Neopixel
Advanced
if true then
if true then
else
Comparison
0 = 0



4.Combine building block

For details of the program, please import the **microbit-Button-control-speed.hex** file into the MakeCode editor for viewing.



5.Assembly steps

Please refer to the **Ferris wheel assembly steps folder** in the **Assembly instructions** folder for building blocks assembly steps.

6.About wiring

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

7. Experimental phenomena

After the program is successfully downloaded, open the power switch, the building block motor stops; press the micro:bit A button to increase the speed, the maximum speed is 250; press the micro:bit B button to decrease the speed, the lowest speed is 0.

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