Button control platform

Button control platform
1. Learning objectives
2. Building blocks
3. Motor wiring
4. Programming
    4.1 Add expansion package
    4.2 Building blocks used
    4.3 Combined blocks
5. Experimental phenomenon

1. Learning objectives

In this course, we mainly learn how to use MakeCode graphical programming to achieve that when the A button on the micro:bit motherboard is pressed, the Lifting platform rises; when the B button on the micro:bit motherboard is pressed, the Lifting platform descends.

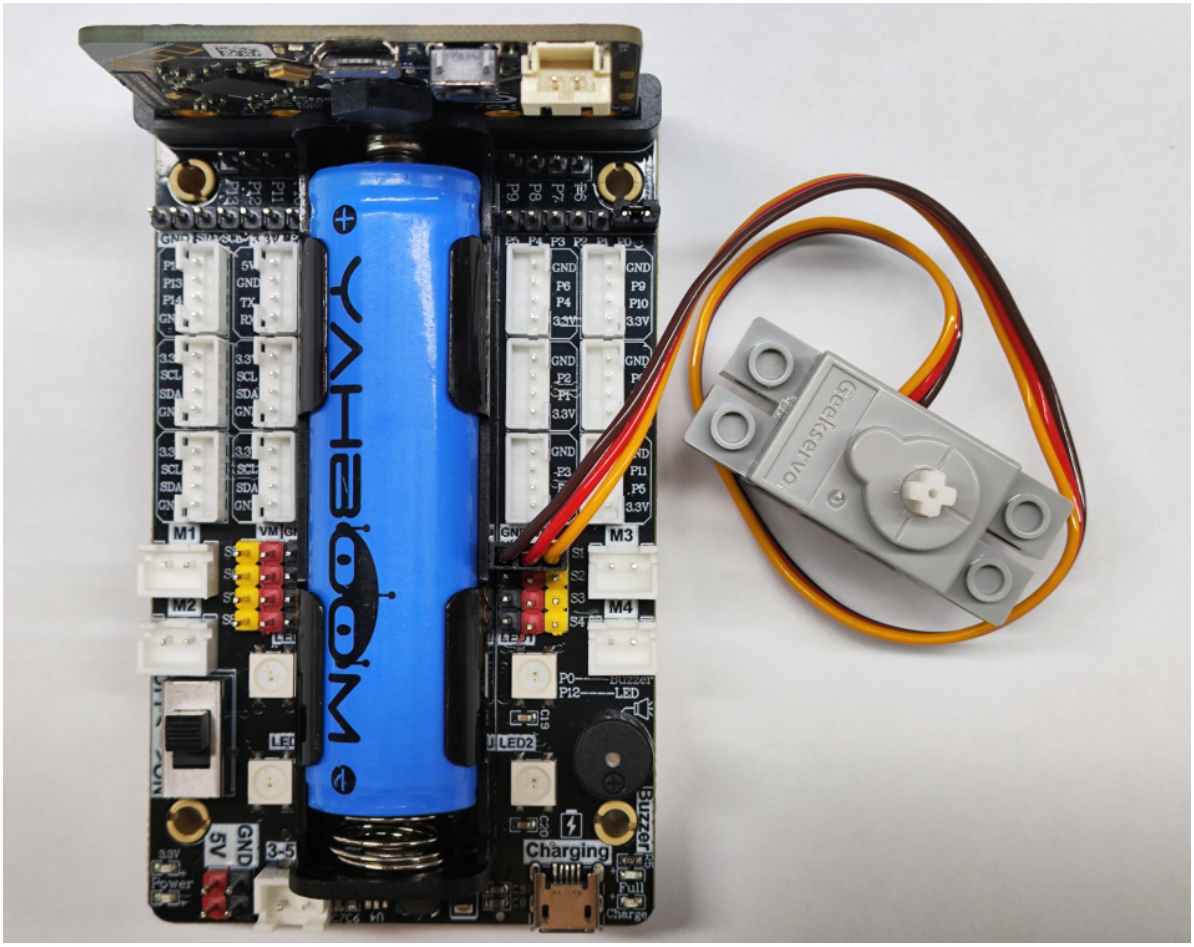
2. Building blocks

For detailed steps of building blocks, please refer to the installation drawings of **[Assembly Course]--[Lifting platform]** in the materials or the building blocks installation album.

3. Motor wiring

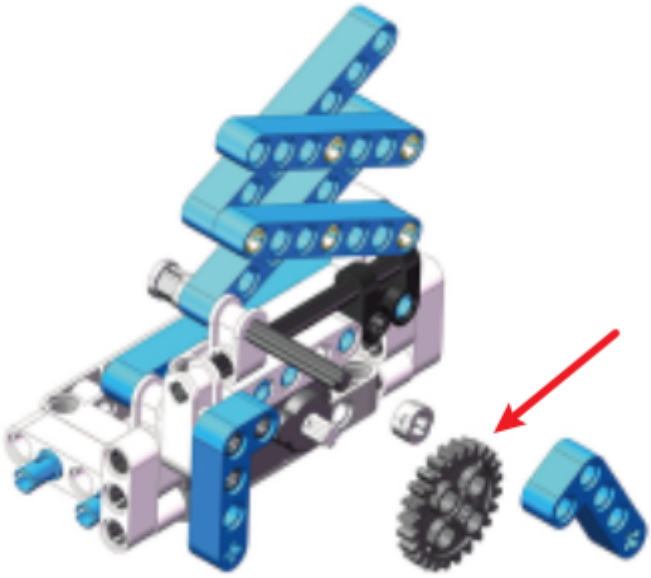
Insert the building block servo wiring into the S1 interface of the Super:bit expansion board, and the orange servo wiring into the yellow pin of S1.

As shown in the figure below:



! Notes:

When taking the course related to the building block servo for the first time, we need to remove the gear on the servo and upload the program of this course to the micro:bit; then turn on the power switch of the Super:bit expansion board and wait for the building block servo to turn to the initial position; then, we can turn off the power, adjust the lifting platform to the lowest position, as shown in the figure below, and then install the servo gear. (If you have used the lifting platform and servo-related programs before, you can skip this step)



4. Programming

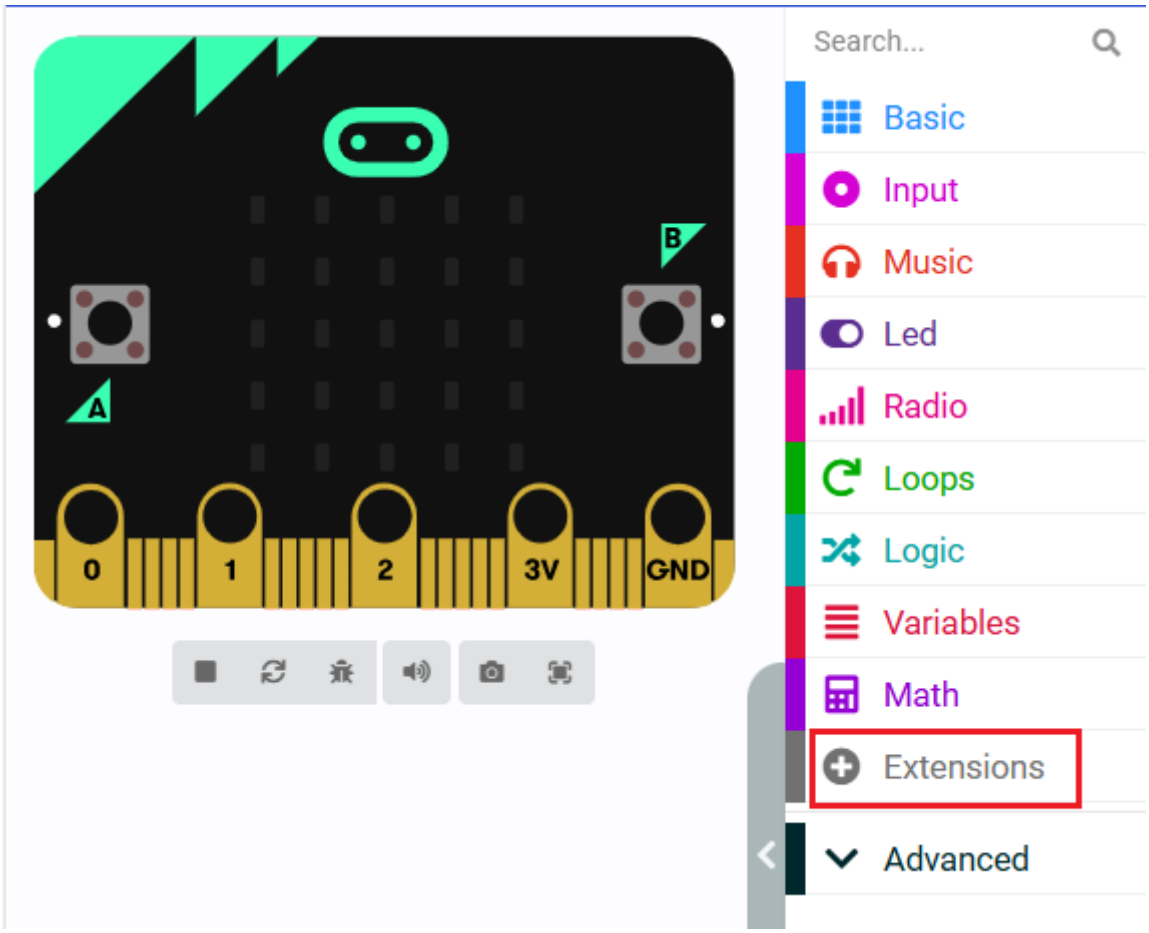
Method 1 Online Programming:

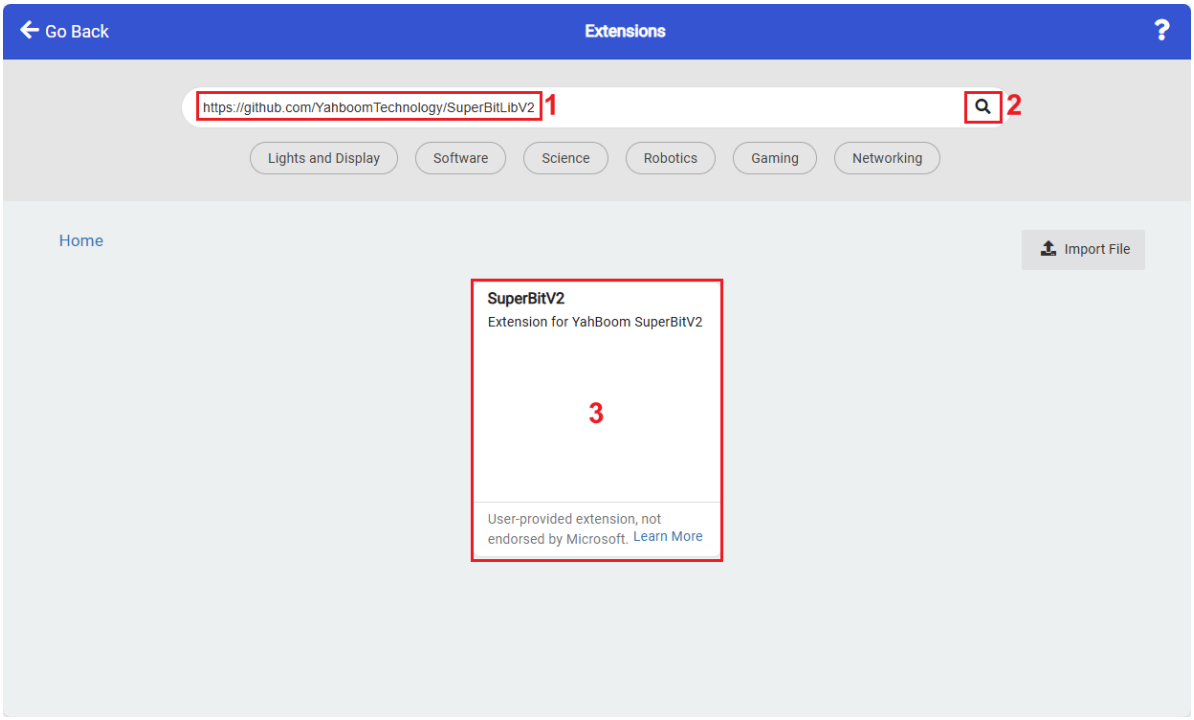
First, connect the micro:bit to the computer via a USB data cable, and the computer will pop up a U disk. Click the URL in the U disk: https://makecode.microbit.org/ to enter the programming interface. Then, add the Yahboom software package **https://github.com/YahboomTechnology/SuperBitLibV2**, and you can start programming.

Method 2 Offline programming:

Open the offline programming software MakeCode and enter the programming interface. Click [New] and add the Yahboom software package **https://github.com/YahboomTechnology/SuperBitLibV2** to start programming.

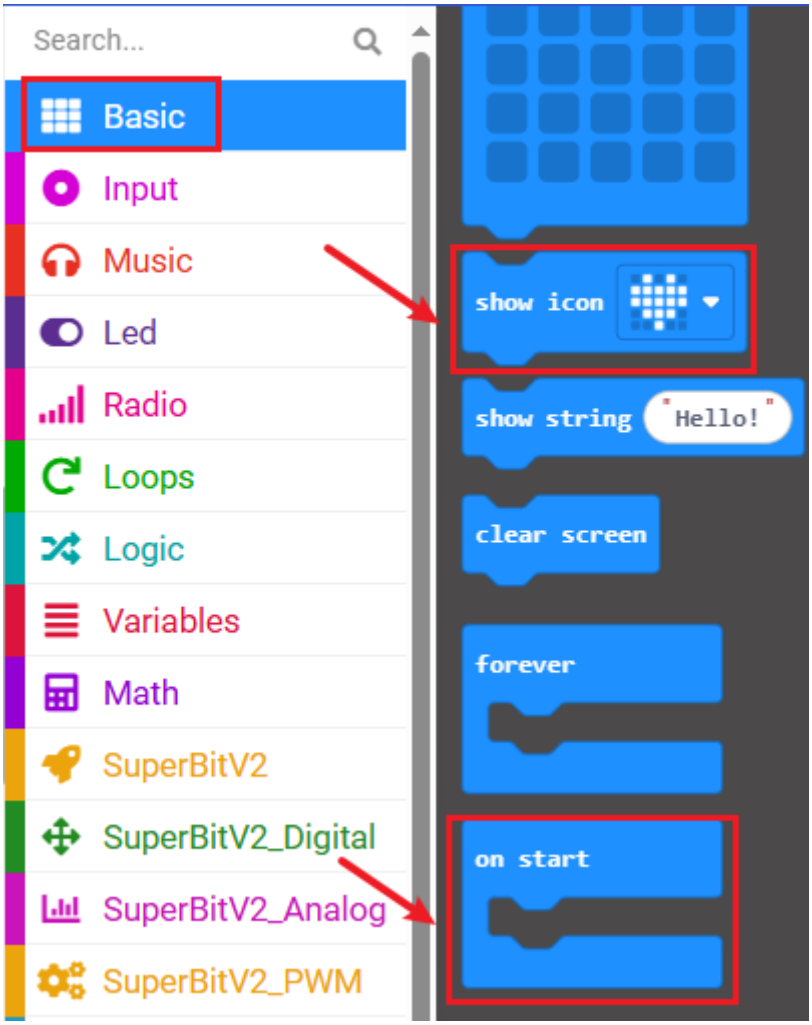
4.1 Add expansion package

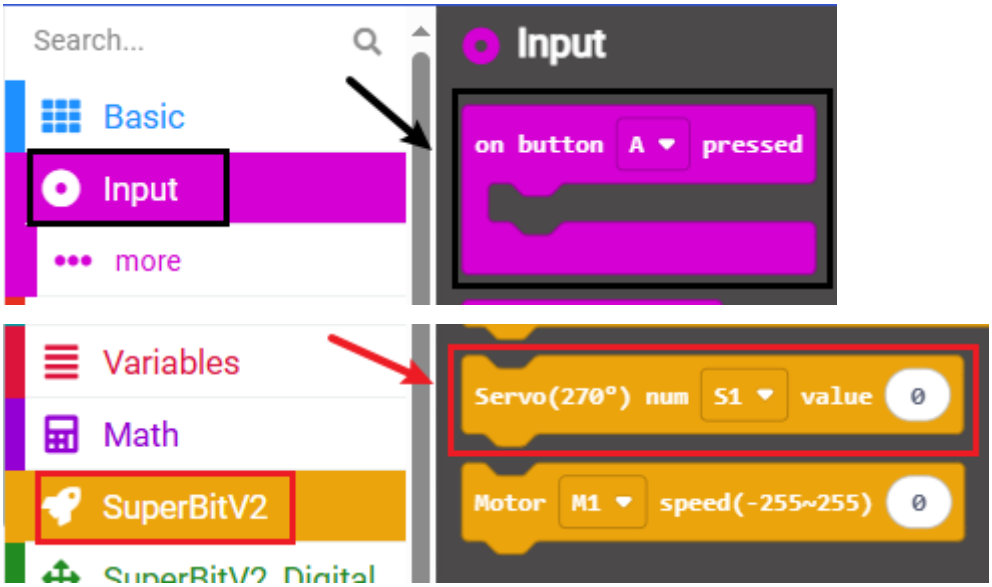




4.2 Building blocks used

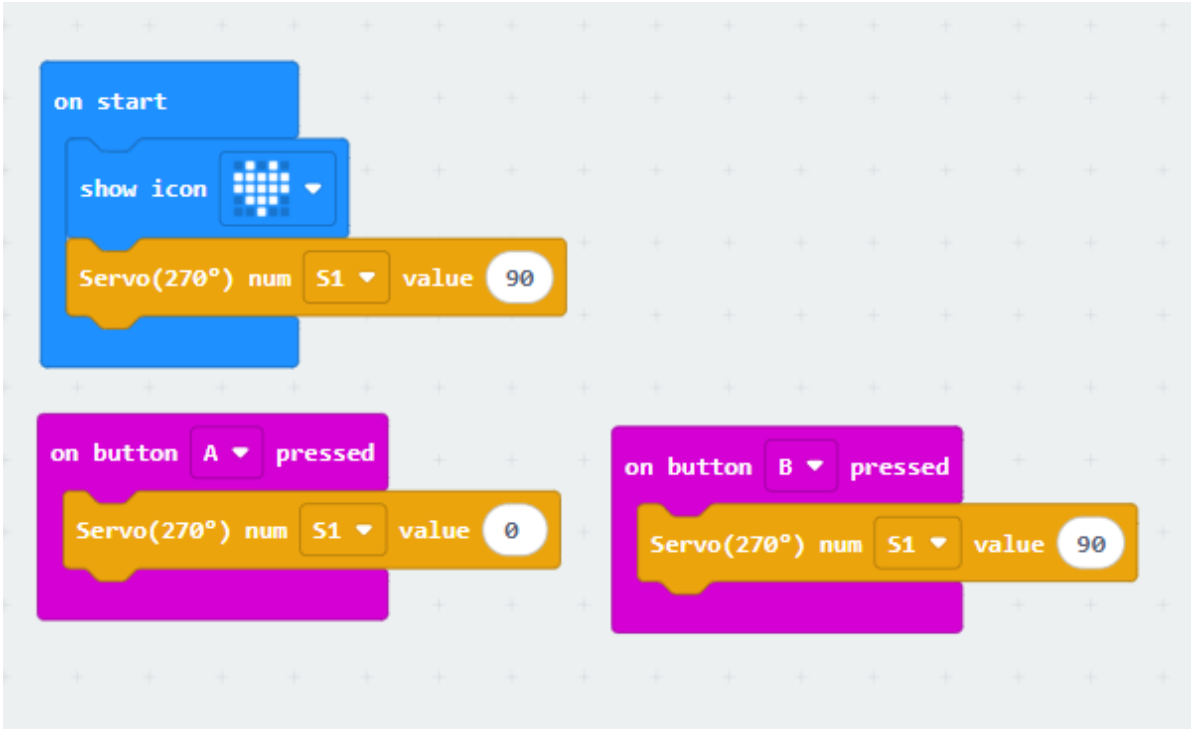
The location of the building blocks required for this programming is shown in the figure below.





4.3 Combined blocks

The summary program is shown in the figure below.



You can also directly open the **microbit-Button-control-platform.hex** file provided in this experiment and drag it into the browser that opens the URL, and the program diagram of this project source code will be automatically opened

5. Experimental phenomenon

After the program is downloaded successfully, the micro:bit dot matrix will display a heart, as shown in the figure below. Turn on the power switch, and the servo will be initialized to 0° (Lifting platform descends). When the A button on the micro:bit motherboard is pressed, the Lifting platform rises; when the B button on the micro:bit motherboard is pressed, the Lifting platform descends.

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