

270°Building block servo

1. Learning goal

In this course, we mainly learn the 270° building block servo and learn how to use the Mbit_motor building block and the Super:Bit building block to control the rotation of the 270° building block servo.

2. Programming method:

Basic:bit expansion board:

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/yahboom mbit en 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/yahboom mbit en, you can program.

Super:bit expansion board:

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.

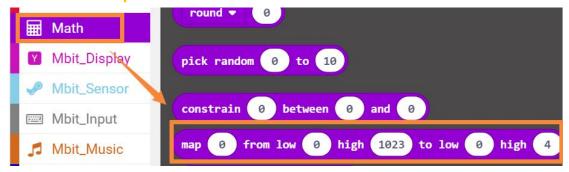
Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click 【New Project】, add Yahboom package:

https://github.com/lzty634158/SuperBit, you can program.

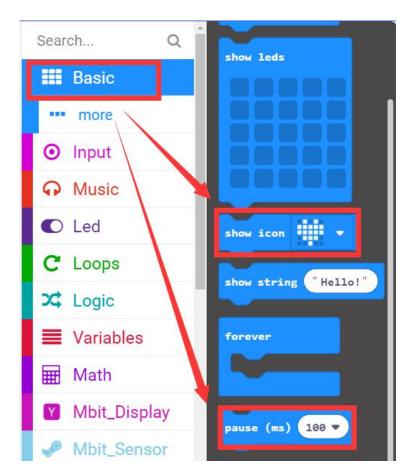
3. Looking for blocks

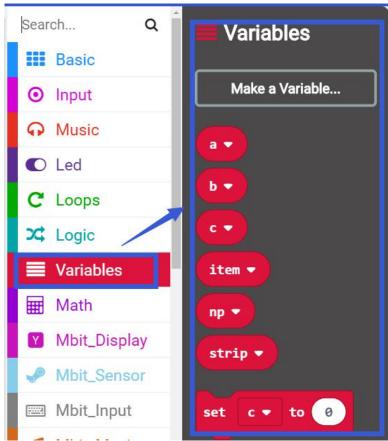
The following is the location of the building blocks required for this programming.

Basic:bit expansion board:

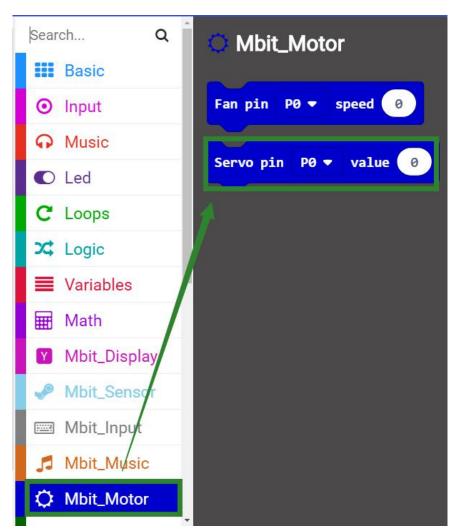












4.Combine building block

The summary program is shown below:

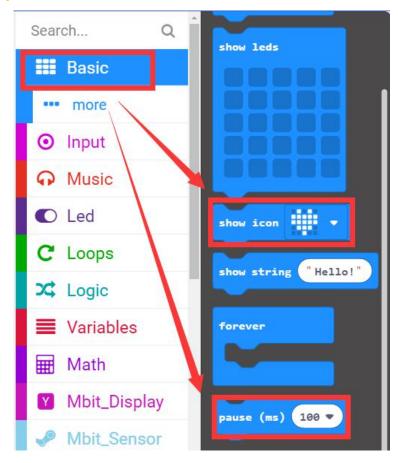
```
on start
show icon
             map
                 90
                     from low 0 high 270 to low 0
                                                      high 180
set
          to
             map 180 from low 0 high 270
                                            to low 0
                                                      high 180
set
             map (270) from low (0) high (270)
                                            to low 0 high 180
          to
set
```

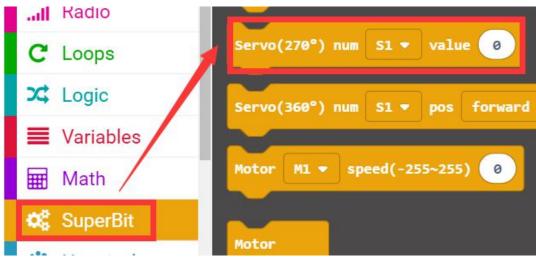


```
forever
Servo pin P6 (write only) ▼ value
pause (ms)
            1000 -
Servo pin P6 (write only) ▼ value
pause (ms)
            1000 -
Servo pin P6 (write only) ▼
                             value
pause (ms)
            1000 -
Servo pin P6 (write only) ▼ value
pause (ms)
           1000 -
           P6 (write only) ▼
Servo pin
                            value
pause (ms)
           1000 -
Servo pin P6 (write only) ▼ value
pause (ms)
            1000 -
```



Super:bit expansion board:

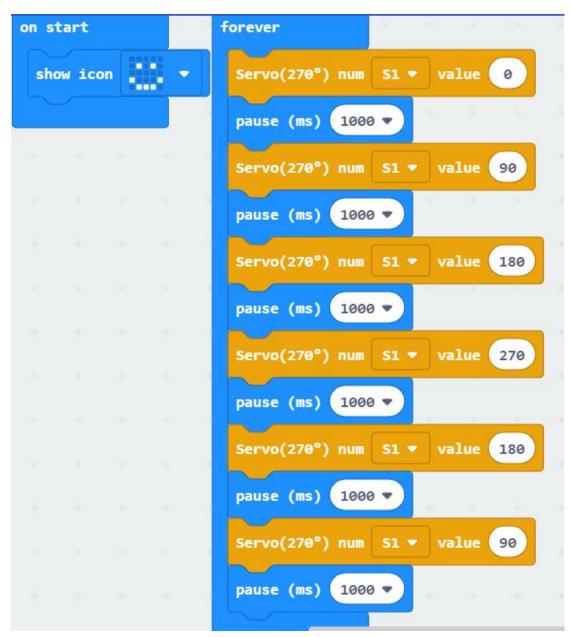




4.Combine building block

The summary program is shown below:





6. Experimental phenomena

After the program is successfully downloaded, the micro:bit dot matrix is not display, the 270° servo turns 0°->90°->180°->270°->180°->90°->0° and keeps the cycle.