

## Vertical\_pointer

# 1.Learning goals

In this lesson, we mainly learn how to control 270°block servo by micro:bit board and super:bit board.

## 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: <a href="http://microbit.org/">http://microbit.org/</a> to enter the programming interface. Add the Yahboom package <a href="https://github.com/lzty634158/SuperBit">https://github.com/lzty634158/SuperBit</a> 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. About program:

Please see microbit-Vertical\_pointer.hex file.

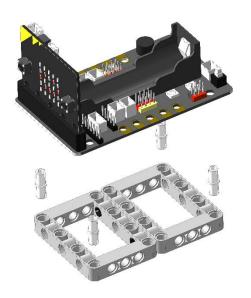


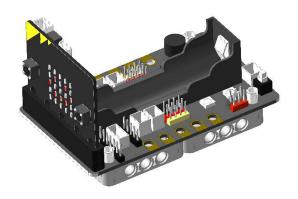
# 4. Building block assembly steps



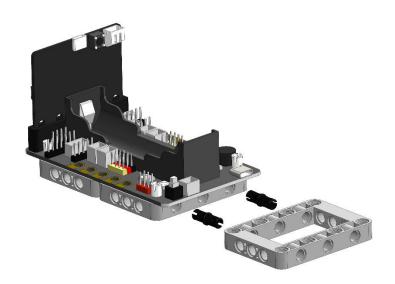


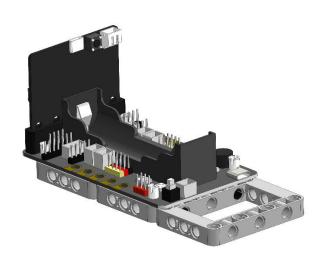




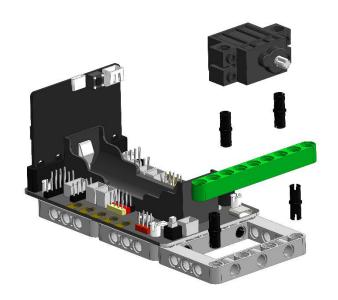


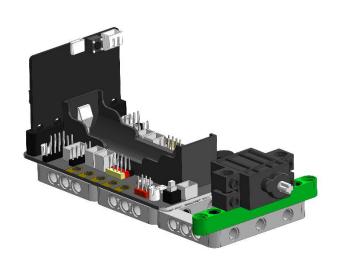




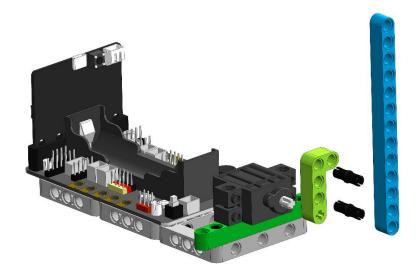


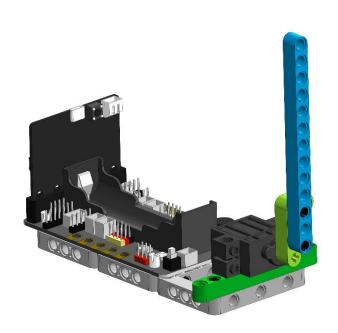












The 270° block servo connect to the S1 interface of the Super:bit expansion board. The orange wire of the 270° block servo is connected to the



yellow pin of S1, the red wire of the 270° block servo is connected to the red pin of S1, and the brown wire of the 270° block servo is connected to the black pin of S1.

# 5. Experimental phenomena

After the program is successfully downloaded, the micro:bit dot matrix will display the music pattern. The 270° block servo turns according to the data of the micro:bit acceleration sensor, keeping the pointer vertically upwards.

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