Adjustable_speed_fan

1.Learning goals

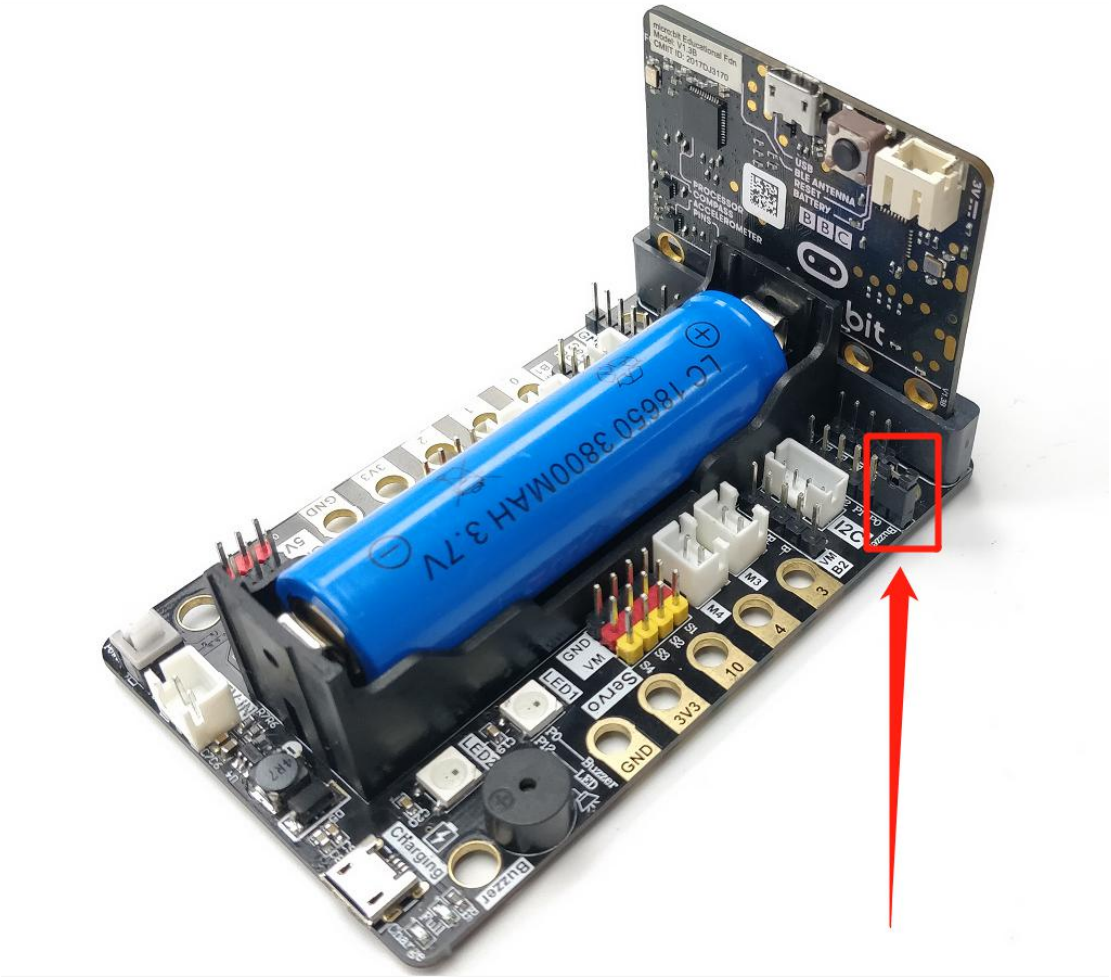
In this lesson, we mainly learn how to control block motor, brightness of RGB and by micro:bit and Super:bit expansion board.

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: **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.

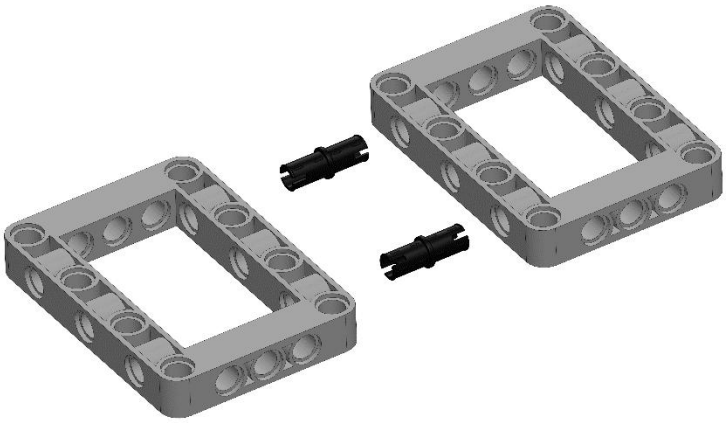
Note: The jumper cap needs to be connected to the P0 and Buzzer pins on the Super:bit expansion board.

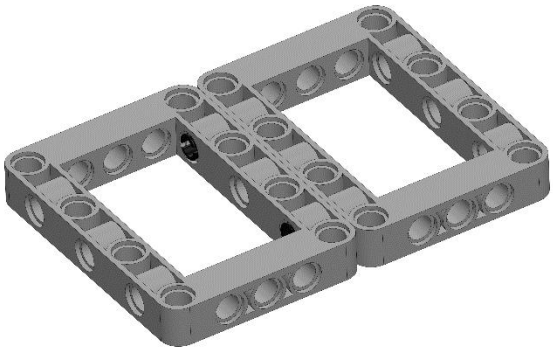


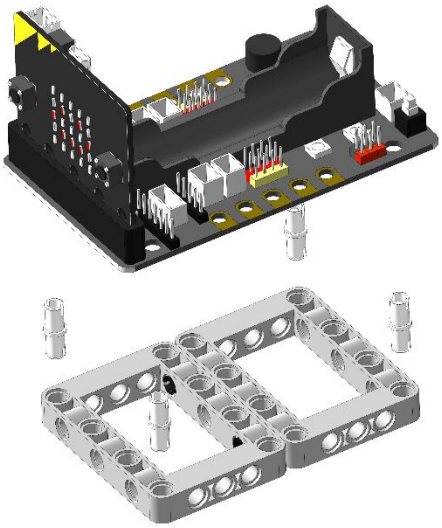
3. About program：

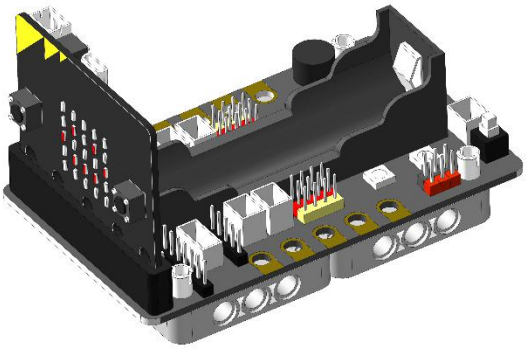
Please see **microbit-Adjustable_speed_fan.hex** file.

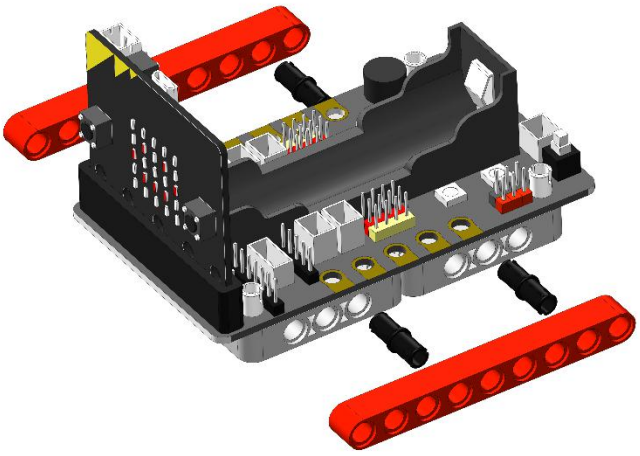
4. Building block assembly steps

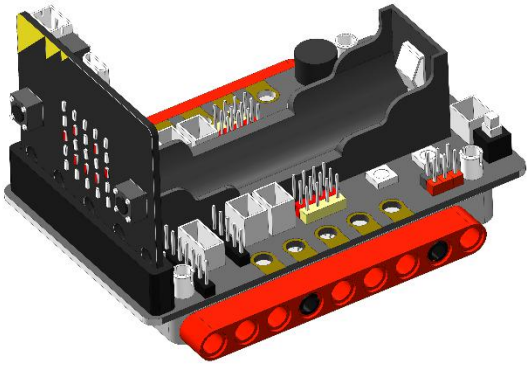


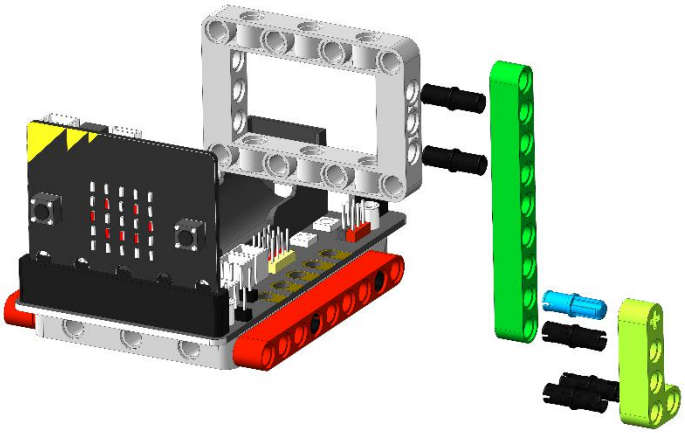


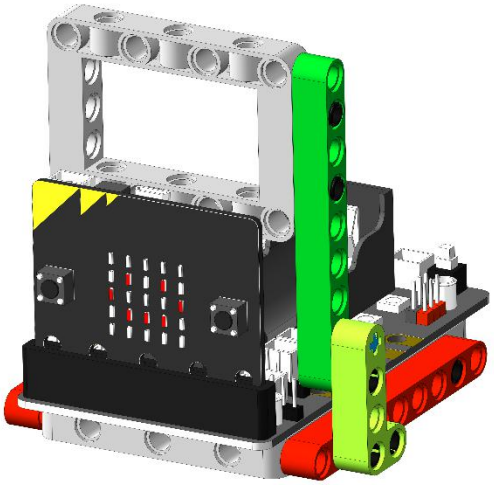


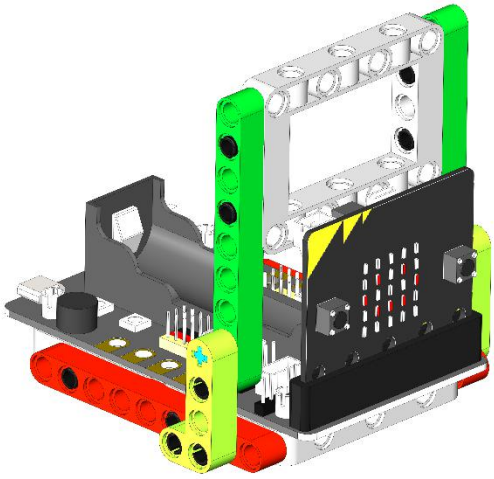


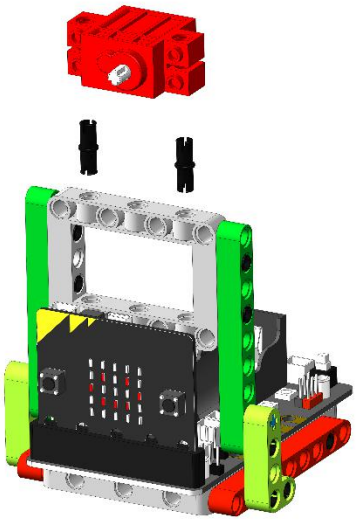


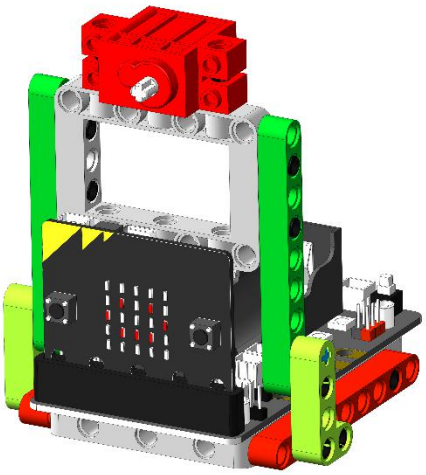


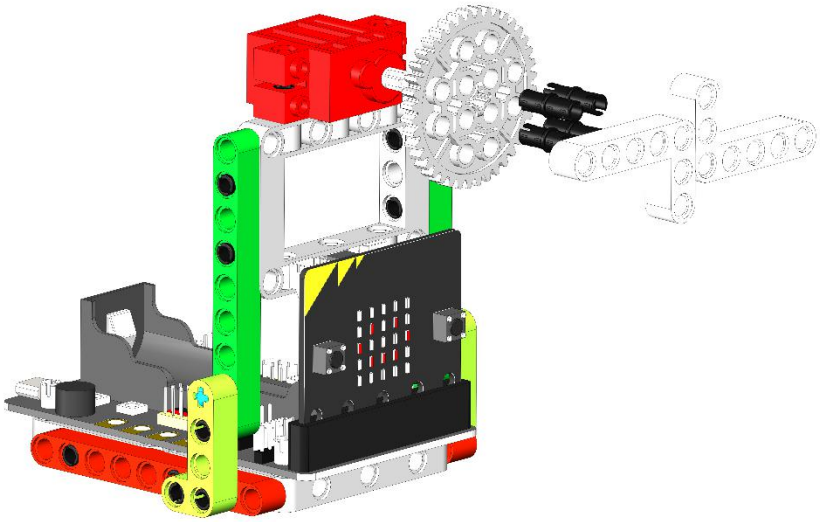


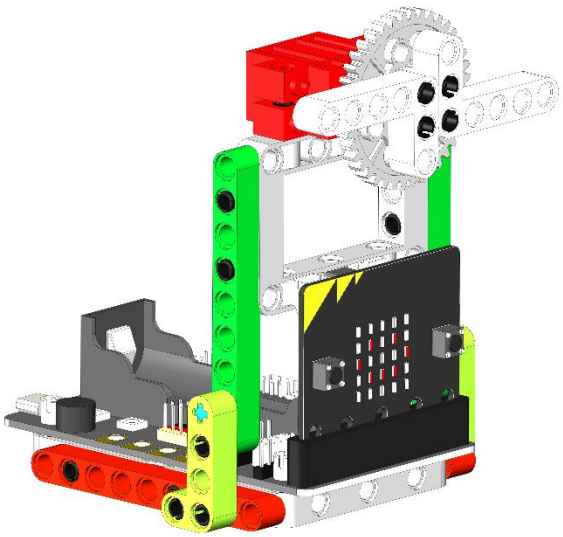












5. Experimental phenomena

After the program is successfully downloaded, the micro:bit dot matrix will display the speed of fan. When A button is pressed, the buzzer will sound, the fan will accelerate, the fastest speed is 255. And the RGB light will be brighter, the brightness is up to 255. When B button is pressed, the buzzer will sound, the fan will decelerate, the lowest speed is 0. And the RGB light will be dark, the brightness is down to 255.

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