Music_Metronome

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

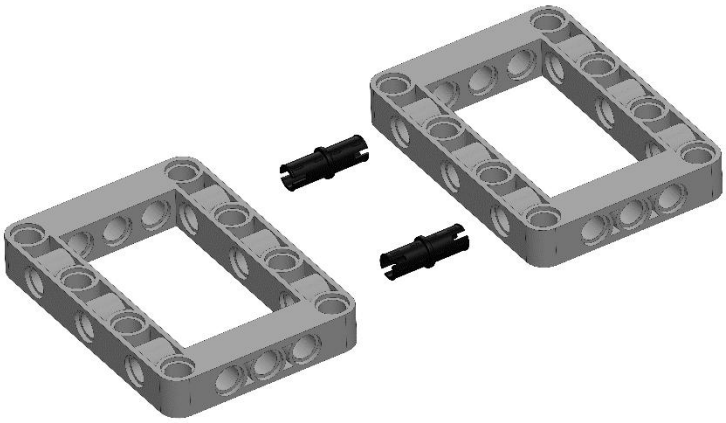
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: **http://microbit.org/** to enter the programming interface. Add the Yahboom package https://github.com/lzty634158/SuperBit to program.

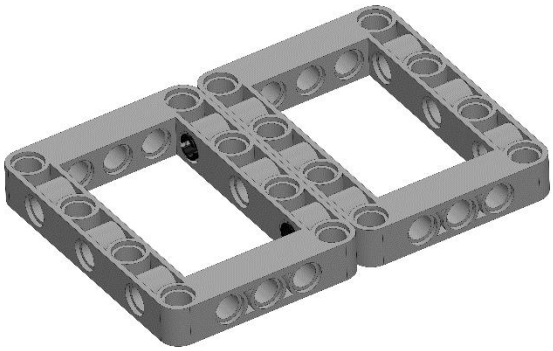
Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click【New Project】, add Yahboom package: https://github.com/lzty634158/SuperBit, you can program.

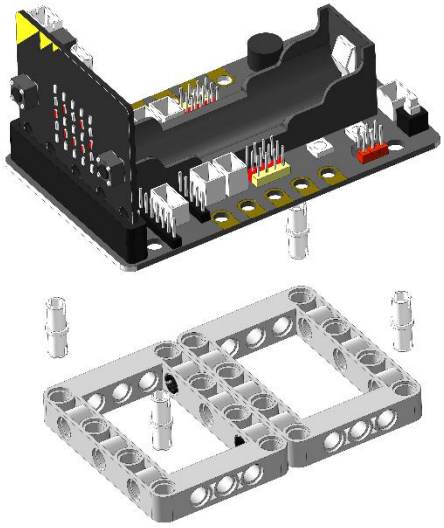
3. About program：

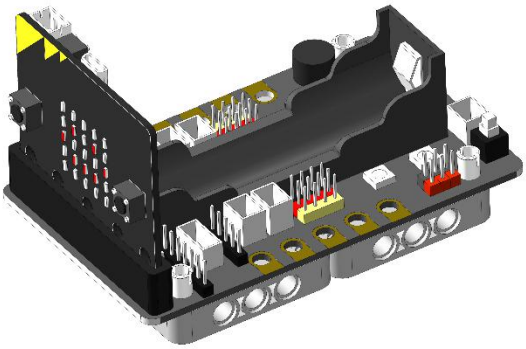
Please see **microbit-Music_Metronome.hex** file.

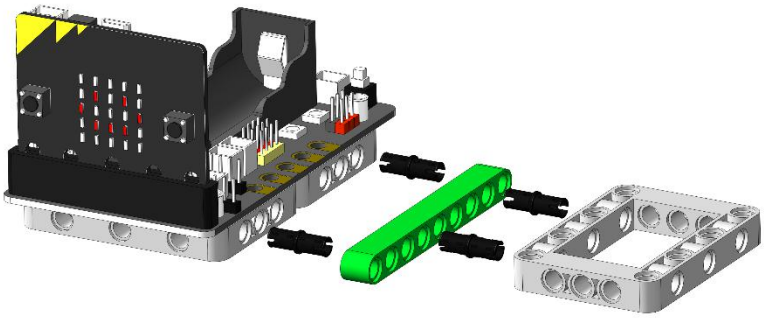
4. Building block assembly steps

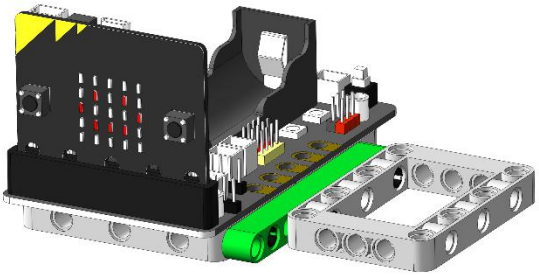


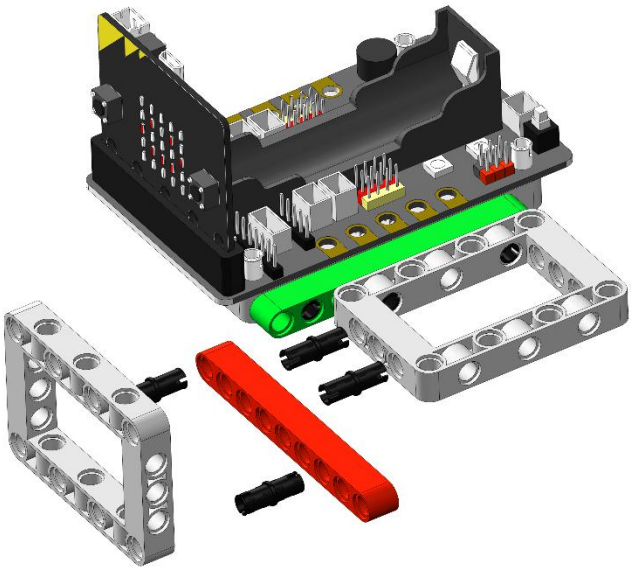


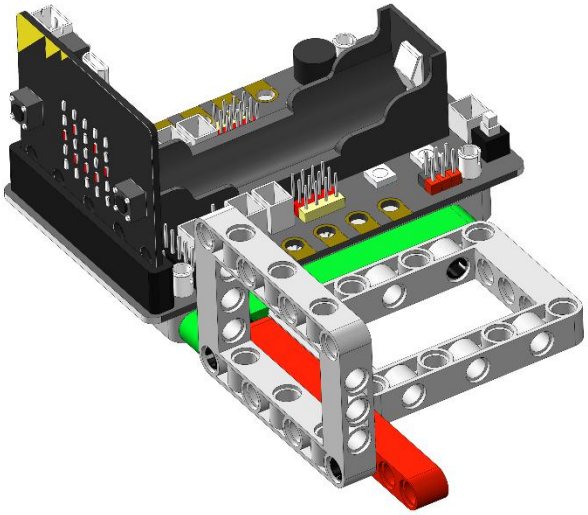


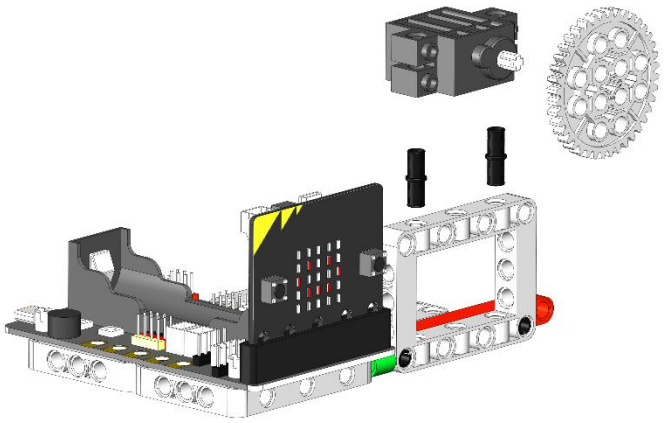


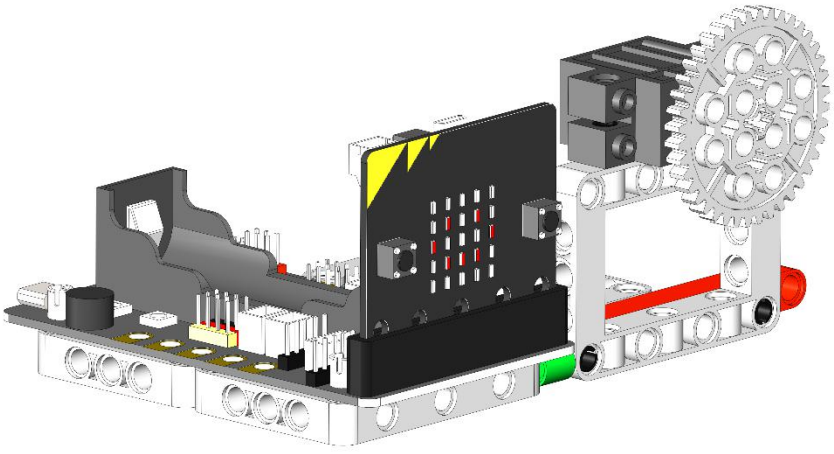


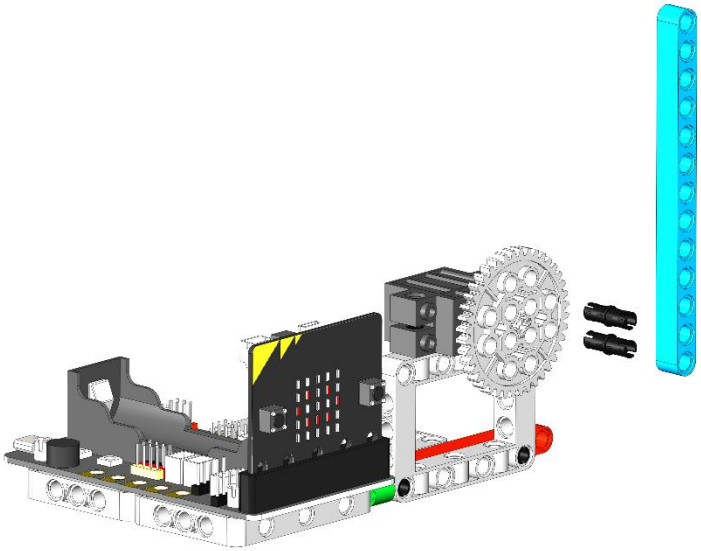


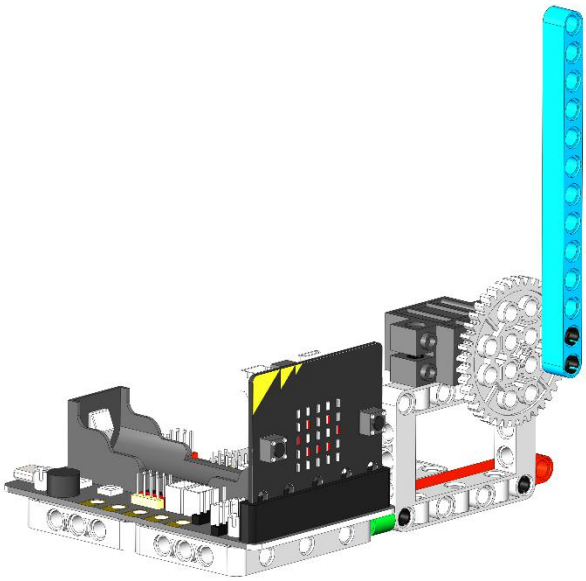


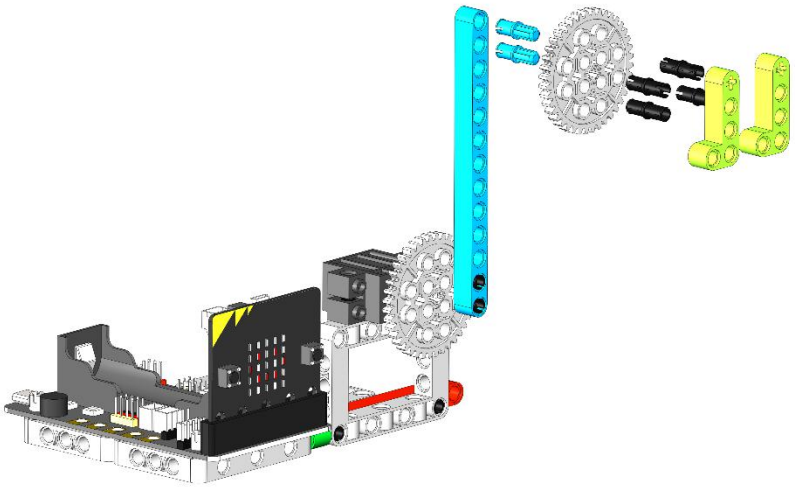


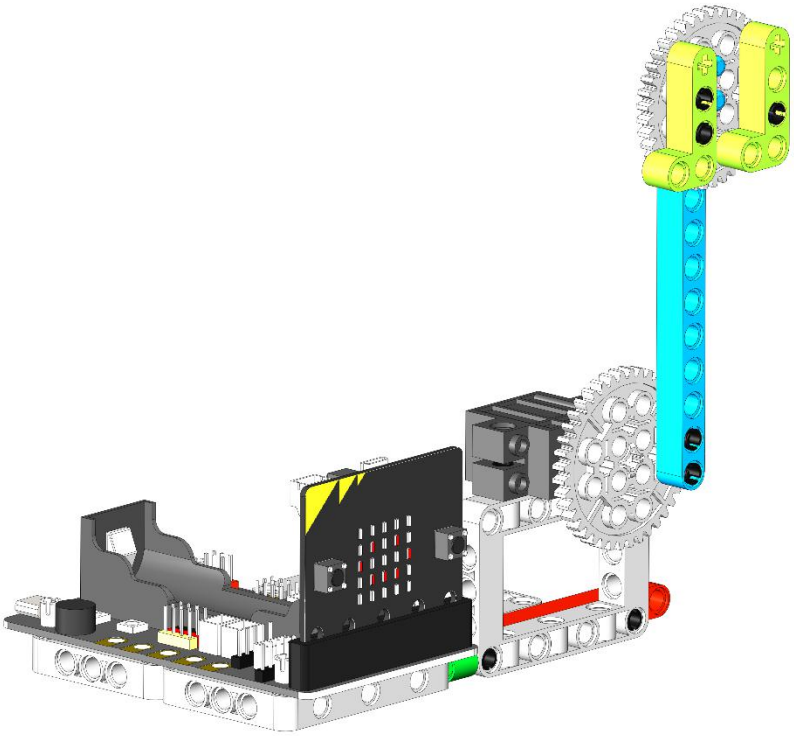












Hardware connection

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.

At the same time, play the song "Paint Painter", and the building block motor rotates according to the sound adjustment, the rotation angle is 90 °.

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