Music-light

1.Learning goals

In this lesson we mainly know RGB lights and learn how to use Music blocks play music, at the same time, the RGB lights will light up different color.

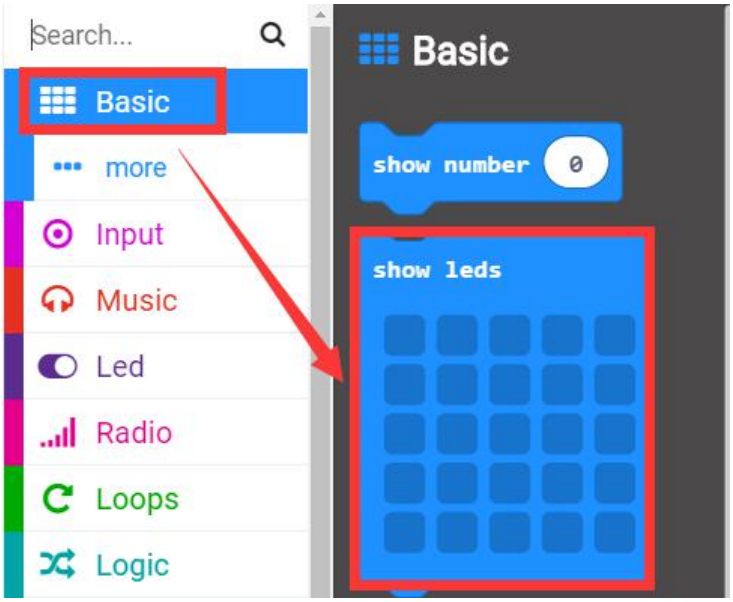
2.Programming method:

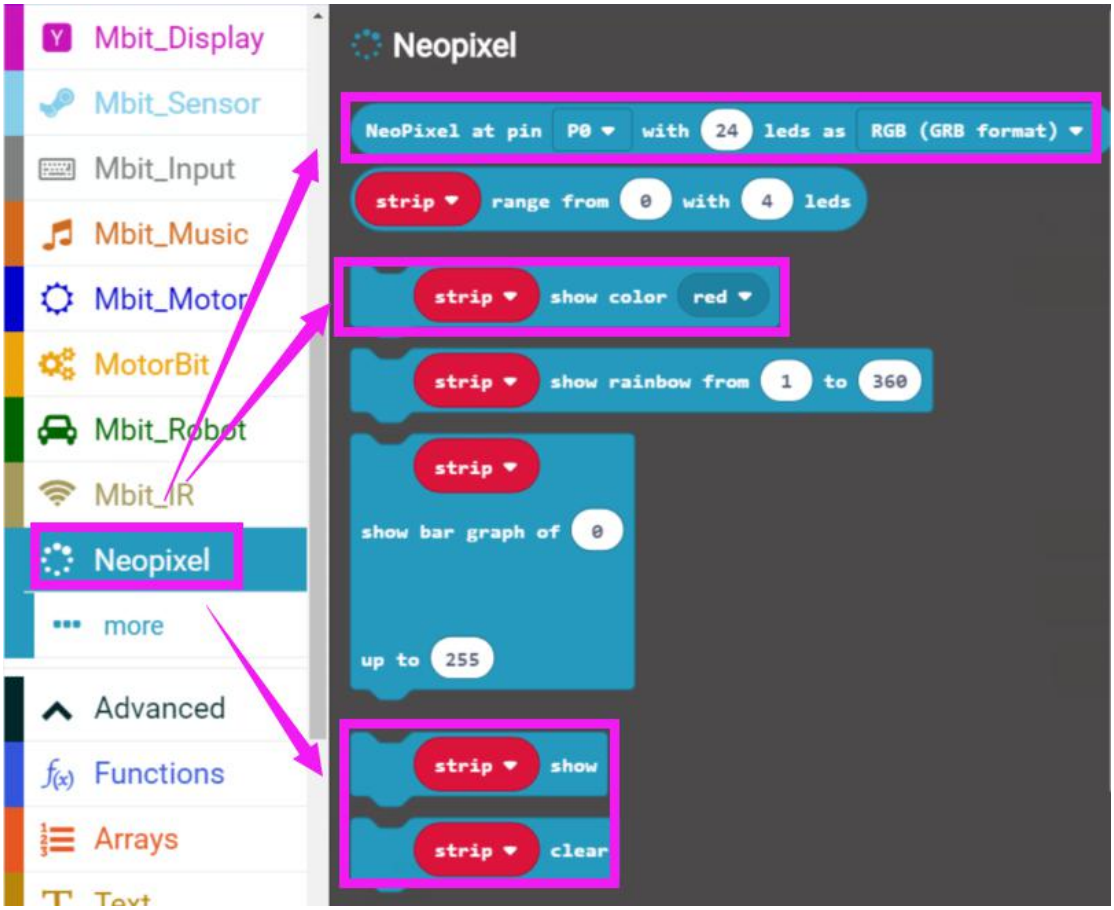
Mode 1 online programming: First, we need to connect the micro:bit to the computer by USB cable. The computer will pop up a USB flash drive and click on the URL in the USB flash drive: **http://microbit.org/** to enter the programming interface. Add the Yahboom package **https://github.com/lzty634158/yahboom_mbit_en**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

3.Looking for blocks

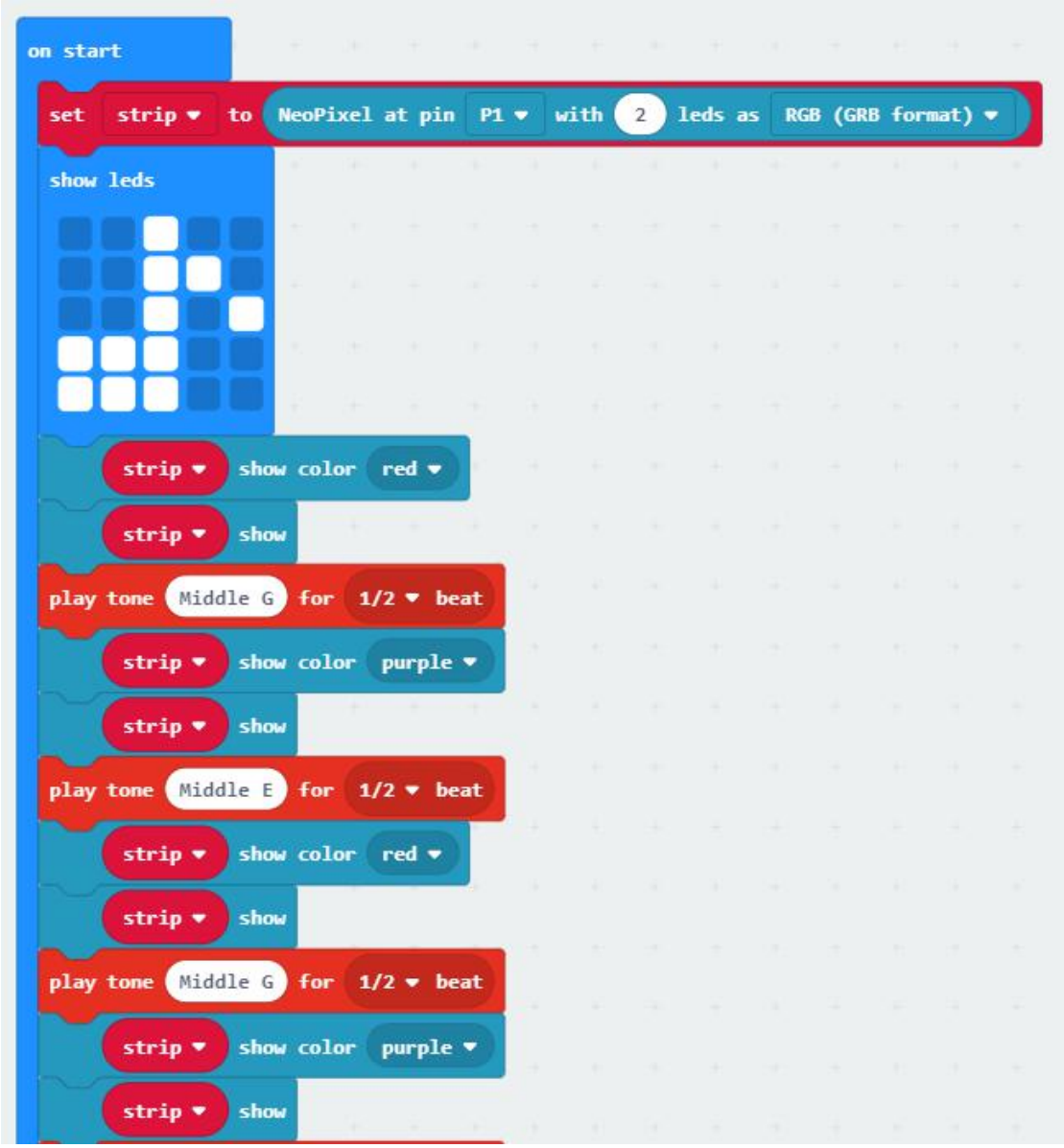
The following is the location of the building blocks required for this programming.

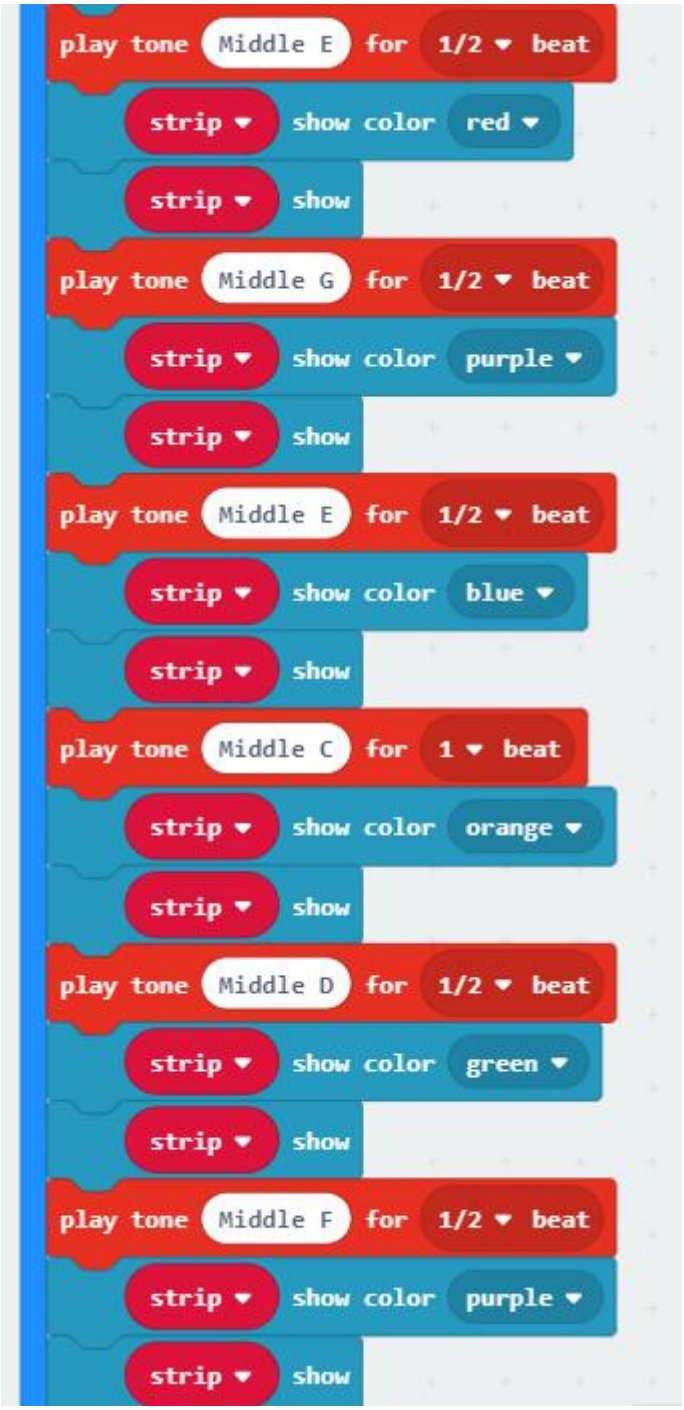


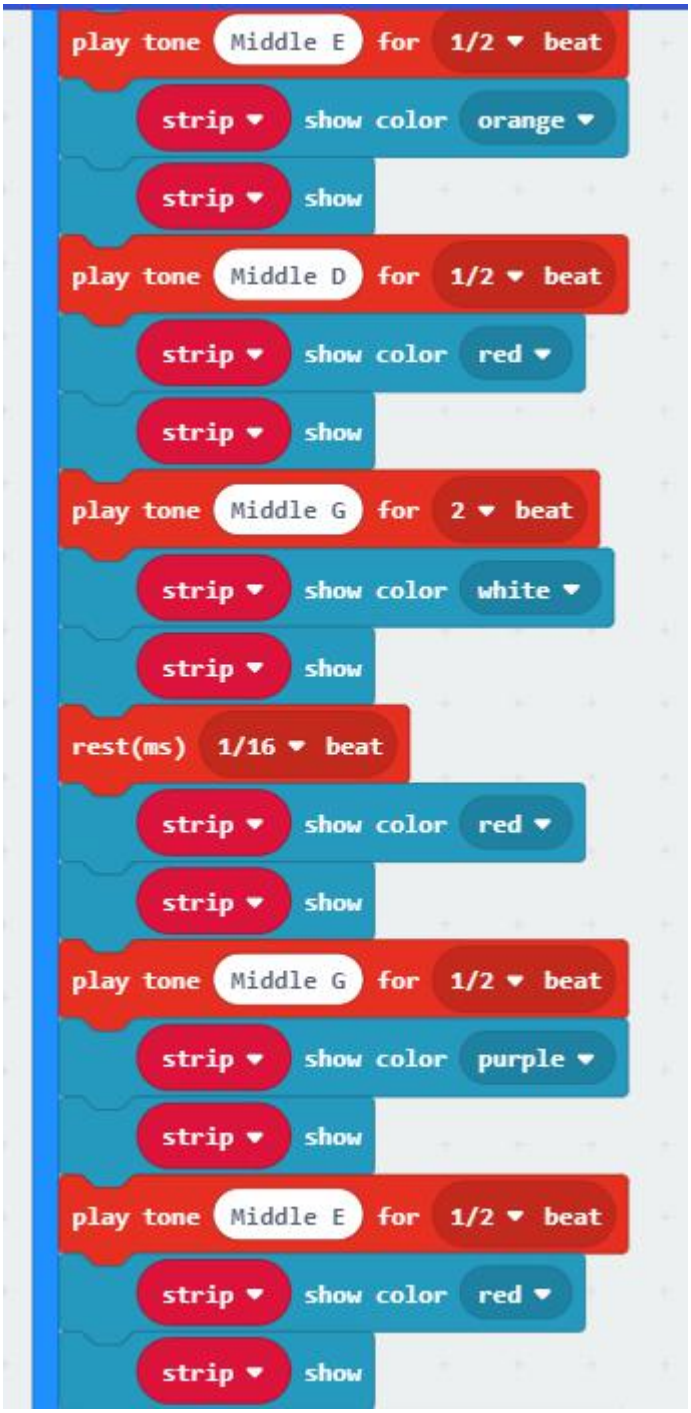


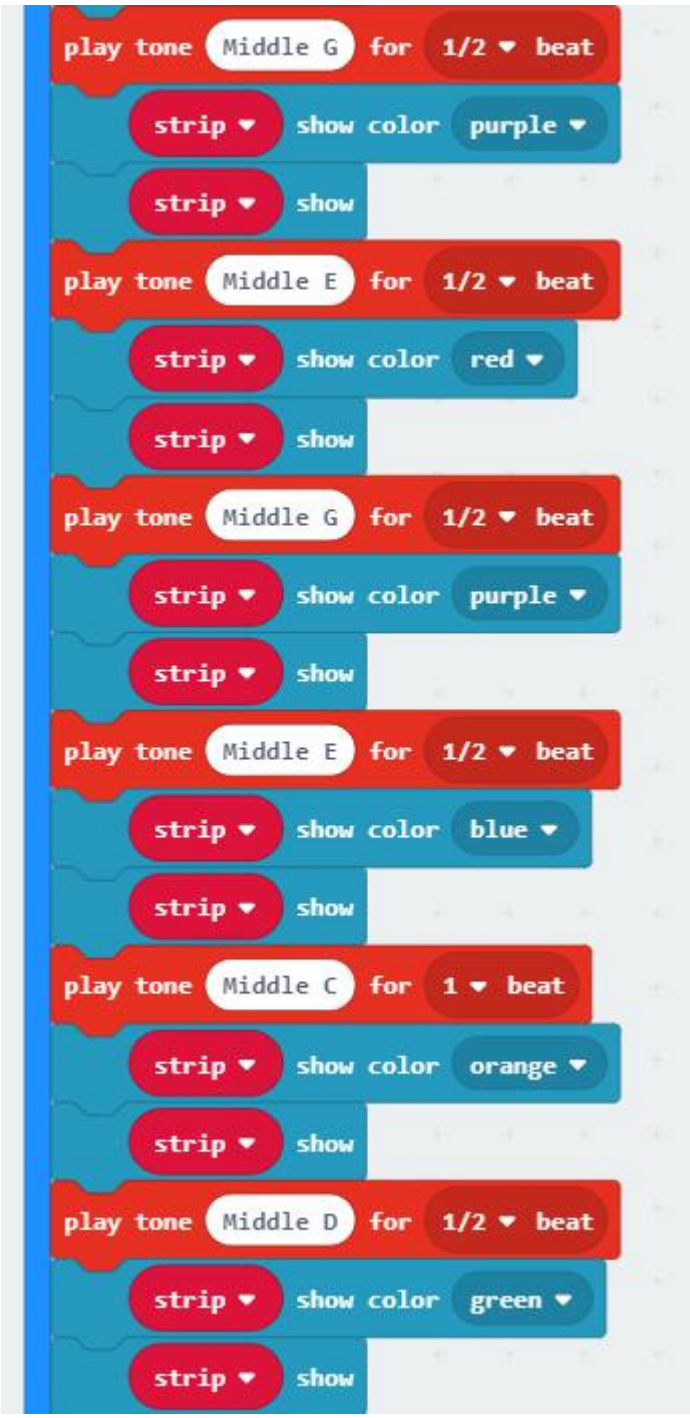
4.Combine building block

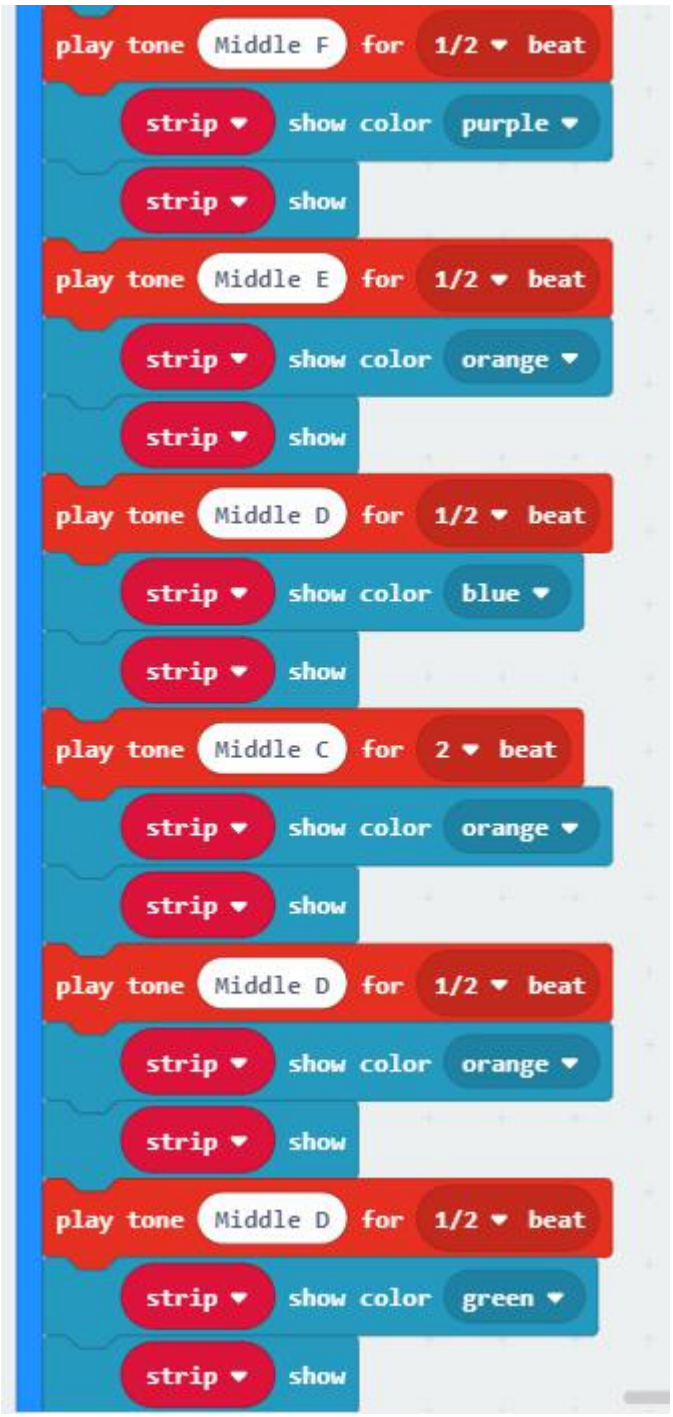
The summary program is shown below:

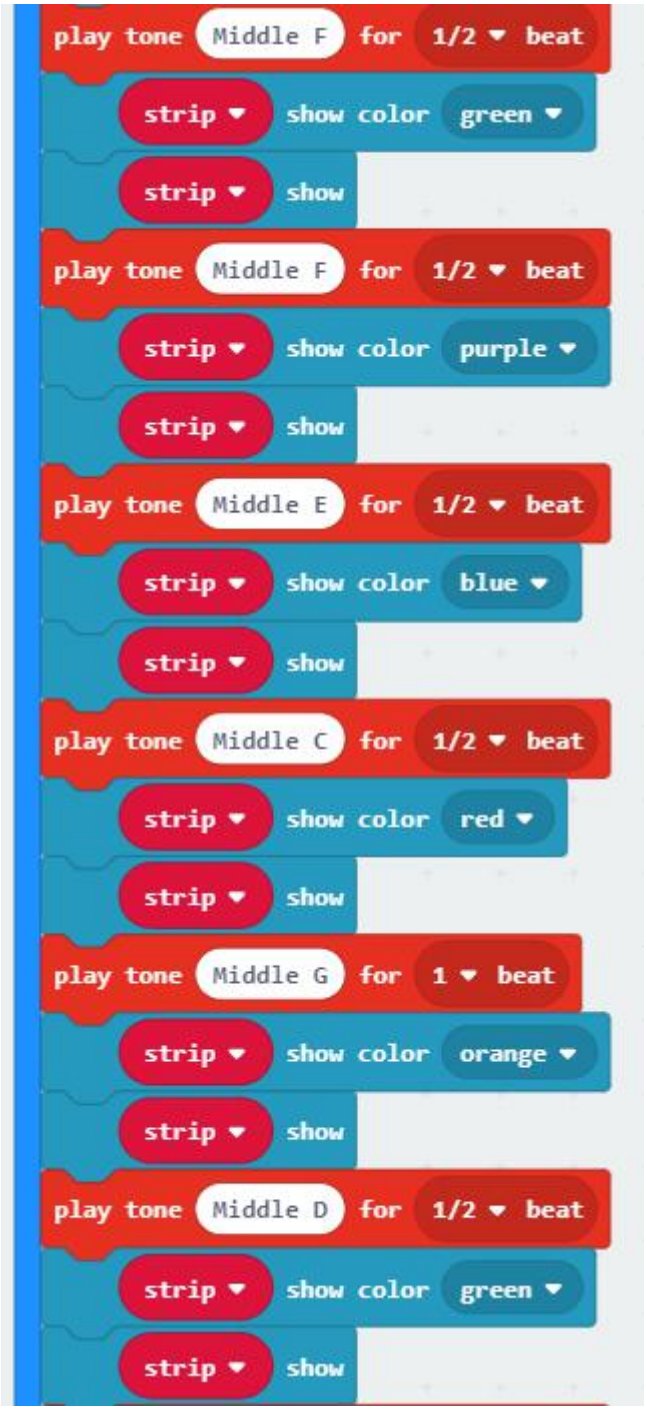

on start
set strip to NeoPixel at pin P1 with 2 leds as RGB (GRB format)
show leds
strip show color red
strip show
play tone Middle G for 1/2 beat
strip show color purple
strip show
play tone Middle E for 1/2 beat
strip show color red
strip show
play tone Middle G for 1/2 beat
strip show color purple
strip show


play tone Middle E for 1/2 beat
strip show color red
strip show
play tone Middle G for 1/2 beat
strip show color purple
strip show
play tone Middle E for 1/2 beat
strip show color blue
strip show
play tone Middle C for 1 beat
strip show color orange
strip show
play tone Middle D for 1/2 beat
strip show color green
strip show
play tone Middle F for 1/2 beat
strip show color purple
strip show


play tone Middle E for 1/2 beat
strip show color orange
strip show
play tone Middle D for 1/2 beat
strip show color red
strip show
play tone Middle G for 2 beat
strip show color white
strip show
rest(ms) 1/16 beat
strip show color red
strip show
play tone Middle G for 1/2 beat
strip show color purple
strip show
play tone Middle E for 1/2 beat
strip show color red
strip show


play tone Middle G for 1/2 beat
strip show color purple
strip show
play tone Middle E for 1/2 beat
strip show color red
strip show
play tone Middle G for 1/2 beat
strip show color purple
strip show
play tone Middle E for 1/2 beat
strip show color blue
strip show
play tone Middle C for 1 beat
strip show color orange
strip show
play tone Middle D for 1/2 beat
strip show color green
strip show


play tone Middle F for 1/2 beat
strip show color purple
strip show
play tone Middle E for 1/2 beat
strip show color orange
strip show
play tone Middle D for 1/2 beat
strip show color blue
strip show
play tone Middle C for 2 beat
strip show color orange
strip show
play tone Middle D for 1/2 beat
strip show color orange
strip show
play tone Middle D for 1/2 beat
strip show color green
strip show


play tone Middle F for 1/2 beat
strip show color green
strip show
play tone Middle F for 1/2 beat
strip show color purple
strip show
play tone Middle E for 1/2 beat
strip show color blue
strip show
play tone Middle C for 1/2 beat
strip show color red
strip show
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strip show color orange
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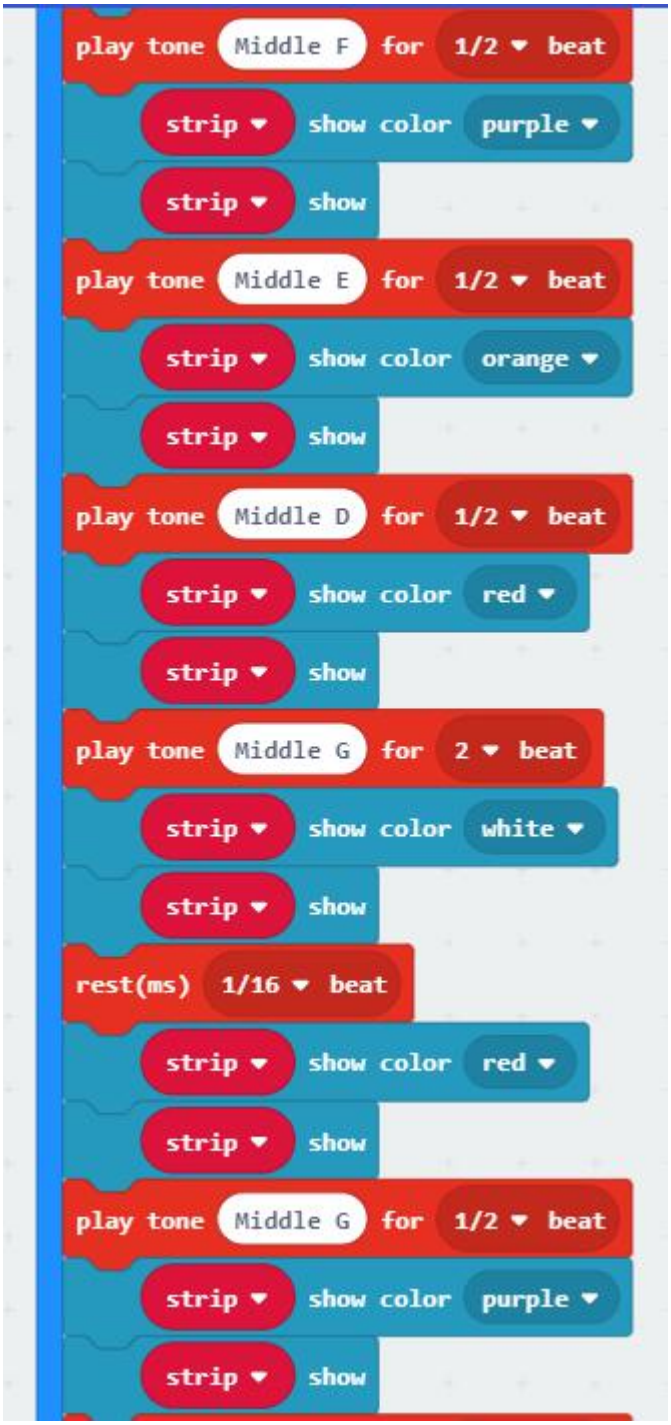
play tone Middle D for 1/2 beat
strip show color green
strip show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strip show color orange
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play tone Middle D for 1/2 beat
strip show color red
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strip show color white
strip show
rest(ms) 1/16 beat
strip show color red
strip show
play tone Middle G for 1/2 beat
strip show color purple
strip show

play tone Middle E for 1/2 beat
strip show color red
strip show
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strip show color purple
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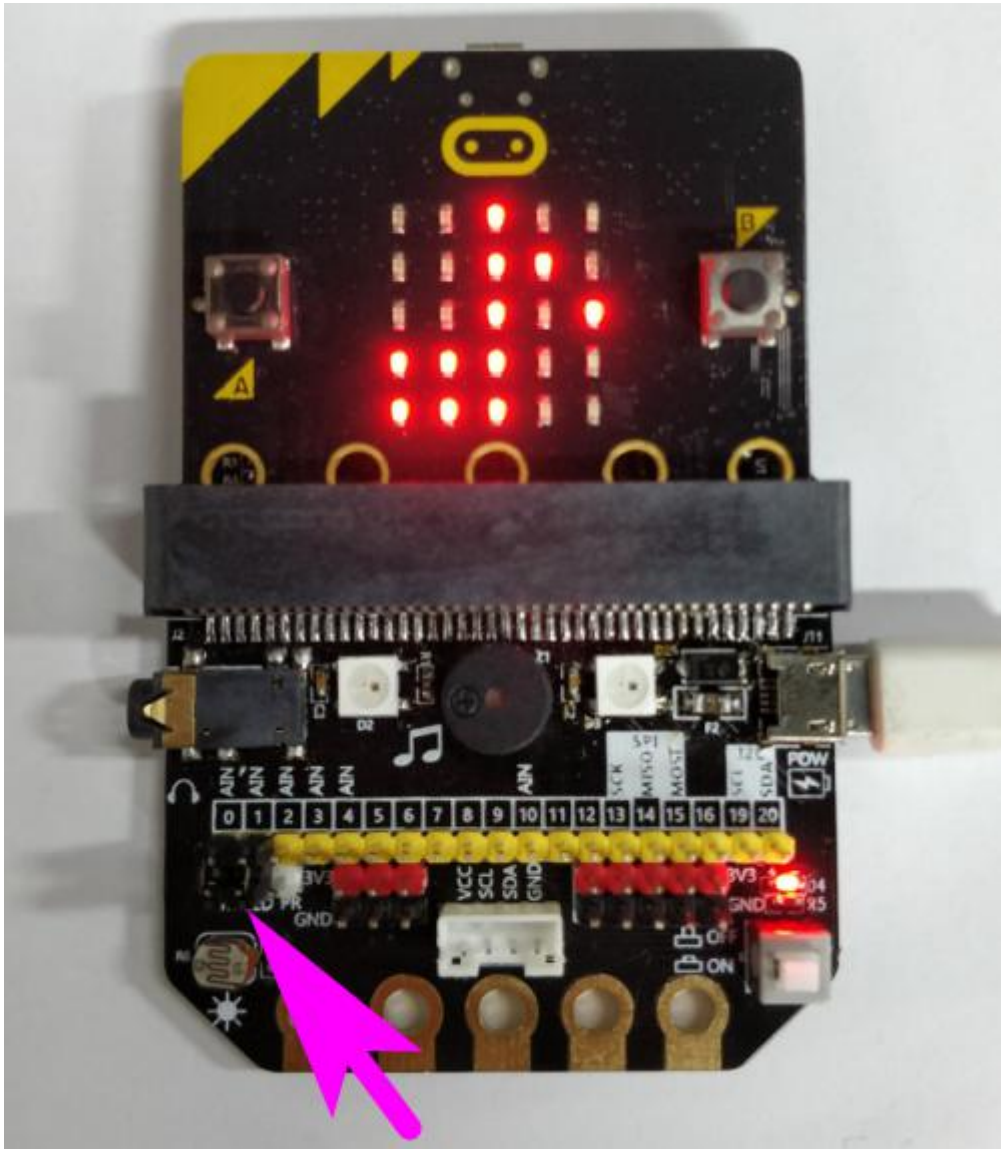
play tone Middle E for 1/2 beat
strip show color red
strip show
play tone Middle G for 1/2 beat
strip show color purple
strip show
play tone Middle E for 1/2 beat
strip show color blue
strip show
play tone Middle C for 1 beat
strip show color orange
strip show

Note: The jumper cap needs to be connected to the P0 and FM,the P1 and LED pins on the basic expansion board. As shown below.



5. Experimental phenomena

After the program is successfully downloaded, the micro:bit dot matrix is not displayed. When playing music, the RGB light will change the color with the pitch.