Black_guy

1.Learning goal

In this lesson, we mainly use a photo-resistor to conduct experiments. When the light intensity changes, LED:bit will display different expressions.

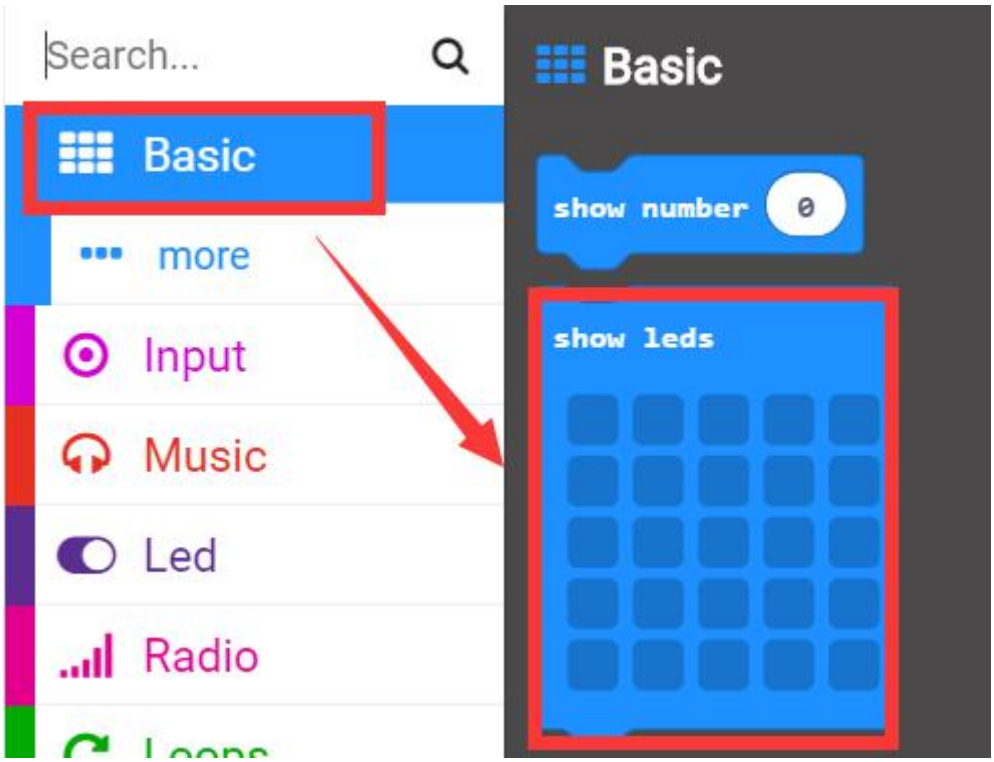
2.Programming method

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/LED-Bit** to program.

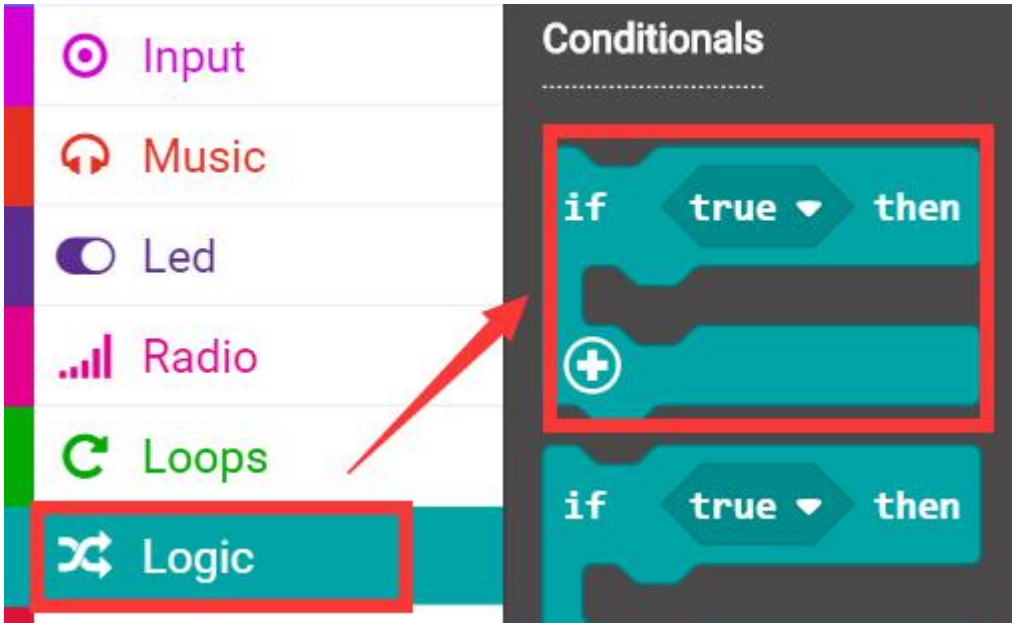
Mode 2 offline programming: We need to open the offline programming software. After the installation is complete, enter the programming interface, click【New Project】, add Yahboom package: **https://github.com/lzty634158/LED-Bit**, you can program.

3.Looking for blocks

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



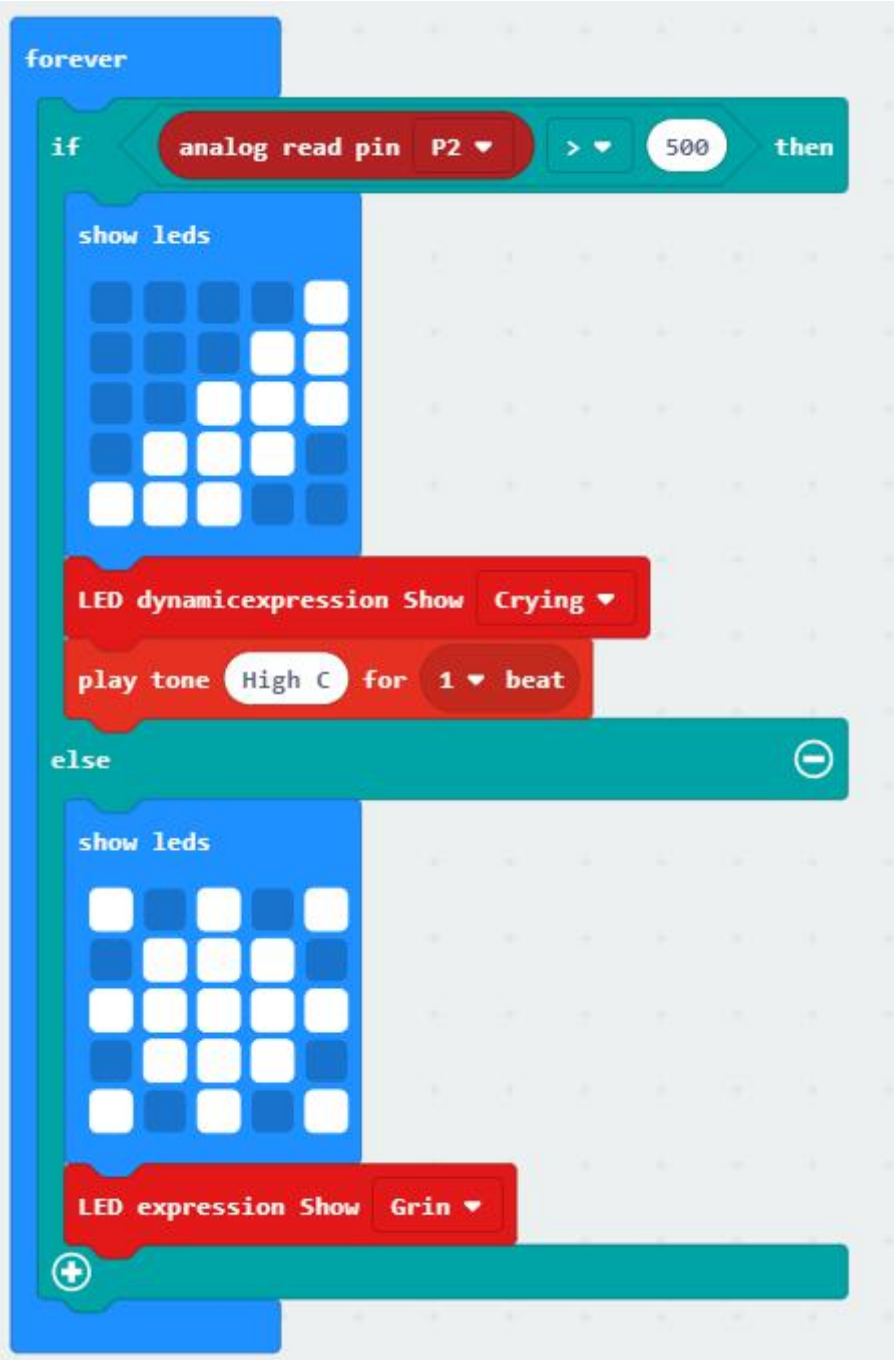

Search...
Basic
Input
Music
Music
play tone Middle C for 1 beat
ring tone (Hz) Middle C


Input
Music
Led
Radio
Loops
Logic
Conditionals
if true then
if true then

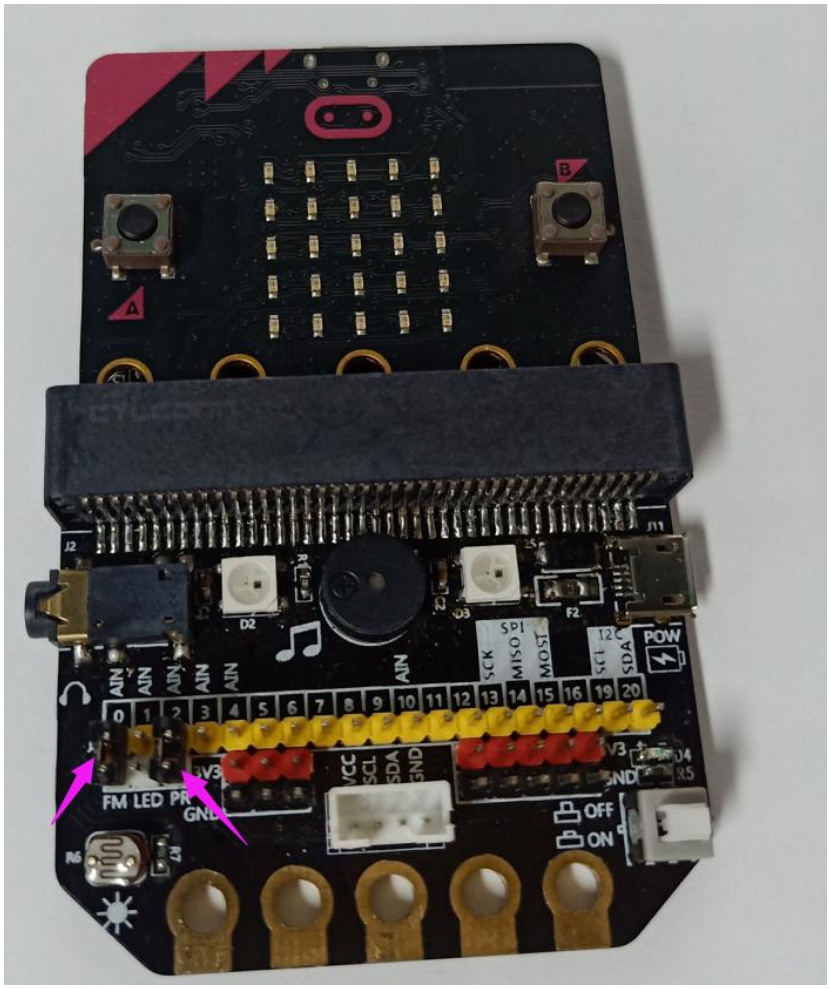

Basic
Input
Music
Led
Radio
Loops
Logic
Variables
Math
LEDBit
LED expression Show Smile
LED dynamicexpression Show Open_mouth
LED character Show A
LED num Show num1
LED picture Show Big_heart

4.Combine building block

The summary program is shown below:



Note: The jumper cap needs to be connected to the P0 and FM pins, P2 and PR pins on the Basic:bit expansion board. As shown below.



5. Experimental phenomena

After the program is successfully downloaded, when in a lighted environment (when the light intensity is strong), a micro:bit dot matrix displays a sun pattern, LED:bit shows a laughing expression; when in an environment without light (when the light intensity is weak), the micro:bit dot matrix displays a moon pattern, LED: bit display a crying expression, and the buzzer sounds.