3.5 Breathing light
Breathing-light.hex
http://www.yahboom.net/xiazai/Tiny_bit/3.Light%20of%20Tiny%20bit/Breathing-light.hex

1.Preparation

1-1.The position of the LED lights and RGB Searching lights on the robot car

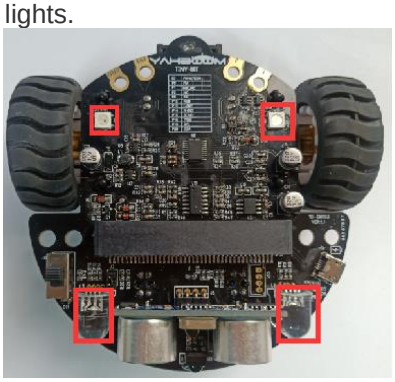
1-2.Learn about the principle of LED and RGB Searching light

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/Tiny-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/Tiny-bit, you can program.

In the picture shown below, the two lights by the red wire frame are the RGB Searching lights, the two white squares circled by the red wire frame are the colorful lights.



Principle: LED light and RGB Searching light (red, green, blue) are packaged in the LED module. We can mix different colors(256*256*256) by controlling the brightness of the three LEDs.

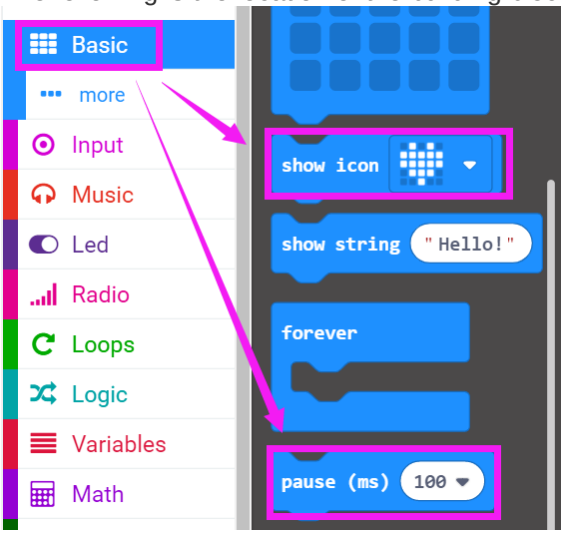
2.Learning goal

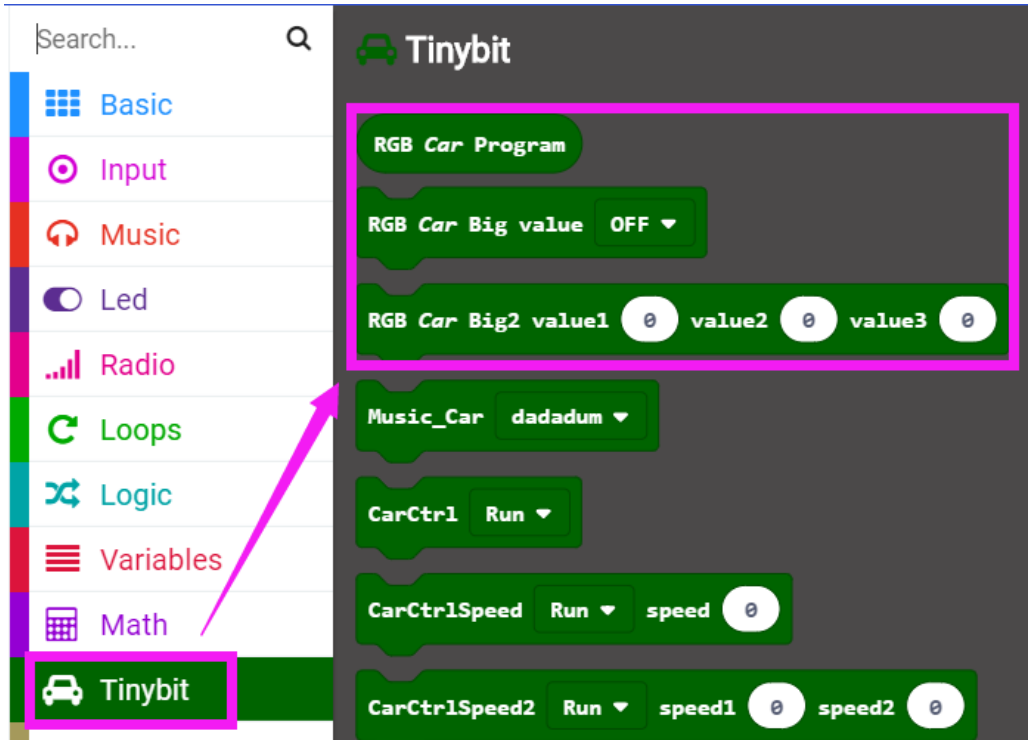
2-1.1.Learn how to use RGB Searching lights and LED lights graphically program building blocks

2-2.In this lesson, we will realize breathing lights.

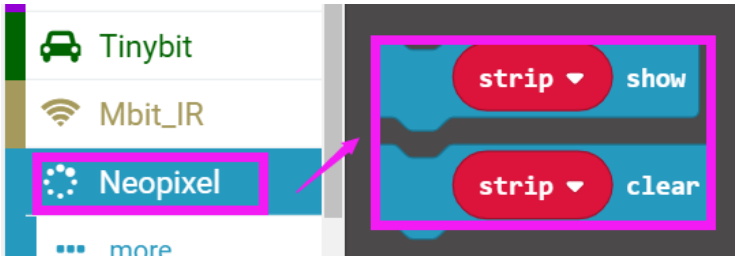
3.Search for block

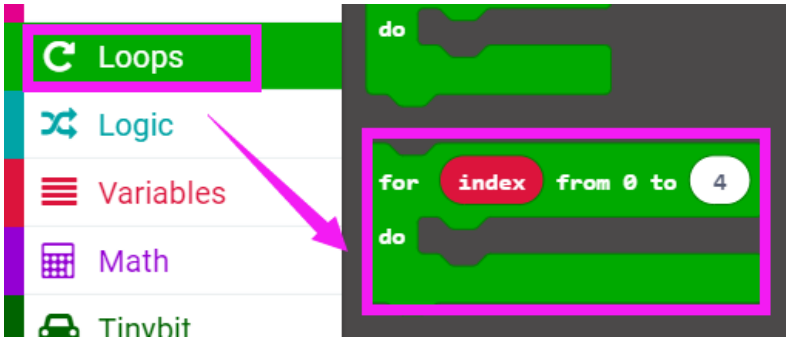
The following is the location of the building blocks required for this programming.

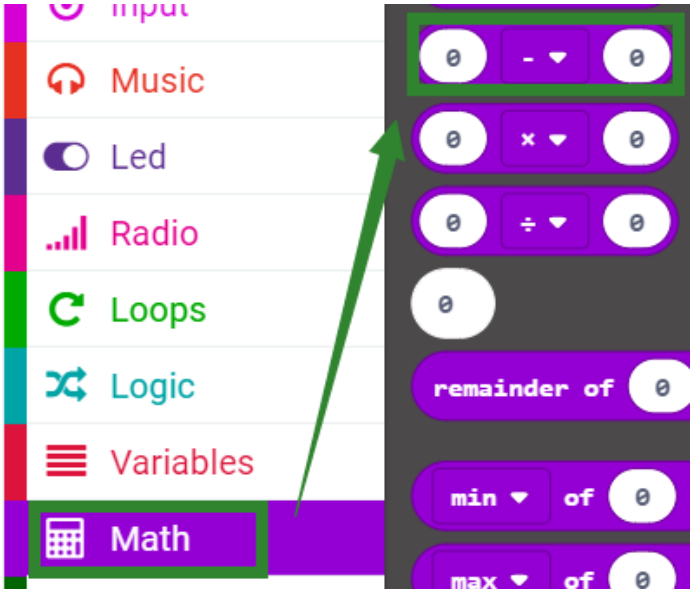


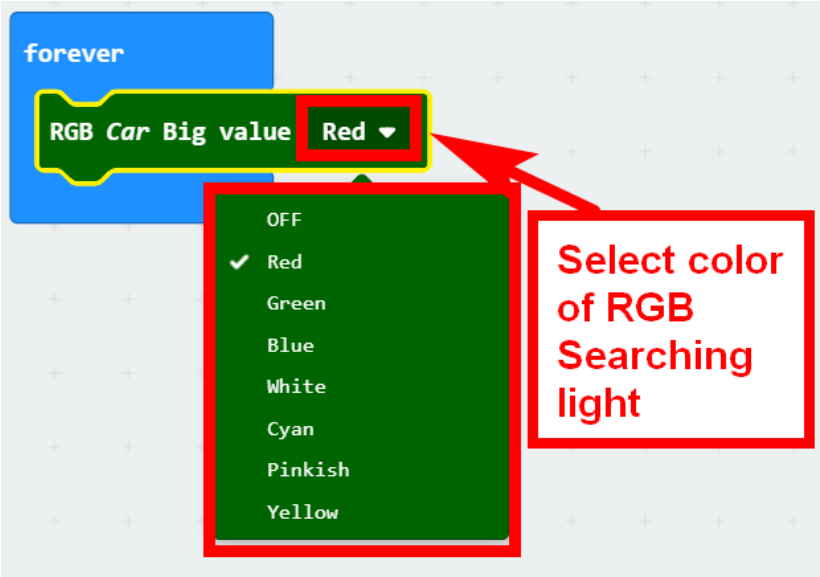

Search...
Basic
Input
Music
Led
Radio
Loops
Logic
Variables
Math
Tinybit
Tinybit
RGB Car Program
RGB Car Big value OFF
RGB Car Big2 value1 0 value2 0 value3 0
Music_Car dadadum
CarCtrl Run
CarCtrlSpeed Run speed 0
CarCtrlSpeed2 Run speed1 0 speed2 0

Loops
Logic
Variables
Math
Tinybit
Mbit_IR
Neopixel
more
strip set brightness 255
strip ease brightness
strip power (mA)
strip set matrix width 0
strip set matrix color at x
red


Tinybit
Mbit_IR
Neopixel
more
strip show
strip clear

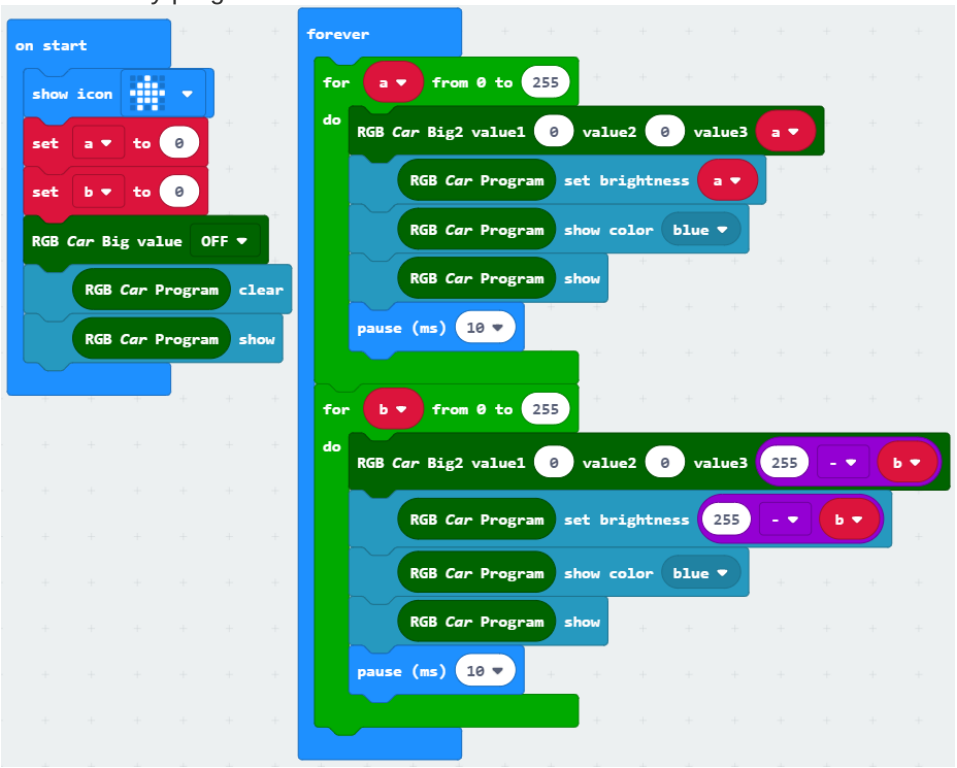

Loops
Logic
Variables
Math
Tinybit
do
for index from 0 to 4
do

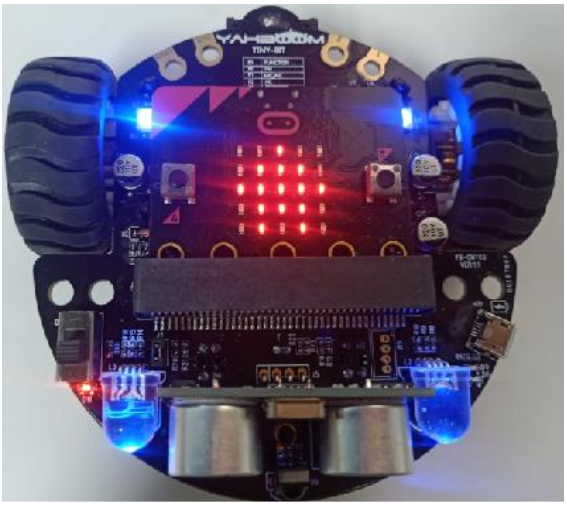




4.Combine block

The summary program is shown below:



5.Experimental phenomena

After the program is downloaded, we can see that micro:bit board will display a house pattern on the dot matrix. All lights will realize breathing lights.