Basic course10---RGB Search Light

Learning goals:

This lesson we will learn how to drive RGB Search Light by Python programming.

Code :

```
# -*- coding: utf-8-*-# Encoding cookie added by Mu Editor
from microbit import display, Image, sleep
import buildingbit

display.show(Image.HAPPY)

while True:
    buildingbit.car_HeadRGB(255, 0, 0)
    sleep(500)
    buildingbit.car_HeadRGB(0, 255, 0)
    sleep(500)
    buildingbit.car_HeadRGB(0, 0, 255)
    sleep(500)
    buildingbit.car_HeadRGB(255, 255, 255)
    sleep(500)
    buildingbit.car_HeadRGB(0, 0, 0)
    sleep(500)
```

1) First, we need to import Yahboom buildingbit library: **import buildingbit** and others library we need to use.

2) **display.show(Image.HAPPY)** make micro:bit display a smile.

3) **buildingbit.car_HeadRGB(255, 0, 0)** make RGB search light display red.

Parameter 1: red value range:0~255

Parameter 2: green value range:0~255

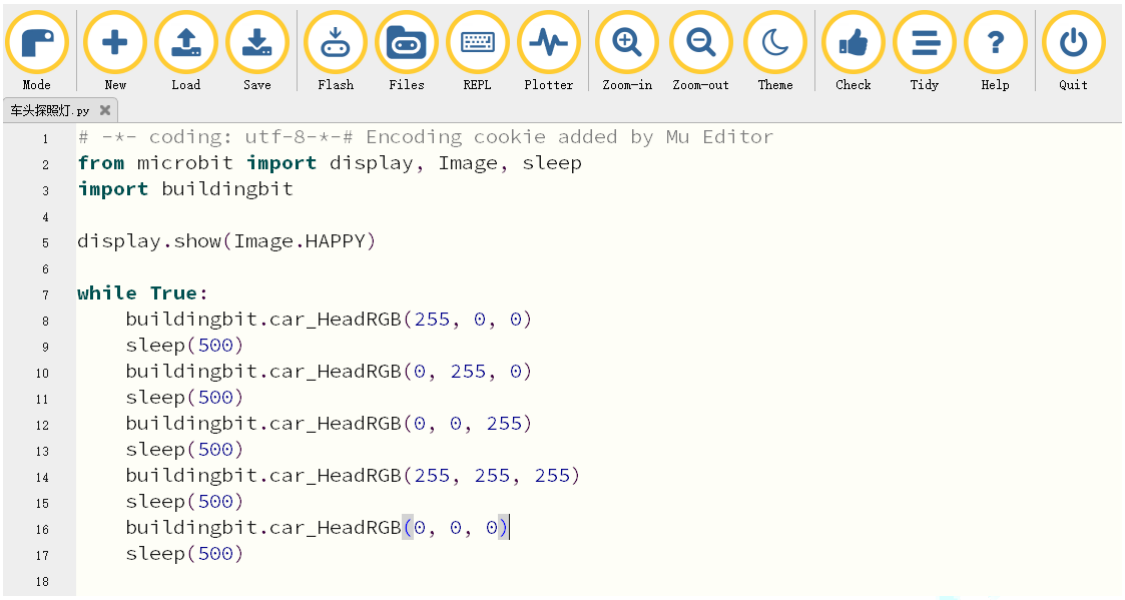
Parameter 3: blue value range:0~255

4) **sleep(500)** can modify time value (ms)

Programming and downloading：

1. You should open the Mu software, and enter the code in the edit window, , as shown below.

Note! All English and symbols should be entered in English, Tab key for indentation, and the last line must be a space.

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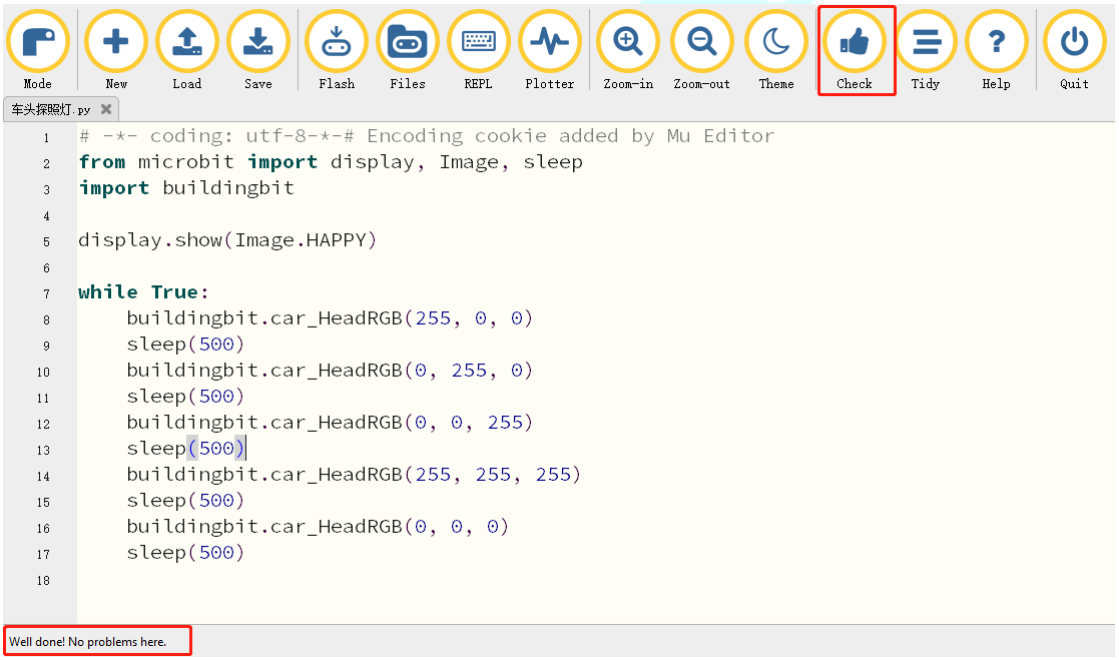
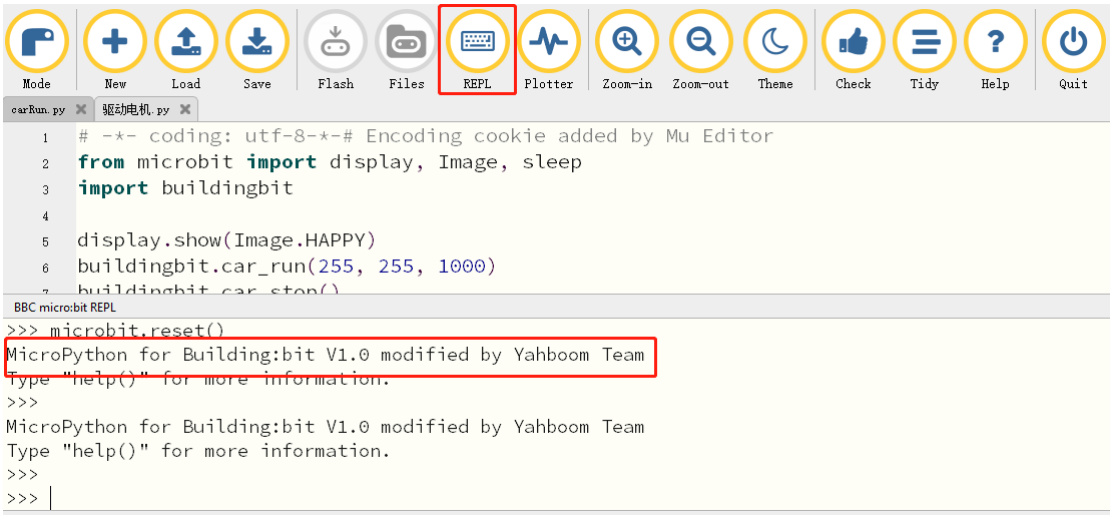
    buildingbit.car_HeadRGB(0, 0, 0)
    sleep(500)
```

2. You need to click the "**Check**" button to check if our code has an error. If a line appears with a cursor or an underscore, the program indicating this line is wrong. If there is no cursor or underline, it means that the code is correct, and the bottom left will prompt that the check is OK.



3. You need to connect the micro data cable to micro:bit and the computer and **download buildingbit library into micro:bit**. Then, click "**REPL**" button to import "Yahboom buildingbit library". As shown below.



4. Click “**Flash**” to download program to micro:bit board.

Experimental phenomena

After download is complete. We can see micro:bit dot matrix display a “smile”. Two RGB search light will become red 0.5s -> green 0.5s -> blue0.5s ->white 0.5s -> off 0.5s, And keep looping like this status.