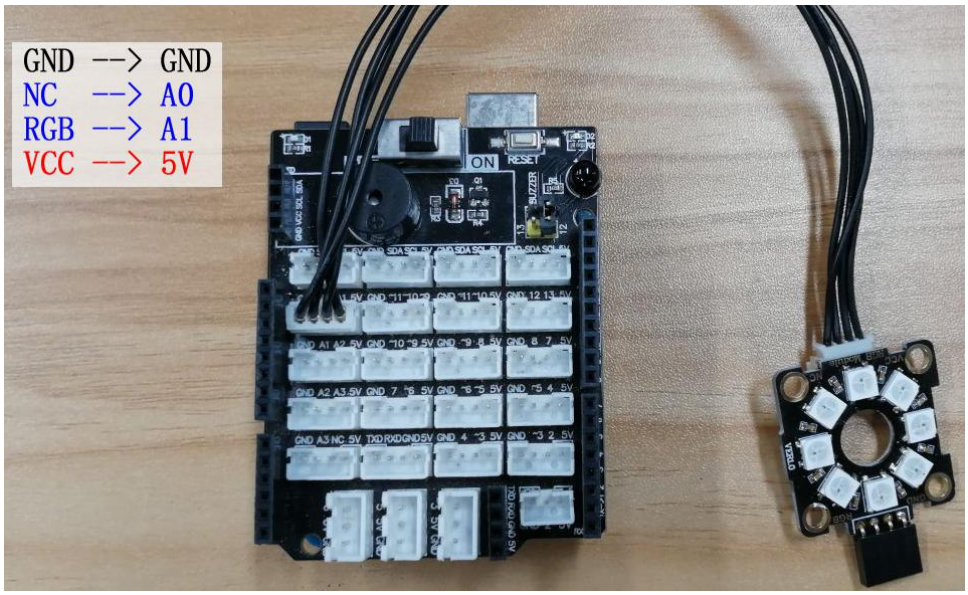
## Light up all RGB

### 1. Learning target

In this course, we will learn how to use Arduino and RGB halo module to achieve light up all RGB.

### 2. Preparation

Connect the module to Arduino board by UNO sensor board, as shown below.

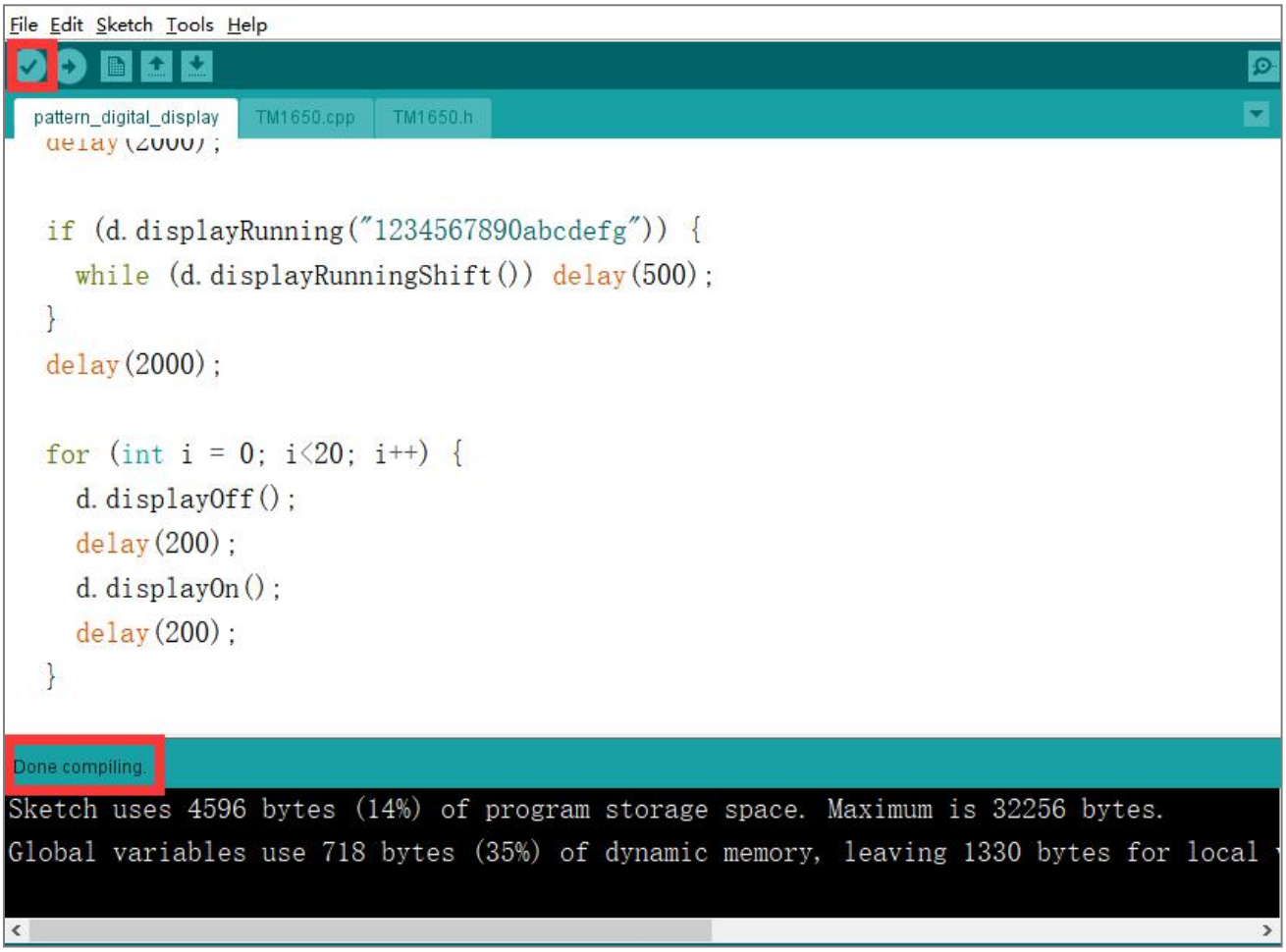



### 3. About code

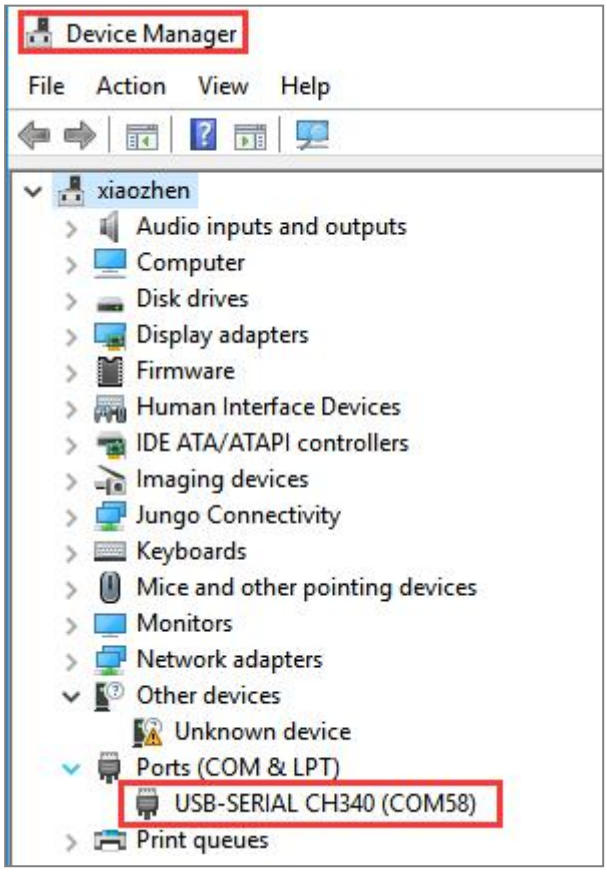
```
#include "./Adafruit_NeoPixel.h"      //Library file
#define PIN A1                         // Define the pins of the RGB light
#define MAX_LED 8                     //8 RGB light

Adafruit_NeoPixel strip = Adafruit_NeoPixel( MAX_LED, PIN, NEO_RGB + NEO_KHZ800 );
uint8_t i = 0;
uint32_t color = strip.Color(0,0,255);    //Green,red,blue


void setup()
{
  // put your setup code here, it will run once:
  strip.begin();
  strip.show();
}


void loop()
{
  for(i=0;i<MAX_LED;i++)
  {
    strip.setPixelColor(i, color);  //Light up all RGB lights in blue
  }
    strip.show();
}
```

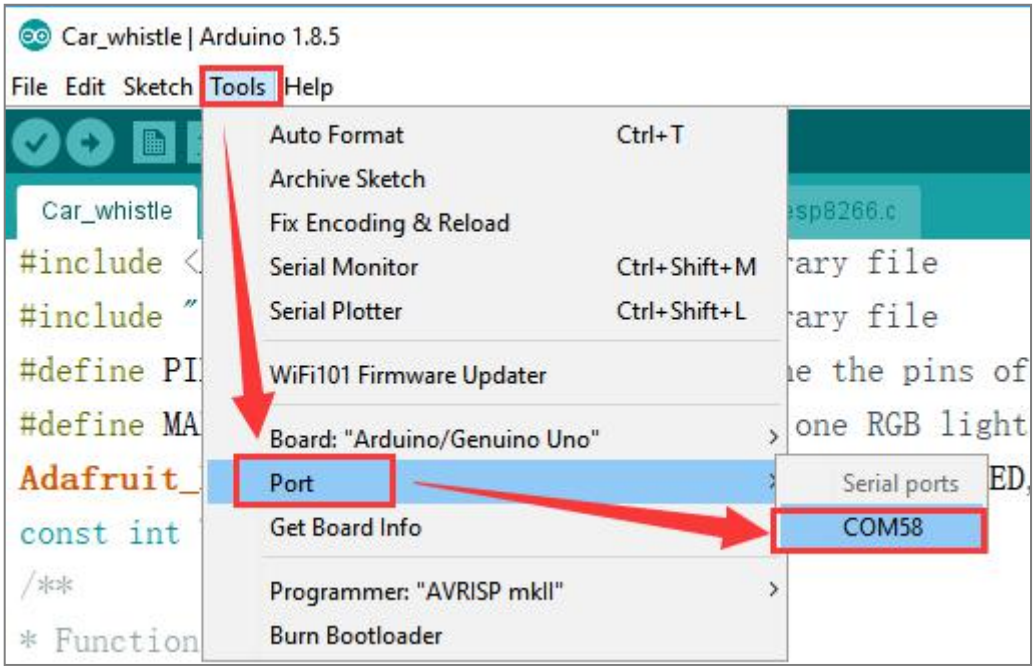
**4. Compiling and downloading code**

4.1 We need to open the **.ino** file by Arduino IDE software. Then click“√”under the menu bar to compile the code, and wait for the word "Done compiling " in the lower left corner, as shown in the figure below.

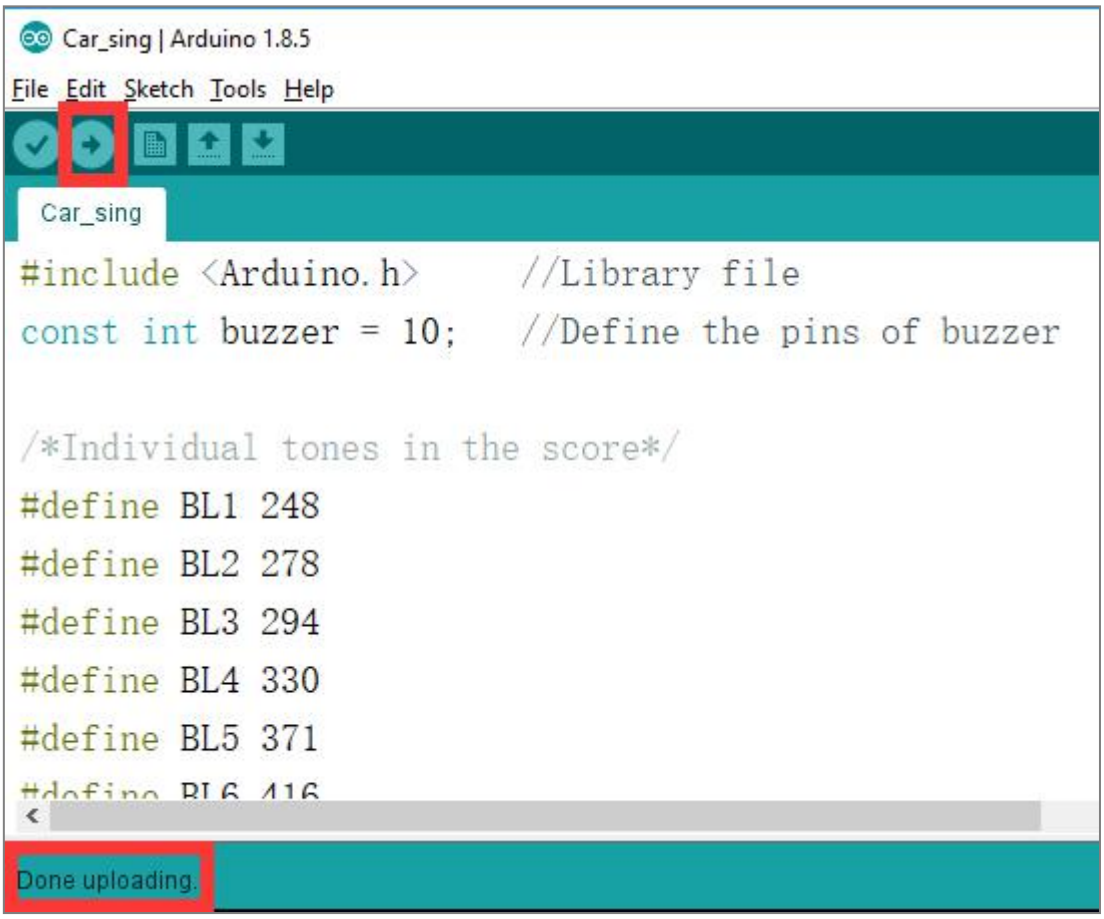



4.2 In the menu bar of Arduino IDE, we need to select【Tools】---【Port】--- selecting the port that the serial number displayed by the device manager just now, as shown in the figure below.




4.3 After the selection is completed, you need to click "→"under the menu bar to upload the code to the UNO board. When the word "Done uploading" appears in the lower left corner, the code has been successfully uploaded to the UNO board, as shown in the figure below.




**5. Phenomenon**

After the program is downloaded successfully, all light on the module become blue.