

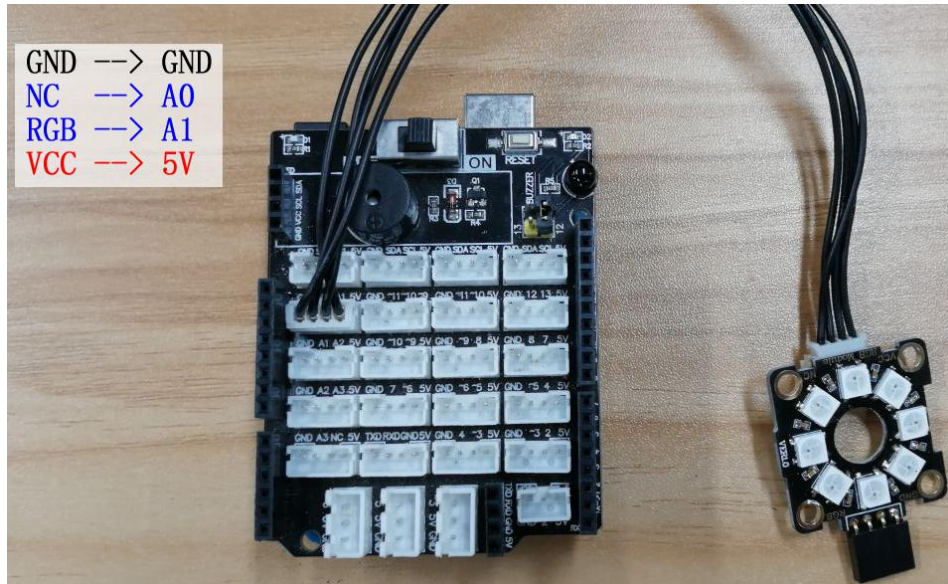
Breathing light

1. Learning target

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

2. Preparation

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

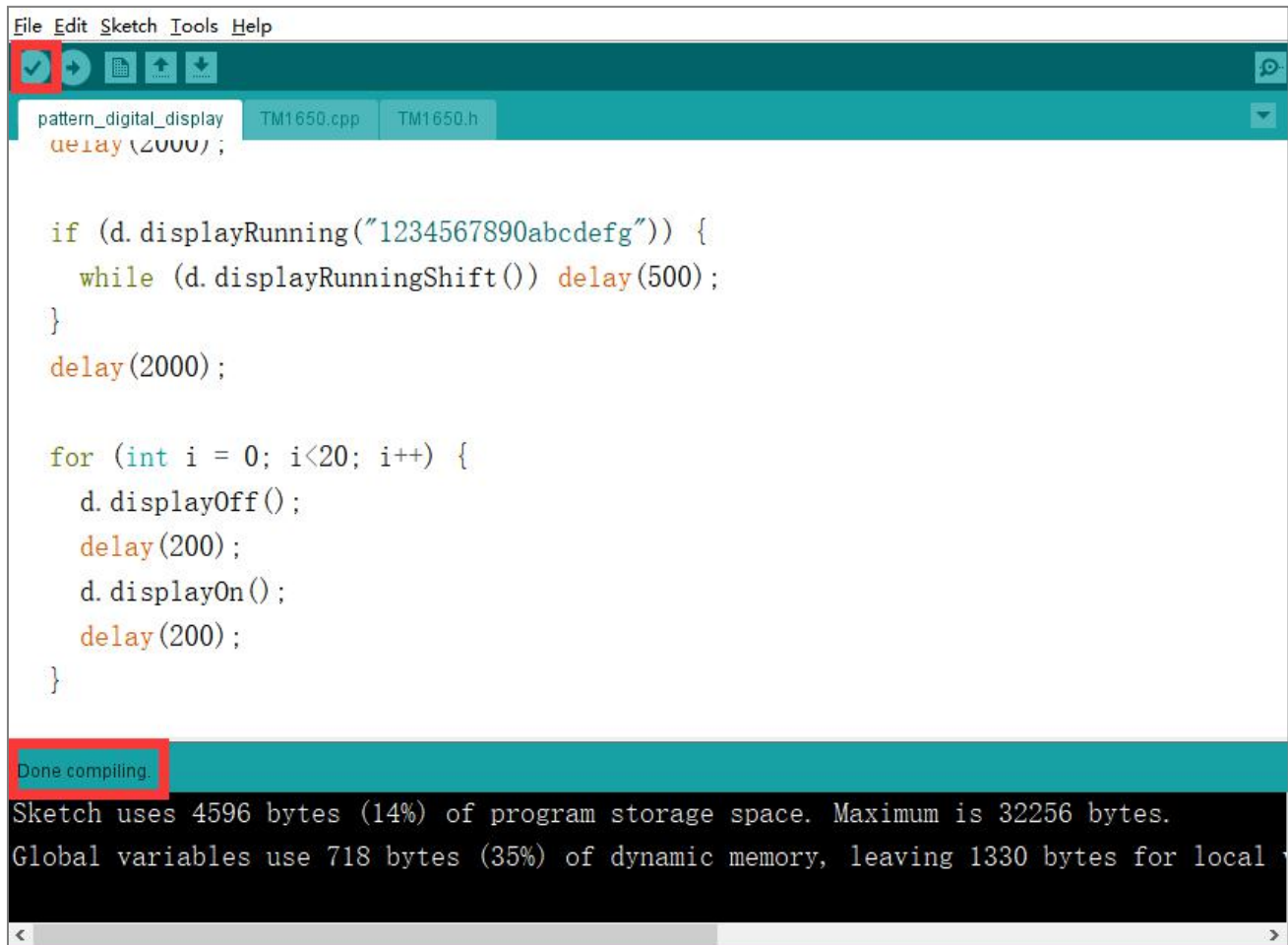


3. About code

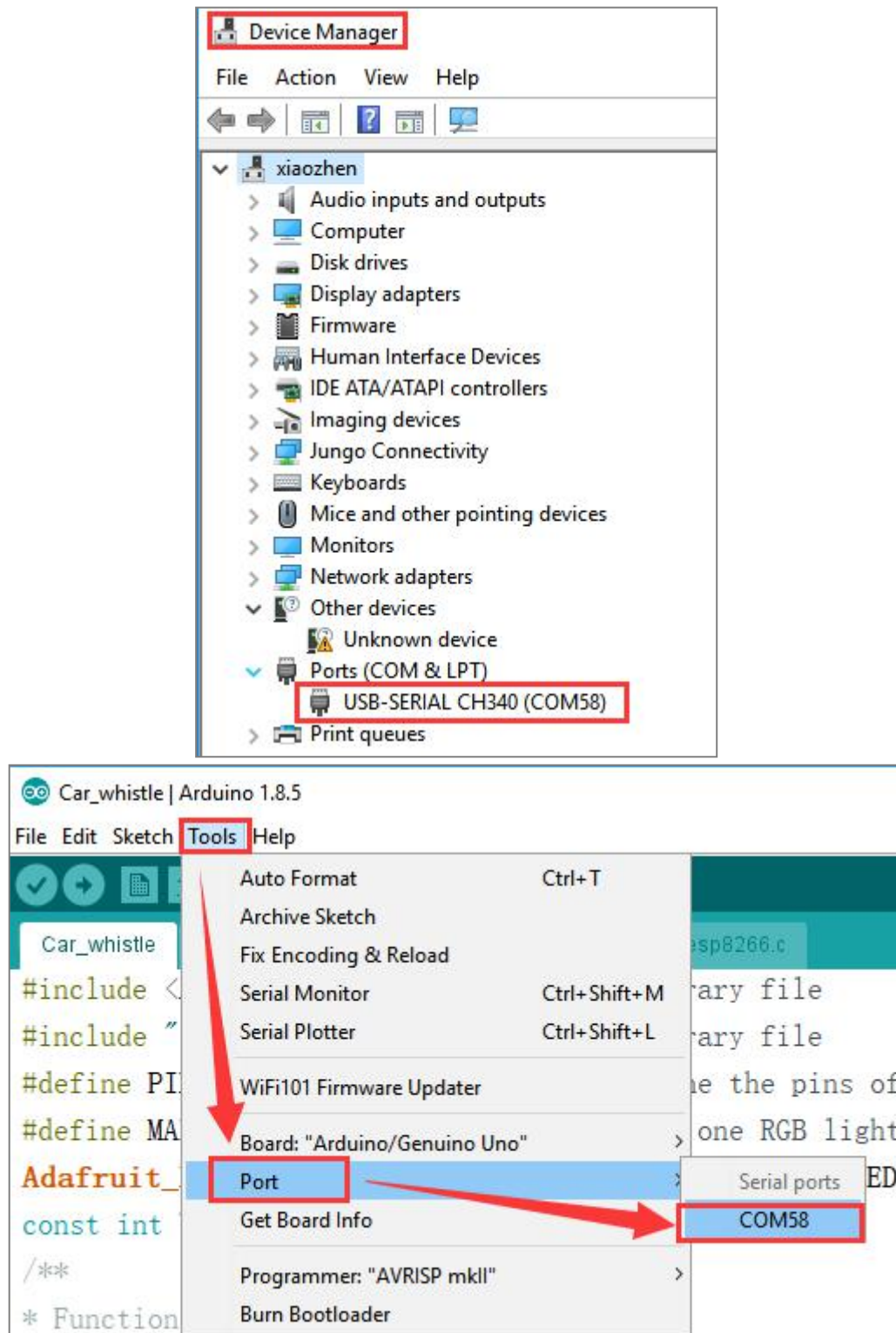
```
void loop()
{
    for(i = 0; i < MAX_LED; i++)
    {
        strip.setPixelColor(i, 0, brightness, brightness);
    }
    strip.show();
    brightness = brightness + fadeAmount;
    if (brightness <= 0 || brightness >= 200)
        fadeAmount = -fadeAmount ;
    delay(10);
}
```

4. Compiling and downloading code

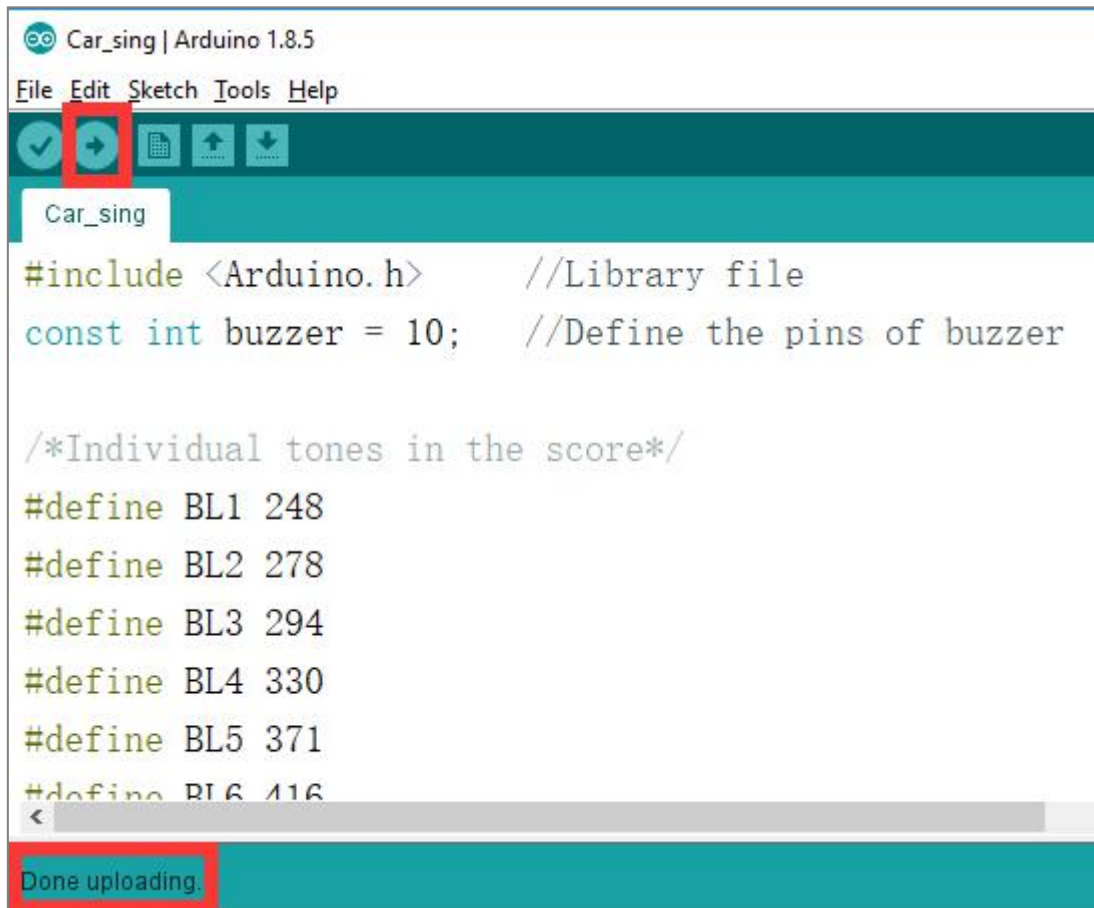
4.1 We need to open the .ino file by Arduino IDE software. Then click "V" under the menu bar to compile the code, and wait for the word "Done compiling" in the lower left corner, as shown in the figure below.



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 the purple RGB lights go from on to off, then from off to on, and keep cycling in this state.