Limit switch control vibration motor

1. Purpose

In this course, we mainly learn to use Arduino, vibration motor module and limit switch module to realize limit switch control vibration motor.

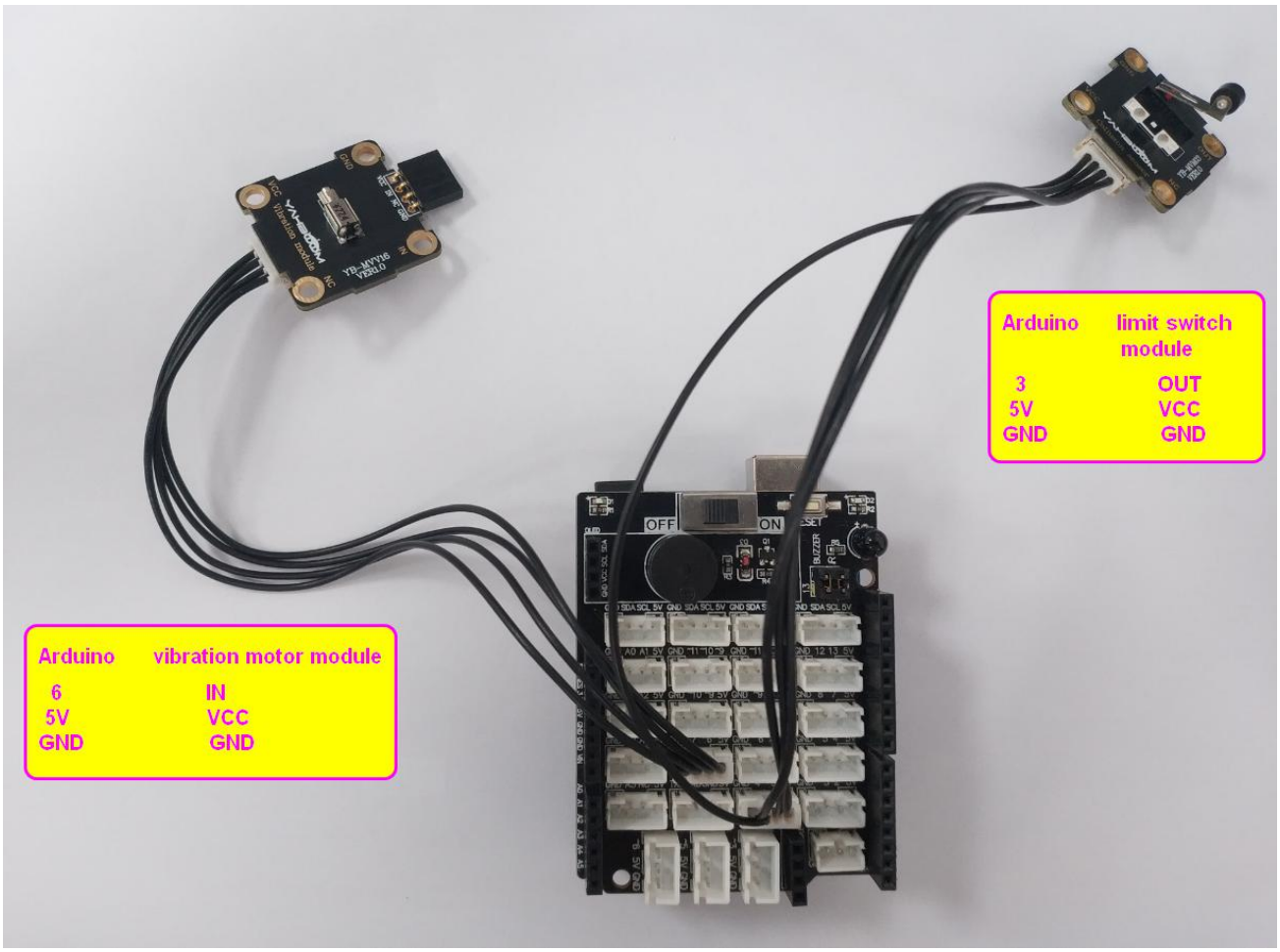
2. Preparation

Wiring diagram as shown below.

vibration motor module	Arduino
IN	6
VCC	5V
GND	GND

limit switch module	Arduino
OUT	3
VCC	5V
GND	GND

Note: As shown in the figure below, we use the Uno sensor expansion board. If you don't have an expansion board, you can connect the Arduino board and the sensor module by DuPont lines.



3. About code

Please check .ino file.

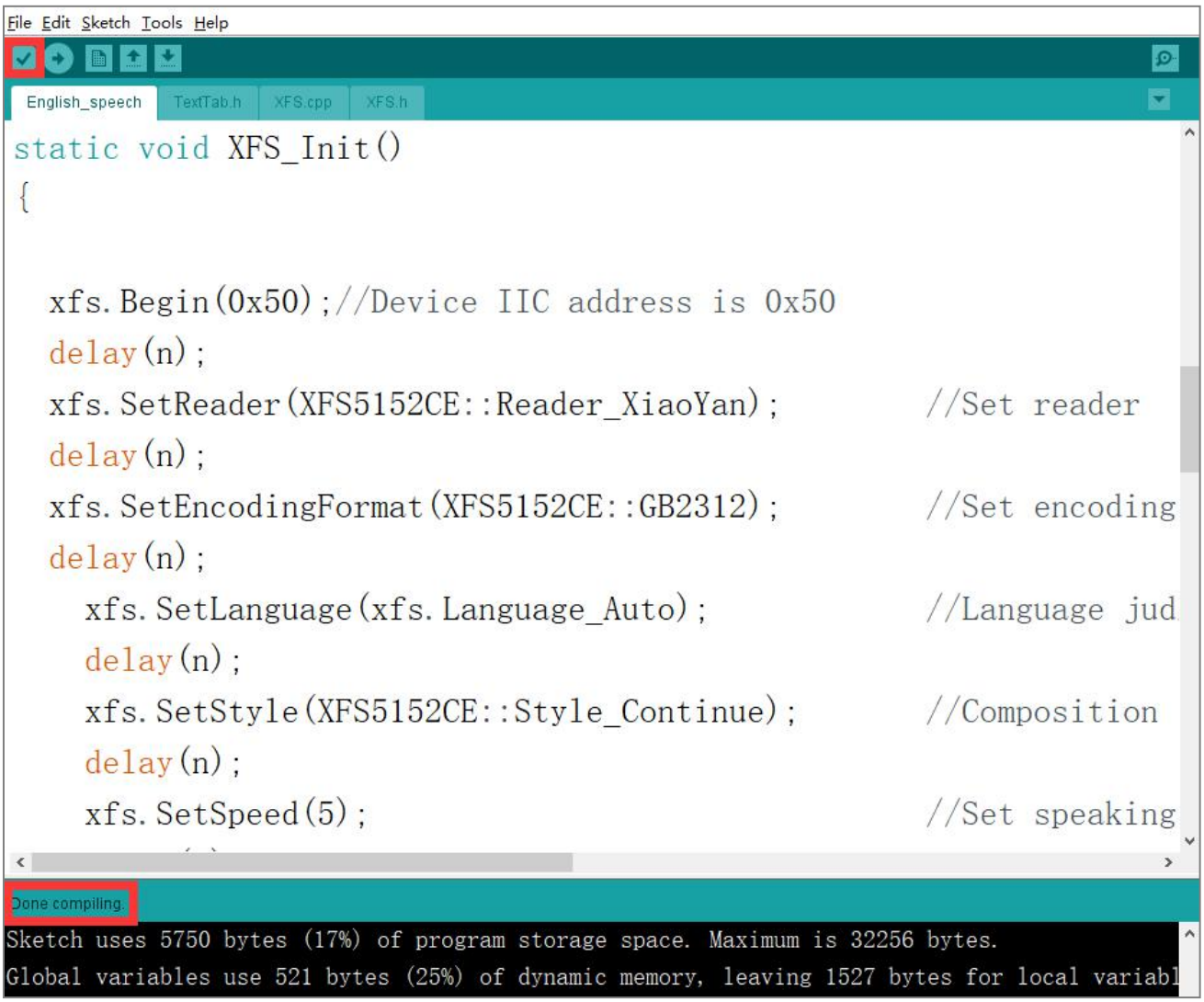
In the main loop, the level state of the pin of the limit switch module connected to the Arduino is continuously detected.

When the pin is high, it means that the limit switch module is collided, vibration motor module will shock, otherwise it will not shock.

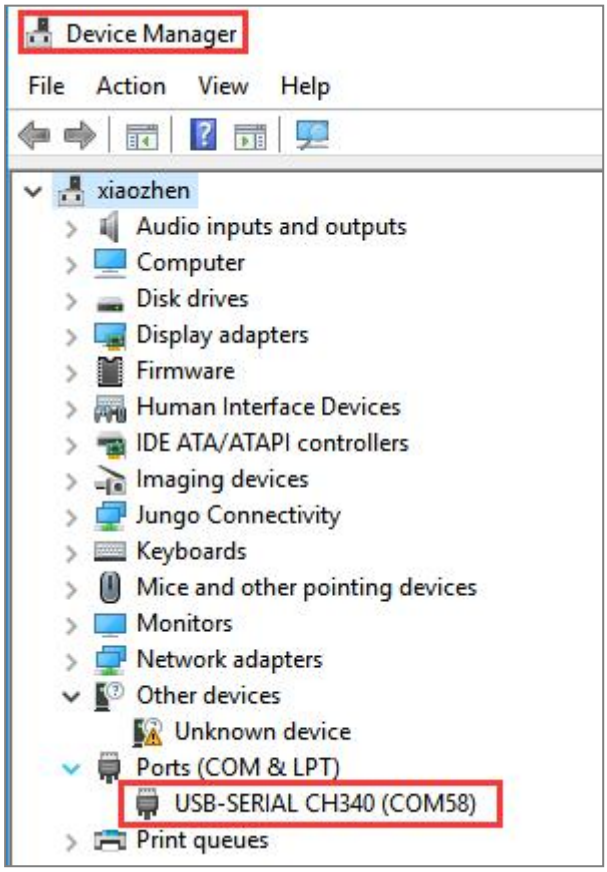
```
void loop()
{
        val=digitalRead(keypin);
        if(val==HIGH) //Detect whether limit switch module is trigged
        {
            analogWrite(motorpin, 200);
         }
         else
         {
           analogWrite(motorpin, 0);
          }
}
```

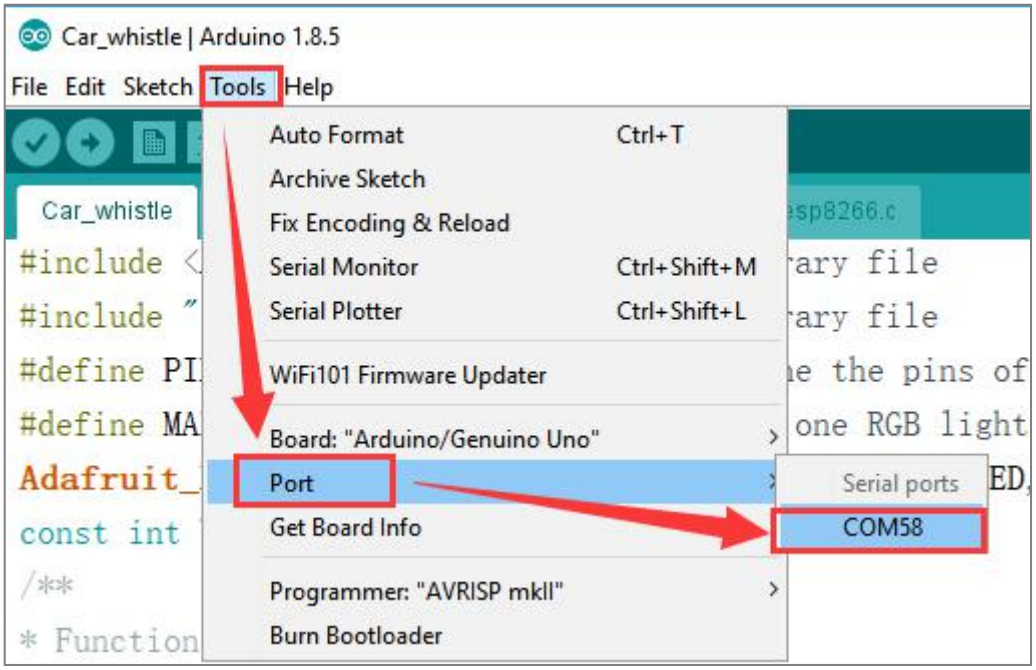
4. Compiling and downloading code

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.

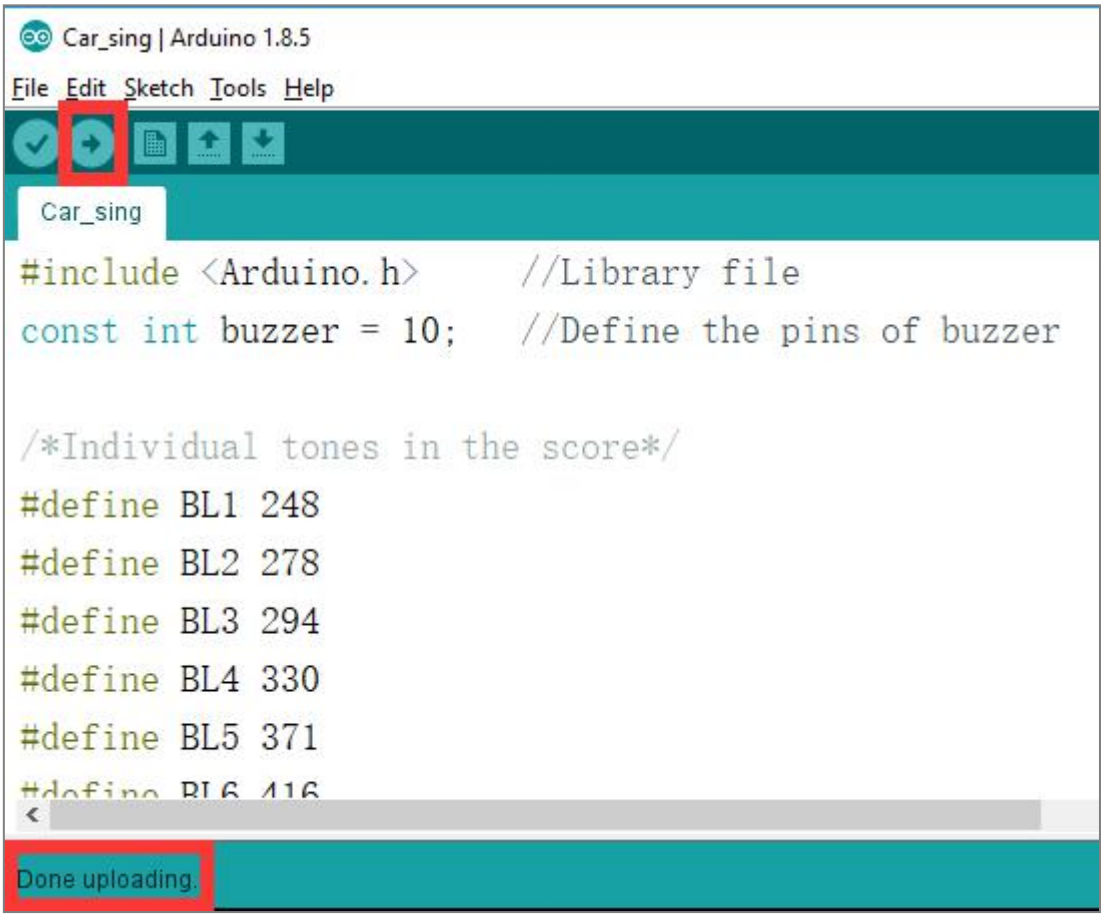


4.2 In the menu bar of Arduino IDE, we need to select【Tools】---【Port】--- selecting the port that the serial number displayed by the device manager just now, as shown in the figure below.





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. When the touch switch is pressed, the vibration motor module will shock. When it is released, the vibration motor module stops shocking.