

Delete Fingerprint

1. Learning target

In this course, we will learn how to use Arduino and fingerprint recognition module to achieve fingerprint delete function.

2. Preparation

The fingerprint recognition module uses UART communication, and the program uses a virtual serial port. Connect the TX and RX of the module to the D2 and D3 pins of the arduino UNO board. V+/Vi and GND are connected to 3.3V and GND of arduino UNO respectively.

3. About code

3.1 Configure virtual serial port pins

```
#if (defined(__AVR__) || defined(ESP8266)) && !defined(__AVR_ATmega2560__)
// For UNO and others without hardware serial, we must use software serial...
// pin #2 is IN from sensor (GREEN wire)
// pin #3 is OUT from arduino (WHITE wire)
// Set up the serial port to use softwareserial..
SoftwareSerial mySerial(2, 3);
```

3.2 Initialize serial communication

```
Serial.begin(9600);
while (!Serial); // For Yun/Leo/Micro/Zero/...
delay(100);
Serial.println("\n\nAdafruit finger detect test");
```

3.3 Initialize the module, the communication baud rate is 57600

```
// set the data rate for the sensor serial port
finger.begin(57600);
delay(5);
if (finger.verifyPassword()) {
  Serial.println("Found fingerprint sensor!");
} else {
  Serial.println("Did not find fingerprint sensor :(");
  while (1) { delay(1); }
}
```

3.4 Serial input, delete fingerprint, ID input

```

void loop()
{
  Serial.println("Please type in the ID # (from 1 to 10)");
  uint8_t id = readnumber();
  if (id == 0) { // ID #0 not allowed, try again!
    return;
  }

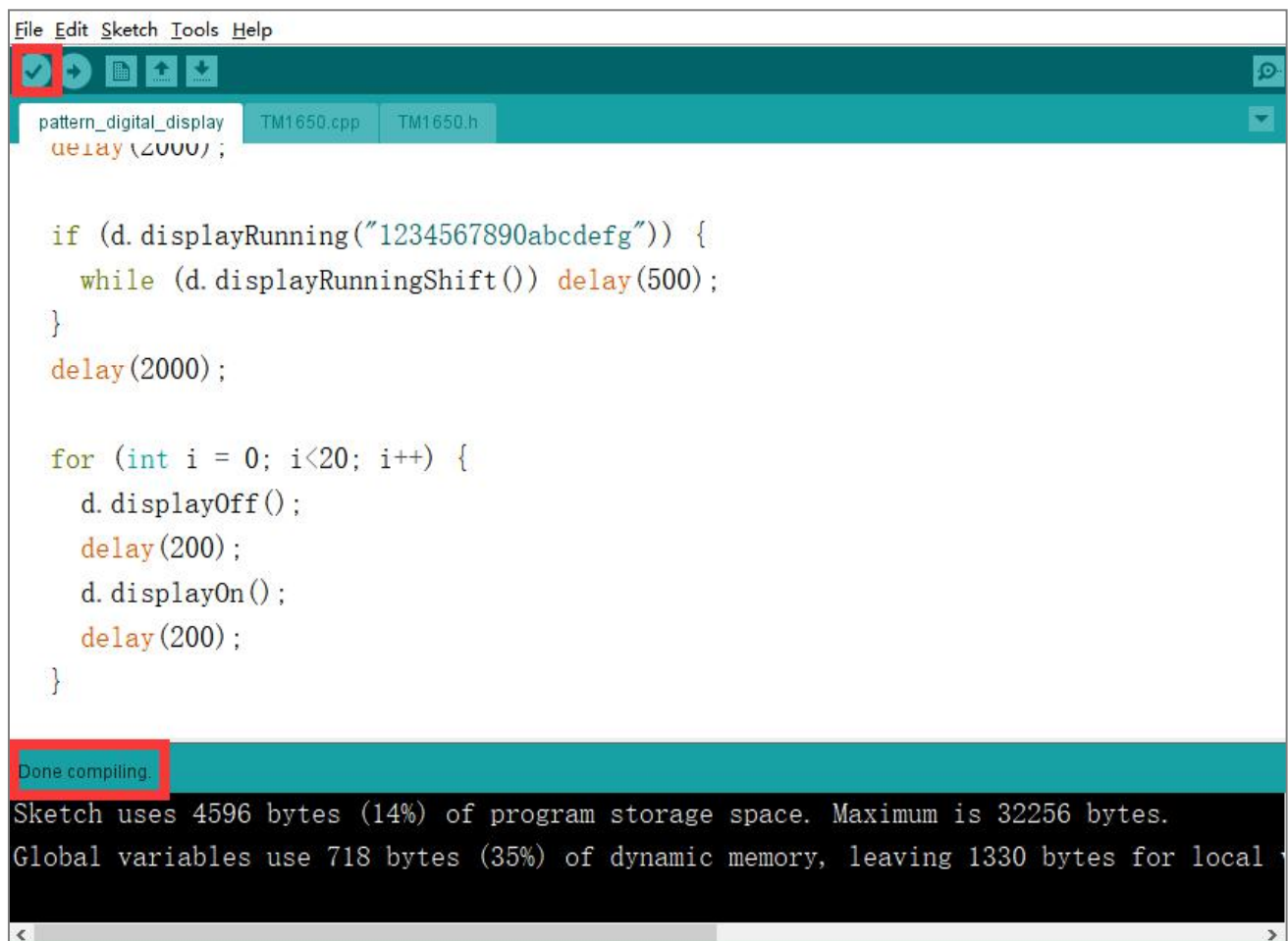
  Serial.print("Deleting ID #");
  Serial.println(id);

  deleteFingerprint(id);
}

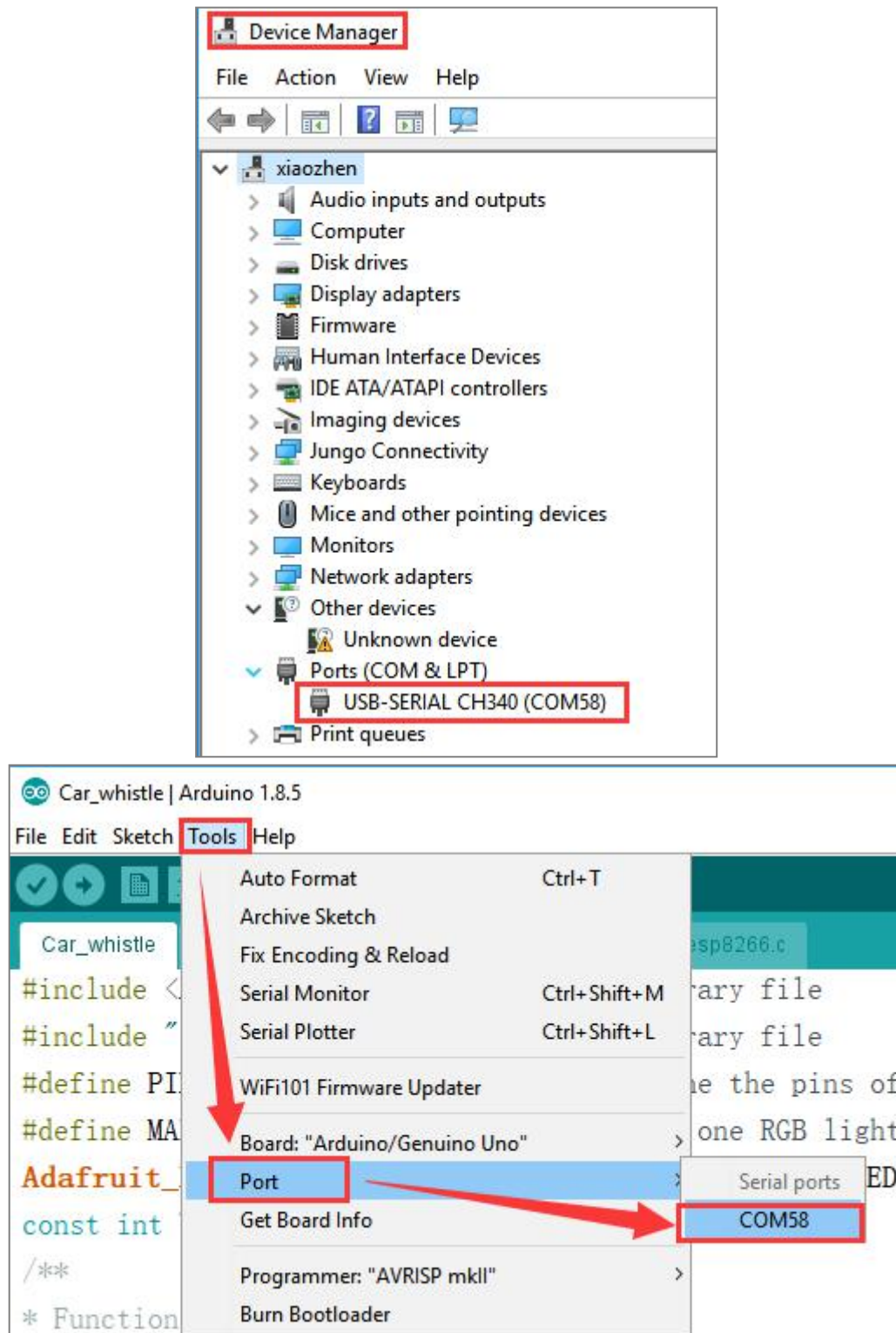
```

4. Compiling and downloading code

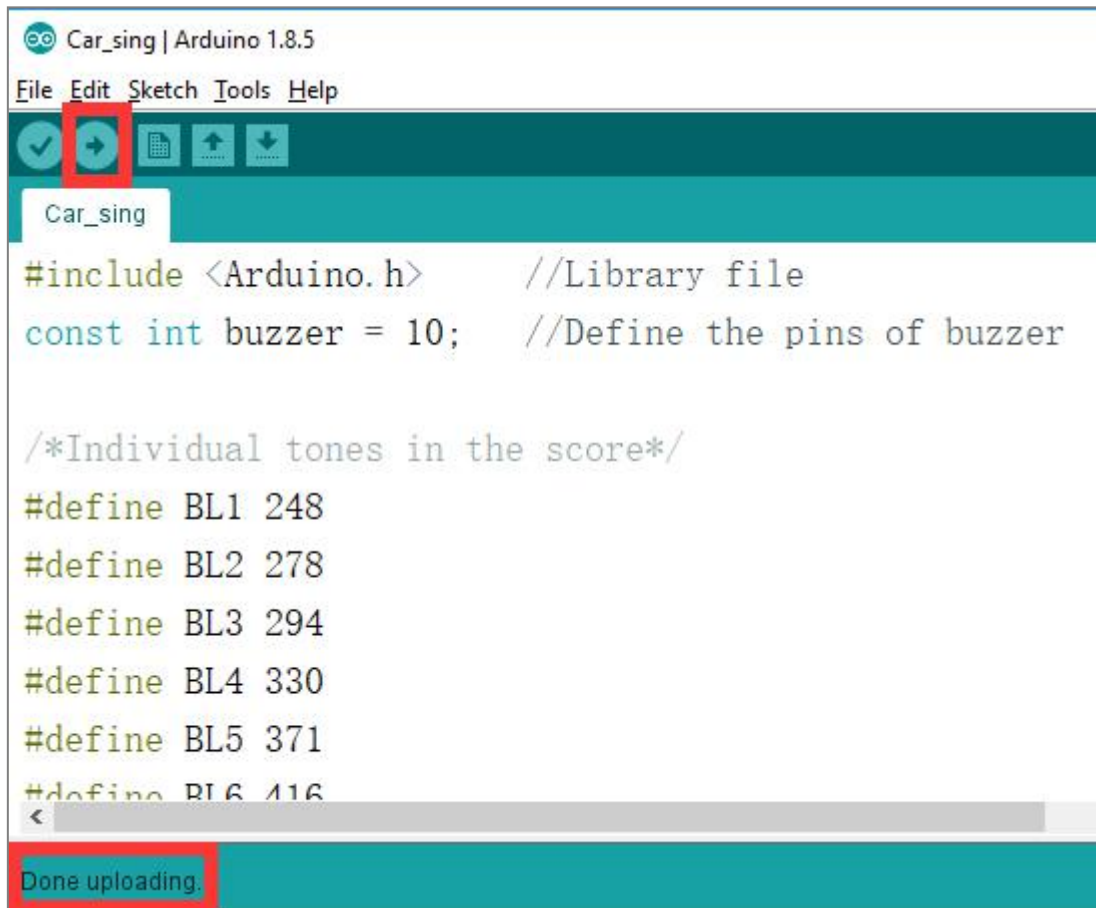
4.1 We need to open the .ino file by Arduino IDE software. Then click "v" under the menu bar to compile the code, and wait for the word "Done compiling" in the lower left corner, as shown in the figure below.



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. Open the serial monitor and select the same baud rate as in the program.

