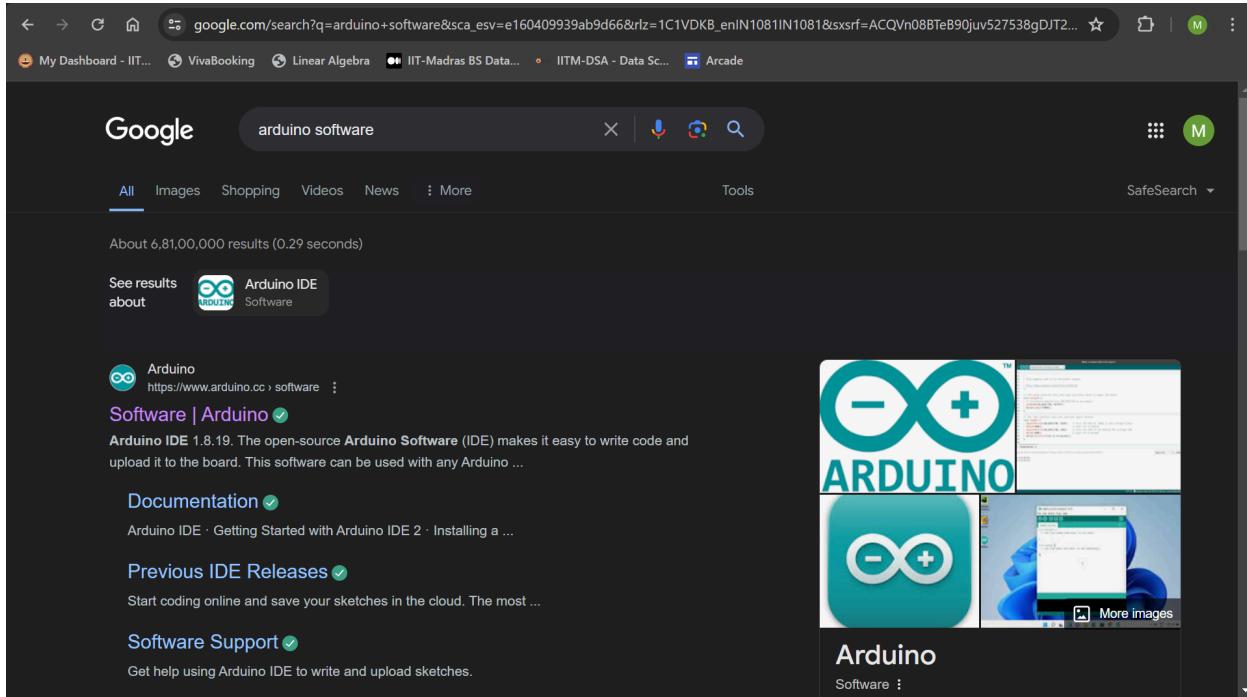


ARDUINO IDE INSTALLATION

1. Search for “arduino software”. Install the Arduino 1.8.19 version from the website.



Google arduino software

All Images Shopping Videos News More Tools SafeSearch

About 6,81,00,000 results (0.29 seconds)

See results about Arduino IDE Software

Arduino https://www.arduino.cc/software ...

Software | Arduino ✓

Arduino IDE 1.8.19. The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. This software can be used with any Arduino ...

Documentation ✓

Arduino IDE · Getting Started with Arduino IDE 2 · Installing a ...

Previous IDE Releases ✓

Start coding online and save your sketches in the cloud. The most ...

Software Support ✓

Get help using Arduino IDE to write and upload sketches.

ARDUINO Software : More images

arduino.cc/en/software

HARDWARE SOFTWARE CLOUD DOCUMENTATION COMMUNITY BLOG ABOUT

Legacy IDE (1.8.X)

Arduino IDE 1.8.19

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. This software can be used with any Arduino board.

Refer to the [Arduino IDE 1.x documentation](#) for installation instructions.

SOURCE CODE

Active development of the Arduino software is [hosted by GitHub](#). See the instructions for [building the code](#). Latest release source code archives are available [here](#). The archives are PGP-signed so they can be verified using [this gpg key](#).

DOWNLOAD OPTIONS

Windows Win 7 and newer
Windows ZIP file

Windows app Win 8.1 or 10 Get

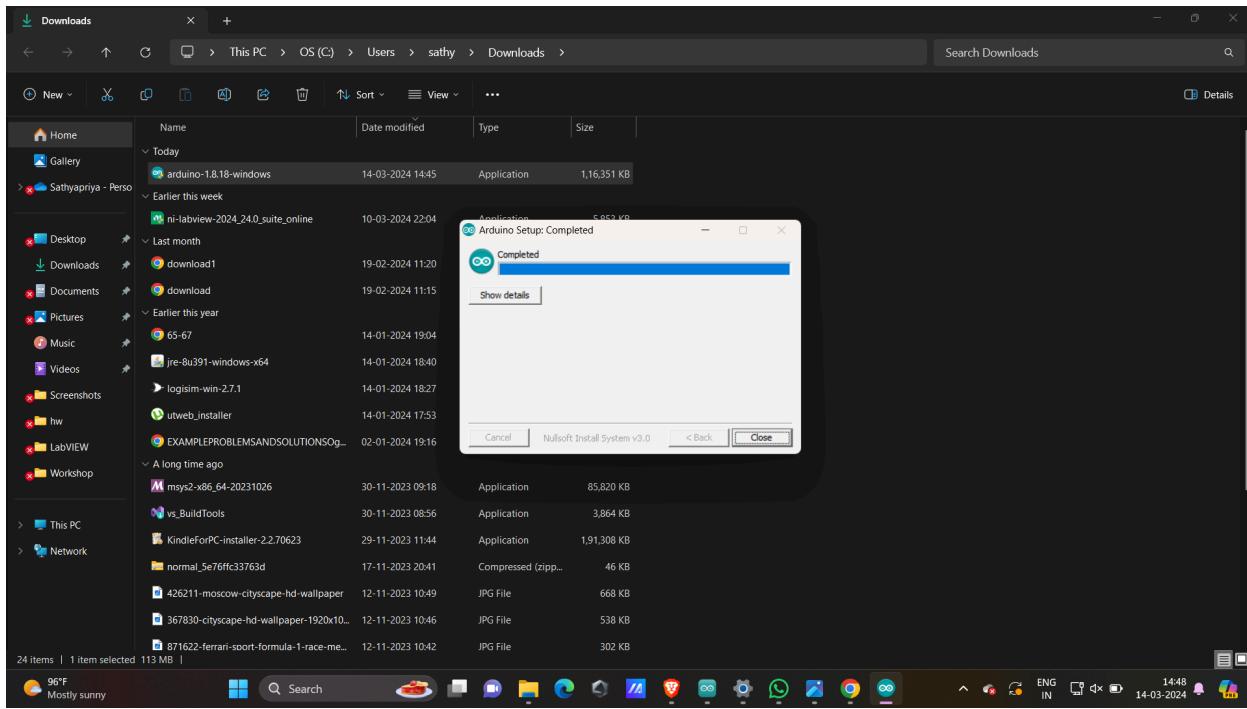
Linux Linux

Linux 64 bits
Linux ARM 32 bits
Linux ARM 64 bits

Mac OS X 10.10 or newer

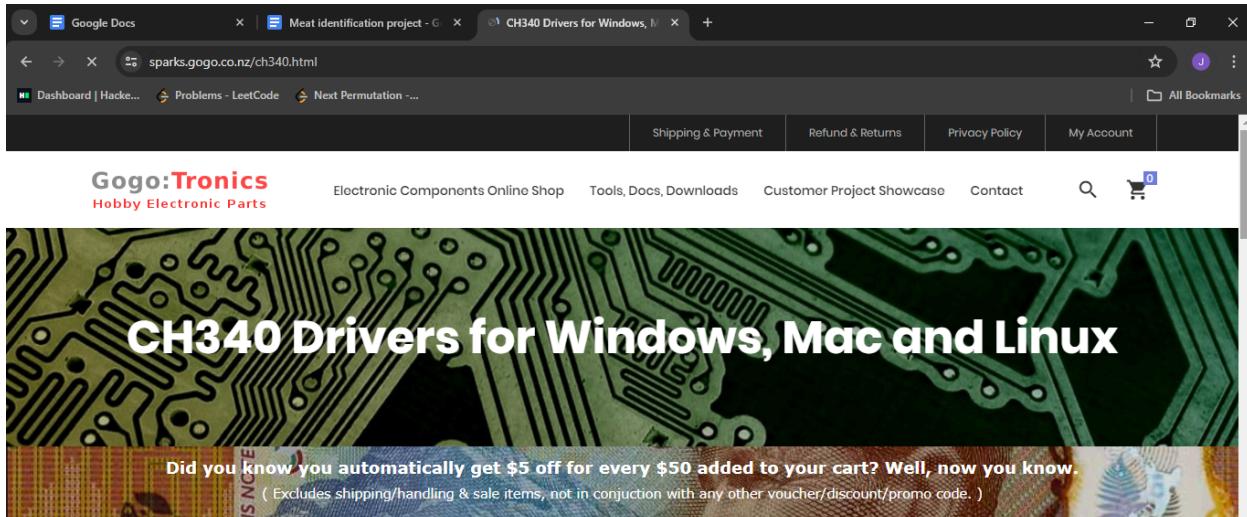
Release Notes
Checksums (sha512)

Help

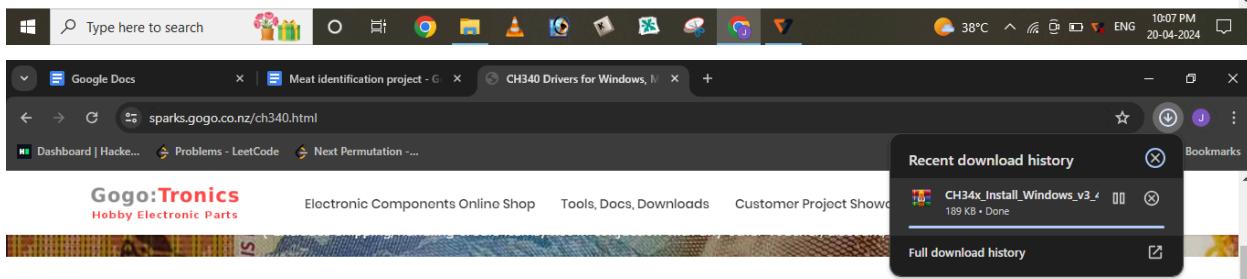


2. Installation of ch340 driver (Optional)

A screenshot of a Google search results page. The search query is 'download ch340 driver'. The results page shows approximately 3,89,000 results. The top result is from Gogo.Tronics, followed by Arduined and SparkFun Learn. Each result provides a download link for the CH340 driver. The status bar at the bottom shows the date as 20-04-2024 and the time as 10:06 PM.



The CH340 chip is used by a number of Arduino compatible boards to provide USB connectivity, you may need to install a driver, don't panic, it's easier than falling off a log, and much less painful.



The CH340 chip is used by a number of Arduino compatible boards to provide USB connectivity, you may need to install a driver, don't panic, it's easier than falling off a log, and much less painful.

Windows

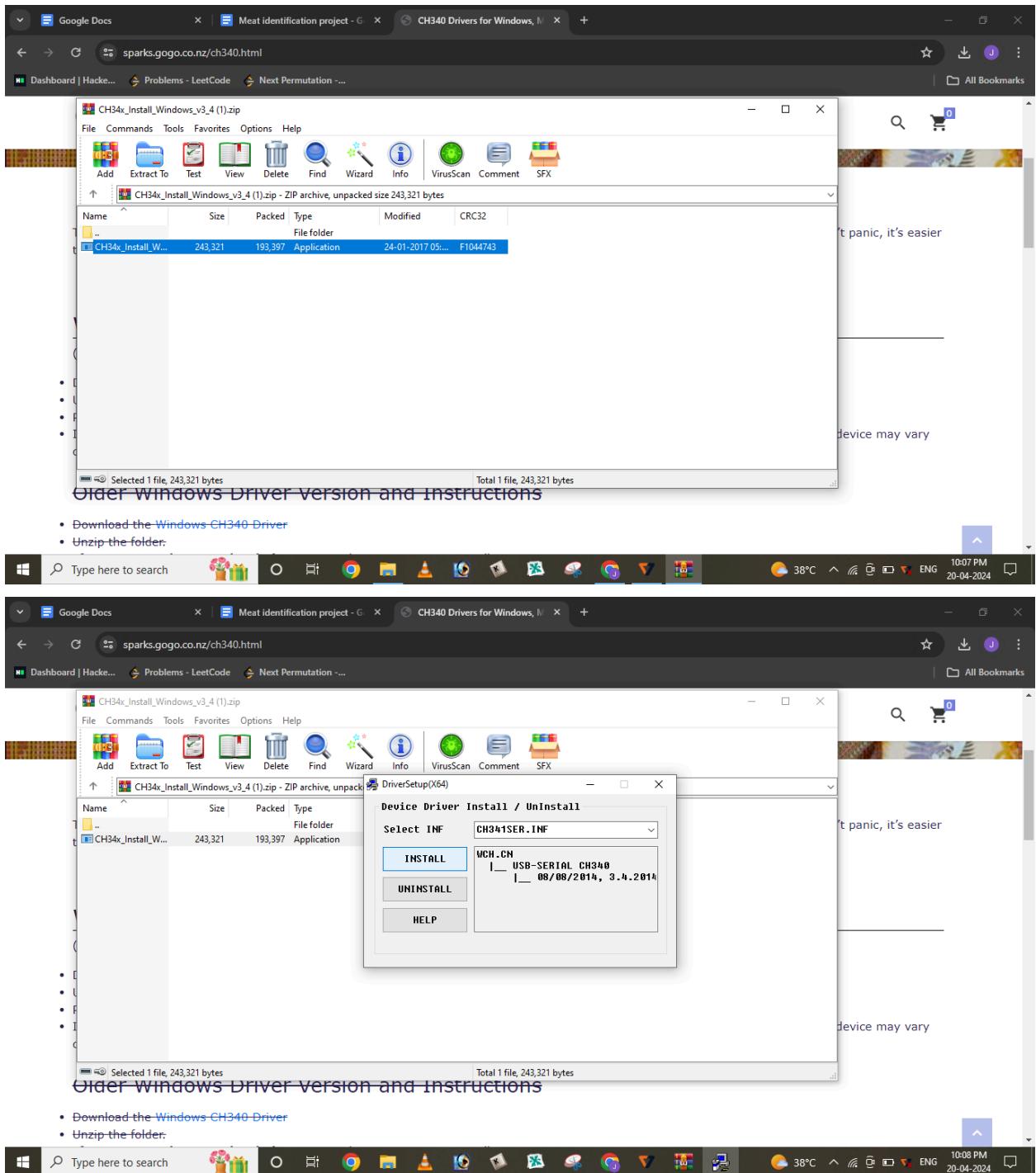
(Manufacturer's Chinese Info Link)

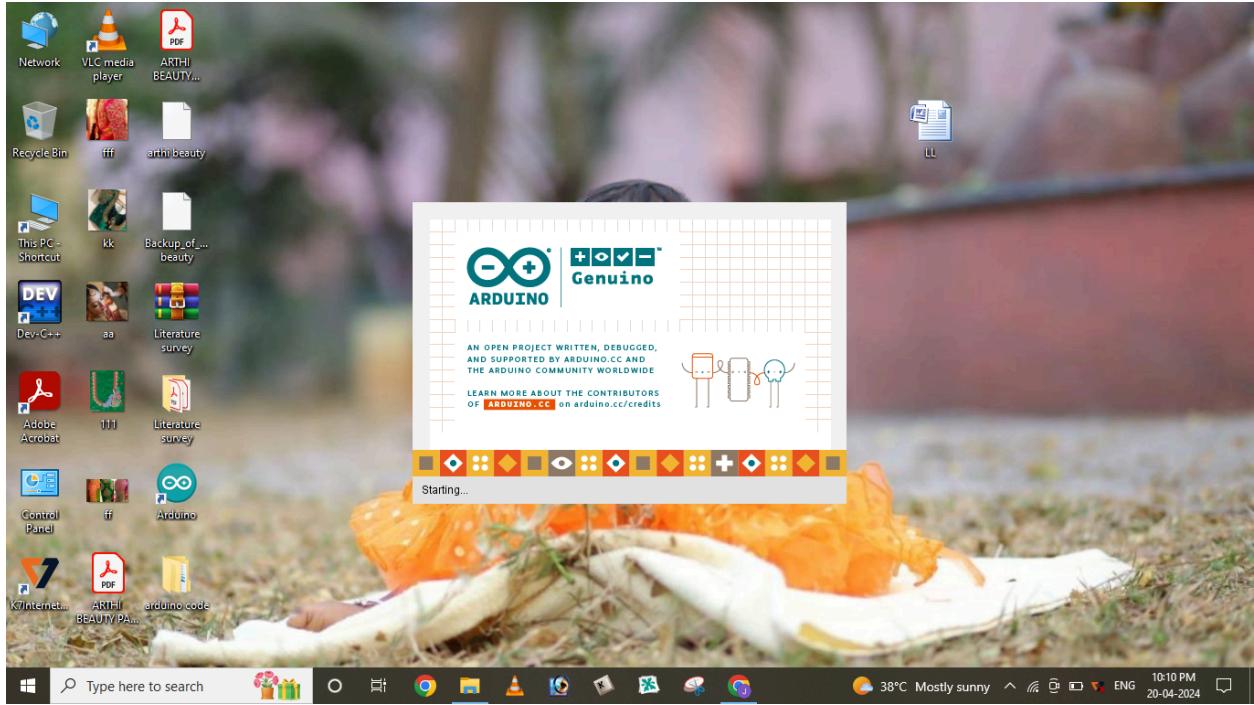
- Download the [Windows CH340 Driver](#)
- Unzip the file
- Run the installer which you unzipped
- In the Arduino IDE when the CH340 is connected you will see a COM Port in the Tools > Serial Port menu, the COM number for your device may vary depending on your system.

Older Windows Driver Version and Instructions

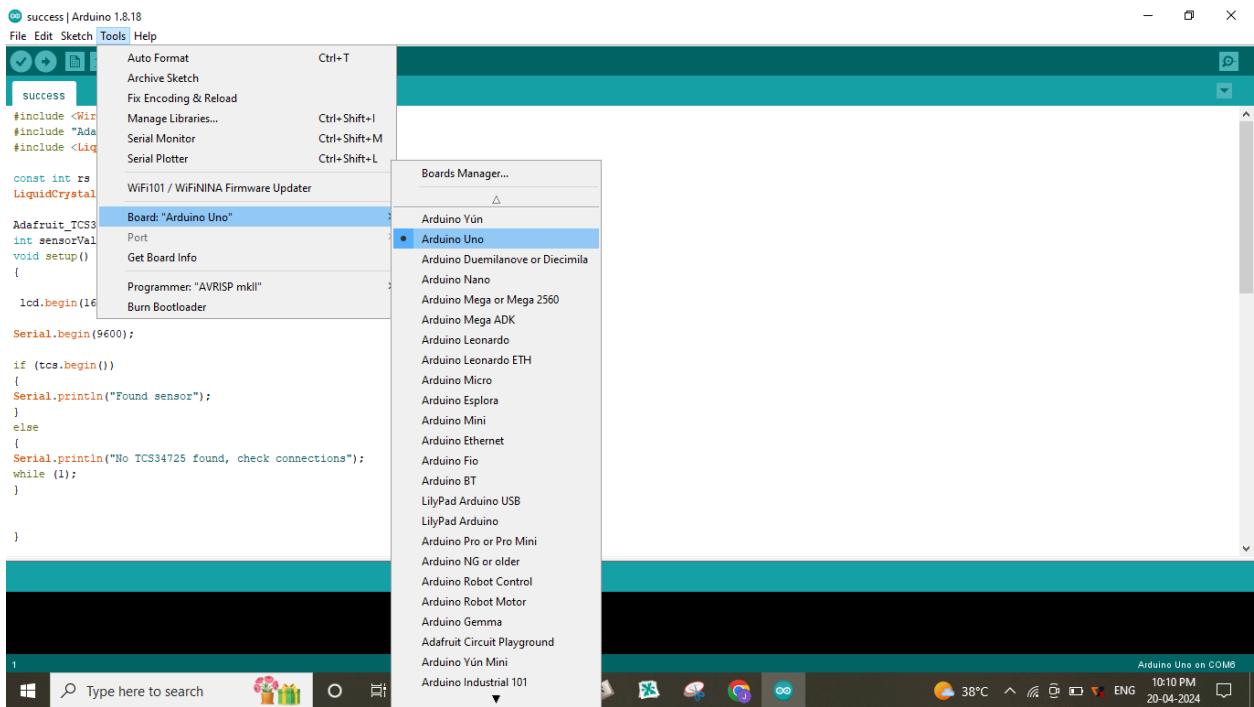
- Download the [Windows CH340 Driver](#)
- Unzip the folder:



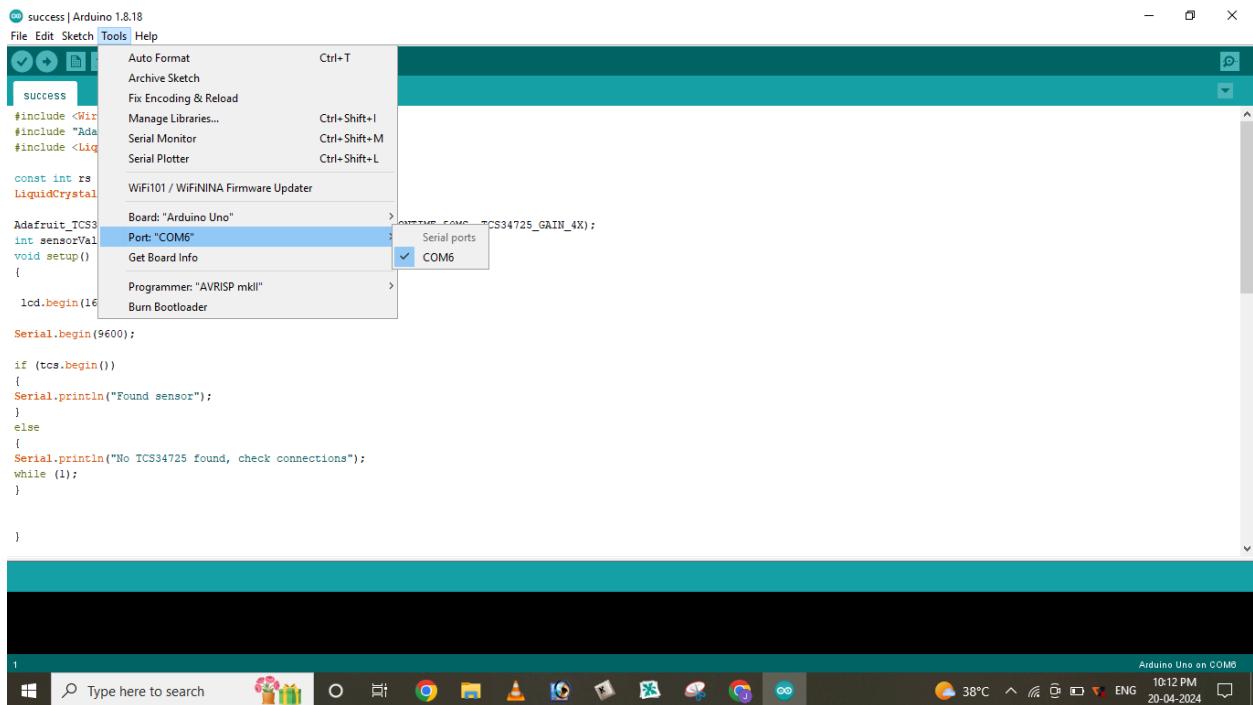




3. Selection of board



4. Selection of port



5. Copy code to arduino

```
#include <Wire.h>
#include "Adafruit_TCS34725.h"
#include <LiquidCrystal.h>

const int rs = 10, en = 11, d4 = 4, d5= 5, d6 = 6, d7 = 7;
LiquidCrystal lcd(rs, en, d4, d5, d6, d7);

Adafruit_TCS34725 tcs = Adafruit_TCS34725(TCS34725_INTEGRATIONTIME_50MS,
TCS34725_GAIN_4X);
int sensorValue;
void setup()
{
  lcd.begin(16, 2);
  Serial.begin(9600);
  if (tcs.begin())
  {
    Serial.println("Found sensor");
  }
  else
  {
```

```

Serial.println("No TCS34725 found, check connections");
while (1);
}

void loop()
{
  uint16_t r, g, b, c, colorTemp, lux;
  tcs.getRawData(&r, &g, &b, &c);
  colorTemp = tcs.calculateColorTemperature(r, g, b);
  lux = tcs.calculateLux(r, g, b);
  Serial.print("R: "); Serial.print(r);
  Serial.print(" G: "); Serial.print(g);
  Serial.print(" B: "); Serial.println(b);
  lcd.setCursor(0,0);
  lcd.print(".....");
  lcd.clear();
  if( (r>110 && r<160) && (g>110 && g<190) && (b>100 && b<170))
  //if(r>110 && g>150 && b>120)
  {
    Serial.print("Meat is Fresh");
    Serial.print(" ");
    lcd.setCursor(0, 0);
    // print the number of seconds since reset:
    lcd.print("Fresh meat");
    lcd.setCursor(0, 1);
    // print the number of seconds since reset:
    lcd.print(":");
  }

  sensorValue = analogRead(0);      //  read analog input pin 0
  Serial.print("AirQua=");
  Serial.print(sensorValue,DEC);      // prints the value read
  Serial.println(" PPM");
  delay(100);
  Serial.println(" ");
  delay(1000);
}

```

```

  success | Arduino 1.8.18
File Edit Sketch Tools Help
success
#include <Wire.h>
#include "Adafruit_TCS34725.h"
#include <LiquidCrystal.h>

const int rs = 10, en = 11, d4 = 4, d5= 5, d6 = 6, d7 = 7;

Adafruit_TCS34725 tcs = Adafruit_TCS34725(TCS34725_INTEGRATIONTIME_50MS, TCS34725_GAIN_4X);
int sensorValue;
void setup()
{
    lcd.begin(16, 2);
    Serial.begin(9600);
    if (tcs.begin())
    {
        Serial.println("Found sensor");
    }
    else
    {
        Serial.println("No TCS34725 found, check connections");
        while (1);
    }
}

Done uploading.

Sketch uses 7270 bytes (22%) of program storage space. Maximum is 32256 bytes.
Global variables use 572 bytes (27%) of dynamic memory, leaving 1476 bytes for local variables. Maximum is 2048 bytes.

Arduino Uno on COM6
10:14 PM 20-04-2024

  success | Arduino 1.8.18
File Edit Sketch Tools Help
success
void loop()
{
    uint16_t r, g, b, c, colorTemp, lux;

    tcs.getRawData(r, g, b, c);
    colorTemp = tcs.calculateColorTemperature(r, g, b);
    lux = tcs.calculateLux(r, g, b);
    Serial.print("R: "); Serial.print(r);
    Serial.print(" G: "); Serial.print(g);
    Serial.print(" B: "); Serial.println(b);
    lcd.setCursor(0,0);
    lcd.print(".....");
    lcd.clear();
    if( (r>110 && r<160) && (g>110 && g<190) && (b>100 && b<170))
    //if(r>110 && g>150 && b>120)
    {
        Serial.print("Meat is Fresh");
        lcd.setCursor(0, 0);
        // print the number of seconds since reset:
        lcd.print("Fresh meat");
        lcd.setCursor(0, 1);
        // print the number of seconds since reset:
        lcd.print(":");
    }

    sensorValue = analogRead(0);      //    read analog input pin 0
}

Done uploading.

Sketch uses 7270 bytes (22%) of program storage space. Maximum is 32256 bytes.
Global variables use 572 bytes (27%) of dynamic memory, leaving 1476 bytes for local variables. Maximum is 2048 bytes.

Arduino Uno on COM6
10:14 PM 20-04-2024

```

The screenshot shows the Arduino IDE interface. The code in the editor is as follows:

```
void loop()
{
    .....");
    lcd.clear();
    if( (r>110 && r<160) && (g>110 && g<190) && (b>100 && b<170))
    //if(r>110 && g>150 && b>120)
    {
        Serial.print("Meat is Fresh");
        Serial.print(" ");
        lcd.setCursor(0, 0);
        // print the number of seconds since reset:
        lcd.print("Fresh meat");
        lcd.setCursor(0, 1);
        // print the number of seconds since reset:
        lcd.print(":");
        lcd.print(":");

    }

    sensorValue = analogRead(0);      // read analog input pin 0
    Serial.print("AirQ=:");
    Serial.print(sensorValue,DEC);   // prints the value read
    Serial.println(" PPM");

    delay(100);
    Serial.println(" ");

    delay(1000);

}

Done uploading.
```

Sketch uses 7270 bytes (22%) of program storage space. Maximum is 32256 bytes.
Global variables use 572 bytes (27%) of dynamic memory, leaving 1476 bytes for local variables. Maximum is 2048 bytes.

Arduino Uno on COM6
10:14 PM 38°C ENG 20-04-2024

6. Installation of color sensor

The screenshot shows the Arduino IDE interface. The code in the editor is as follows:

```
#include <Wire.h>
#include "Adafruit_TCS34725.h"
#include <LiquidCrystal.h>

const int rs = 16;
LiquidCrystal tcs;

Adafruit_TCS33
int sensorVal;
void setup()
{
    tcs.begin(16);
    Serial.begin(9600);
}

void loop()
{
    if (tcs.begin())
    {
        Serial.println("Found sensor");
    }
    else
    {
        Serial.println("No TCS34725 found, check connections");
        while (1);
    }
}

Done uploading.
```

Sketch uses 7270 bytes (22%) of program storage space. Maximum is 32256 bytes.
Global variables use 572 bytes (27%) of dynamic memory, leaving 1476 bytes for local variables. Maximum is 2048 bytes.

Arduino Uno on COM6
10:15 PM 38°C ENG 20-04-2024

success | Arduino 1.8.18

File Edit Sketch Tools Help

SUCCESS

```
#include <Wire.h>
#include "Adafruit_TCS34725.h"
#include <LiquidCrystal.h>

const int rs = 10, en = 11, d4 = 4, d5 = 5, d6 = 6, d7 = 7;
Adafruit_TCS34725 tcs = Adafruit_TCS34725(rs, en, d4, d5, d6, d7);

int sensorValue;
void setup()
{
    lcd.begin(16, 2);
    Serial.begin(9600);
    if (tcs.begin())
    {
        Serial.println("Found sensor");
    }
    else
    {
        Serial.println("No TCS34725 found, check wiring!");
        while (1);
    }
}

void loop()
```

Done uploading.

Sketch uses 7270 bytes (22%) of program storage space. Maximum is 32256 bytes.
Global variables use 572 bytes (27%) of dynamic memory, leaving 1476 bytes for local variables. Maximum is 2048 bytes.

1 Arduino Uno on COM6 10:17 PM 20-04-2024

success | Arduino 1.8.18

File Edit Sketch Tools Help

SUCCESS

```
#include <Wire.h>
#include "Adafruit_TCS34725.h"
#include <LiquidCrystal.h>

const int rs = 10, en = 11, d4 = 4, d5 = 5, d6 = 6, d7 = 7;
Adafruit_TCS34725 tcs = Adafruit_TCS34725(rs, en, d4, d5, d6, d7);

int sensorValue;
void setup()
{
    lcd.begin(16, 2);
    Serial.begin(9600);
    if (tcs.begin())
    {
        Serial.println("Found sensor");
    }
    else
    {
        Serial.println("No TCS34725 found, check wiring!");
        while (1);
    }
}

void loop()
```

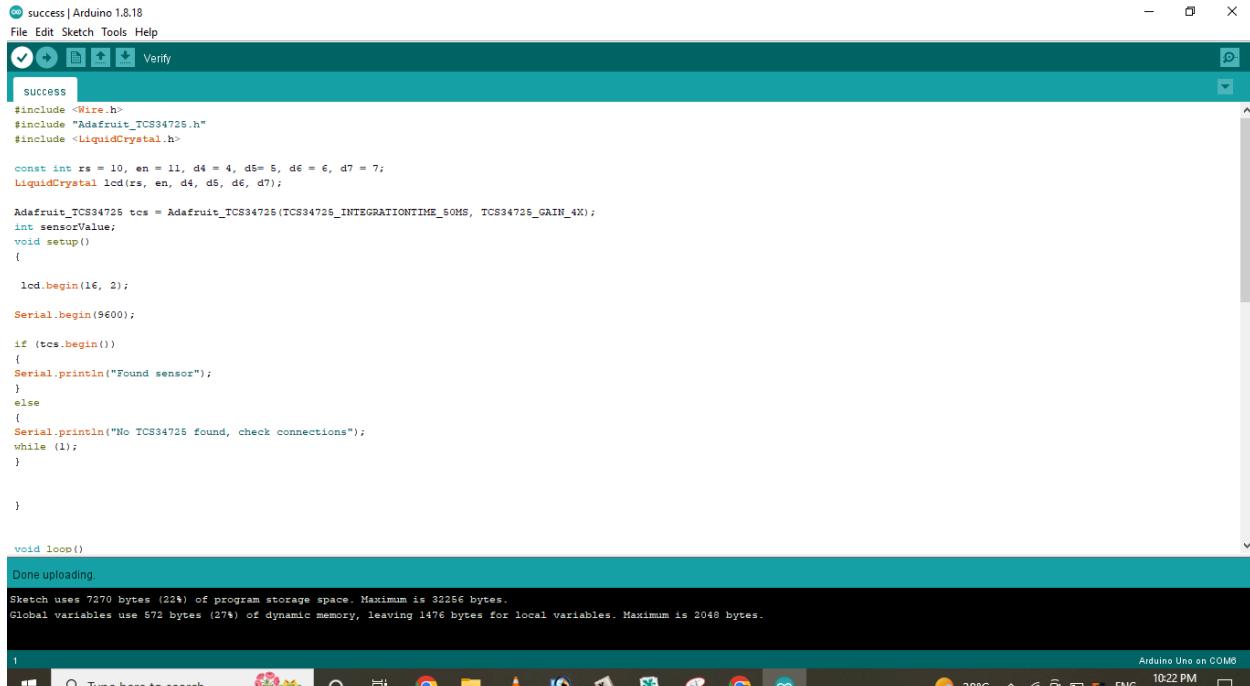
Done uploading.

Sketch uses 7270 bytes (22%) of program storage space. Maximum is 32256 bytes.
Global variables use 572 bytes (27%) of dynamic memory, leaving 1476 bytes for local variables. Maximum is 2048 bytes.

1 Arduino Uno on COM6 10:21 PM 20-04-2024

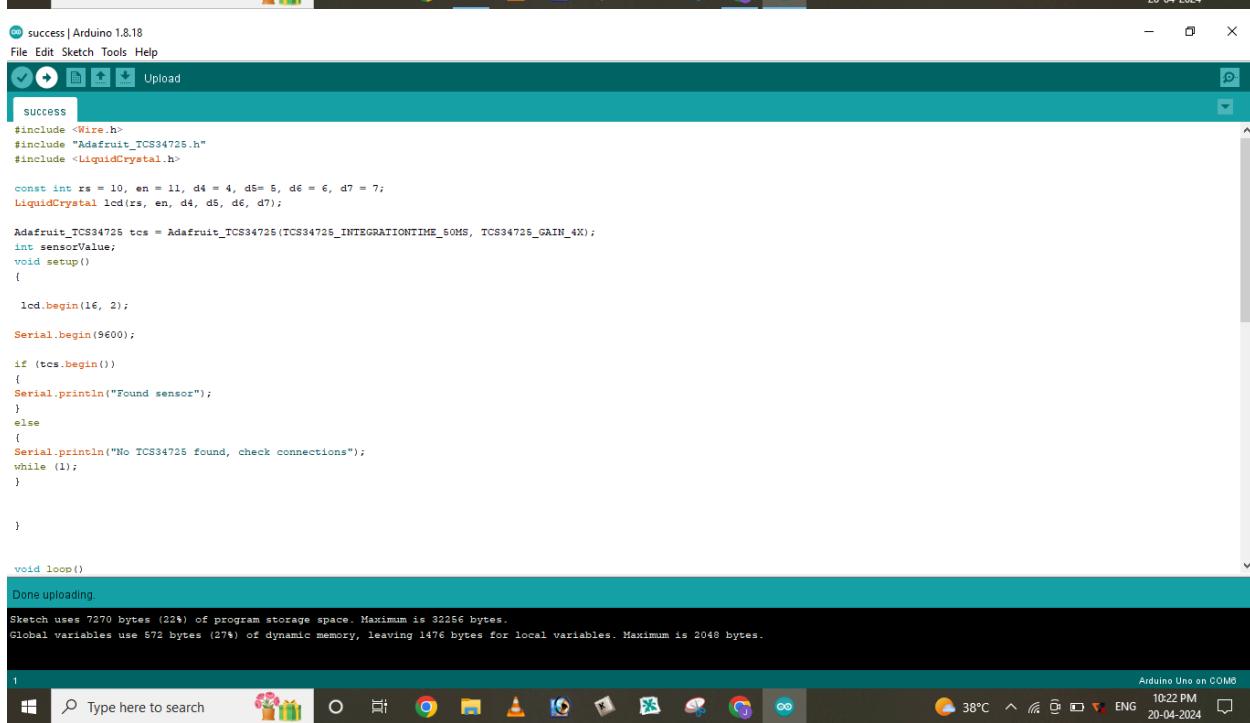
The image shows two screenshots of the Arduino IDE interface. Both screenshots show a successful upload of a sketch to an Arduino Uno. The top screenshot shows the Library Manager open with several options like 'AlPic_Opta' and 'AlPic_PMC'. The bottom screenshot shows the Library Manager open with the 'Adafruit TCS34725' library selected, indicating it is installed. Both screenshots include the Arduino Uno connected to COM6 at 10:17 PM and 10:21 PM respectively on April 20, 2024.

7. Upload and compile



The screenshot shows the Arduino IDE interface with the following details:

- Top menu bar: File, Edit, Sketch, Tools, Help.
- Toolbar buttons: Verify, Upload, Print, Save, Open, New, Undo, Redo.
- Text area:
 - Message: "success | Arduino 1.8.18"
 - Code listing for a sketch involving Wire.h, Adafruit_TCS34725.h, and LiquidCrystal.h.
 - Setup function includes sensor initialization and serial communication setup.
 - Loop function reads sensor value and prints it to serial.
 - Message: "Done uploading."
 - Sketch statistics: 7270 bytes (22%) of program storage space used, maximum is 32256 bytes.
 - Global variables: 572 bytes (27%) of dynamic memory used, leaving 1476 bytes for local variables, maximum is 2048 bytes.
- Bottom status bar: Arduino Uno on COM6, 10:22 PM, 20-04-2024, 38°C, ENG.



The second screenshot is identical to the first, showing the Arduino IDE interface with the same code, message, and status information. It also includes the Windows taskbar at the bottom with various application icons and system status.