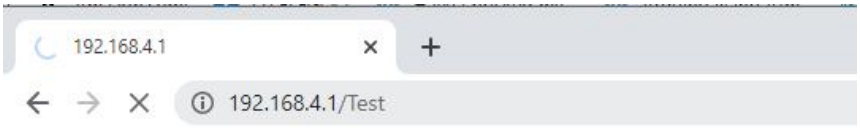
Camera module FAQ

If you cannot see the ELEGOO-XXX WiFi signal on your phone, please refer to the steps below for troubleshooting.

1 Some of the phone models may not be compatible with the camera module. Please use another phone or a laptop to check this problem first. After you connected to the WiFi signal, you can directly input “http://192.168.4.1/Test” on the browser to see the video stream.



2 After you power on the robot car, please check if the red indicator LED on the camera module is on. If it’s flashing, it means that there is a poor connection. Please reconnect the 4p cable.

In the meanwhile, when the green indicator LED flashes, it means that the camera module is not connected. If it is constantly on, it means that it’s connected.

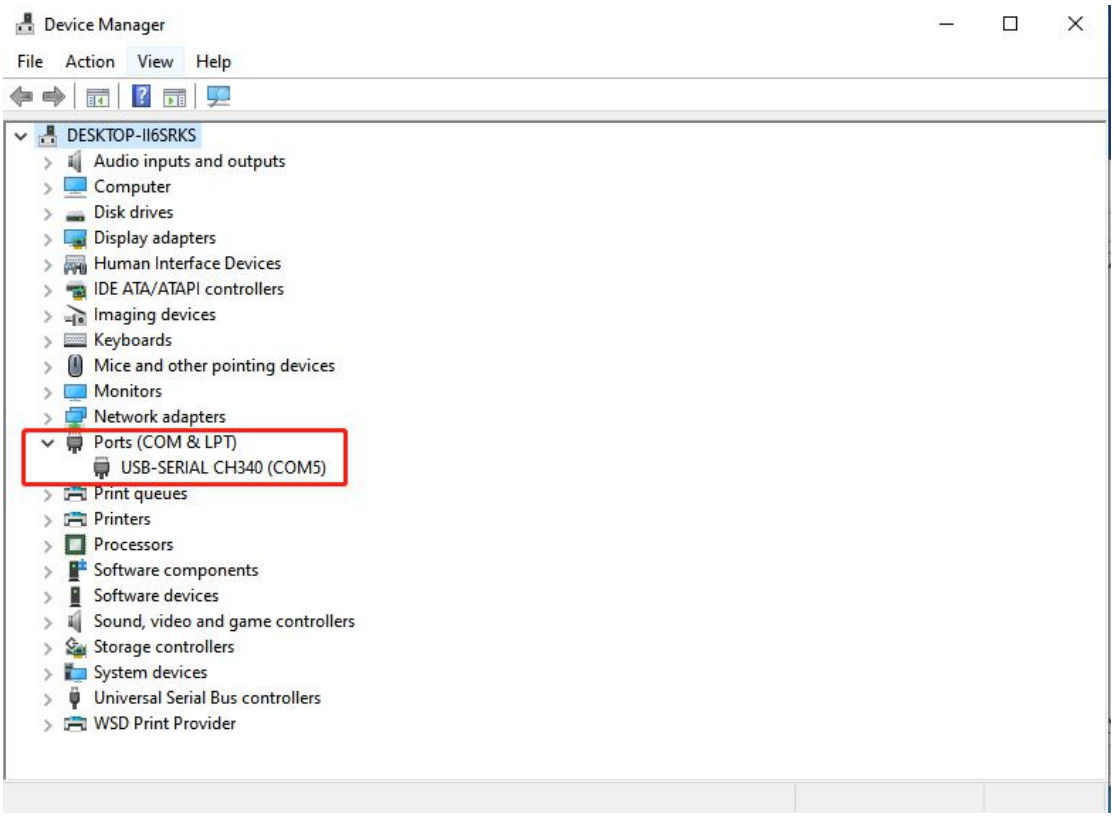
(1)Please uninstall the camera module from the car and connect the module to your computer via an USB type C cable.

Please check if you can search for the wifi signal.

(2)Please install Arduino IDE first. You could refer to the attached tutorial to operate:

https://www.arduino.cc/en/guide/windows

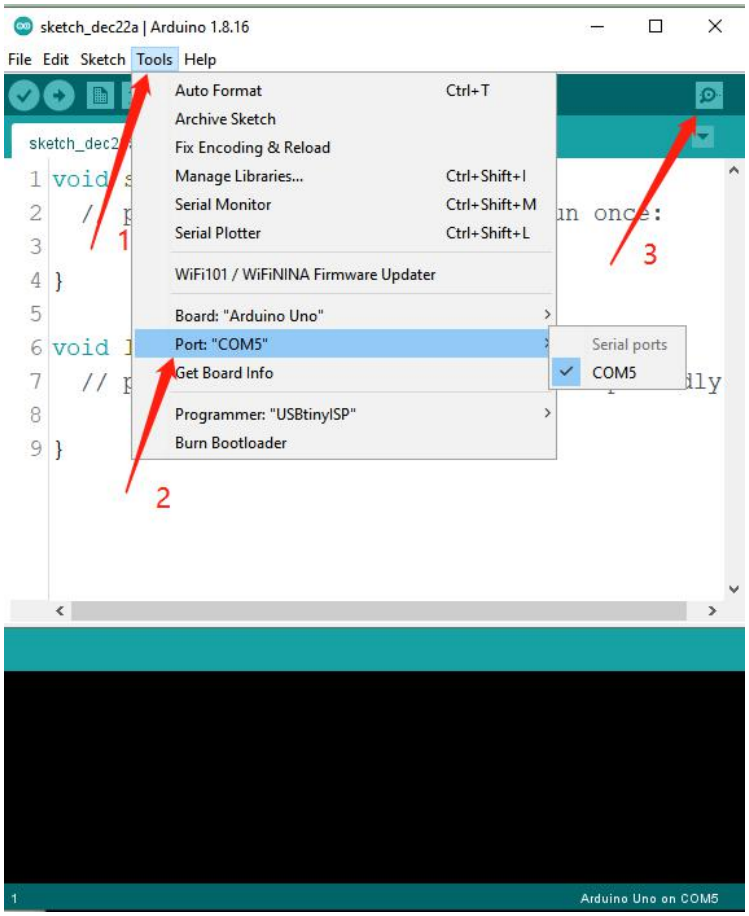
After you connect the camera module, please open the device manager and you are supposed to see a CH340 device. (The com number in different computers is different.)



If not, please install the CH340 driver software from this link:

https://drive.google.com/file/d/1Ue43jaL2pTdJmedyHKojxA0AhKeOcUop/view?usp=sharing

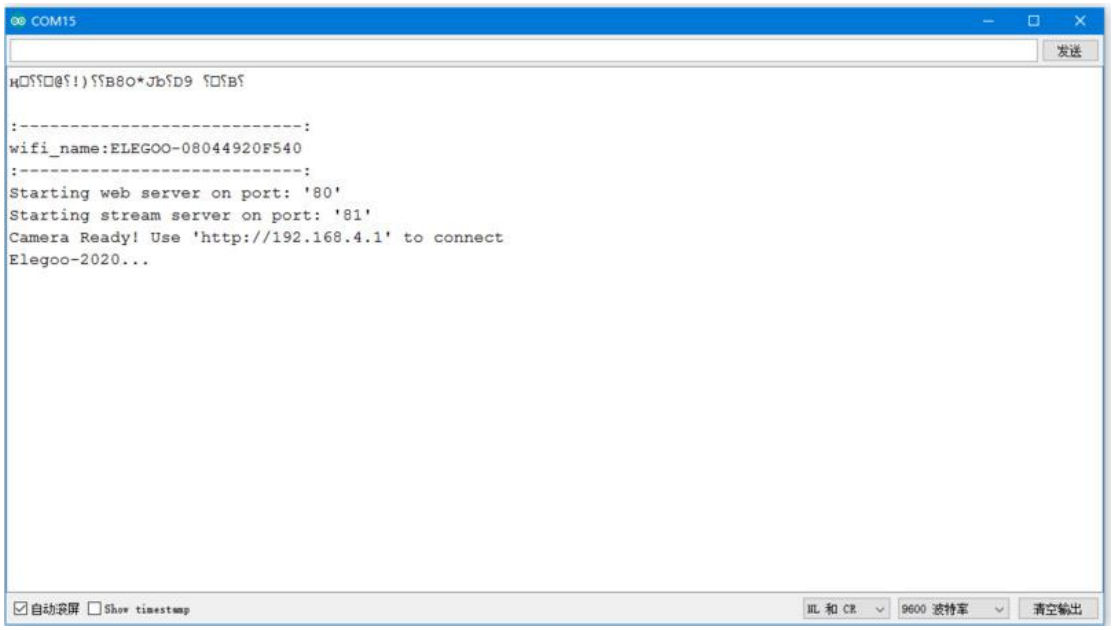
(3) Please select the correct com port and open serial monitor



(4)Press the reset button on the camera module.

If the camera module returns the attached message. It means that the camera module is OK.

If not, maybe it's defective.

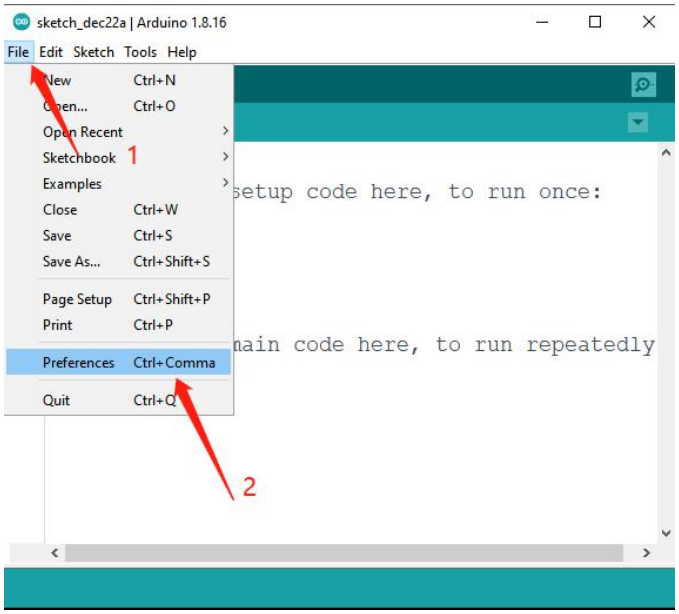


3 If you can see the WiFi signal on another phone or on a laptop, the camera module is working properly.

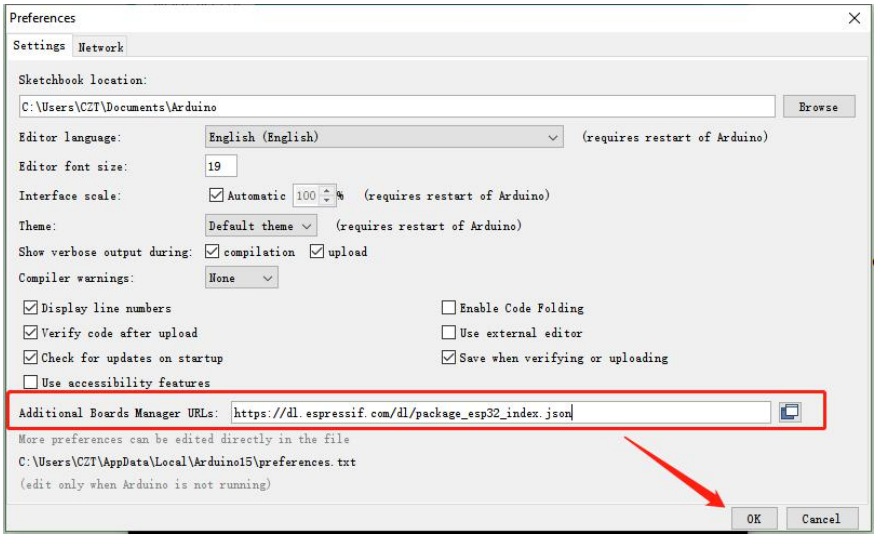
Maybe the signal channel is busy. Please try to manually change the signal channel of the camera module.

(1)Connect the module to your computer via an USB type C cable.

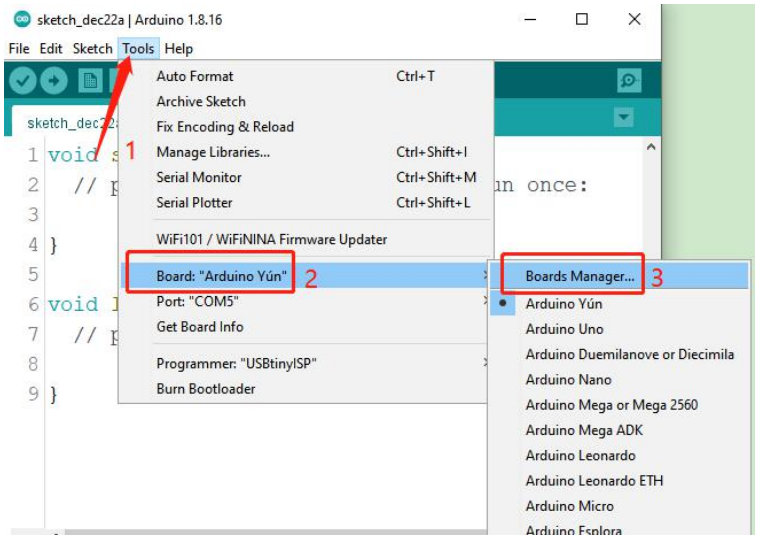
(2) Please run Arduino IDE software and open the "Preferences" window.



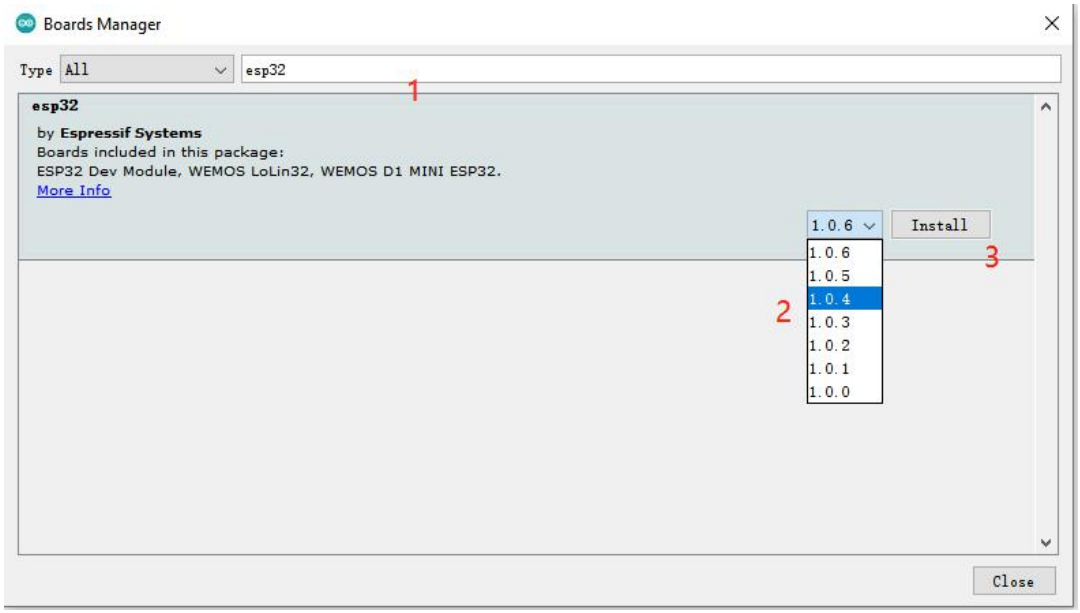
(3) Copy and paste https://dl.espressif.com/dl/package_esp32_index.json to the "Additional Boards Manager URLs" bar, then click "OK".



(4) Click "Tools" button and select "Boards Manager...".



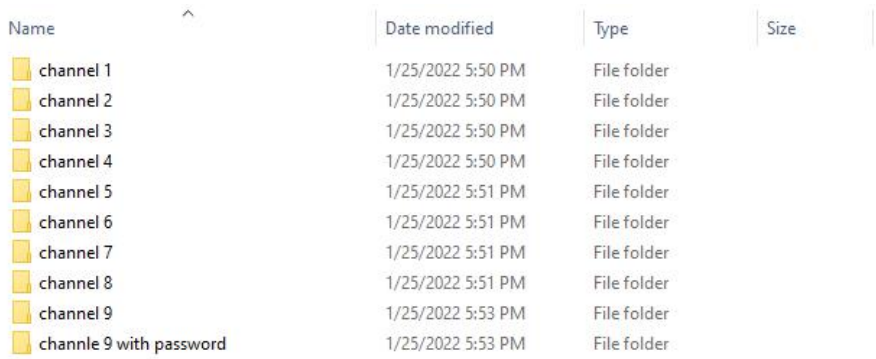
(5) Input “esp32” in the search bar and install version 1.0.4. Then close the Arduino IDE software.



(6) Please download the program for the camera module from the attached link.

https://drive.google.com/file/d/19IENruwaLPVMKnKpy1bk7TjwF5JThqie/view?usp=sharing

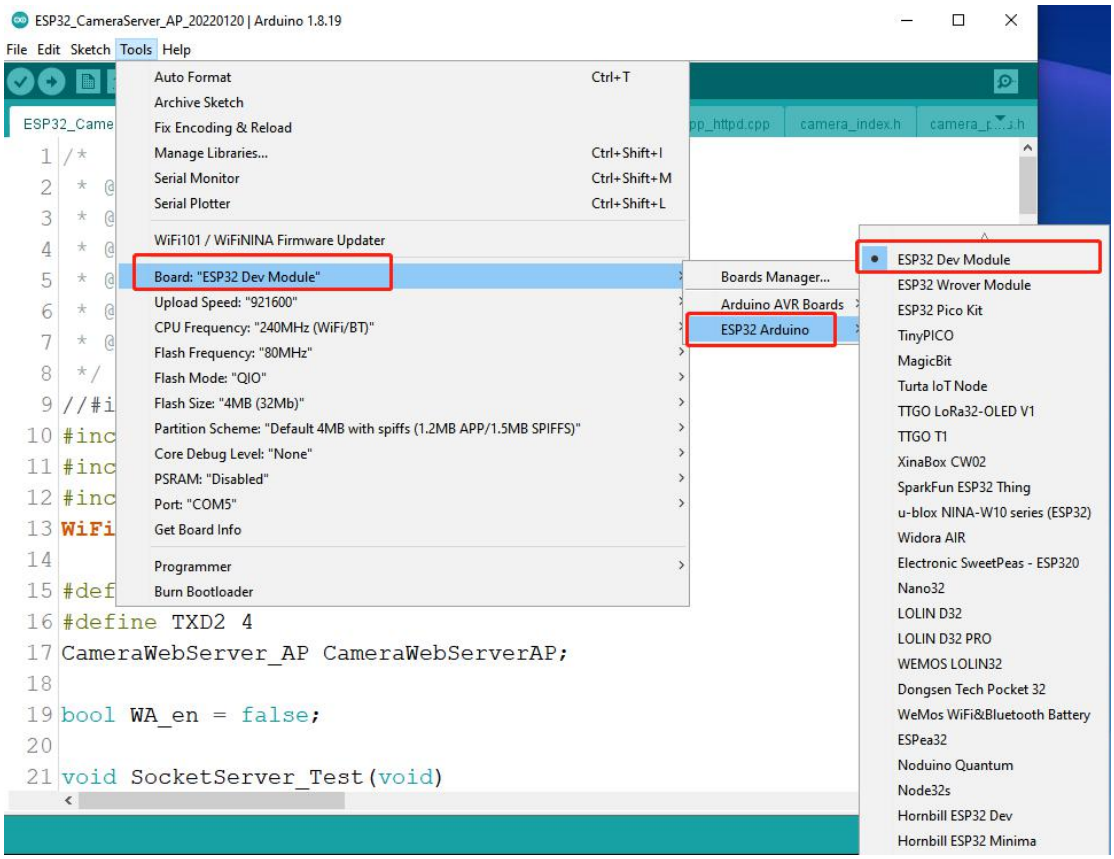
The zip file contains many folders, and the signal channel of each folder is different. Please select one of the folders and open ESP32_CameraServer_AP_20220120.ino file.

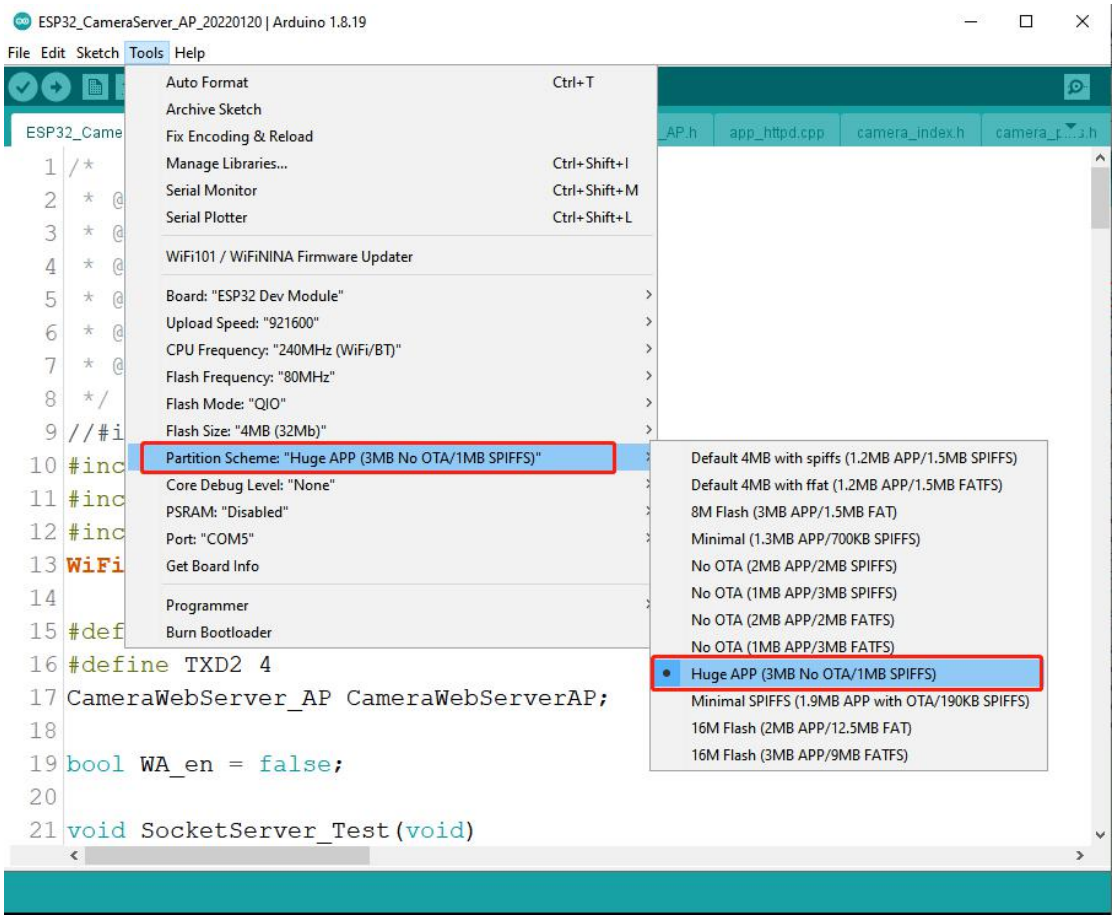


Name	Date modified	Type	Size
channel 1	1/25/2022 5:50 PM	File folder	
channel 2	1/25/2022 5:50 PM	File folder	
channel 3	1/25/2022 5:50 PM	File folder	
channel 4	1/25/2022 5:50 PM	File folder	
channel 5	1/25/2022 5:51 PM	File folder	
channel 6	1/25/2022 5:51 PM	File folder	
channel 7	1/25/2022 5:51 PM	File folder	
channel 8	1/25/2022 5:51 PM	File folder	
channel 9	1/25/2022 5:53 PM	File folder	
channnle 9 with password	1/25/2022 5:53 PM	File folder	

(7) Please open the device manager and remember the com number of the CH340 device. Then select the same com port in Arduino IDE.

(8) Please select “ESP32 Dev Module” on the board option and refer to the attached pictures to select the correct setting. Except for the settings in the attached pictures, the other settings are kept as default.


ESP32_CameraServer_AP_20220120 | Arduino 1.8.19
File Edit Sketch Tools Help
Auto Format Ctrl+T
Archive Sketch
Fix Encoding & Reload
Manage Libraries... Ctrl+Shift+I
Serial Monitor Ctrl+Shift+M
Serial Plotter Ctrl+Shift+L
WiFi101 / WiFiNINA Firmware Updater
Board: "ESP32 Dev Module"
Upload Speed: "921600"
CPU Frequency: "240MHz (WiFi/BT)"
Flash Frequency: "80MHz"
Flash Mode: "QIO"
Flash Size: "4MB (32Mb)"
Partition Scheme: "Default 4MB with spiffs (1.2MB APP/1.5MB SPIFFS)"
Core Debug Level: "None"
PSRAM: "Disabled"
Port: "COM5"
Get Board Info
Programmer
Burn Bootloader
Boards Manager...
Arduino AVR Boards
ESP32 Arduino
ESP32 Dev Module
ESP32 Wrover Module
ESP32 Pico Kit
TinyPICO
MagicBit
Turta IoT Node
TTGO LoRa32-OLED V1
TTGO T1
XinaBox CW02
SparkFun ESP32 Thing
u-blox NINA-W10 series (ESP32)
Widora AIR
Electronic SweetPeas - ESP320
Nano32
LOLIN D32
LOLIN D32 PRO
WEMOS LOLIN32
Dongsen Tech Pocket 32
WeMos WiFi&Bluetooth Battery
ESPea32
Noduino Quantum
Node32s
Hornbill ESP32 Dev
Hornbill ESP32 Minima
#define TXD2 4
CameraWebServer_AP CameraWebServerAP;
bool WA_en = false;
void SocketServer_Test(void)


ESP32_CameraServer_AP_20220120 | Arduino 1.8.19
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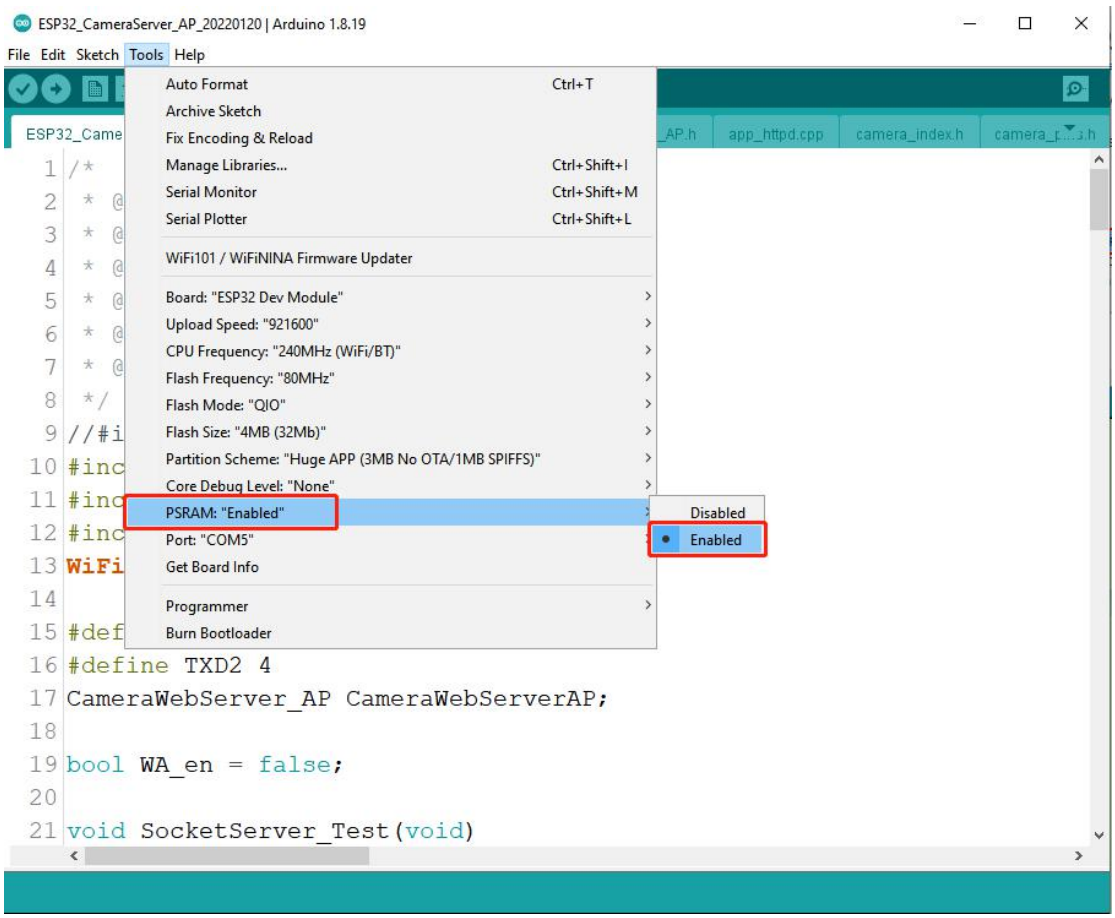
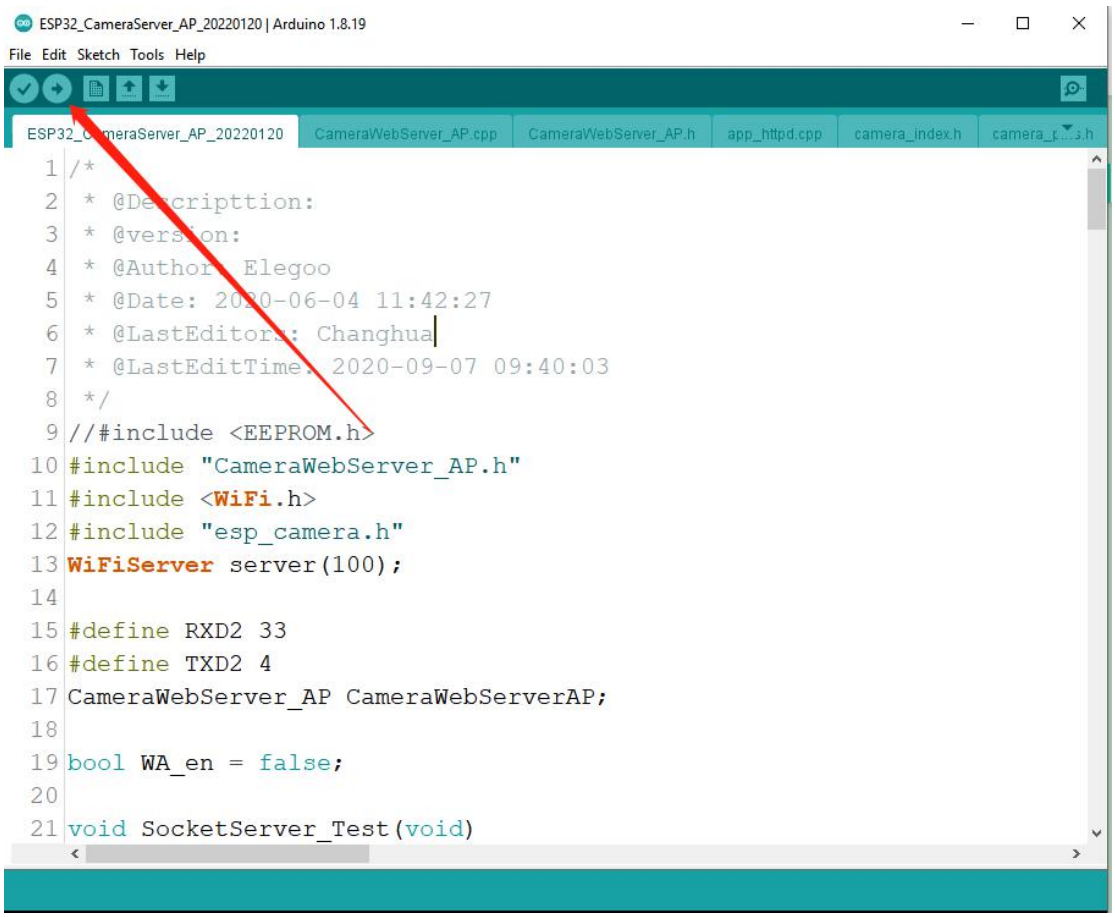
Flash Mode: "QIO"
Flash Size: "4MB (32Mb)"
Partition Scheme: "Huge APP (3MB No OTA/1MB SPIFFS)"
Core Debug Level: "None"
PSRAM: "Disabled"
Port: "COM5"
Get Board Info
Programmer
Burn Bootloader
Default 4MB with spiffs (1.2MB APP/1.5MB SPIFFS)
Default 4MB with ffat (1.2MB APP/1.5MB FATFS)
8M Flash (3MB APP/1.5MB FAT)
Minimal (1.3MB APP/700KB SPIFFS)
No OTA (2MB APP/2MB SPIFFS)
No OTA (1MB APP/3MB SPIFFS)
No OTA (2MB APP/2MB FATFS)
No OTA (1MB APP/3MB FATFS)
Huge APP (3MB No OTA/1MB SPIFFS)
Minimal SPIFFS (1.9MB APP with OTA/190KB SPIFFS)
16M Flash (2MB APP/12.5MB FAT)
16M Flash (3MB APP/9MB FATFS)
#define TXD2 4
CameraWebServer_AP CameraWebServerAP;
bool WA_en = false;
void SocketServer_Test(void)



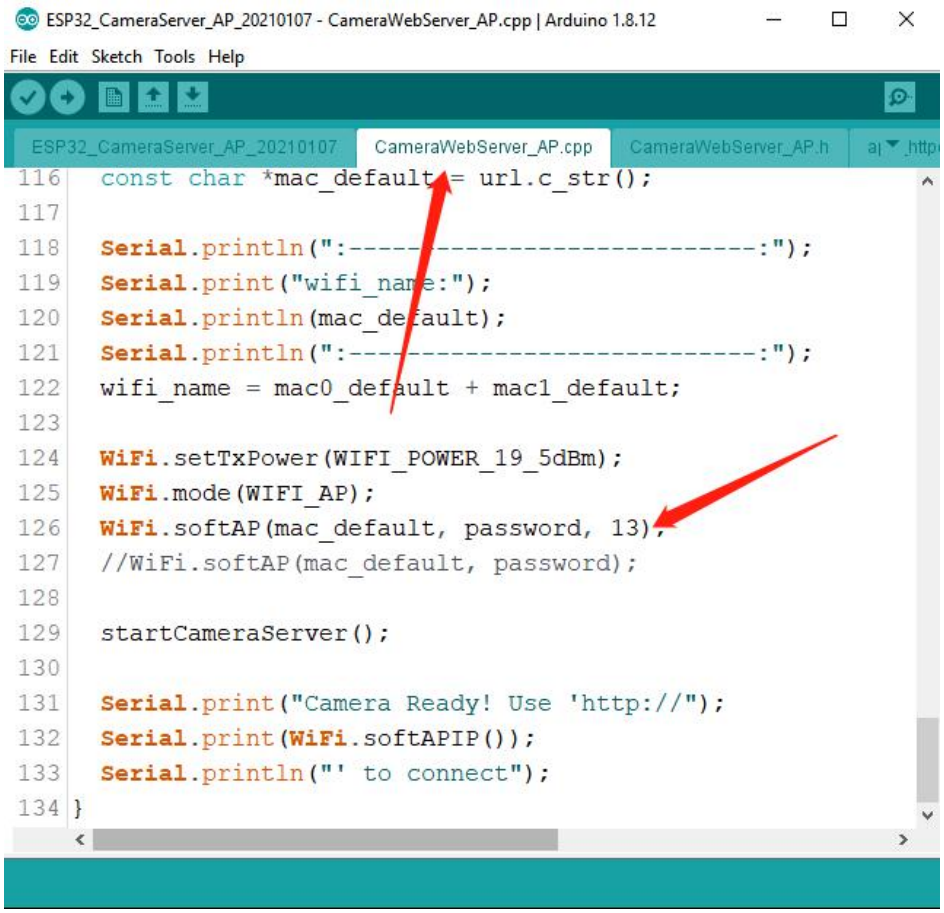
(9) At last, please upload the code file to the camera module.



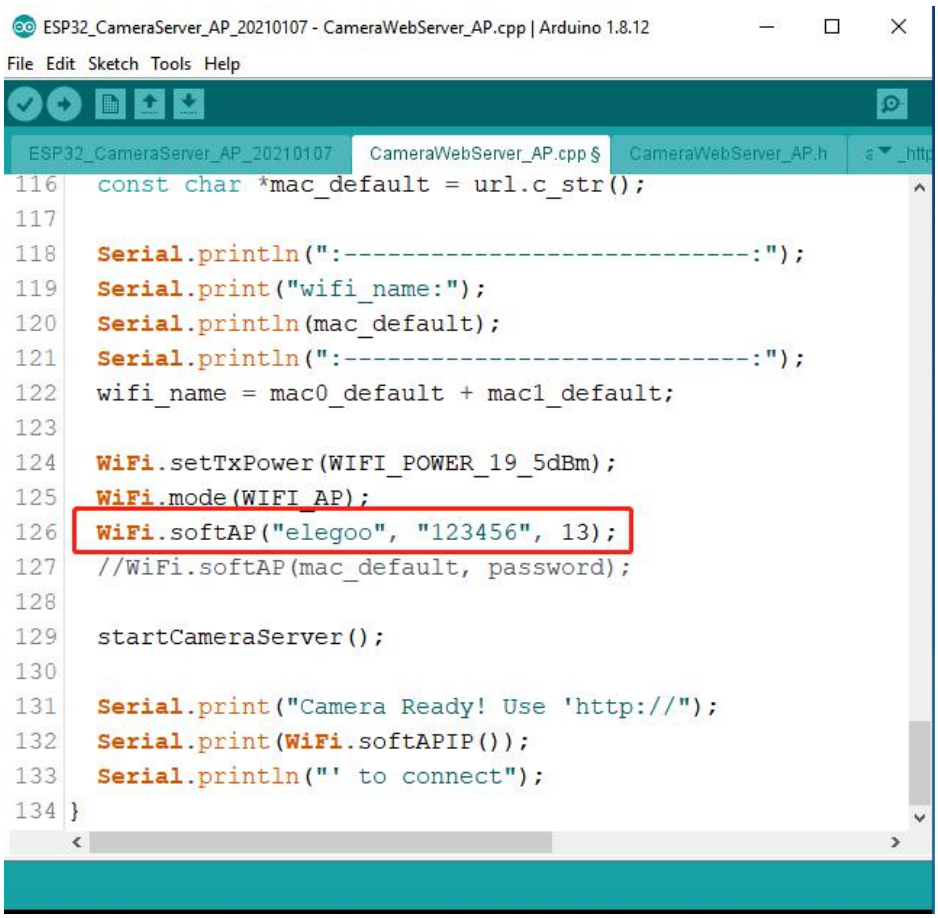
If you still cannot see the ELEGOO-XXX signal, please upload the code file with another channel signal to the module. Or you could upload the code file with a password to the module. Adding a password to the module can also reduce interference by other WiFi signals.

The below steps will teach you how to change the signal channel manually. You can Ignore them.

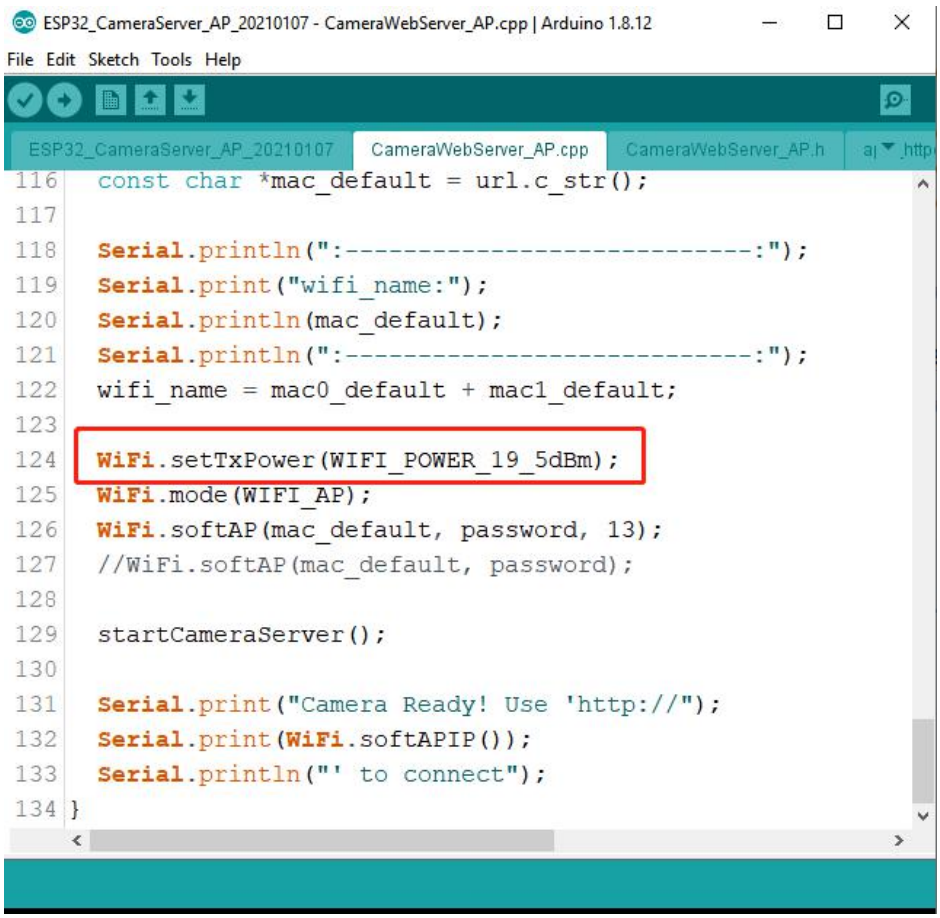
Select CameraWebServer_AP.cpp file and move to the bottom of the code. Please change the signal channel by referring to the attached code. The range is 1~13.



You can also change the WiFi ssid and adding a password. The first value is the WiFi ssid, and the second value is the password.



You could also try to change the signal power. The optional value is 19_5dBm, 19dBm, 18_5dBm, 17dBm, 15dBm, 13dBm, 11dBm, 8_5dBm, 7dBm, 5dBm, and 2dBm.



After you change the code, please upload the code to the camera module.