

CAPSTONE WASTE CAN DEVELOPMENT

JUNE 24 (3rd Try) (DID NOT WORK)

Establishing I2C Connection Between ESP32 CAM and Arduino

ESP 32 CAM I2C: <https://randomnerdtutorials.com/esp32-i2c-communication-arduino-ide/>

NodeMCU I2C with Arduino IDE:

<https://www.electronicwings.com/nodemcu/nodemcu-i2c-with-arduino-ide>

Uploading Code

Arduino: Only usb cable to computer

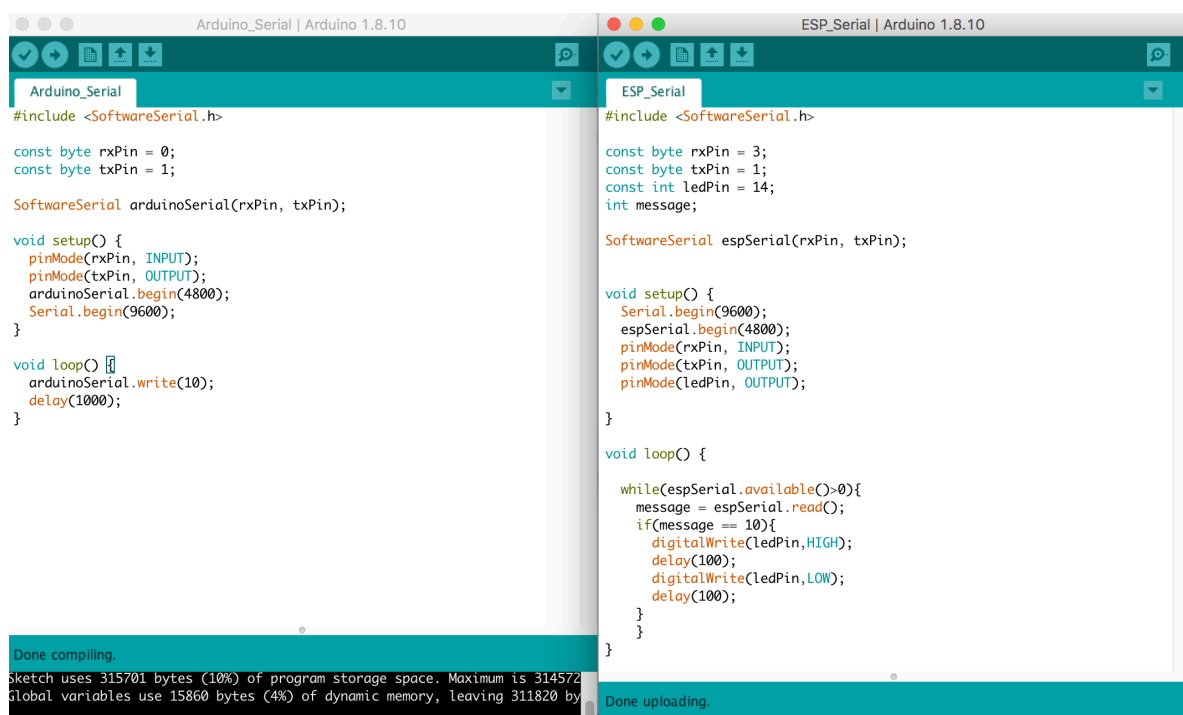
Esp32

FTDI	ESP32	LIGHTBULB
VCC	5V	
GND	GND	
RX	TX	
TX	RX	
	GND	Negative Pin
	GPIO14	Positive Pin
GND-GPIO0		

After Code is Uploaded

FTDI	ESP32	ARDUINO	LIGHTBULB
VCC	5V		
GND	GND		
	TX	RX	
	RX	TX	
	GND	GND	
	GND		Negative Pin
	GPIO14		Positive Pin

Code:



```

Arduino_Serial | Arduino 1.8.10
#include <SoftwareSerial.h>

const byte rxPin = 0;
const byte txPin = 1;

SoftwareSerial arduinoSerial(rxPin, txPin);

void setup() {
  pinMode(rxPin, INPUT);
  pinMode(txPin, OUTPUT);
  arduinoSerial.begin(4800);
  Serial.begin(9600);
}

void loop() {
  arduinoSerial.write(10);
  delay(1000);
}

Done compiling.
Sketch uses 315701 bytes (10%) of program storage space. Maximum is 3145728 bytes.
Global variables use 15860 bytes (4%) of dynamic memory, leaving 311820 bytes free.

ESP_Serial | Arduino 1.8.10
#include <SoftwareSerial.h>

const byte rxPin = 3;
const byte txPin = 1;
const int ledPin = 14;
int message;

SoftwareSerial espSerial(rxPin, txPin);

void setup() {
  Serial.begin(9600);
  espSerial.begin(4800);
  pinMode(rxPin, INPUT);
  pinMode(txPin, OUTPUT);
  pinMode(ledPin, OUTPUT);
}

void loop() {
  while(espSerial.available() > 0){
    message = espSerial.read();
    if(message == 10){
      digitalWrite(ledPin, HIGH);
      delay(100);
      digitalWrite(ledPin, LOW);
      delay(100);
    }
  }
}

Done uploading.

```