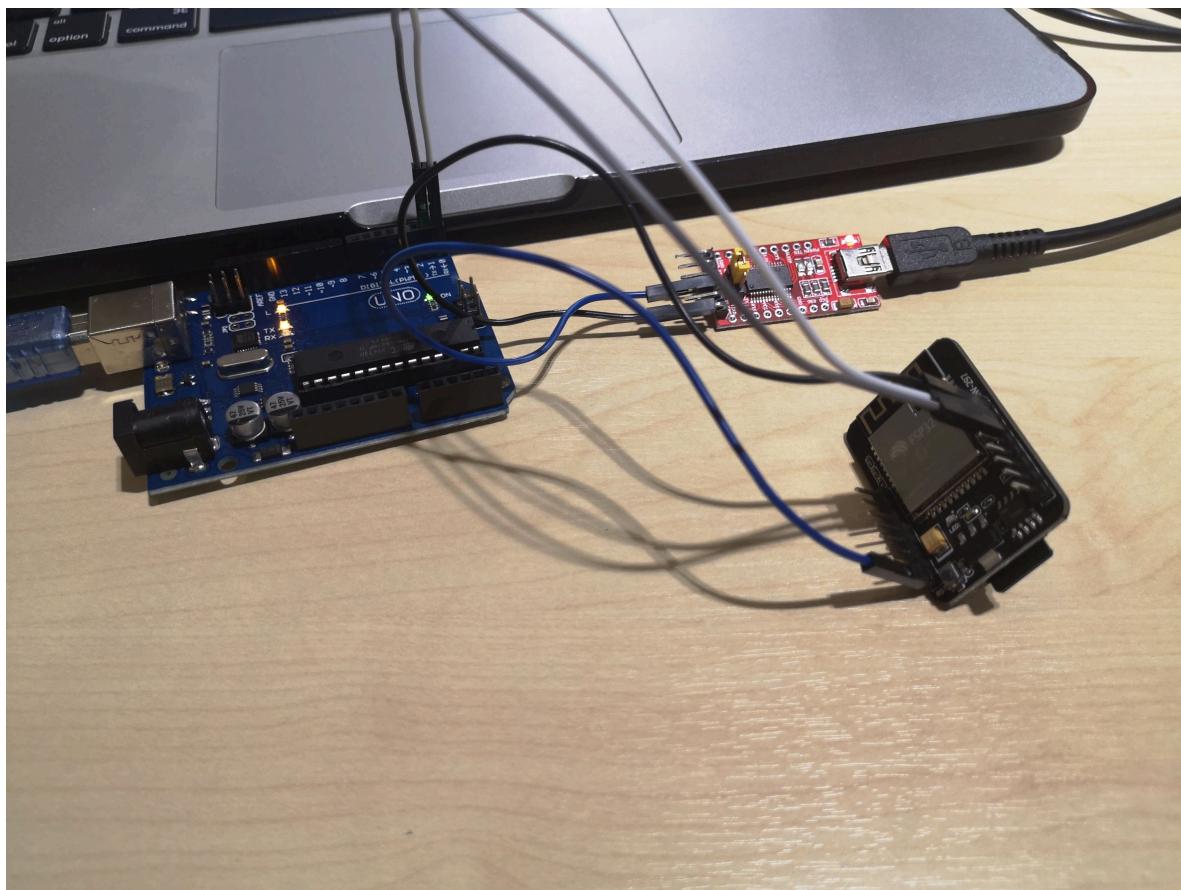


CAPSTONE WASTE CAN DEVELOPMENT

JUNE 15 (DID NOT WORK)

Trying to do Serial Communication between ESP 32 CAM and Arduino Uno:



1. No specific instructions ESP32 CAM, used Arduino - NodeMCU instead:
<https://www.youtube.com/watch?v=fwGdmU2wi9s>
2. Wrote down code for Arduino and NodeMCU separately

```

Arduino_Serial | Arduino 1.8.10
Arduino_Serial
void setup() {
  Serial.begin(9600);
}

void loop() {
  Serial.println("Hello from Arduino");
  delay(1000);
}

ESP_Serial | Arduino 1.8.10
ESP_Serial
#include <SoftwareSerial.h>
SoftwareSerial mySerial (3,1); //Rx, Tx pins

void setup() {
  Serial.begin(115200);
  mySerial.begin(9600);
}

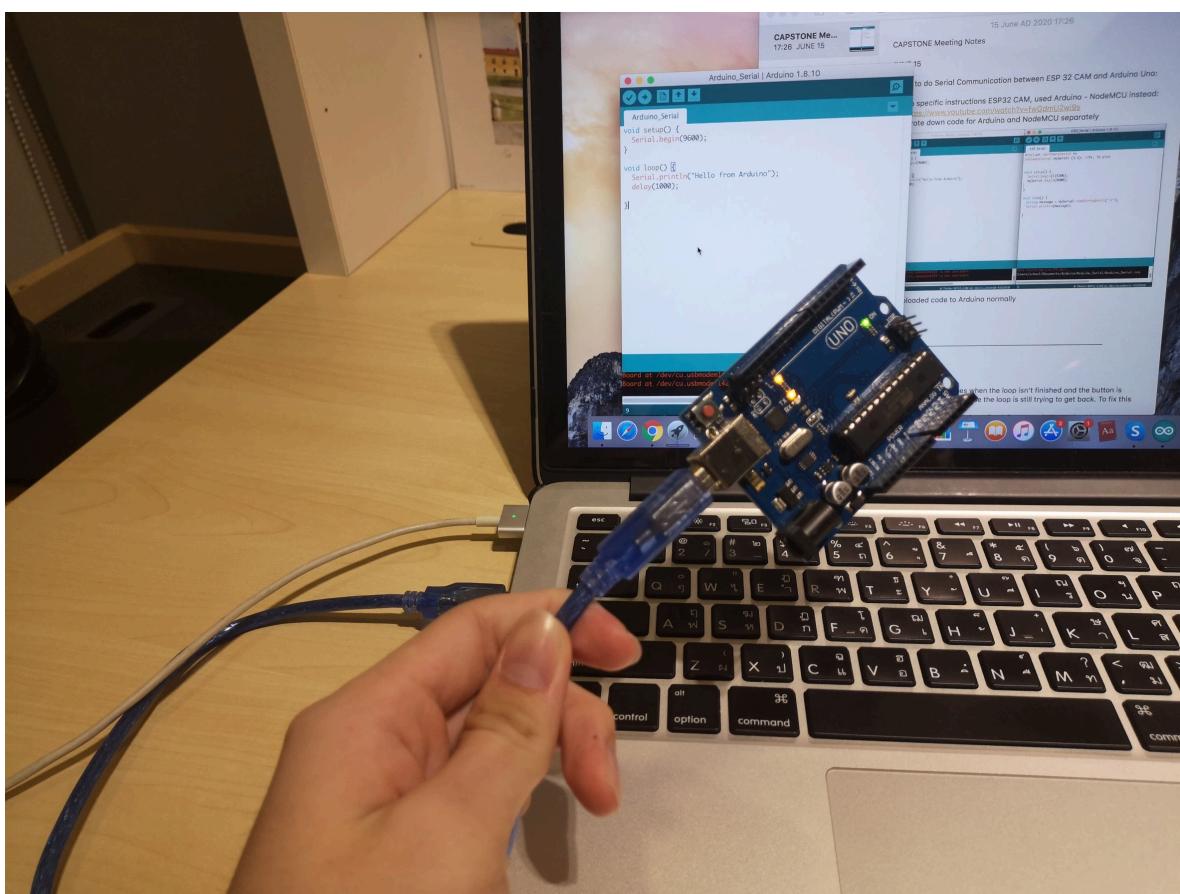
void loop() {
  String message = mySerial.readStringUntil('\r');
  Serial.println(message);
}

```

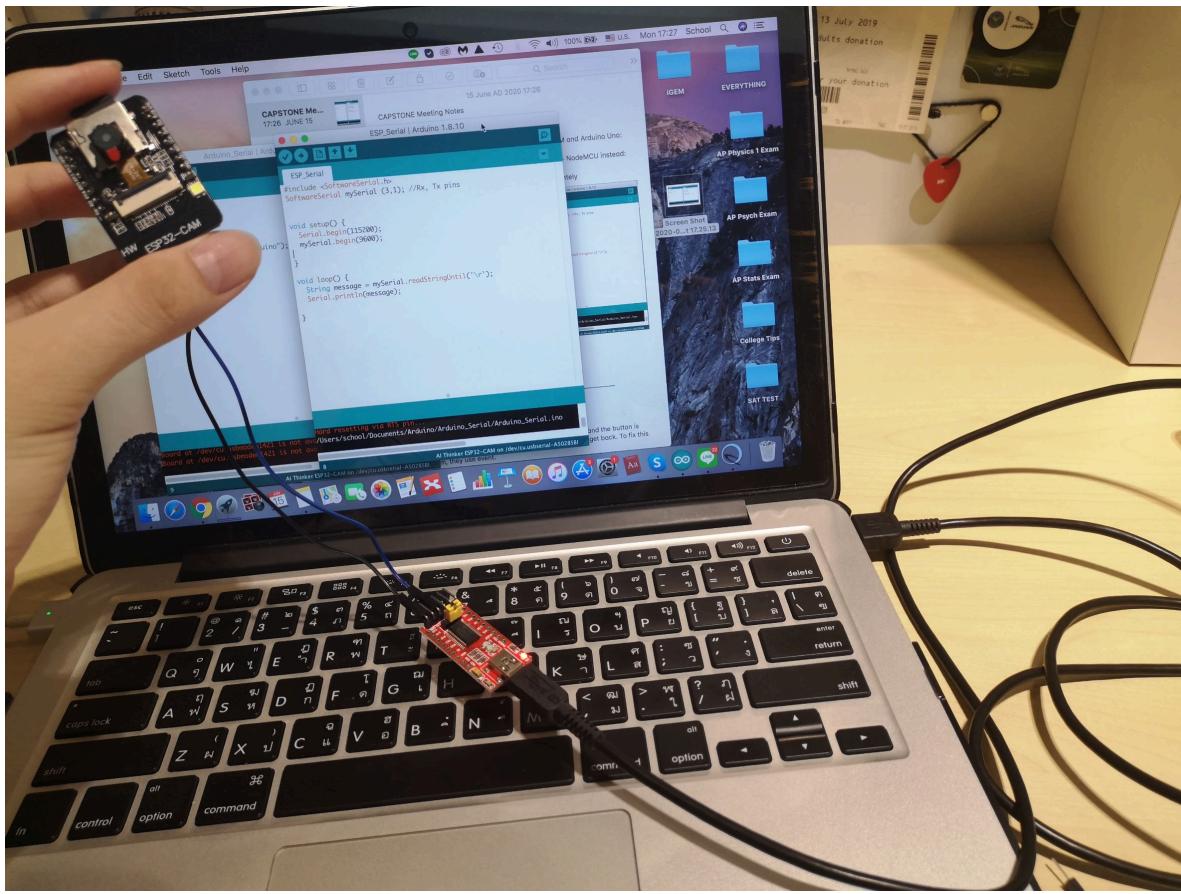
Board at /dev/cu.usbmodem1421 is not available
Board at /dev/cu.usbmodem1421 is not available

Hard resetting via RTS pin...
/Users/school/Documents/Arduino/Arduino_Serial/Arduino_Serial.ino

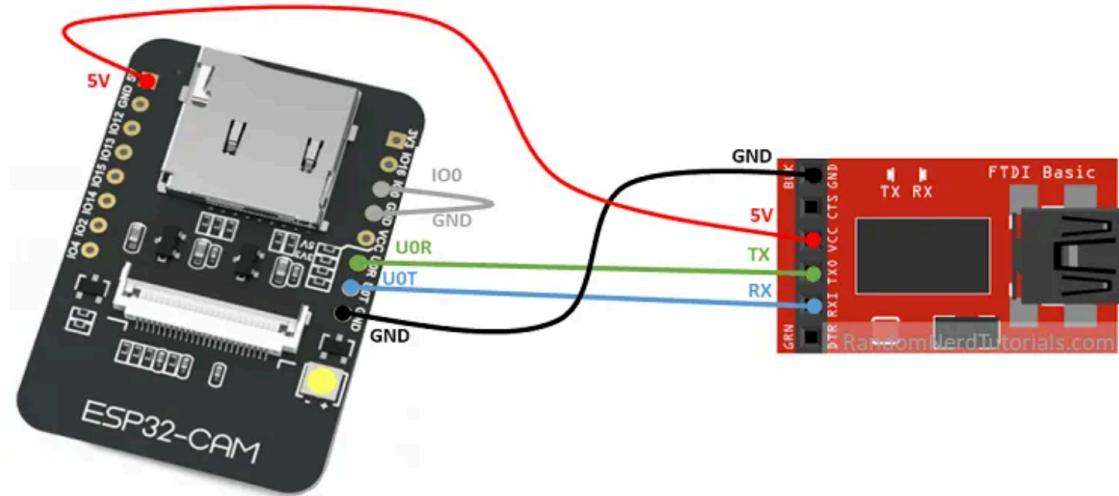
3. Uploaded code to Arduino normally



4. Uploaded code to ESP 32 CAM using FTDI programmer, selected board as AI THINKER ESP32-CAM



Schematic between ESP32-CAM and FTDI Programmer to upload code:

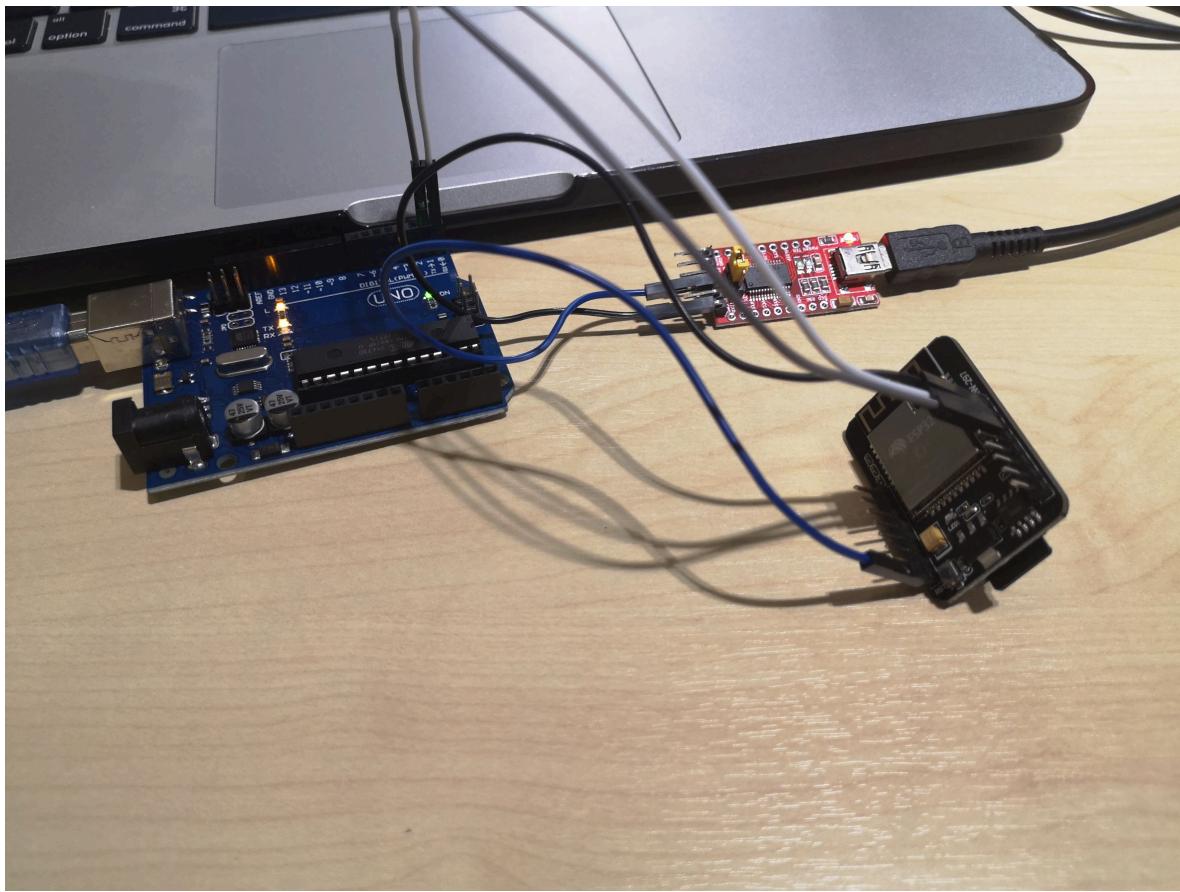


- After code was uploaded for both, "Hello from Arduino" was shown in the Serial Monitor of the Arduino port.



A screenshot of a terminal window titled '/dev/cu.usbmodem1411'. The window displays a series of identical messages: 'Hello from Arduino' repeated 15 times. Below the terminal window, there are several control buttons: 'Autoscroll' (checked), 'Show timestamp' (unchecked), 'Newline' (button), and a '9600 baud' dropdown menu.

6. Then the U0R (RX) and U0T (TX) pins of the ESP32 CAM were removed from the FTDI programmer and connected to the TX and RX pins of the Arduino, respectively. The GND-100 connection within the ESP32-CAM was removed.



7. After viewing the serial monitor from the ESP32 CAM port, no data is shown at both the 9600 and 115200 baud rates.



8. Even after grounding both ESP32-CAM and Arduino boards to each other, the data wasn't transferred.

Programming ESP 32 CAM with FTDI Programmer:

<https://randomnerdtutorials.com/program-upload-code-esp32-cam/>

ESP32-CAM Pins Explained:

<https://randomnerdtutorials.com/esp32-cam-ai-thinker-pinout/>