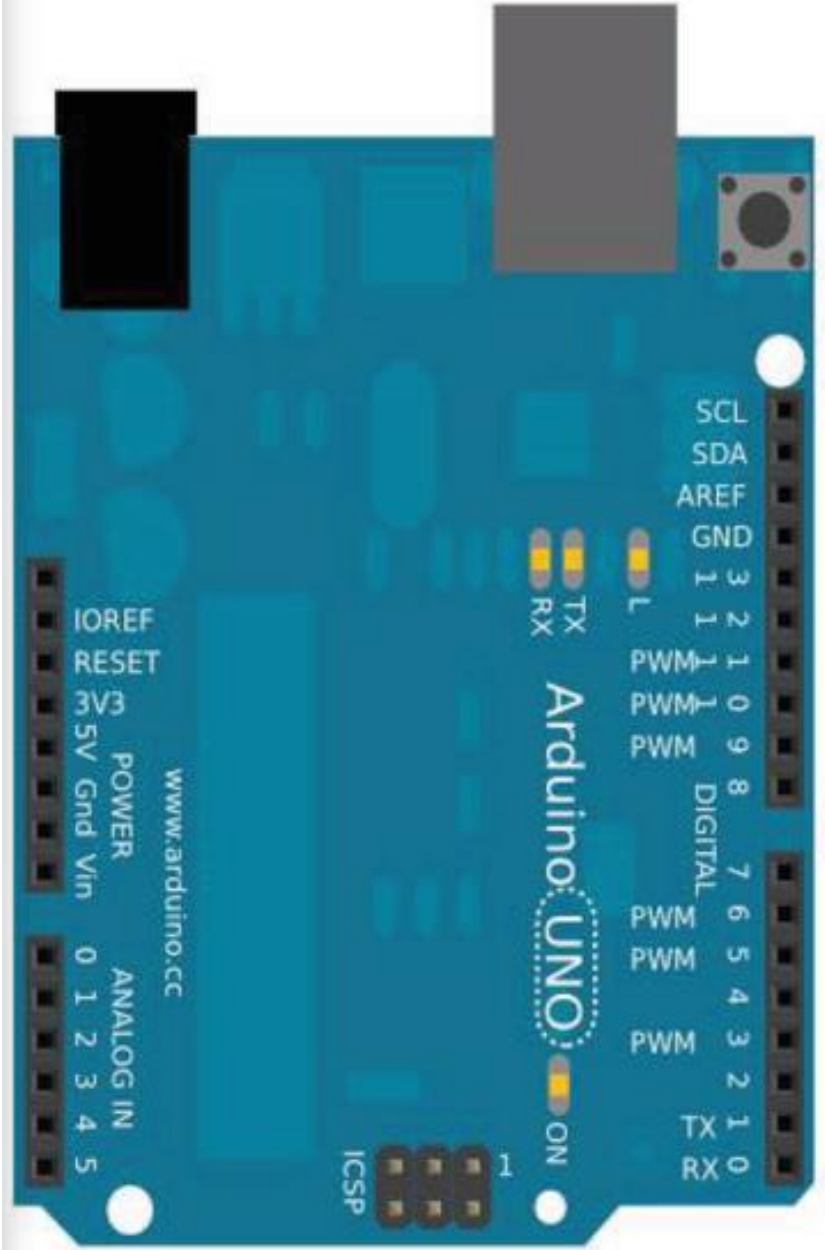
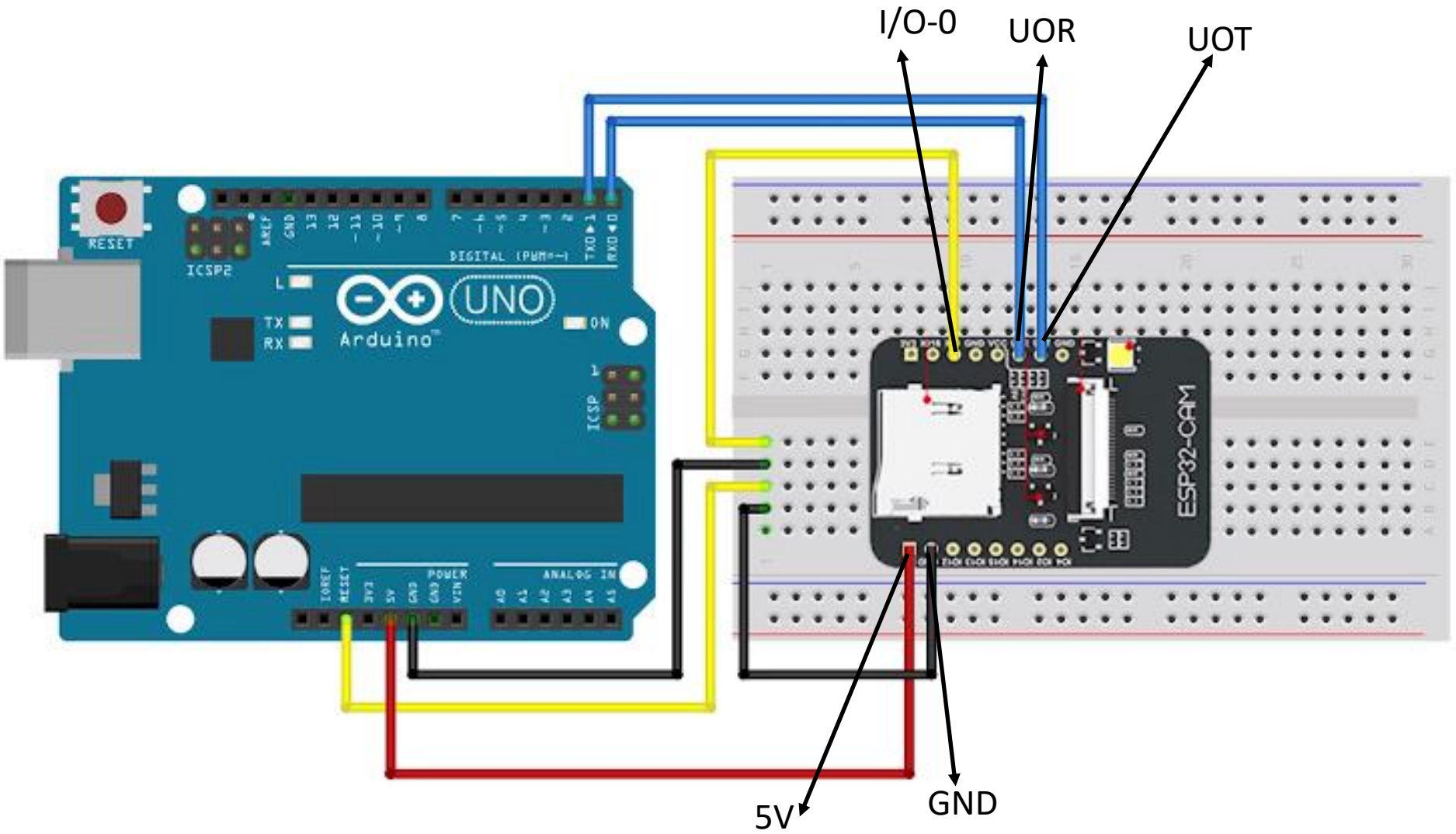
Tools


HW
ESP32—CAM


HW ESP32-S
FCCID:2AHMR-ESP32S
WIFI+BT SoC Inside
HW-267
RST


Arduino UNO
www.arduino.cc
POWER
ANALOG IN
DIGITAL
ICSP

Connections



Install Arduino IDE

- Visit https://www.arduino.cc/en/main/software
- Download the IDE based on your Operating System.
- Open the IDE.

Get the ESP32 Add-on.

- Click on Tools in the Menu Bar.
- Go to Boards Manager and type ‘esp32’.
- Install the version ‘1.0.4’ (it has some Face Recognition capabilities).
- Go to tools again and select ‘Board: ESP32 Wrover Module’.

Modify CameraWebServer Example

- Go to Examples > ESP32 > Camera > CameraWebServer.
- Add 2 more headers:

1. #include "soc/soc.h"
2. #include "soc/rtc_cntl_reg.h "

- Update your Wi-Fi credentials:

1. const char* ssid = “Your Wi-Fi ssid";
2. const char* password = “Your Wi-Fi password";

- Add following line under void setup() method:

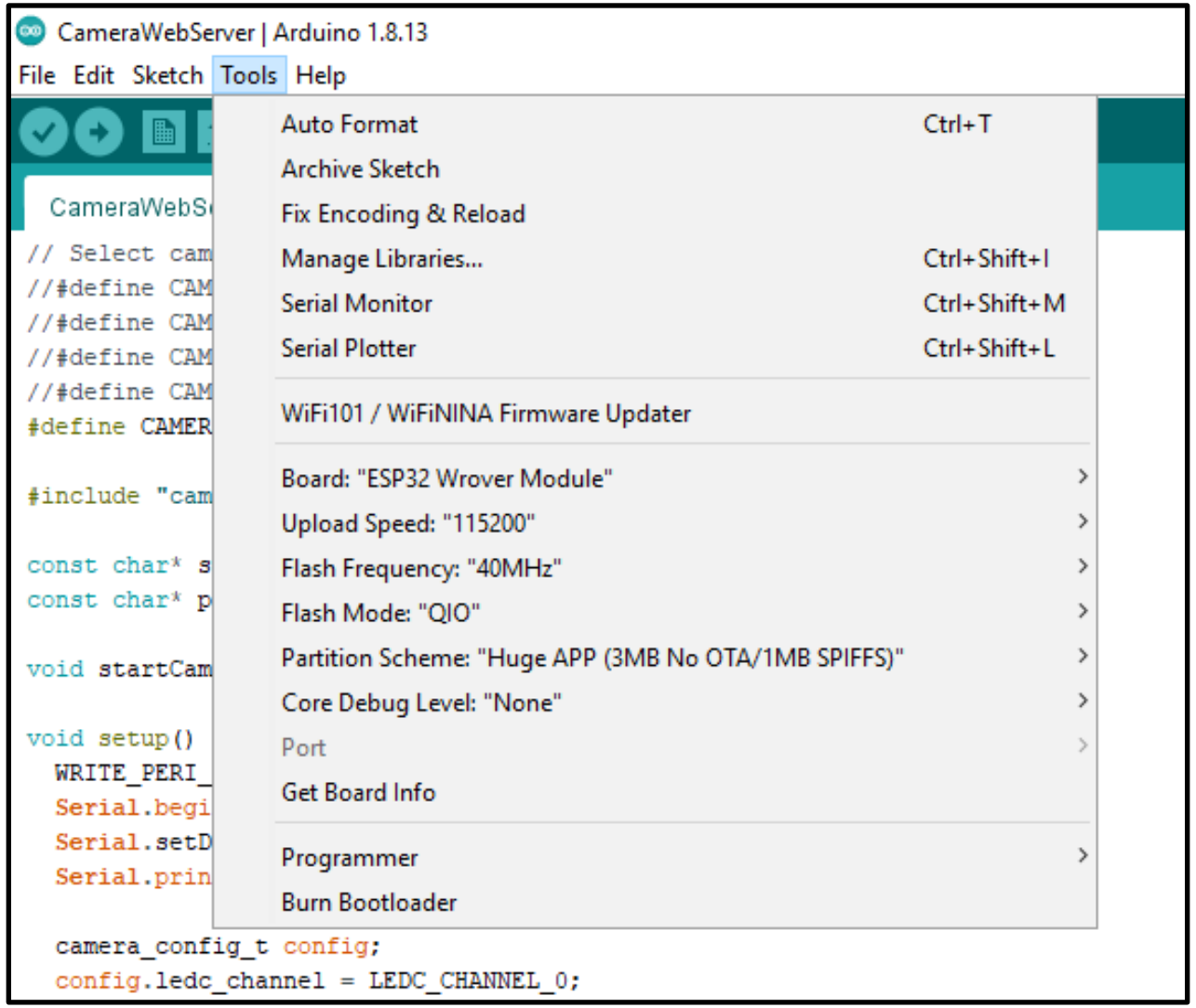
1. WRITE_PERI_REG(RTC_CNTL_BROWN_OUT_REG, 0);

Modify CameraWebServer Example (Contd.)

- Comment the #define CAMERA_MODEL_WROVER_KIT line.
- Un-comment #define CAMERA_MODEL_AI_THINKER line (Though in some modules such as HW ESP32-S, it is not mentioned AI-THINKER, but all are actually is).
- Instead copy code from link in description and just update Wi-Fi credentials.
- What does these modification do?

1. Control the voltage fluctuations that may lead to some error like ‘Brown out detector was triggered’, etc.

Check Configuration



Upload the project

- Connect the Arduino to Computer. For testing whether all connection are good, you can press the reset button on ESP 32 module. As you press it a flash on it will sparkle plus the orange light on Arduino will give a blink.
- Now upload the project. It will take some time. Sometimes, in the first attempt it fails. Make another attempt.
- Once upload is done. In the console you will see a connection is established with ESP 32 module and some download is going on. Let it complete till 100%. Meanwhile you will notice the orange light in Arduino continuously blinking.

Run the Service

- Go to Tool > Serial Monitor.
- Now unplug I/O-0 pin.
- Press Reset.
- Let serial monitor show Wi-Fi connected.
- Copy the URL to browser.
- Enjoy the Service.

Deploy with adapter

- Once it is up running and you can see camera visuals, without doing any modifications unplug the cable from computer.
- Attach the cable to an adapter say mobile charger (with 5V output).
- Switch on the supply.
- Press the reset button on ESP 32 modules (Please do not try to do any modification with the cable connection like re-attaching the I/O-0 pin).
- Go to your browser and use the same URL you previously had (make sue that computer is also connected to the same Wi-Fi network).

Additional Information

- You can find the code and this presentation from the link in description below.
- Post your queries their or in the comments below.

Thank you!