**ESP8266 WEATHER STATION UPDATES**



1. SETTING UP ARDUINO IDE

The following link was used:<https://learn.adafruit.com/adafruit-feather-huzzah-esp8266/using-arduino-ide>

* Install CP2104 Drivers
* Install Arduino IDE
* Install ESP8266 Board Package
* Setup Adafruit Feather HUZZAH ESP8266 support.
* BLINK TEST CODE

void setup() {

  pinMode(0, OUTPUT);

}

void loop() {

  digitalWrite(0, HIGH);

  delay(500);

  digitalWrite(0, LOW);

  delay(500);

}

1. DOWNLOADING ARDUINO IDE LIBRARIES

The Libraries needed for the system are well outlined on this link, ensure that all are downloaded:<https://learn.adafruit.com/wifi-weather-station-with-tft-display/software>

They are:

1. Adafruit GFX Library
2. Adafruit ILI9341 Library
3. Adafruit STMPE610
4. Mini Grafx by Daniel Eichhorn
5. simpleDSTadjust by neptune2
6. ESP8266 Weather Station Library by ThingPulse
7. JSON Streaming Parser by Daniel Eichhorn (not Bartosz)
8. WiFiManager for ESP8266 by tzapu
9. CODE

* Arduino sketch

The Arduino code will not have any changes but before uploading youll have to edit the files below, namely settings.h and TouchControllerWS.cpp

1. To get to this files youll navigate to this directory where the ESP8266 Weather Station Library by ThingPulse library is stored:

**C:\Users\richa\OneDrive\Documents\Arduino\libraries\esp8266-weather-station-color-master**

* Settings.h  
  You will Update If there are any changes the following segments:

#define WIFI\_SSID "kit&rich-Internet" //Update to Your WI-FI SSID

#define WIFI\_PASS "Abig26fuck" //Update to Your WI-FI PASSWORD

// Sign up here to get an API key:

// <https://home.openweathermap.org/users/sign_up>

String OPEN\_WEATHER\_MAP\_APP\_ID = "ascowijcawjr390r2834q"; //Update API key

String OPEN\_WEATHER\_MAP\_LOCATION = "New York,US"; //Update your location

The UTC\_OFFSET, UTC is known as Universal Time. UTC is 4 hours ahead of New York, New York time. So, when it is 11:00 am in New York it will be 3:00 pm UTC

#define UTC\_OFFSET -4

struct dstRule StartRule = {"EDT", Second, Sun, Mar, 2, 3600}; // Eastern Daylight Time = UTC/GMT +2 hours

struct dstRule EndRule = {"EST", First, Sun, Nov, 1, 0};       // Eastern Standard Time = UTC/GMT +1 hour

* TouchControllerWS.cpp

For this you Just have to **copy and paste** the whole TouchControllerWS.cpp from the zip file and use it to replace the one in the library(**C:\Users\richa\OneDrive\Documents\Arduino\libraries\esp8266-weather-station-color-master**) as the one in the library has a few bugs.

* After updating the settings.h and TouchControllerWS.cpp now you can upload the code to the esp.

1. References

<https://learn.adafruit.com/wifi-weather-station-with-tft-display/software>