

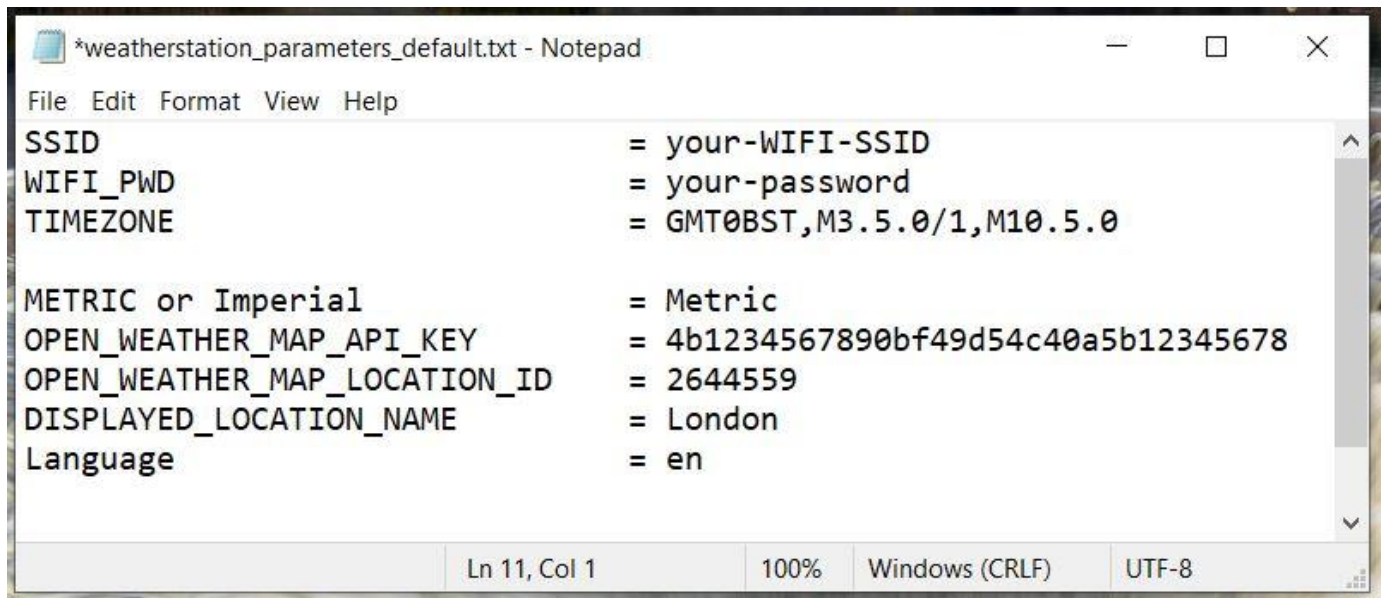
I would really be grateful if you start to build the Weather Clock, that you go to Github and say hi.

[billbill100/Weather-Clock: Arduino ESP Weather Clock. Takes time and local weather data from the Internet and displays it on a 3.5" TFT screen \(github.com\)](https://github.com/billbill100/Weather-Clock)

<https://github.com/billbill100/Weather-Clock>

## ESP32 Weather Clock Collect User Data. V1.2 19/02/2025

The Weather Clock requires user data to be entered. Some data you should know, your WIFI SSID and password, for example. The other data you will need to find out from the great Interweb. The document below describes how to find this information. Put all of the gathered information into a text file, using notepad or similar. The result should look something like: -



```
*weatherstation_parameters_default.txt - Notepad
File Edit Format View Help
SSID = your-WIFI-SSID
WIFI_PWD = your-password
TIMEZONE = GMT0BST,M3.5.0/1,M10.5.0

METRIC or Imperial = Metric
OPEN_WEATHER_MAP_API_KEY = 4b1234567890bf49d54c40a5b12345678
OPEN_WEATHER_MAP_LOCATION_ID = 2644559
DISPLAYED_LOCATION_NAME = London
Language = en

Ln 11, Col 1 100% Windows (CRLF) UTF-8
```

### WiFi Credentials

Your WIFI SSID and password are normally found on a little sticker or pull-out card on your router. These are the same details used to connect your phone, or other WIFI equipment to your home WIFI

### Timezone

This is a clever string which contains not only your time-zone, but also daylight saving, how much it changes by and the exact day and month it changes. E.g GMT M3.5.0/1 1/M10.5.0 = Greenwich Man Time (London, Lisbon etc) = month 3, week 5, day 0 (for clock change to summer time) = 1 hour time adjustment/ month 10, week 5 day 0 All too complicated? Not so, just follow this link and find the pre-formatted time-zone

[https://github.com/nayarsystems/posix\\_tz\\_db/blob/master/zones.csv](https://github.com/nayarsystems/posix_tz_db/blob/master/zones.csv)

Metric or Imperial

Simply type Metric or Imperial

OPEN\_WEATHER\_MAP\_API\_KEY

A free openweather.org account is required. This will then generate an API\_KEY

<https://openweathermap.org/price>

Follow the link to signup, selecting the first column for the free account. An API key should be emailed to you. If not, or you want to generate more API keys, log into your new account.

OPEN\_WEATHER\_MAP\_LOCATION\_ID

Find your nearest town or city by following the link and searching by name in the orange search box, then click 'Search'

<https://openweathermap.org/find?q=>

If successful, your city/town should appear in orange, with the latest weather. Click on the orange-coloured town/city which will now open a new window with detailed weather. Look at the top of the page at the URL, which will look something like "https://openweathermap.org/city/2643743" It is the number string at the end (2643743) which is your LOCATION\_ID

DISPLAYED\_LOCATION\_NAME

Free text. Simply type the name of your Town/City

Language

This is the two digit country code that openweather.org recognises and will supply the download weather in this language. Find your two--digit code here.

<https://openweathermap.org/current#multi>

Note only the downloaded data from openweather.org will be in your chosen language The other details Moon, Sun etc displayed on the screen are coded into the firmware and default to English.

I have adapted the code to allow for other languages to be displayed (selected by the two-digit country code) currently the only supported languages are English, Czech, French and Portuguese.

Other languages can be added at the user's request. Please contact me if you would like another language added. I will need your help to confirm the translation is correct :o)

The code-block which selects the language is shown below. The words in quotes " " require translation into your language, for example "SUN" in French becomes "DIM" and 'Sunday' becomes "Dimanche"

```
else if (OPEN_WEATHER_MAP_LANGUAGE == "en")
```

```
{
```

```
WEEKDAYS_ABBR[0] = {"SUN"};  
WEEKDAYS_ABBR[1] = {"MON"};  
WEEKDAYS_ABBR[2] = {"TUE"};  
WEEKDAYS_ABBR[3] = {"WED"};  
WEEKDAYS_ABBR[4] = {"THU"};  
WEEKDAYS_ABBR[5] = {"FRI"};  
WEEKDAYS_ABBR[6] = {"SAT"};
```

```
WEEKDAYS[0] = {"Sunday"};  
WEEKDAYS[1] = {"Monday"};  
WEEKDAYS[2] = {"Tuesday"};  
WEEKDAYS[3] = {"Wednesday"};  
WEEKDAYS[4] = {"Thursday"};  
WEEKDAYS[5] = {"Friday"};  
WEEKDAYS[6] = {"Saturday"};
```

```
SUN_MOON_LABEL[0] = {"Sun"};  
SUN_MOON_LABEL[1] = {"Moon"};
```

```
MOON_PHASES[0] = {"New Moon"};  
MOON_PHASES[1] = {"Waxing Crescent"};  
MOON_PHASES[2] = {"First Quarter"};  
MOON_PHASES[3] = {"Waxing Gibbous"};  
MOON_PHASES[4] = {"Full Moon"};  
MOON_PHASES[5] = {"Waning Gibbous"};  
MOON_PHASES[6] = {"Third quarter"};  
MOON_PHASES[7] = {"Waning Crescent"};
```

```
}
```