

Guide to Configuration of ESP32 connection with TFE ONAIR site

You have to adapt the original source code to individual countries.

This is the code used on the Italian train.

It will need to be configured:

1. The IP address of the MQTT Server: 23.88.102.162
2. The country-specific WI-FI connection parameters with which the ESP32 will connect to the Internet network
3. The country identifier in the code (HR, DE, NO, LT, IT, IR).

```
3 #include <Wire.h>
4 #include <PubSubClient.h> //https://github.com/knolleary/pubsubclient -----
5 #include <ArduinoJson.h> //https://github.com/bblanchon/ArduinoJson -----
6
7 /*WIFI*/
8 const char* SSID = "FASTWEB-xxxxxx"; //Wi-Fi mreža (SSID) //Write your Wi-Fi name here -----
9 const char* PASS = "8Axxxxxxx"; //Password //Write your password here -----
10 //const char* SSID =
11 //const char* PASS = "xxxxxx";
12 /*MQTT server*/
13 //const char* MQTT_SERVER = "broker.hivemq.com"; //MQTT broker
14 //const char* MQTT_SERVER = "broker.emqx.io";
15 const char* MQTT_SERVER = "23.88.102.162"; //MQTT broker
16 const int MQTT_PORT = 1883; //port servera
17 const char* MQTT_USER = "xxxxxx";
18 const char* MQTT_PASSWORD = "xxxxxx";
19
```

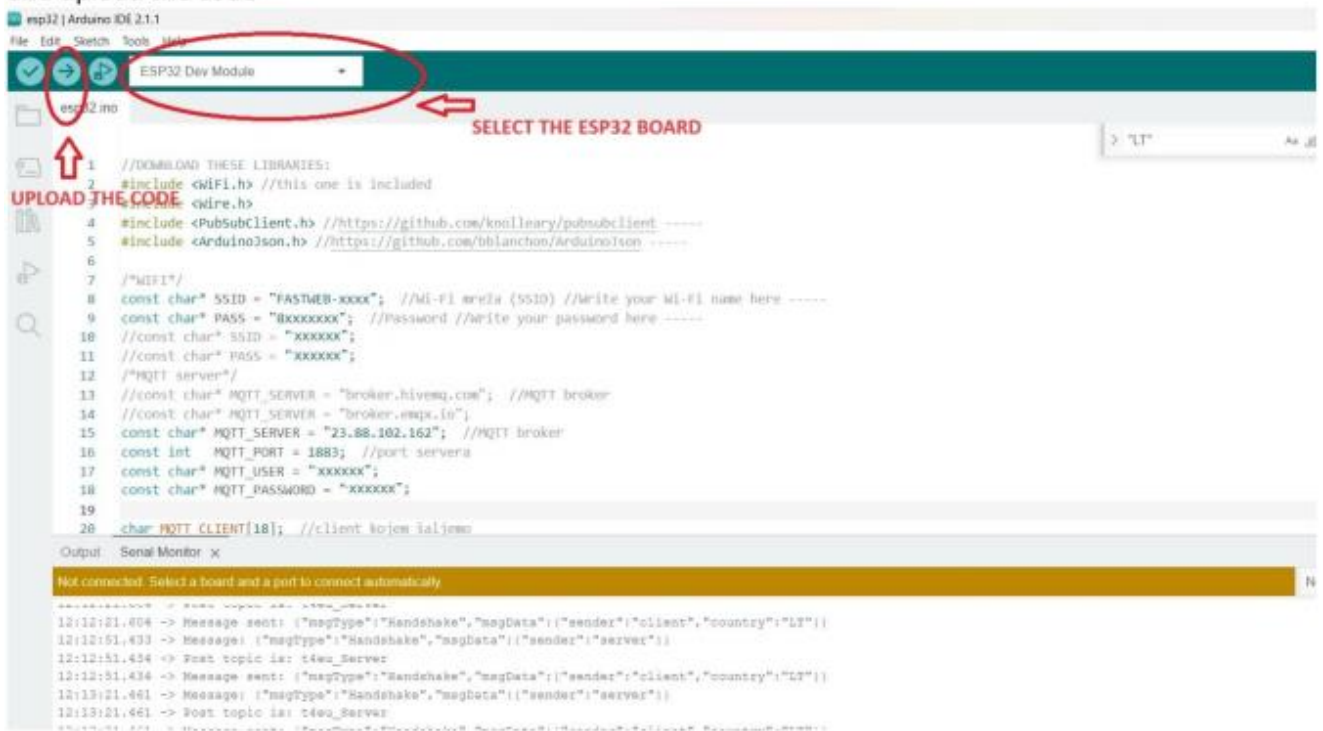
WIFI CONNECTION PARAMETER

MQTT

Finally, we need to change the country code to 4 places in the code below:

```
135
136 JsonObject JSOBJ1 = JSOCTX.createNestedObject("msgData");
137 JSOBJ1["country"] = "LT"; //Change this to your contry (HR, DE, NO, LT, IT, IR)-----
138 JSOBJ1["client"] = MQTT_CLIENT;
139 JSOBJ1["topic"] = MQTT_RECEIVE_TOPIC;
...
104
185 JsonObject JSOBJ1 = JSOCTX.createNestedObject("msgData");
186 JSOBJ1["country"] = "LT"; //Change this to your contry (HR, DE, NO, LT, IT, IR)-----
187 JSOBJ1["client"] = MQTT_CLIENT;
188 JSOBJ1["topic"] = MQTT_RECEIVE_TOPIC;
189
257 JsonObject JSOBJ1 = JSOCTX.createNestedObject("msgData");
258 JSOBJ1["country"] = "LT"; //Change this to your contry (HR, DE, NO, LT, IT, IR)-----
259 JSOBJ1["client"] = MQTT_CLIENT;
260 JSOBJ1["topic"] = MQTT_RECEIVE_TOPIC;
...
320
321 JsonObject JSOBJ1 = JSOCTX.createNestedObject("msgData");
322 JSOBJ1["sender"] = "client";
323 JSOBJ1["country"] = "LT"; //Change this to your contry (HR, DE, NO, LT, IT, IR)
324
```

Now we need to open the Arduino IDE and connect the ESP32 Board to the PC, choose the correct board and upload the code



finally the Lithuanian train is connected

