

CODE :

```
#include "HX711.h"

#include <ESP8266WiFi.h>

#include <Firebase_ESP_Client.h>

#include "addons/TokenHelper.h"

#include "addons/RTDBHelper.h"


// HX711 circuit wiring

const int LOADCELL_DOUT_PIN = D1;

const int LOADCELL_SCK_PIN = D2;

const int BUZZER_PIN = D3; // Digital pin for BUZZER module

const int LED_PIN = D4; // Digital pin for LED


HX711 scale;


#define WIFI_SSID "12345678"

#define WIFI_PASSWORD "12345678"

#define API_KEY "AIzaSyCfagYS4c8SvrSwuGT6XSWQP1ABSAPfSRM"

#define DATABASE_URL "https://nodemcu-abee1-default-rtdb.firebaseio.com/"


FirebaseData fbdo;

FirebaseAuth auth;

FirebaseConfig config;

unsigned long sendDataPrevMillis = 0;

bool signupOK = false;


void setup() {

  Serial.begin(115200);

  Serial.println();

  Serial.println("HX711 Demo");
```

```
Serial.println("Initializing the scale");
```

```
scale.begin(LOADCELL_DOUT_PIN, LOADCELL_SCK_PIN);
```

```
Serial.println("Before setting up the scale:");
```

```
Serial.print("read: \t\t");
```

```
Serial.println(scale.read());
```

```
Serial.print("get value: \t\t");
```

```
Serial.println(scale.get_value(5));
```

```
Serial.print("get units: \t\t");
```

```
Serial.println(scale.get_units(5), 1);
```

```
scale.set_scale(-478.507);
```

```
scale.tare();
```

```
pinMode(BUZZER_PIN, OUTPUT);
```

```
digitalWrite(BUZZER_PIN, LOW);
```

```
pinMode(LED_PIN, OUTPUT);
```

```
digitalWrite(LED_PIN, LOW);
```

```
Serial.println("After setting up the scale:");
```

```
Serial.print("read: \t\t");
```

```
Serial.println(scale.read());
```

```
Serial.print("get value: \t\t");
```

```
Serial.println(scale.get_value(5));
```

```

Serial.print("get units: \t\t");
Serial.println(scale.get_units(5), 1);

Serial.println("Readings:");

WiFi.begin(WIFI_SSID, WIFI_PASSWORD);
Serial.print("Connecting to Wi-Fi");
while (WiFi.status() != WL_CONNECTED)
{
    Serial.print(".");
    delay(300);
}
Serial.println();
Serial.print("Connected with IP: ");
Serial.println(WiFi.localIP());
Serial.println();
config.api_key = API_KEY;
config.database_url = DATABASE_URL;
if (Firebase.signUp(&config, &auth, "", ""))
{
    Serial.println("ok");
    signupOK = true;
}
else
{
    Serial.printf("%s\n", config.signer.signupError.message.c_str());
}
config.token_status_callback = tokenStatusCallback; //see addons/TokenHelper.h
Firebase.begin(&config, &auth);
Firebase.reconnectWiFi(true);

```

```
}
```

```
void loop() {
```

```
    // Read one unit from the scale
```

```
    float currentLoad = scale.get_units(1);
```

```
    Serial.print("Current load:\t");
```

```
    Serial.println(currentLoad, 1);
```

```
    if (currentLoad >= 10.0) {
```

```
        // Turn off BUZZER
```

```
        digitalWrite(BUZZER_PIN, LOW);
```

```
        Serial.println("BUZZER OFF. Load is 10 units or more.");
```

```
    } else {
```

```
        // Turn on BUZZER
```

```
        digitalWrite(BUZZER_PIN, HIGH);
```

```
        Serial.println("BUZZER ON. Load is less than 10 units.");
```

```
    }
```

```
    // Check if the load is greater than or equal to 5 units
```

```
    if (currentLoad >= 5.0) {
```

```
        // Turn on LED
```

```
        digitalWrite(LED_PIN, HIGH);
```

```
        Serial.println("LED ON. Load is 5 units or more.");
```

```
    } else {
```

```
        // Turn off LED
```

```
        digitalWrite(LED_PIN, LOW);
```

```
        Serial.println("LED OFF. Load is less than 5 units.");
```

```
    }
```

```
scale.power_down(); // put the ADC in sleep mode
delay(5000);

scale.power_up();

delay(1000); // Delay before next reading

if (Firebase.ready() && signupOK && (millis() - sendDataPrevMillis > 1000 || sendDataPrevMillis == 0))
{
    sendDataPrevMillis = millis();

    if (Firebase.RTDB.setInt(&fbdo, "main/currentLoad", currentLoad))
    {
        Serial.println("PATH: " + fbdo.dataPath());
        Serial.println("TYPE: " + fbdo.dataType());
    }
    else
    {
        Serial.println("Failed REASON: " + fbdo.errorReason());
    }
}
}
```