Summary Description: Testing A Firebase Realtime Database with Two ESP8266 Microcontrollers

Tags: electronics; software; Firebase database; ESP8266; Arduino;

Why I did this: I wanted to see how well internet connected microcontrollers could work with the simple and powerful Google Firebase.

I’ve used Firebase before but never with microcontrollers and it could be a great candidate for simplifying data servers with Arduino devices.

(summary pic of system)

Design Walkthrough:

Parts: Arduino compatible WIFI microcontroller (Espressif Esp8266); Firebase library; Firebase account; OLED display; BME280 (Temperature Humidity) sensor

I followed the tutorial from RandomNerdTutorials since it was quite detailed and easy to understand (I recommend it). I used two esp8266s to test the firebase: One I hooked up a BME280 (Temperature Humidity) sensor to provide data, and the other I hooked up a 128x64 pixel OLED display to read from the database.

(pics of system)

Lessons Learned and Future Changes:

Pretty good. It is simple and it works well; I might have to use Firebase more often for any Arduino database projects.

References:

RandomNerdTutorials tutorial: https://randomnerdtutorials.com/esp8266-nodemcu-firebase-realtime-database/