FINAL PROJECT

MOTION SENSOR

Prepared by

Riemar R. Seruelas Jr.

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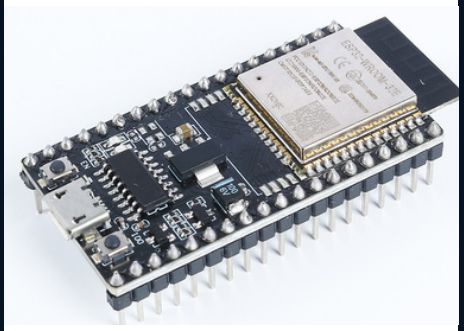
Presented to

Robert Lozada

Presented by

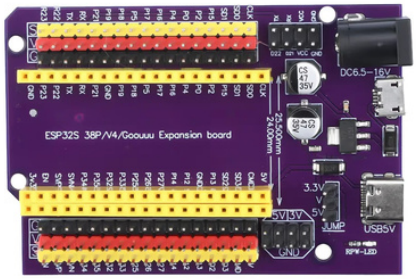
Riemar R. Seruelas Jr

Materials



ESP32

Expansion Board



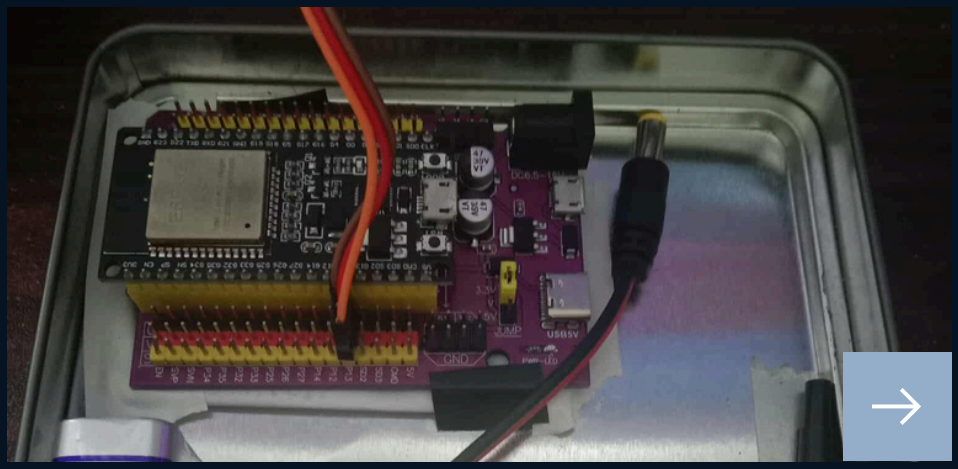
Battery Plug

PIR Sensor

9V Battery

Jump Wires

Casing



Motion Sensor w/ Database + MIT App

MIT APP

Mobile Application

Firebase

Cloud Database

Internet

Connected to the Internet

Easily Made

Using available materials

The motion sensor works via ESP32 connecting to the internet, with the PIR sensor detecting motion from the infrared and sending values to the Firebase database. The MIT application then reads the Firebase database and takes the values to show it in the application. The 9V supplies the whole ESP32, with the ESP32 extension board being able to take the 9V battery despite the ESP32 only being able to take 3.3V.

MIT APPLICATION

FIREBASE

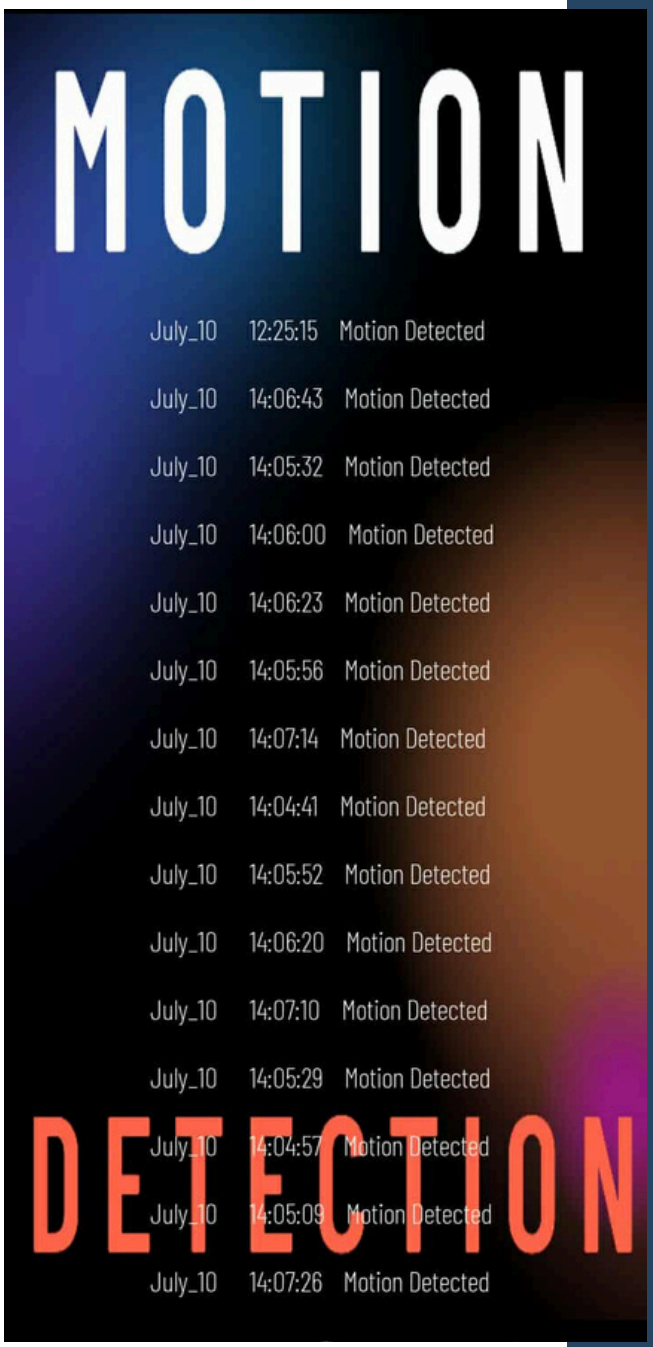
The MIT is connected to the Firebase, which receives input from the PIR Motion and ESP32.

MIT APP

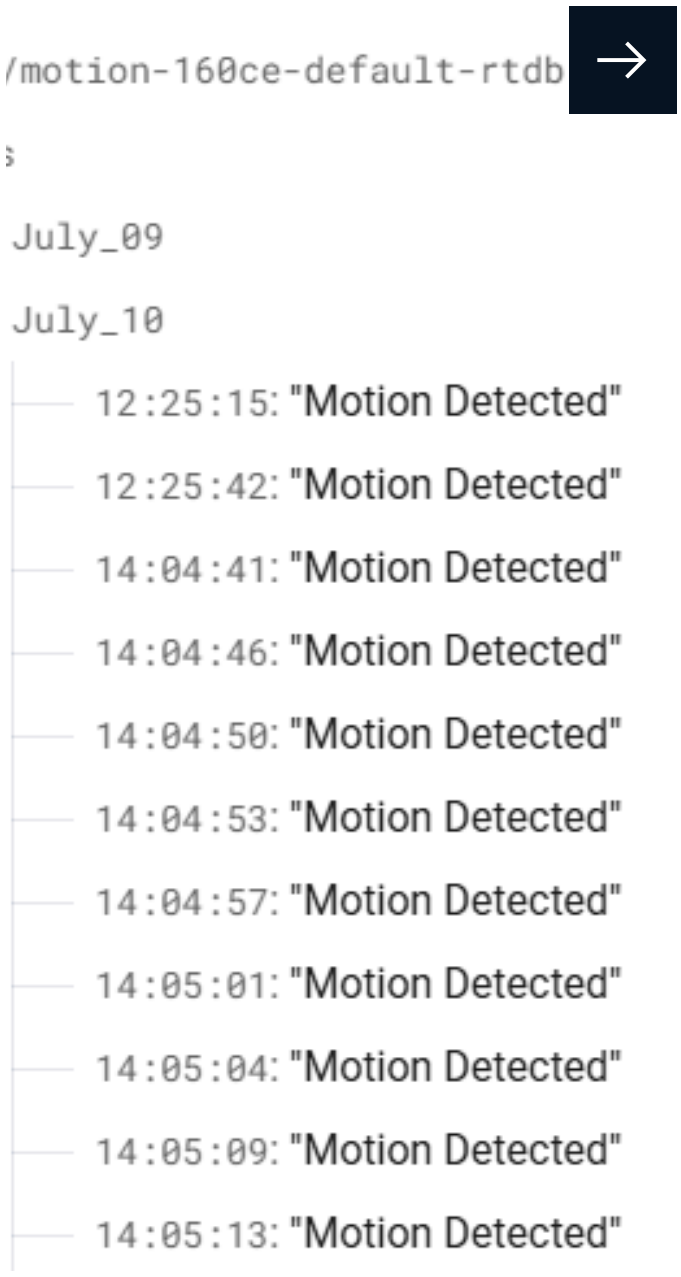
Connectivity with Firebase

REFRESH

NOT Real time, it needs to be refreshed.



FIREBASE



PIR MOTION

The PIR motion, powered by the reduced 9V battery, will read the infrared and send the values to the ESP32.

ESP32

The ESP32 is then initiated to connect to the Internet and will read the values sent by PIR Motion, and send the values to the Real Time Firebase. Through an extension board, the 9V Battery will be lowered to the desired voltage that the ESP32 needs.

CONNECTIVITY

The ESP32 includes a time setting that reads the PIR Motion in real time, as long as the nano is turned on.

CONTACT

THANK YOU FOR READING!

Riemar R. Seruelas Jr

SOCIALS

PHONE
+63 955 095 0526

EMAIL
riemar53seruelas@gmail.com

OTHER SOCIALS
LinkTree