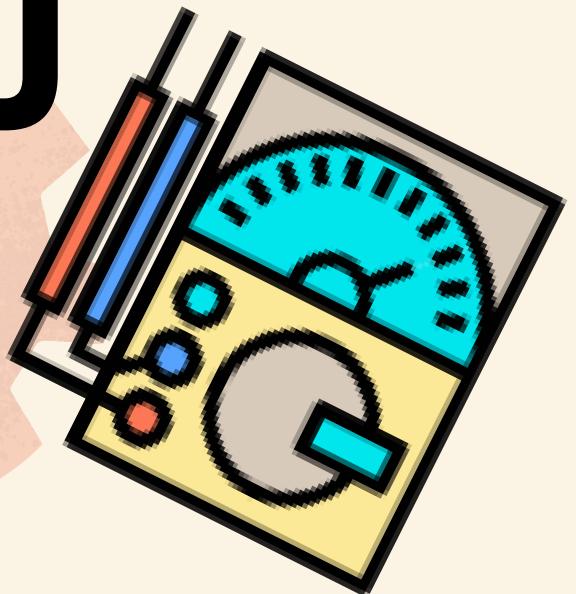
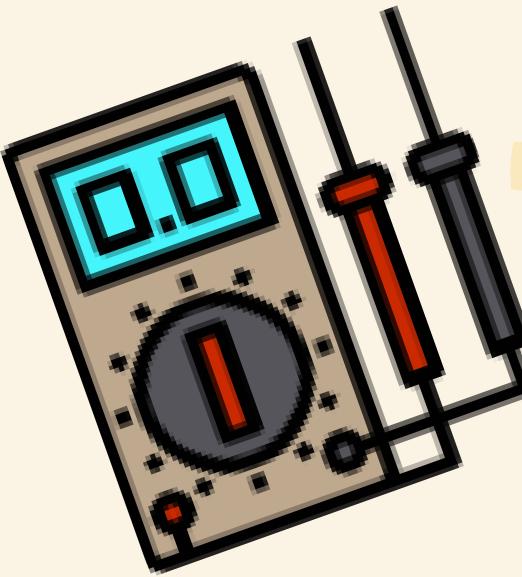


INTERNET OF THINGS AND BIG DATA ANALYTICS



GROUP MEMBERS :

- SAMARAKOON S.M.D.H. IT20457952
- ARIYASINGHE P.A.D.N.I. IT20033828
- SAMARASINGHE S.A.K.S. IT20206246
- DAHANAYAKE U.S. IT20043650



PROJECT DESCRIPTION

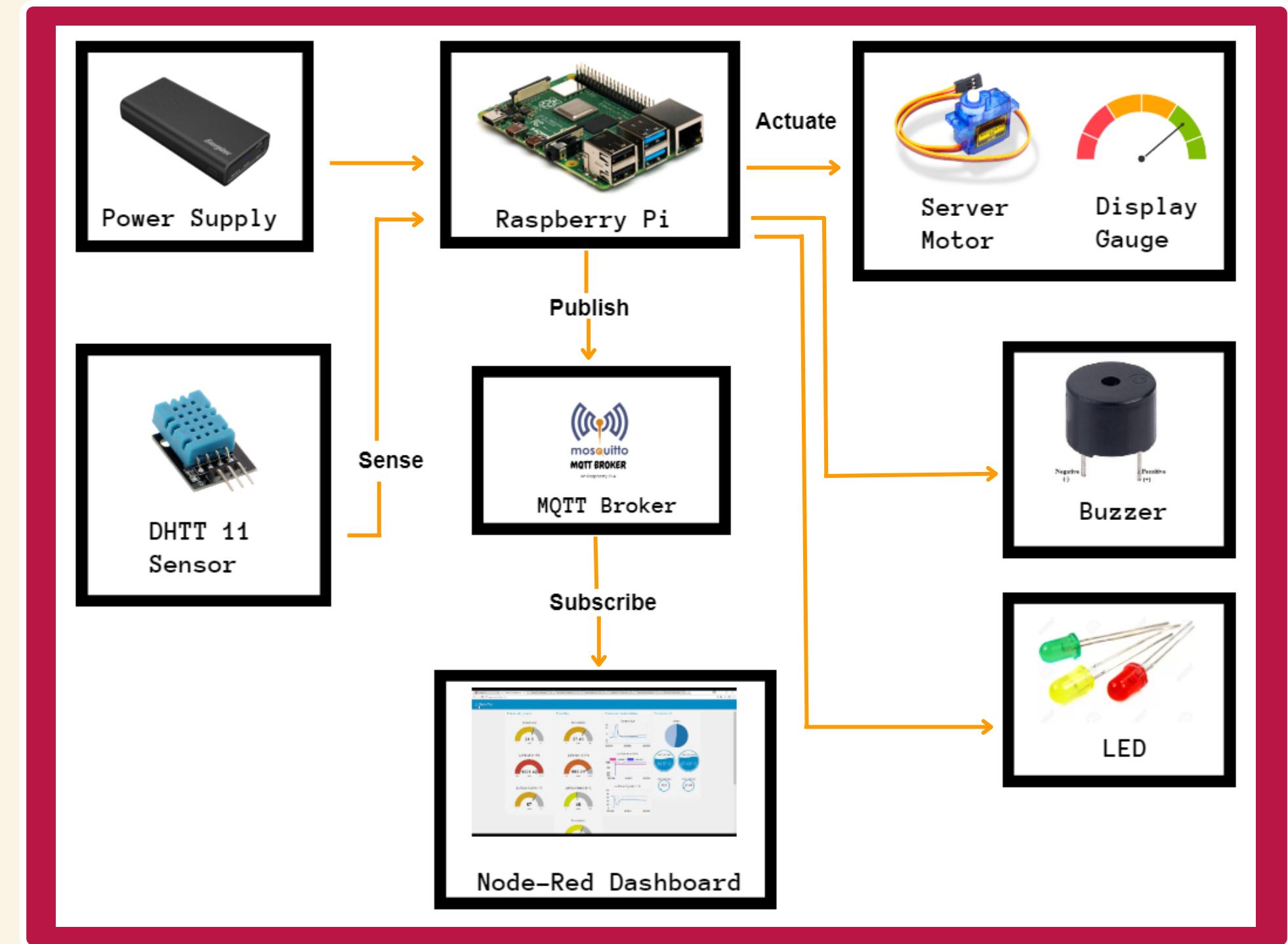
-The main objective is to regulate the apparent temperature of a living room and provide warnings for extreme apparent temperatures

-Functionality:

- Detect current temperature and humidity reading and calculate Heat Index
- Compare to pre-set thresholds
- Control Gauge, LED bulbs and buzzer accordingly

Temperature Readings	Thresholds
Greater than 80°F (26.667°C)	Caution
Greater than 90°F (32.22°C)	Extreme Caution
Greater than 103°F (39.44°C) (Danger)	Danger
Greater than 125°F (51.667°C)	Extreme Danger

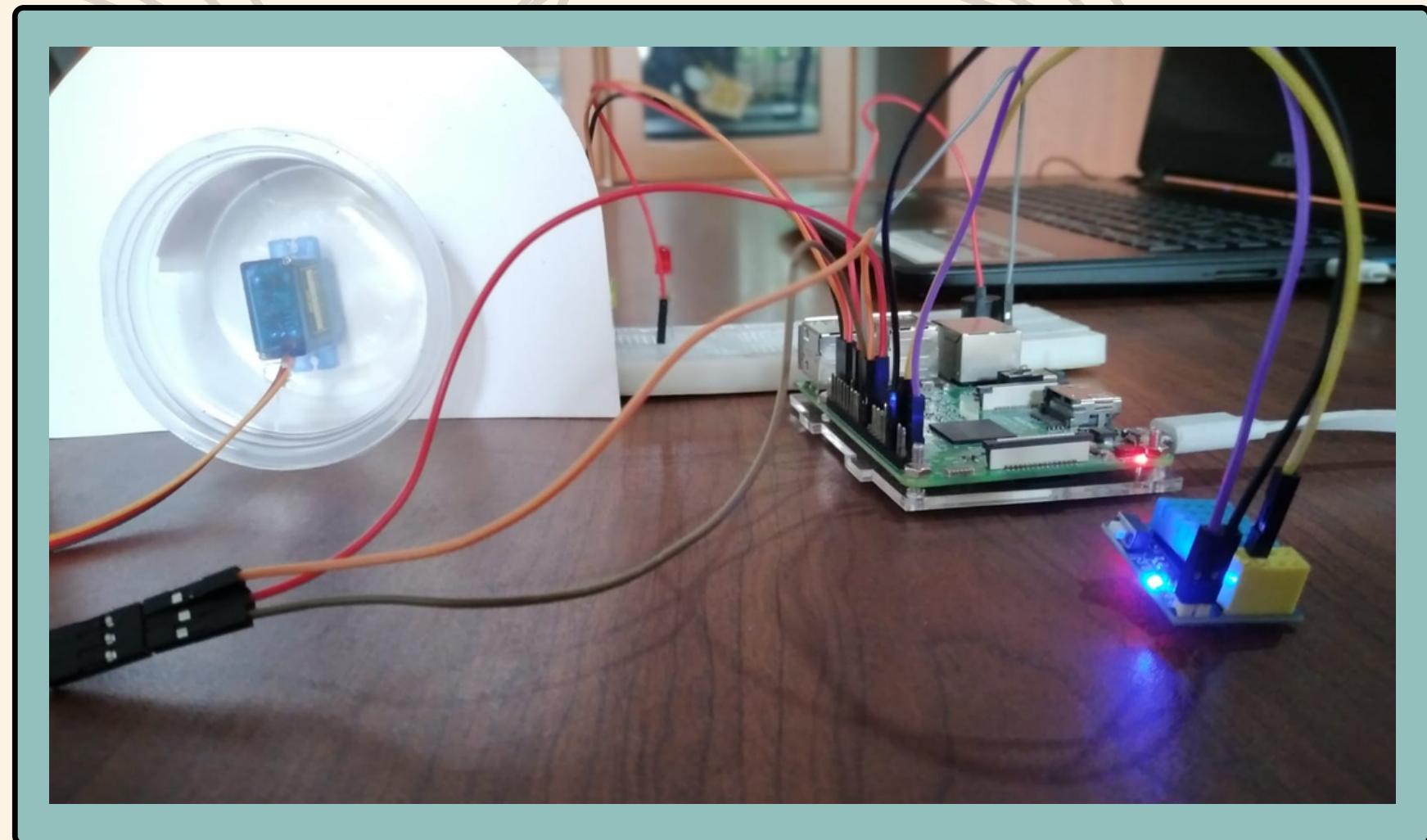
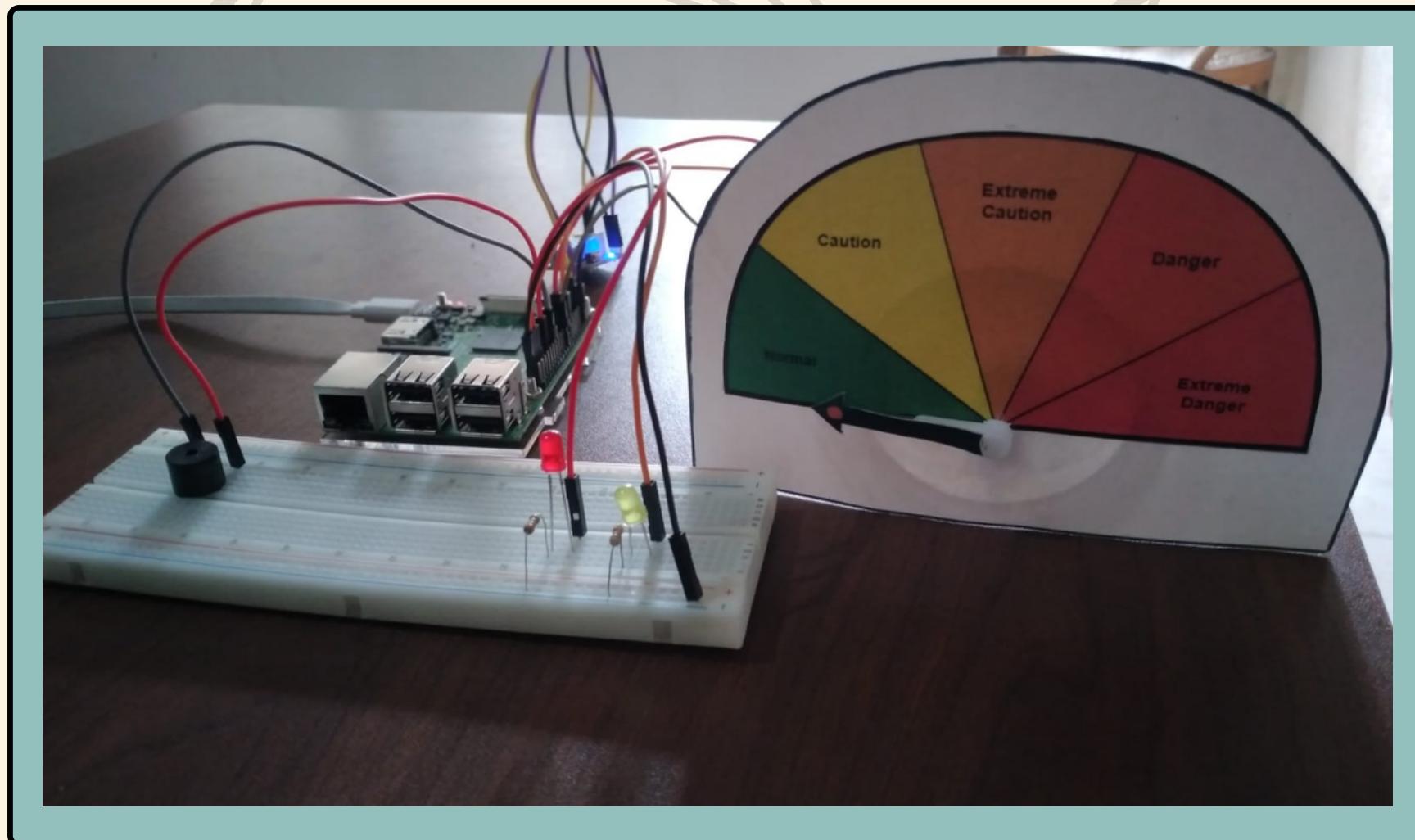
OVERALL ARCHITECTURE



HARDWARE

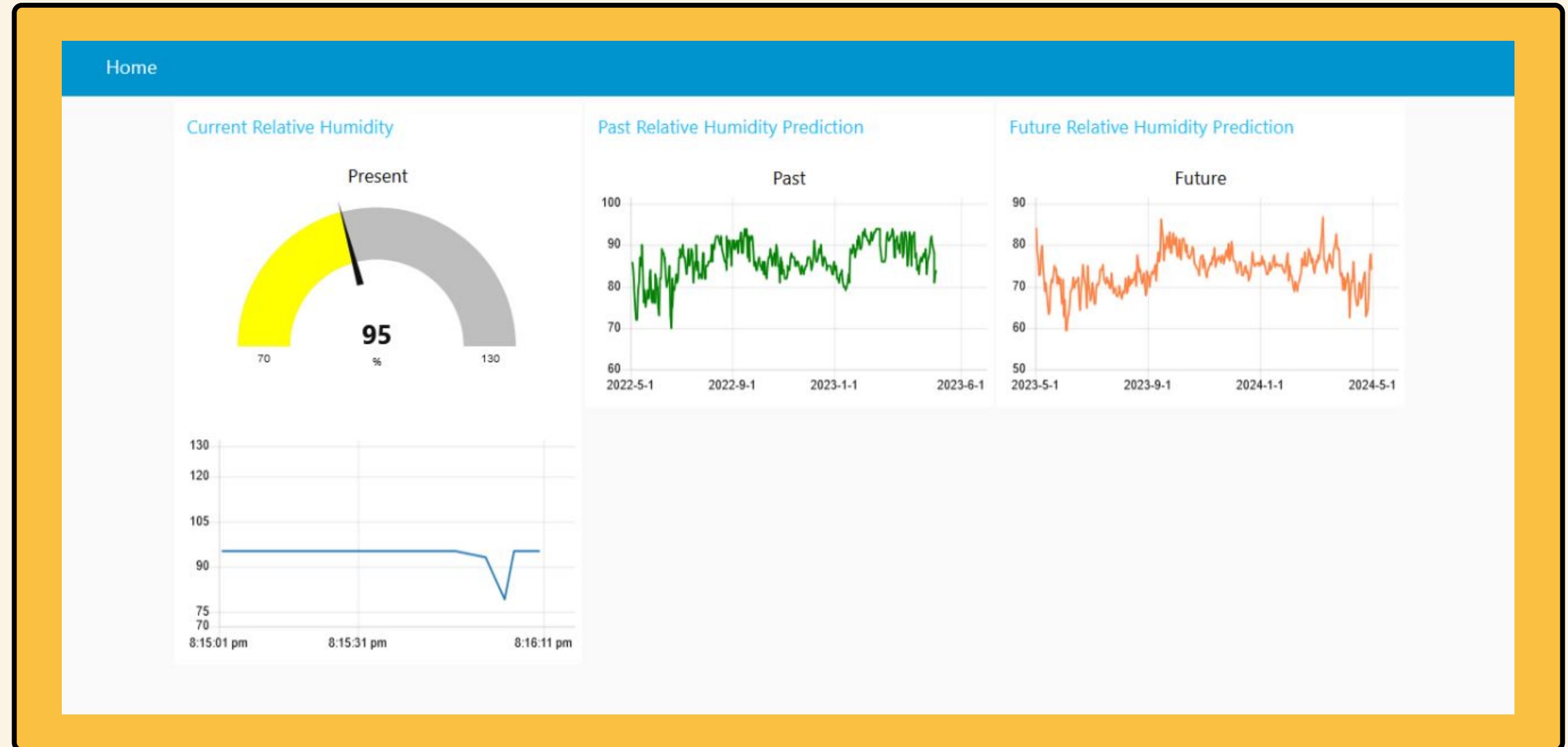
- Temperature sensor
- LED bulbs
- Buzzer
- Micro-controller
- Other required hardware
 - Raspberry Pi
 - Jumper wires
 - Breadboard
 - Lan Cable

COMPLETE SETUP



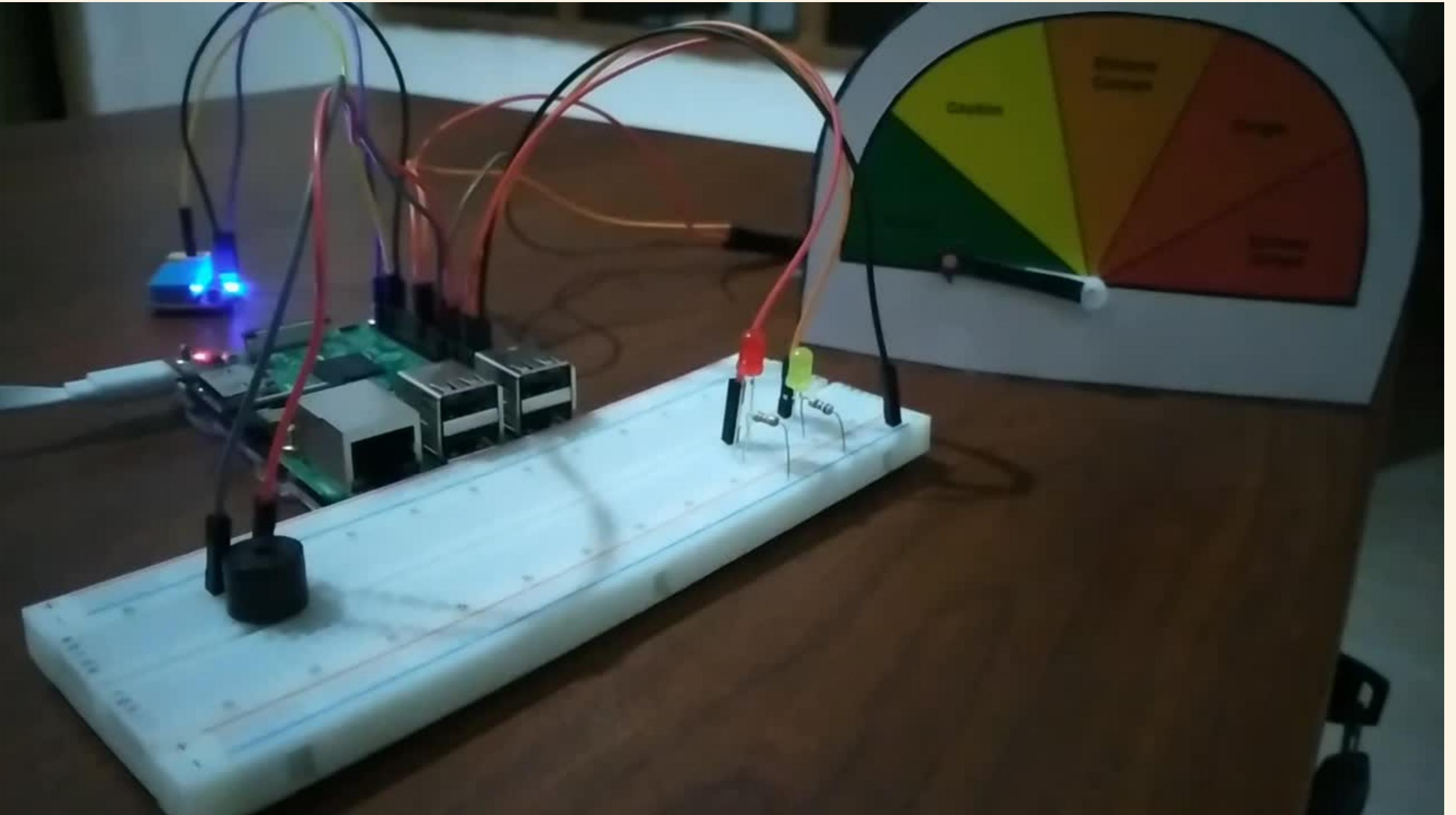


NODE RED DASHBOARD





SYSTEM IMPLEMENTATION



IT4021

2023_046_TEAM



COST BREAKDOWN

Item Name	Cost (LKR)
830 Tie Points Breadboard	Rs. 400.00
Frasers 9 Steering Gear SG90 9g Towerpro Servo 25cm	Rs. 590.00
DHT 11 v1.0 Sensor	Rs. 500.00
Micro SDHC Card 8GB	Rs. 1800.00
Other	Rs. 820.00
Total	Rs.4110.00



MEMBER CONTRIBUTION



Student ID	Student Name	Component
IT20457952	Samarakoon S.M.D.H.	Hardware Implementation
IT20033828	Ariyasinghe P.A.D.N.I.	Data Visualization
IT20206246	Samarasinghe S.A.K.S.	Humidity Prediction
IT20043650	Dahanayake U.S.	Node-Red and MQTT Implementation

THANK YOU!

