Mahidol University

ITCS446 Embedded Systems and Applications

RPI and ESP32 for Humidity and Temperature Monitoring Utilizing DHT10 to Control Temperature with DCMotor

Group K

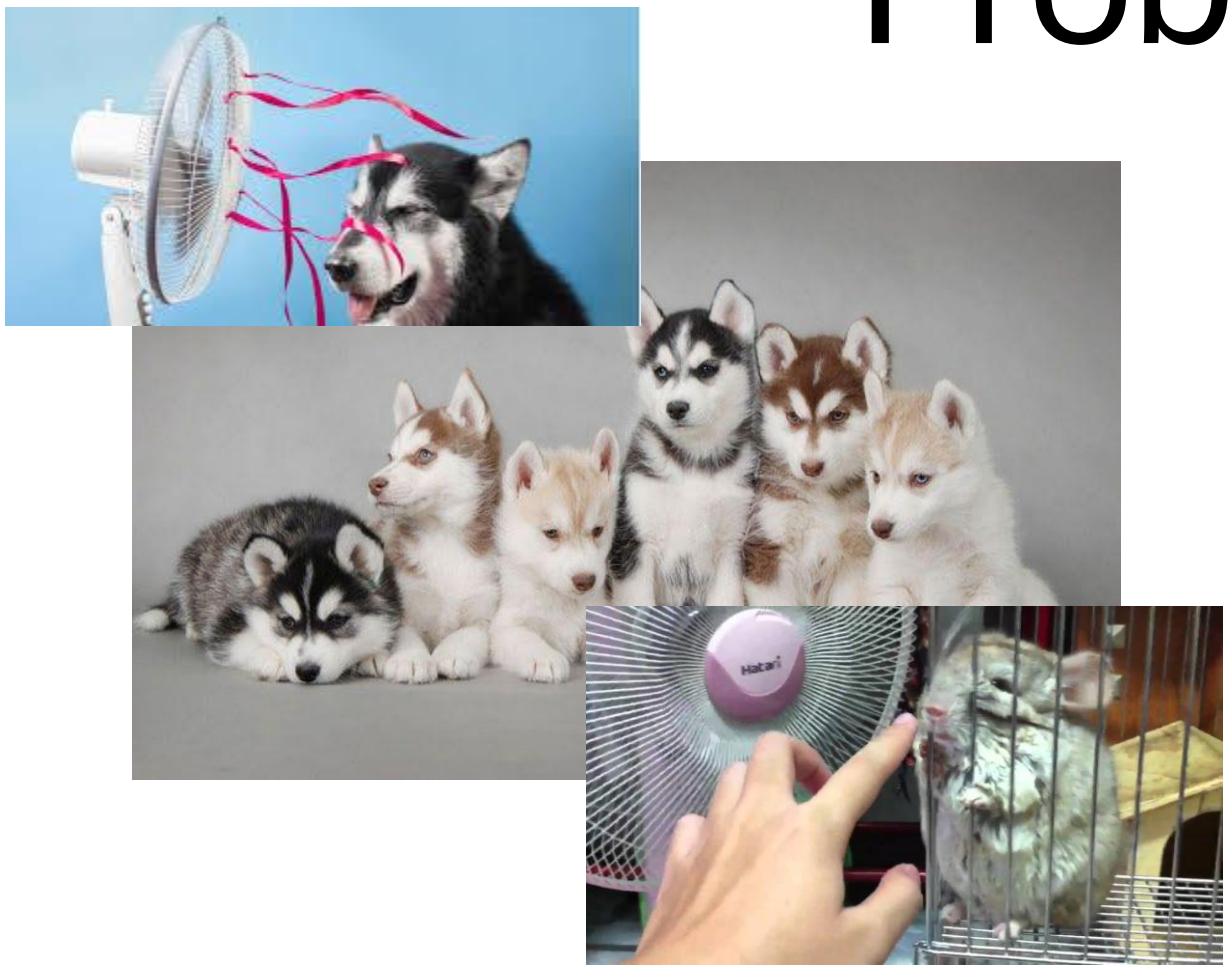
Peerapat Potch-a-nant 6088126

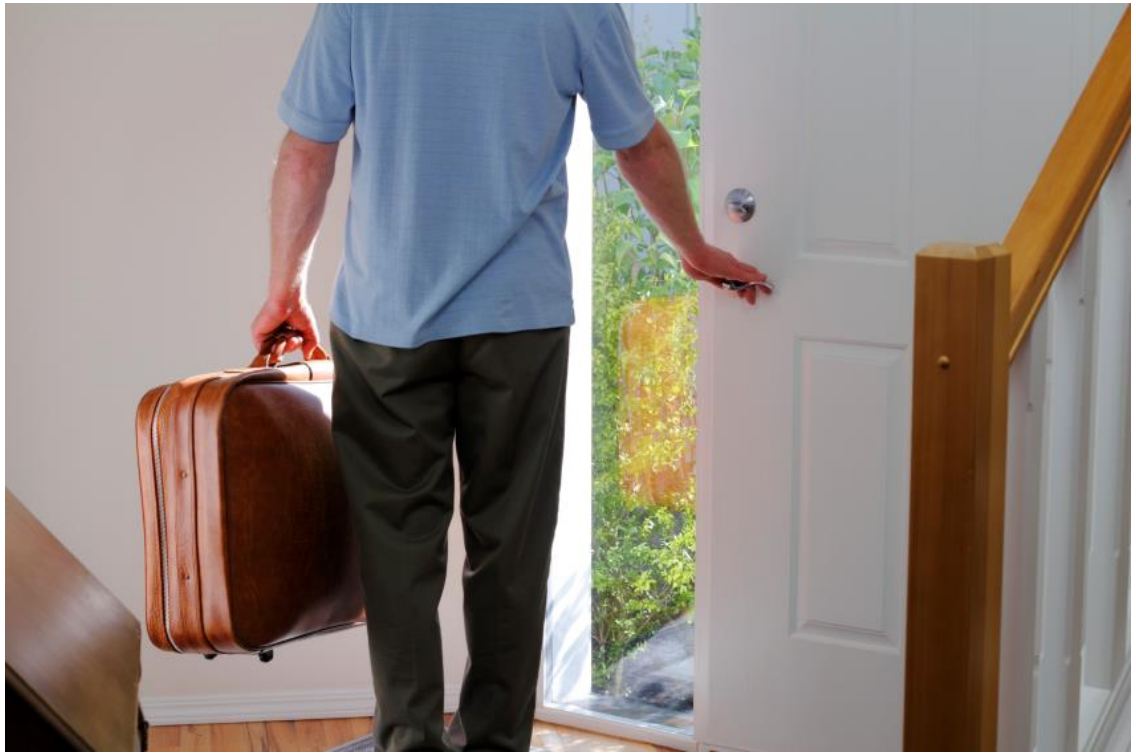
Sunat Praphanwong 6088130

Wisdom of the Land

Mahidol University

Problem





Mahidol University

Objective(s)

Monitor humidity and temperature overtime

Toggle DCMotor when the temperature is high

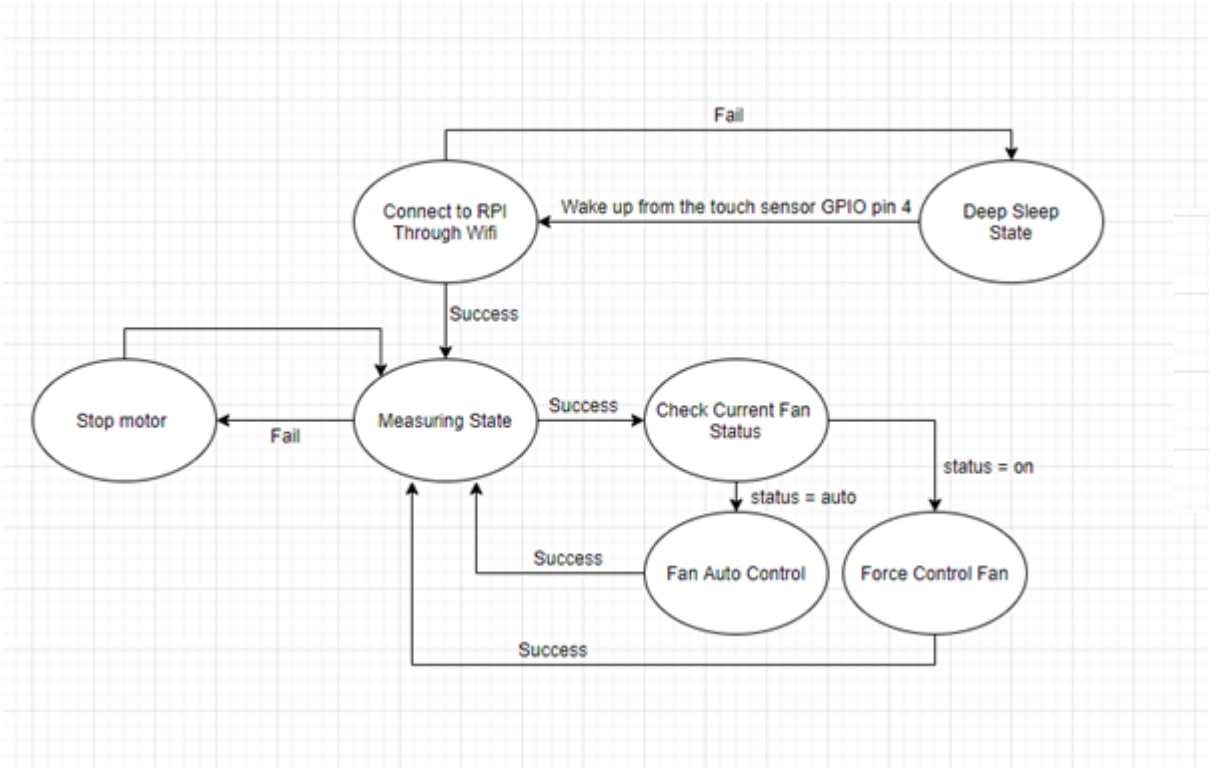
Mahidol University

Scenarios

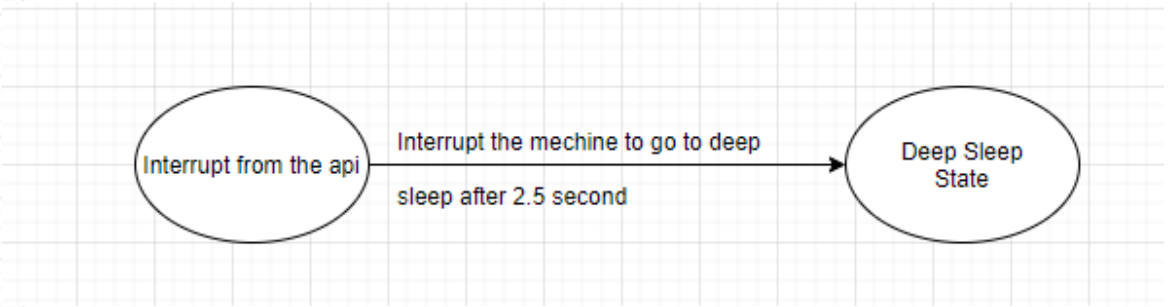
When there is in need for temperature and humidity monitoring over a period of time, and you are not available in the area for several hours. This creation allows you to measure the humidity and temperature on your phone using Blynk application or Node-Red web application. Moreover, you can control the DCMotor to on, off or auto state to control the temperature around the area.

Mahidol University

Project Design



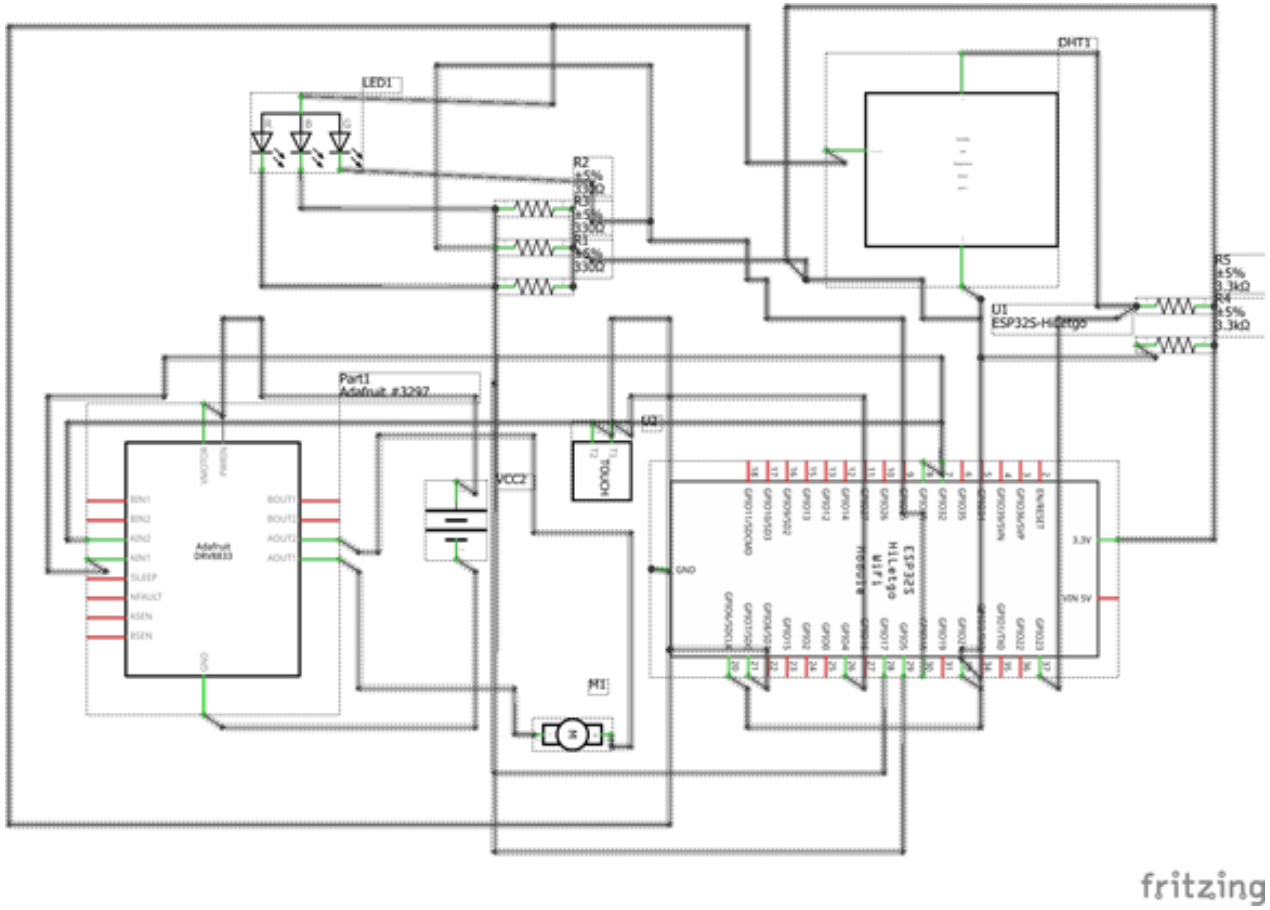
Idle State



Interruption

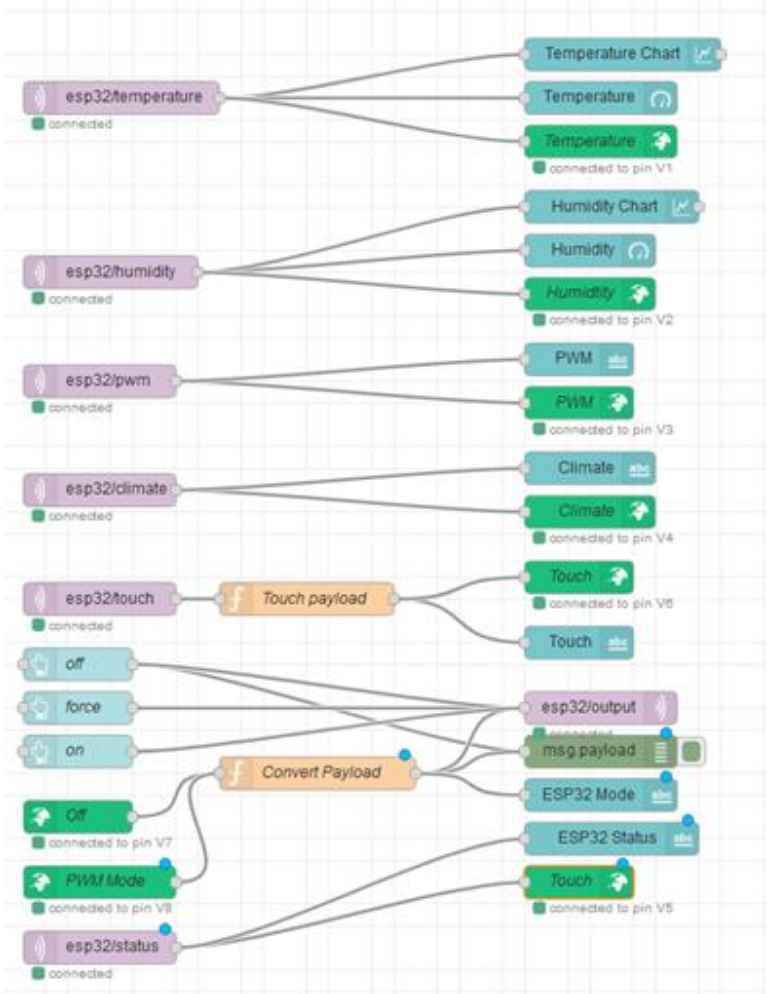
Mahidol University

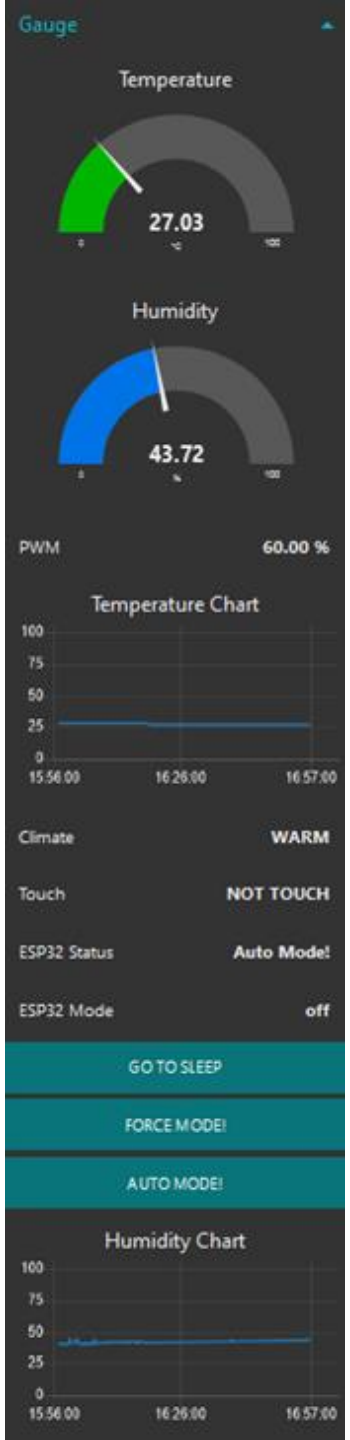
Circuit Schematic



Mahidol University

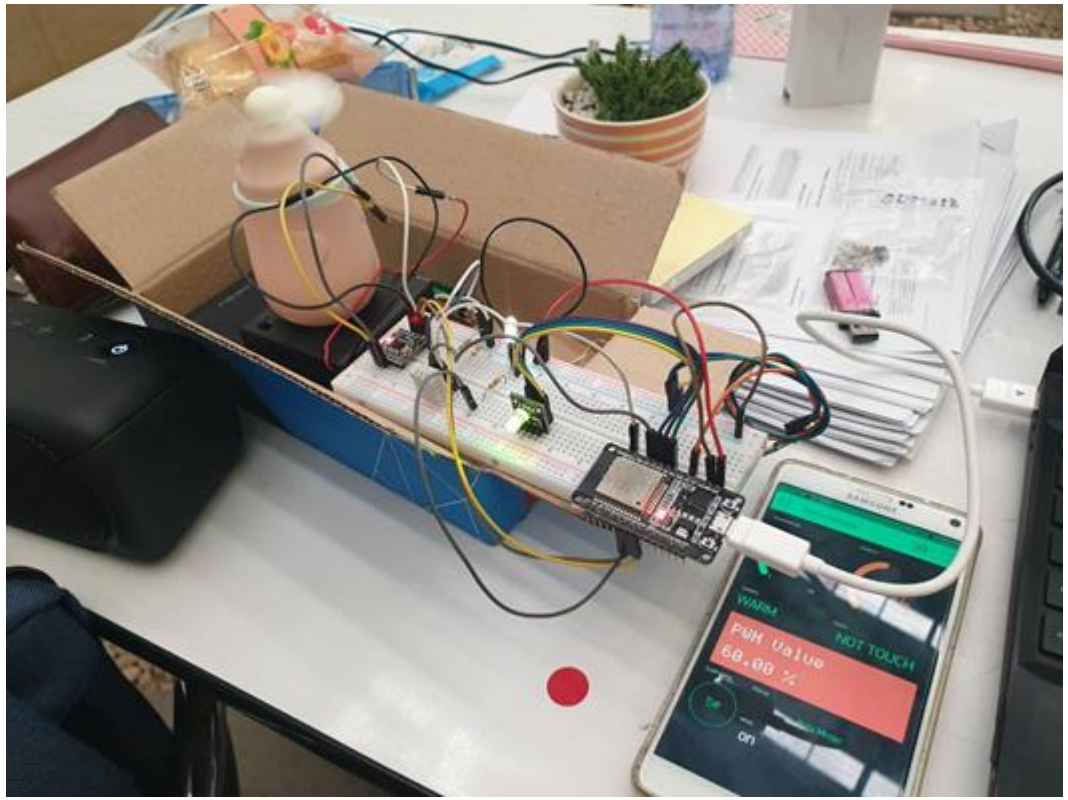
Node-RED





Mahidol University

Circuit in the real-world



Mahidol University

Blynk