Project Development Phase
Sprint 1

Date	29 October 2022
Team ID	PNT2022TMID04334
Project Name	Gas leakage monitoring and alerting system for industries

Sprint 1:

Gas leakage is monitored continuously.

Values are monitored with temperature and humidity values too.

Code:

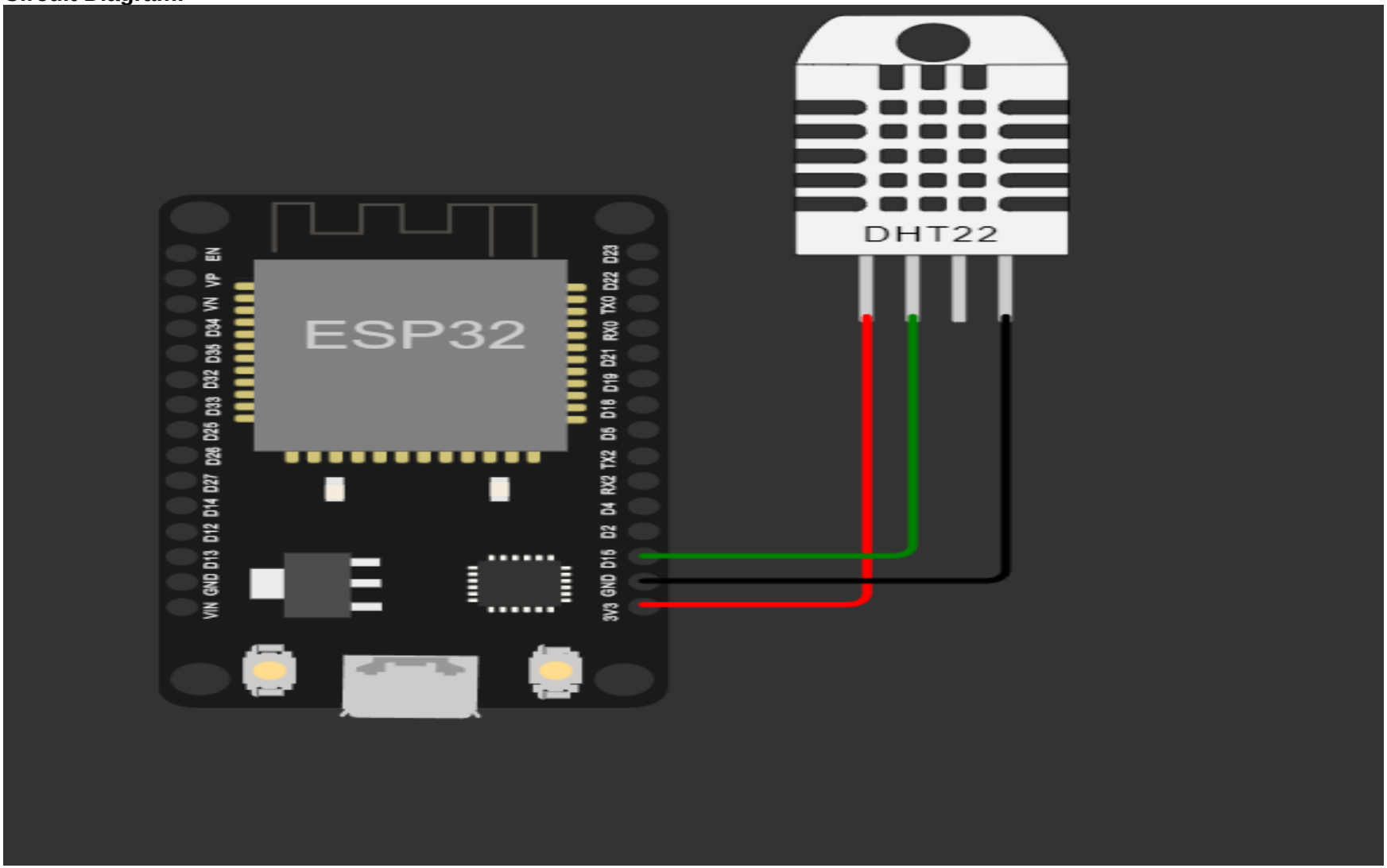
```
#include <WiFi.h>
#include <PubSubClient.h>
#include "DHTesp.h"
#include<stdio.h>
#include <stdlib.h>
const int DHT_PIN = 15;
DHTesp dhtSensor;
int gas;

void setup()
{
  Serial.begin(115200);
  dhtSensor.setup(DHT_PIN, DHTesp::DHT22);
  pinMode(LED, OUTPUT);
  delay(10);
```

```
  wificonnect();
  mqttconnect();
}
void loop()
{
    TempAndHumidity  data = dhtSensor.getTempAndHumidity();
    gas=random(10000);
    Serial.println("Temp: " + String(data.temperature, 2) + "°C");
    Serial.println("Humidity: " + String(data.humidity, 1) + "%");
    Serial.println("gas_val " + String(gas));

}

void wificonnect()
{
  Serial.println();
  Serial.print("Connecting to ");
  WiFi.begin("Wokwi-GUEST", "", 6);
  while (WiFi.status() != WL_CONNECTED)
  {
    delay(500);
    Serial.print(".");
  }
  Serial.println("");
  Serial.println("WiFi connected");

}
}
```

Diagram.json:

```
{
  "version": 1,
  "author": "HARISH M 19CSR055",
  "editor": "wokwi",
  "parts": [
    { "type": "wokwi-esp32-devkit-v1", "id": "esp", "top": 0, "left": 0, "attrs": {} },
    {
      "type": "wokwi-dht22",
      "id": "dht1",
      "top": -66.38,
      "left": 132.82,
      "attrs": { "humidity": "41.5", "temperature": "80" }
    }
  ],
  "connections": [
    [ "esp:TX0", "$serialMonitor:RX", "", [] ],
    [ "esp:RX0", "$serialMonitor:TX", "", [] ],
    [ "dht1:VCC", "esp:3V3", "red", [ "v109.5", "h-43.84" ] ],
    [ "dht1:SDA", "esp:D15", "green", [ "v0" ] ],
    [ "dht1:GND", "esp:GND.1", "black", [ "v0" ] ],
    [ "r1:2", "esp:D2", "green", [ "v0" ]
  ]
}
```

Circuit Diagram:



Thus sprint 1 has been completed successfully