Sprint 1

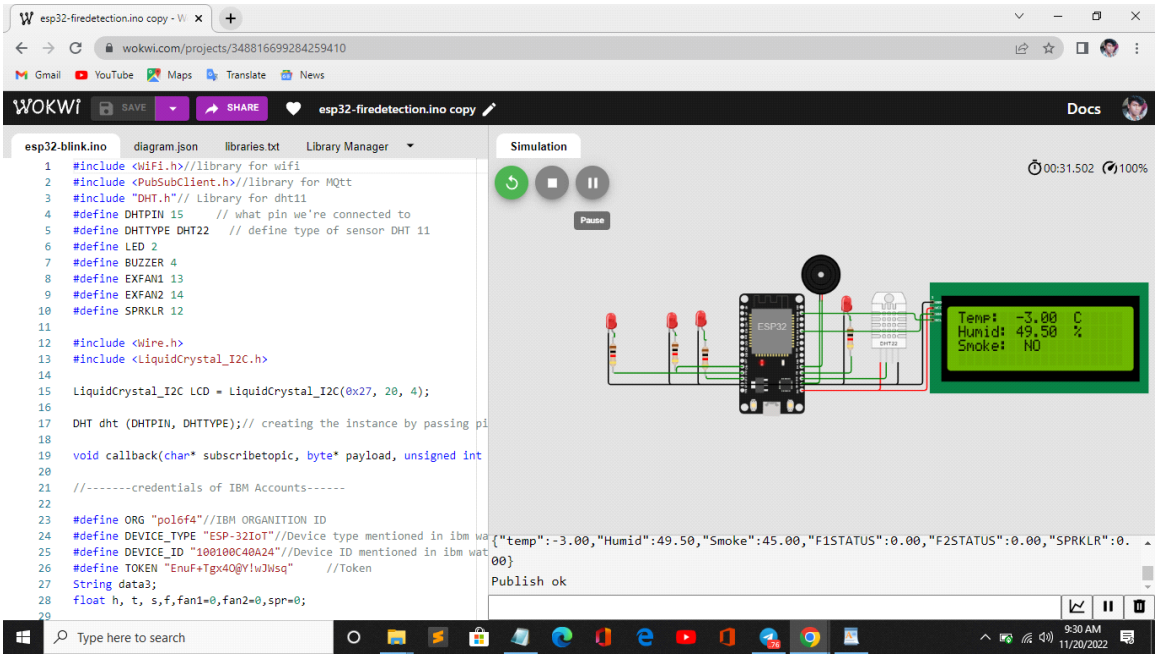
Team ID	PNT2022TMID29259
Project Name	Industry-specific Intelligent Fire Management System

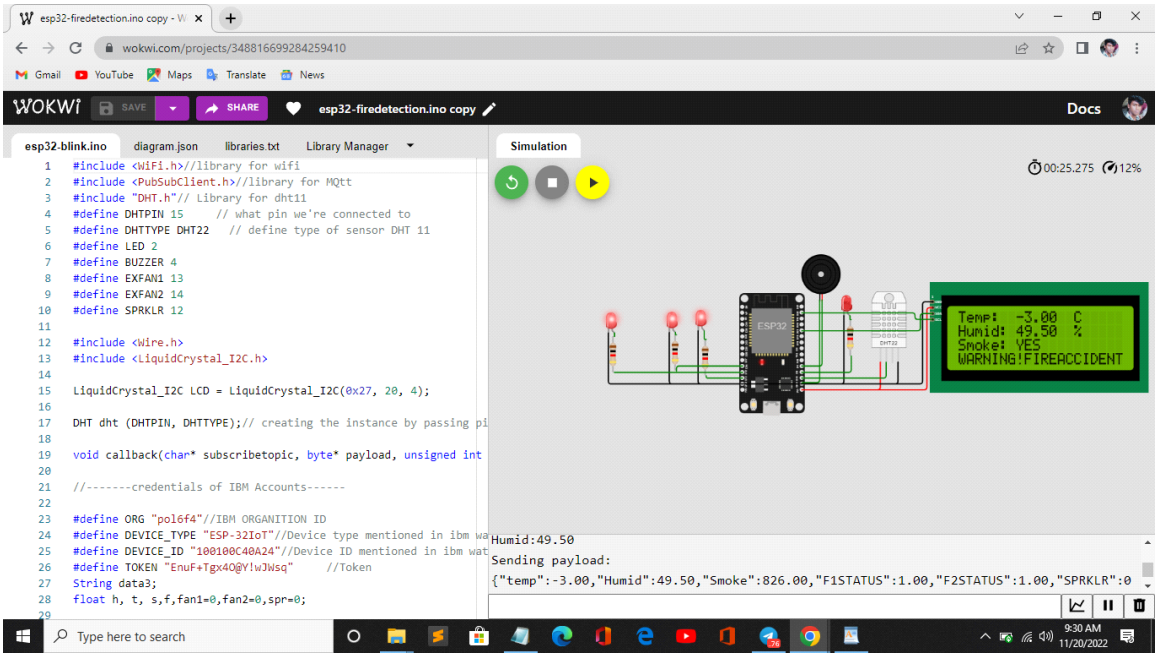
Sprint 1 – CODING

```
#include <WiFi.h>
#include "DHT.h"
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
#define DHTPIN 15
#define DHTTYPE DHT22
#define LED 2
#define BUZZER 4
LiquidCrystal_I2C LCD = LiquidCrystal_I2C(0x27, 20, 4);
DHT dht (DHTPIN, DHTTYPE);
void setup()
{
Serial.begin(115200);
dht.begin();
pinMode(LED,OUTPUT);
pinMode(BUZZER,OUTPUT);
digitalWrite(LED,LOW);
digitalWrite(BUZZER,LOW);
delay(10);
Serial.println();
wificonnect();
mqttconnect();
LCD.init();
LCD.backlight();
LCD.setCursor(0, 0);
LCD.print("Connecting to ");
LCD.setCursor(0, 1);
LCD.print("WiFi ");
delay(1000);
LCD.clear();
}
void loop()
{
LCD.setCursor(0,2);
LCD.print("Smoke: ");
LCD.setCursor(0, 0);
LCD.print("Temp: ");
LCD.setCursor(14, 0);
LCD.print("C");
LCD.setCursor(0, 1);
LCD.print("Humid: ");
LCD.setCursor(14, 1);
```

```
LCD.print("%");
h = dht.readHumidity();
t = dht.readTemperature();
f = random(0,1023);
if (f>300)
{
Serial.print("Smoke: ");
Serial.println("Detected");
digitalWrite(LED,HIGH);
digitalWrite(BUZZER,HIGH);
LCD.setCursor(7, 2);
LCD.print("YES");
}
else{
Serial.print("Smoke: ");
Serial.println("Not Detected");
digitalWrite(LED,LOW);
digitalWrite(BUZZER,LOW);
LCD.setCursor(7, 2);
LCD.print(" NO");
}
Serial.print("temp:");
Serial.println(t);
LCD.setCursor(7, 0);
LCD.print(t);
Serial.print("Humid:");
Serial.println(h);
LCD.setCursor(7, 1);
LCD.print(h);
}
```

Sprint 1 Output – Display Values is LCD





For Smoke sensor random Analog-values are generated for ADC range from 0 to 1023.

Wokwi Link: https://wokwi.com/projects/348816699284259410