Sprint-2

Team ID : PNT2022TMID20269
Project Title : Industry-specific intelligent fire management system

Project Development - Delivery Of

CODE:

```
int LED_PIN = 2; // the current reading from the input pin and
int Motor_PIN= 12;//Pin for ventilation fan
const int mq2 = 4;
int value = 0;
//Flame
int flame_sensor_pin = 10 ;// initializing pin 10 as the sensor digital
output pin
int flame_pin = HIGH ; // current state of sensor
#define PIN_LM35 39
#define ADC_VREF_mV 3300.0
#define ADC_RESOLUTION 4096.0
void setup()
{
Serial.begin(115200);
pinMode(LED_PIN, OUTPUT);
pinMode(mq2, INPUT);
pinMode ( flame_sensor_pin , INPUT ); // declaring sensor pin as input
pin for Arduino
pinMode(BUZZER_PIN, OUTPUT);
}
void temperature()
{
int adcVal = analogRead(PIN_LM35);
float milliVolt = adcVal * (ADC_VREF_mV / ADC_RESOLUTION);
float tempC = milliVolt / 10;
Serial.print("Temperature: ");
Serial.print(tempC);
Serial.print("°C");
if(tempC > 60)
{
Serial.println("Alert");
digitalWrite(Motor_PIN, HIGH); // turn on
}
else
{
digitalWrite(Motor_PIN, LOW); // turn off
}
}
void GasSensors()
{int gassensorAnalogmq2 = analogRead(mq2);
Serial.print("mq2 Gas Sensor: ");
```

```
Serial.print(gassensorAnalogmq2);
Serial.print("\t");
Serial.print("\t");
Serial.print("\t");
if (gassensorAnalogmq2 > 1500)
{
Serial.println("mq2Gas");//message to user
Serial.println("Alert");
}
else
{
Serial.println("No mq2Gas");//message to user
}
}
void flamesensor()
{
flame_pin = digitalRead ( flame_sensor_pin ) ; // reading from the
sensor
if (flame_pin == LOW ) // applying condition
{
Serial.println ( " ALERT: FLAME DETECTED" ) ;
digitalWrite ( Motor_PIN , HIGH ) ;// if state is high, then turn
high the BUZZER
}
else
{
Serial.println ( " NO FLAME DETECTED " ) ;
digitalWrite ( Motor_PIN , LOW ) ; // otherwise turn it low
}
}
void loop()
{
temperature();
GasSensors();
flame
```