Sprint-2

Team ID : PNT2022TMID51404

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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
```