



FIRE DETECTION

WITH SMS&CALL

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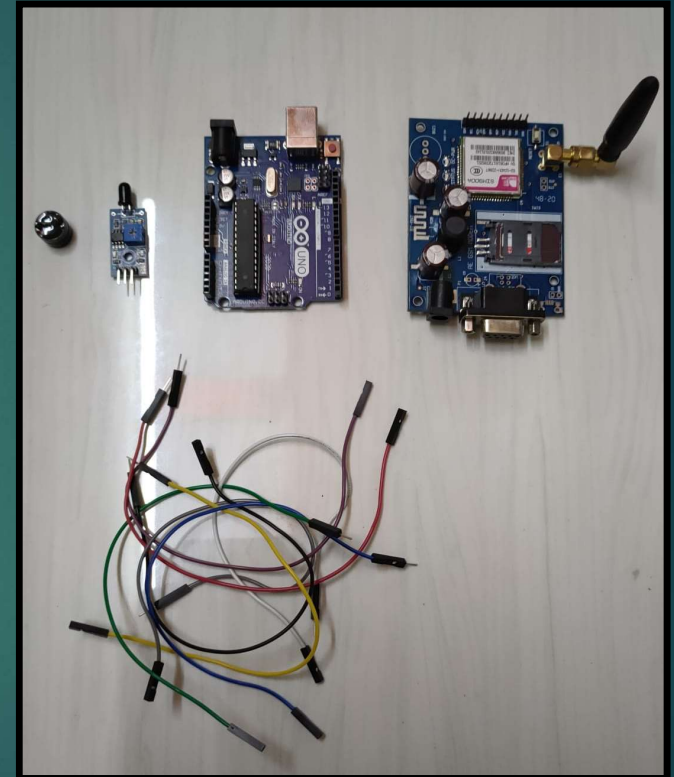
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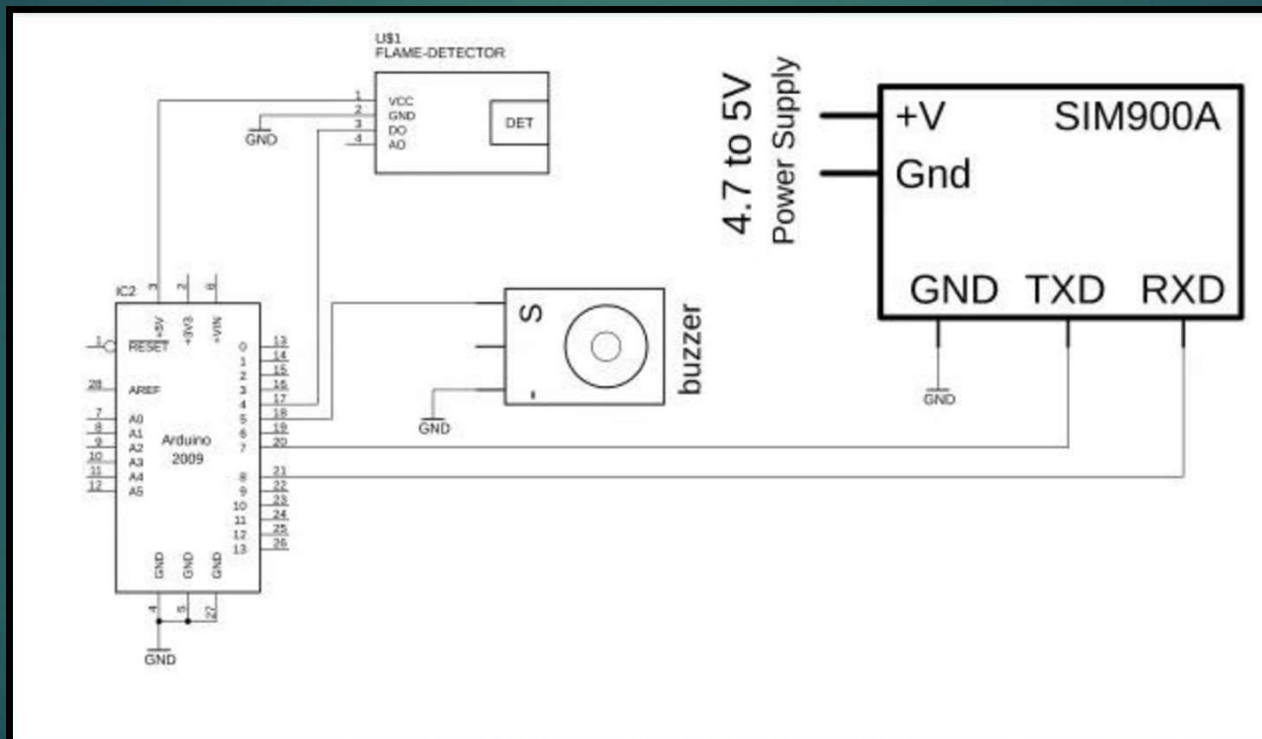
AIM: To Develop an IOT based fire detector of flame sensor and sms system by using Arduino Uno Board

Components Required

1. BUZZER
2. FIRE SENSOR
3. ARDUINO UNO
4. JUMPER WIRES
5. GSM SIM 900A



CIRCUIT DIAGRAM



Sketch

```
const int buzzerPin = 12;
const int flamePin = 11;
int Flame = HIGH;
void setup()
{
  pinMode(buzzerPin, OUTPUT);
  pinMode(flamePin, INPUT);
  Serial.begin(9600);
}
```

Contd

```
void loop()
{
  Flame = digitalRead(flamePin);
  if (Flame== LOW)
  {
    Serial.println("ATD+91XXXXXXXXXX;");
    digitalWrite(buzzerPin, HIGH);
    Serial.println("AT+CMGF=1");
    delay(1000); // Delay of 1 second
```

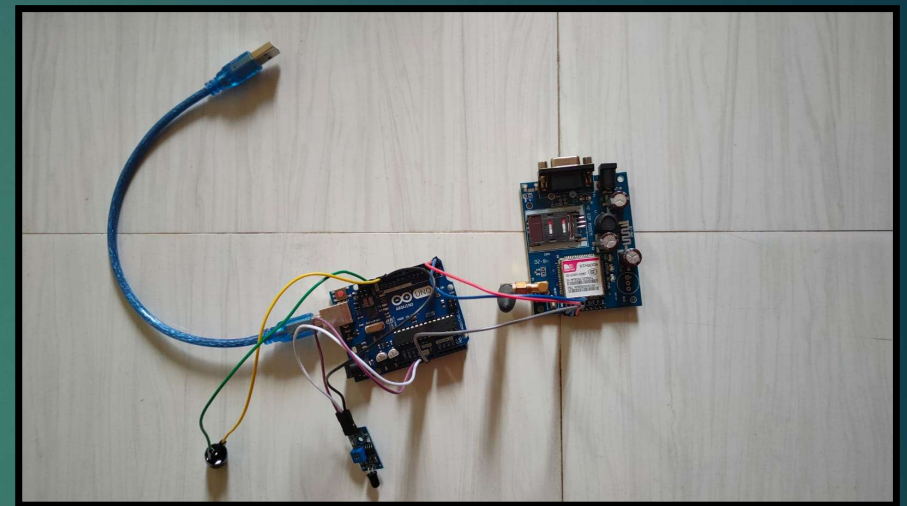


contd

```
Serial.println("AT+CMGS=\"+XXXXXXXXXXXXX\"\\r");
Serial.println("FIRE IN THE HOUSE");
Serial.println((char)26);
    delay(100);
    Serial.println("ATDXXXXXXXXXX;");
}
else
{
    digitalWrite(buzzerPin, LOW);
}
}
```


IMPLEMENTATION:

- ▶ BUZZER : 12 in Arduino and gnd
- ▶ Flame sensor : d0 to 11 in Arduino
gnd to gnd
vcc to 5v
- ▶ Gsm : rx to tx in Arduino (Receive data)
tx to rx in Arduino (Transmit data)
Gnd to gnd



APPLICATIONS:

- ▶ SMS based Fire Alarm system are very useful in remote locations where human interaction is limited.
- ▶ It helps to monitor locations and alert during fire that occurs in night time.

Following are the places where we can make use of this system are

- Hydrogen stations
- Combustion monitors for burners
- Oil and gas pipelines
- Aircraft hangars
- Turbine enclosures etc.....

Conclusion

- This project has been made in order to help a place to overcome the problem which is fire spreading.
- This device can be applied in varied areas due to its flexibility and simplicity in handling.

REFERENCE:

- ▶ YOUTUBE :

<https://www.youtube.com/watch?v=EJocRyOCtB8&list=LL&index=6>

- ▶ GOOGLE:

[https://www.circuitstoday.com/gsm-based-fire-alarm-system-using-arduino#:~:text=The%20objectives%20of%20this%20fire,detected%20\(using%20GSM%20Module\)](https://www.circuitstoday.com/gsm-based-fire-alarm-system-using-arduino#:~:text=The%20objectives%20of%20this%20fire,detected%20(using%20GSM%20Module))

THANK YOU!