



WRITE-UP

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exp.

Flame Sensor

APM

Design an alert system using flame sensor (temp sensor).

Hardware Required

Arduino Board

Breadboard Small

Pinzo

Temp. sensor.

Code

```
const int temperaturePin = 0;  
int buzzer = 12;
```

```
void setup()
```

```
{
```

```
  pinMode(buzzer, OUTPUT);
```

```
}
```

```
void loop()
```

```
{
```

```
  float voltage, degreesC;
```

```
  voltage = getVoltage(temperaturePin);
```

```
  degreesC = (voltage - 0.5) * 100.0;
```

```
  if (degreesC > 37)
```

```
  {  
    digitalWrite(buzzer, LOW);
```

```
    tone(12, 1000, 100);
```

```
  }
```

```
}
```

```
float getVoltage (int pin)
{
    return ( analogRead (pin) * 0.004882814);
}
```

CODE

```
const int temperaturePin = 0;
```

```
int buzzer = 12;
```

```
void setup()
```

```
{
```

```
    Serial.begin (9600);
```

```
    pinMode(buzzer, OUTPUT);
```

```
    pinMode(9, OUTPUT);
```

```
}
```

```
void loop()
```

```
{
```

```
float voltage, degreesC;  
voltage = getVoltage(temperaturePin);  
degreesC = (voltage-0.5)*100.0;
```

```
if(degreesC < 37)  
{  
    Serial.print(degreesC);  
    Serial.println(" SAFE!");  
}
```

```
if(degreesC > 37)  
{  
    Serial.print(degreesC);  
    Serial.println("FIRE !!!");  
    digitalWrite(9, HIGH);  
    digitalWrite(buzzer, LOW);  
    tone(12, 10000,100);  
    delay(100);  
}
```

```
}
```

```
float getVoltage(int pin)
{
    return (analogRead(pin) * 0.004882814);
}
```

OUTPUT

Designed an alert system using flame sensor.