Lab 4 : Program 9

Date: 7/10/20
Experiment : Flame Sensor
Aim: To detect flames using flame sensor

Hardware:

- Arduino Uno
- Flame Sensor
- LED
- Buzzer
- Resistor 220 Ohm

Source :

```
int led = 13 ;
int buzzer = 12;
int sensor = A0 ;

void setup()
{
  pinMode(led, OUTPUT);
  pinMode(buzzer,OUTPUT);
  Serial.begin(9600);
}

void loop()
{
   int temp = analogRead(sensor);
    temp = (temp * 0.4854369) - 49.271845 ;
   Serial.println((String)"TEMPERATURE = "+temp+" *C ");

  if(temp > 50)
  {
      while(temp>50)
      {
         digitalWrite(led, HIGH);
    digitalWrite(buzzer,HIGH);
    delay(1000);
```

```
    digitalWrite(led, LOW);
    digitalWrite(buzzer,LOW);
        temp = analogRead(sensor);
       temp = (temp * 0.4854369) - 49.271845 ;
      }
  }
   delay(1000);
}
```

Observation : LED glows and Buzzer makes noise when Flame is detected

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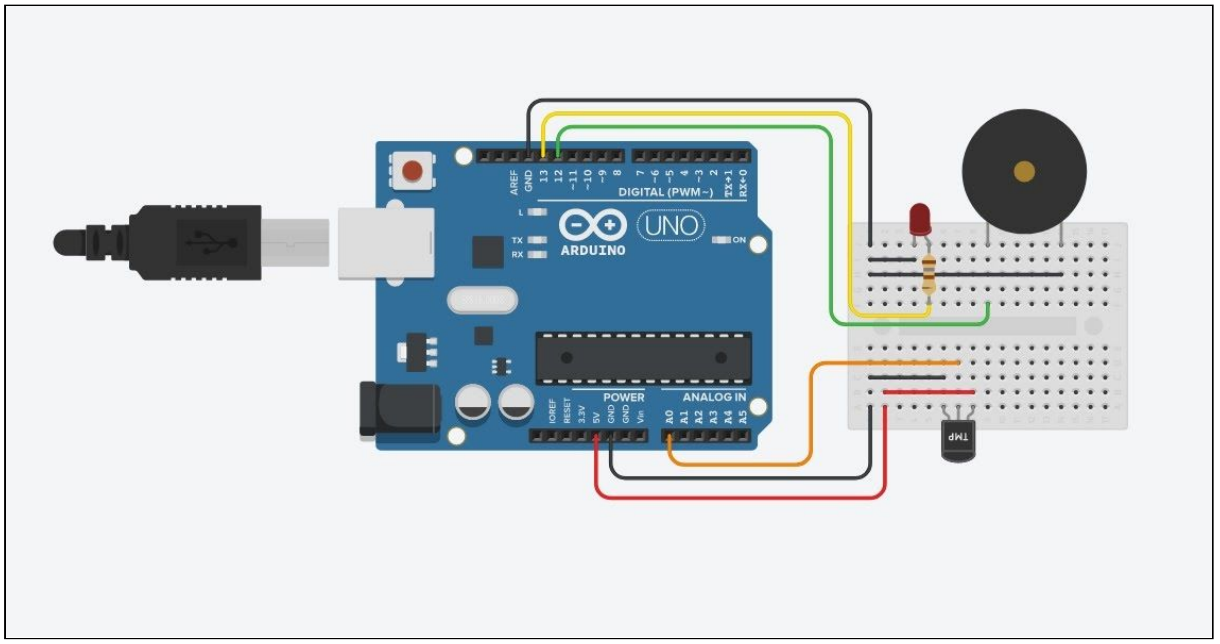
Circuit :



Write Up:

IOT Lab 4 — Flame detector — 7/10/20

Source Code

```
int led = 13;
int buzzer = 12;
int sensor = A0;

void setup()
{
   pinMode (led, OUTPUT);
   pinMode (buzzer, OUTPUT);
   Serial.begin (9600);
} pinMode

void loop()
{  int value = analogRead (sensor);
   value = (value /1024) *5;
   value = (value -      ) * 100 ;
   Serial.println ((String) " Temperature : " + value
                                  + "°C ");
   if (value > 50)
   {  while (value > 50)
      {  digitalWrite (led, HIGH);
         digitalWrite (buzzer, LOW);
         delay (500);
         digitalWrite (led, HIGH);
         digitalWrite (buzzer, LOW);
         temp = (analogRead (sensor) *
                                    -
      }                                    ;
   } else {
      digitalWrite (led, LOW);
      digitalWrite (buzzer, LOW);
   } delay (500);
}
```