ASSIGNMENT-1

OBJECTIVE:

Make a smart home in Tinkercad using 2+ sensors,LED, Buzzerin single code and circuit.

SUMMARY:

This project uses two sensors:

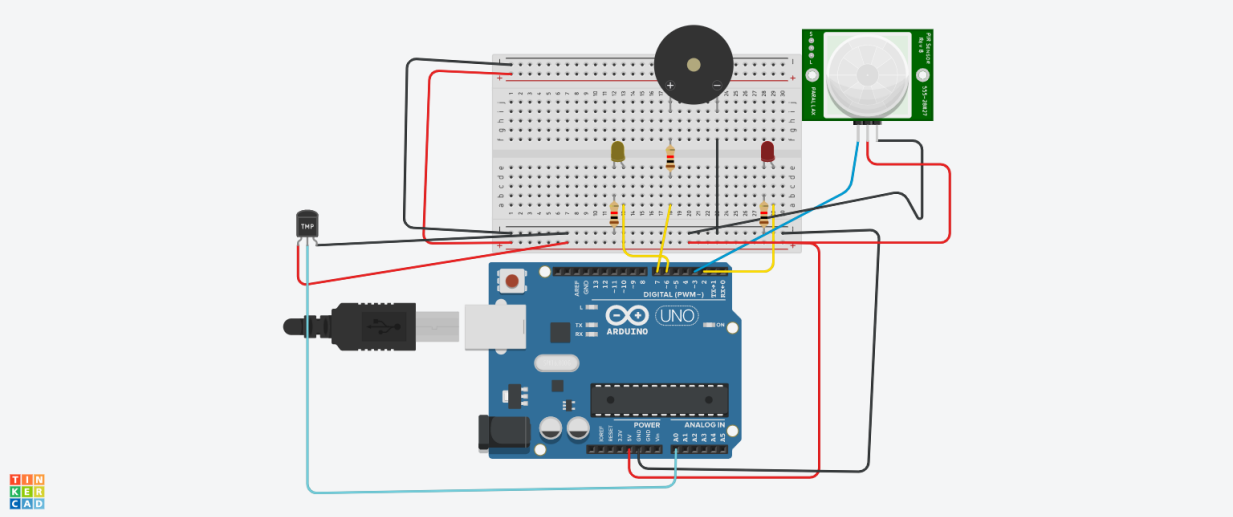
1.TEMPERATURE sensor: To detect the temperature and turn on the buzzer and light if it exceeds 60 degree Celsius(FIRE ALARM).

2.PIR sensor: To detect motion using pir sensor and turn on the light if motion exists.

CODE:

```
// C++ code


void setup()
{
    Serial.begin(9600);

   pinMode(7, OUTPUT);
   pinMode(2, OUTPUT);
   pinMode(6, OUTPUT);
   pinMode(A0,INPUT);
   pinMode(3,INPUT);

}

void loop()
{
   float celsius = map(((analogRead(A0) - 20) * 3.04), 0, 1023, -40,
125);//TEMPERATURE SENSOR(FIRE DETECTION)

    Serial.print(celsius);
    Serial.println(" C");

  if (celsius>=60)
  {
    Serial.println("*******TURNING ON THE FIRE ALARM AND LIGHT*******");
    digitalWrite(2,HIGH);
    tone(7, 220, 100);
  }
   delay(200);
   int pir = digitalRead(3); //PIR SENSOR(MOTION DETECTOR)
  if(pir == HIGH)
  {
    Serial.println("*******TURNING ON THE LIGHTS*******");
    digitalWrite(6,HIGH);
    delay(1000);
  }
```

```
  else if(pir == LOW)
  {
   Serial.println("*******TURNING OFF THE LIGHTS*******");
   digitalWrite(6,LOW);
  }
}
```



SIMULATION LINK:

https://www.tinkercad.com/things/7h3rHVjLryP-smarthome/editel?sharecode=RS96h4QxU-2cj8J19B4g8VSW3omR_pk8uSzrNQ41un8