

ASSIGNMENT 1

OBJECTIVE:

To simulate Smart Home Applications using Tinkercad with 2 sensors, LED, Buzzer in single code and circuit.

CODE:

```
float temp;

float vout;

float vout1;

int LED = 13;

int gasSensor;

int piezo = 7;

void setup()
{
  pinMode(A0,INPUT);
  pinMode(A1,INPUT);
  pinMode(LED,OUTPUT);
  pinMode(piezo,OUTPUT);
  Serial.begin(9600);
}

void loop()
{
  vout=analogRead(A1);
  vout1=(vout/1023)*5000;
  temp=(vout1-500)/10;
```

```
gasSensor=analogRead(A0);
if (temp>=80)
{ digitalWrite(LED,HIGH);
}
else
{
digitalWrite(LED,LOW);
}
if (gasSensor>=100)
{
digitalWrite(piezo,HIGH);
}
else
{
digitalWrite(piezo,LOW);
}
Serial.print("in DegreeC= ");
Serial.print(" ");
Serial.print(temp);
Serial.print("\t");
Serial.print("GasSensor= ");
Serial.print(" ");
Serial.print(gasSensor);
Serial.println();
delay(1000);
}
```

CIRCUIT DIAGRAM:

