ASSIGNMENT 1

OBJECTIVE:

Make a Smart Home in Tinkercad, using 2+ sensors, Led, Buzzer in single code and circuit.

CODE:

```
// C++ code
//
int trig=13;
int echo=12;
void setup()
{
  pinMode(trig,OUTPUT);
  pinMode(echo,INPUT);
  pinMode(11,INPUT);
  Serial.begin(9600);
  pinMode(10,OUTPUT);  // buzzer for temp
  pinMode(8,OUTPUT);  //led of ultrasonic
  pinMode(9,OUTPUT);   //led of pir
}


void loop()
{
```

```
double a=analogRead(A5);
Serial.print("adc value:");
Serial.println(a);
double v=a/1024;
double tvolt=v*5;  //  here 5 is in volt and thhiseqe for elect to temp volt
Serial.print("temp volt:");
Serial.println(tvolt);
double o=tvolt-0.5; //for octol and 0.5 for min volt for octal
double t=o*100;// this two eqe for volt to temp
Serial.print("temp is:");
Serial.println(t);
//delay(2000);
digitalWrite(trig,LOW);  //off
digitalWrite(trig,HIGH);
delayMicroseconds(10);
digitalWrite(trig,LOW);  // till this for trigger
float dur=pulseIn(echo,HIGH); // echo on
float dist=(dur*0.0343)/4;  //cm to m
Serial.println("distance:");
Serial.println(dist);  //ultra sonic
int m=digitalRead(11);
Serial.print("motion detected : ");
Serial.println(m);
if(t>=40)
{
```

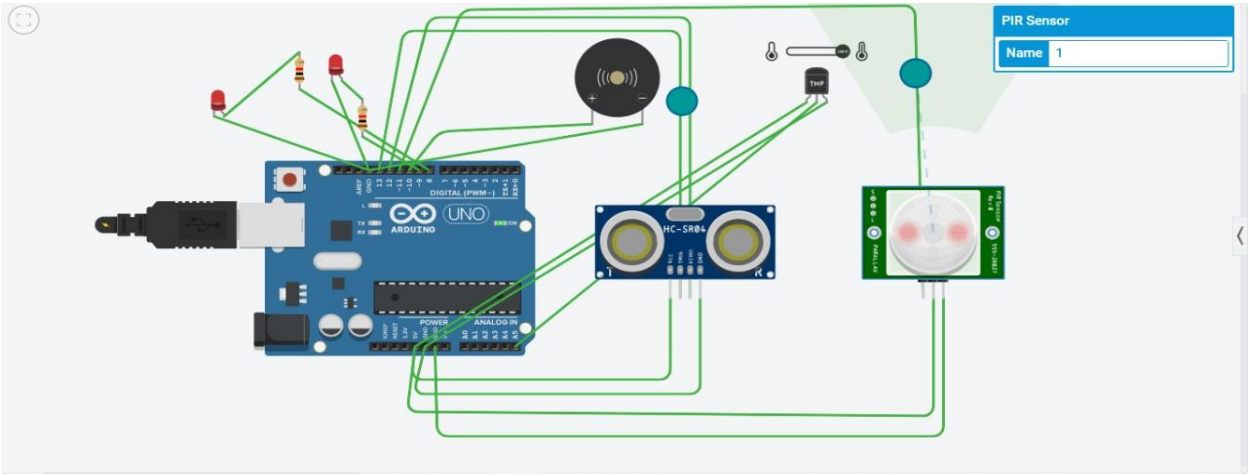
```
 Serial.println("********house on fire*****");
 digitalWrite(10,HIGH);//to get
}
else
{
 digitalWrite(10,LOW);
}
//delay(2000);

if(dist<=18)
{
 Serial.println("**please kindly turn on light and fan**");
 digitalWrite(8,HIGH);  //
}
else
{
 Serial.println("*****turn off light and fan****");
 digitalWrite(2,LOW);
}

if(m==1)
{
 Serial.println("*******open the cupboard******");
  digitalWrite(9,HIGH);
 delay(50);
```

```
 }
 else
 {
  Serial.println("********close the cupboard*****");
    digitalWrite(9,LOW);
 }
 delay(50);
}
```

OUTPUT:



STIMULATION LINK:

https://www.tinkercad.com/things/4P62geulvcp-terrific-bruticus-jaagub/editel