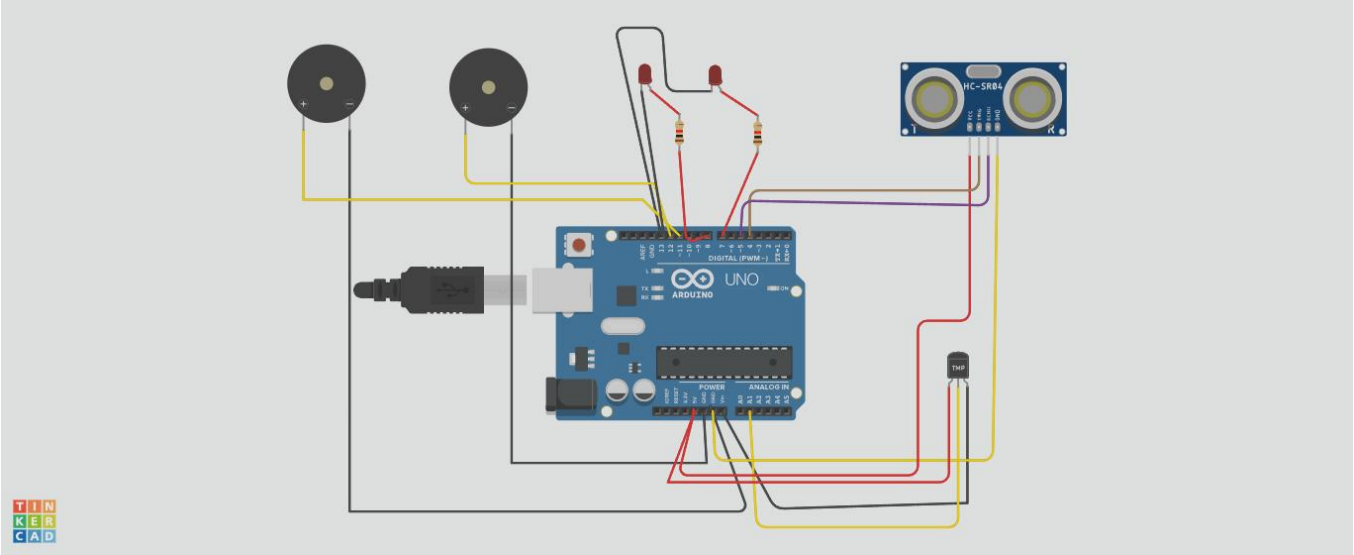
ASSIGNMENT-1

DOMAIN:IOT

TITLE:SMART HOME

SMART Home Circuit Connection:



Components Used:

i) 2 Piezo Buzzers

ii) Temperature Sensor

iii)Ultrasonic Sensor

iv) LED -2

V) Resistor-2

CODE:

```
int t=2;
int e=3;
void setup()
{
 Serial.begin(9600);
 pinMode(t,OUTPUT);
 pinMode(e,INPUT);
 pinMode(12,OUTPUT);
}
void loop()
{
 //ultrasonic sensor
 digitalWrite(t,LOW);
 digitalWrite(t,HIGH);
 delayMicroseconds(10);
 digitalWrite(t,LOW);
 float dur=pulseIn(e,HIGH);
 float dis=(dur*0.0343)/2;
 Serial.print("Distance is: ");
```

```
Serial.println(dis);


//LED ON
if(dis>=100)//(in terms of centimeter)
{
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}


//Buzzer For ultrasonic Sensor
if(dis>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
//Temperate Sensor
double a= analogRead(A0);
```

```
double t=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000);
//LED ON
if(t>=100)//(in terms of celsius)
{
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
//Buzzer for Temperature Sensor
if(t>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
//LED OFF
```

```
 if(t<100)
 {
 digitalWrite(8,LOW);
 digitalWrite(7,LOW);
 }
}
```

TINKERCAD LINK:

https://www.tinkercad.com/things/jbZI96Souwg-cool-krunk/editel?sharecode=iZOPRUsK8wYUcnAH0WVMm-xvOigE-mkMT6z2SYtwaOE