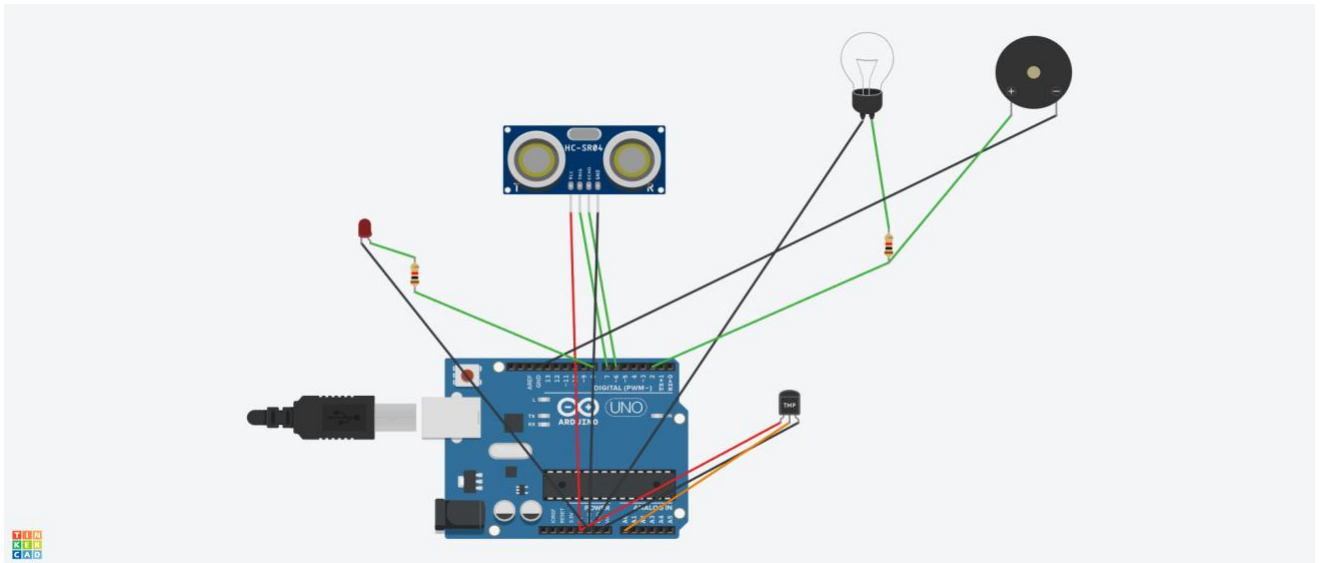


ASSIGNMENT-1

HOME AUTOMATION

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



Code:

```
// C++ code
```

```
#define t 7  
#define e 6  
#define bulb 2
```

```
void setup()  
{  
  Serial.begin(9600);  
  pinMode(t,OUTPUT);  
  pinMode(e,INPUT);  
  pinMode(12,OUTPUT);  
  pinMode(bulb,OUTPUT);  
}
```

```
void loop()  
{  
  //ultrasonic sensor  
  digitalWrite(t,LOW);  
  digitalWrite(t,HIGH);
```

```
delayMicroseconds(10);
digitalWrite(t,LOW);
float dur=pulseIn(e,HIGH);
float dis=(dur/2)*0.0343;
Serial.print("Distance is: ");
Serial.println(dis);
if(dis<100){
digitalWrite(bulb,HIGH);
}
else{
digitalWrite(bulb,LOW);
}
```

```
//Temperature Sensor
double a= analogRead(A0);
double temp=((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(temp);
delay(1000);
```

```
//LED ON
if(temp>=100)
{
digitalWrite(8,HIGH);
}
//LED OFF
if(temp<100)
{
digitalWrite(8,LOW);
}
}
```