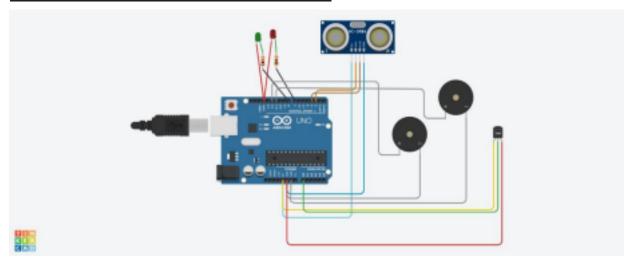
ASSIGNMENT 1

ASSIGNMENT DATE	24-SEP-2022
STUDENT NAME	UPPALAMURTHY SHASHANK
STUDENT ROLL NUMBER	111519104162
MAXIMUM MARK	2MARK

QUESTION:

Build a smart home in tinker cad use atleast 2sensors,led,buzzer in a circuit. simulate in a single code.

SMART Home Circuit Connection:



COMPONENTS

Quantity	Component
1	Arduino Uno R3
1	Red LED
1	Green LED
1	Temperature Sensor [TMP36]
1	Ultrasonic Distance Sensor
2	1 kΩ Resistor
2	Piezo

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)
  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);
```

```
if(t>=100)
  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);
}
```