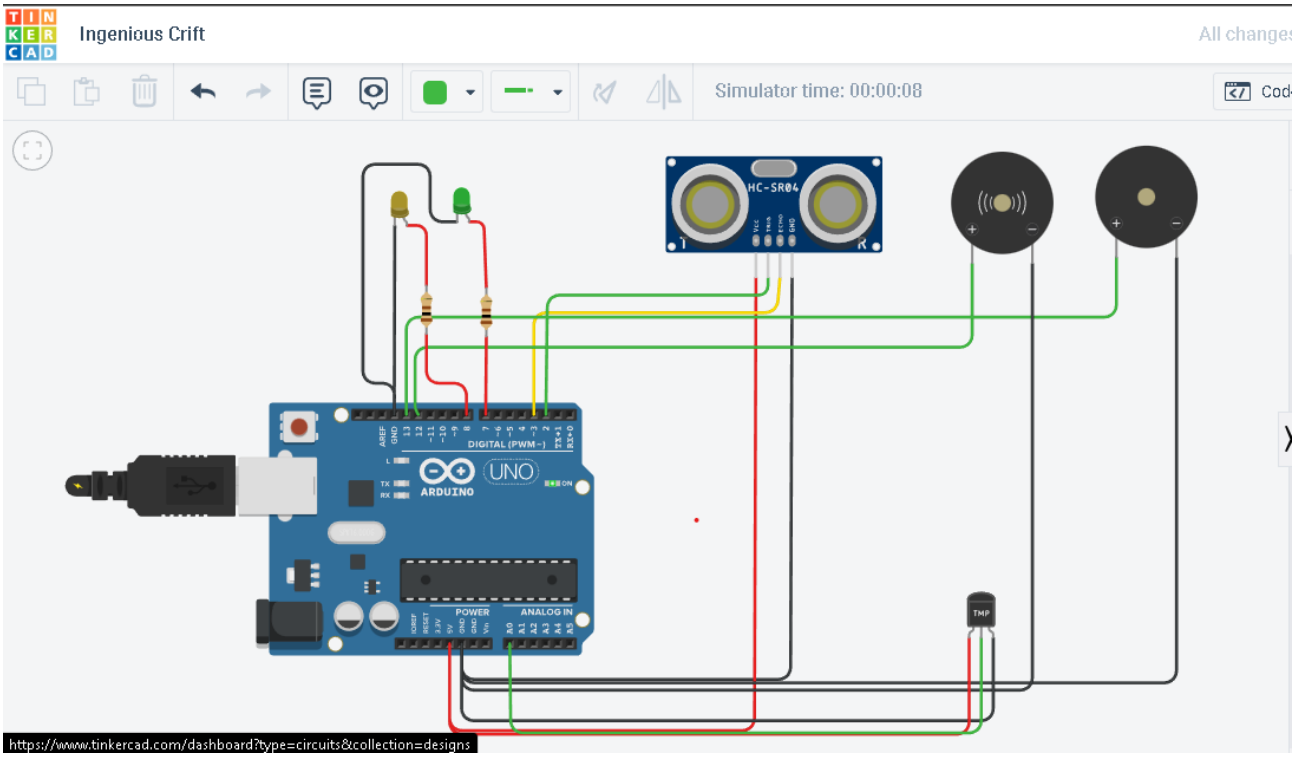
ASSIGMNENT-1

Title: Smart home

Circuit diagram:



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);

//LED ON

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);
        }
}
```