**PRINCE DR K VASUDEVAN COLLEGE OF ENGINEERING AND TECNOLOGY**

**Mambakkam - Medavakkam Main Rd, Ponmar, Chennai, Tamil Nadu 600127**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
**ASSIGNMENT -1**

| Assignment Date | 19 September 2022 |
|---|---|
| Student Name | Mr. Manoj Kumar.S |
| Student Roll Number | 411619104015 |
| Maximum Marks | 2 Marks |

## QUESTION:

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

## SOLUTION:

```
int t=2;
int e=3;
void
setup()
{
  Serial.begin(9600);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);
  pinMode(12,OUTPUT);
}
void loop()
{
  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);
if(dis>=100)
{
 digitalWrite(8,HIGH);


 digitalWrite(7,HIGH);
}
if(dis>=100)
{
   for(int i=0; i<=30000; i=i+10)
{
  tone(12,i);
  delay(1000);
  noTone(12);
  delay(1000);
 }
 }
 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)
   ;
 }
 if(t>=100)
 {
   for(int i=0; i<=30000; i=i+10)
   {
```

```
tone(12,i);

delay(1000);

noTone(12);

delay(1000);

}

}

if(t<100)

{

    digitalWrite(8,LOW);

    digitalWrite(7,LOW);

}

}
```
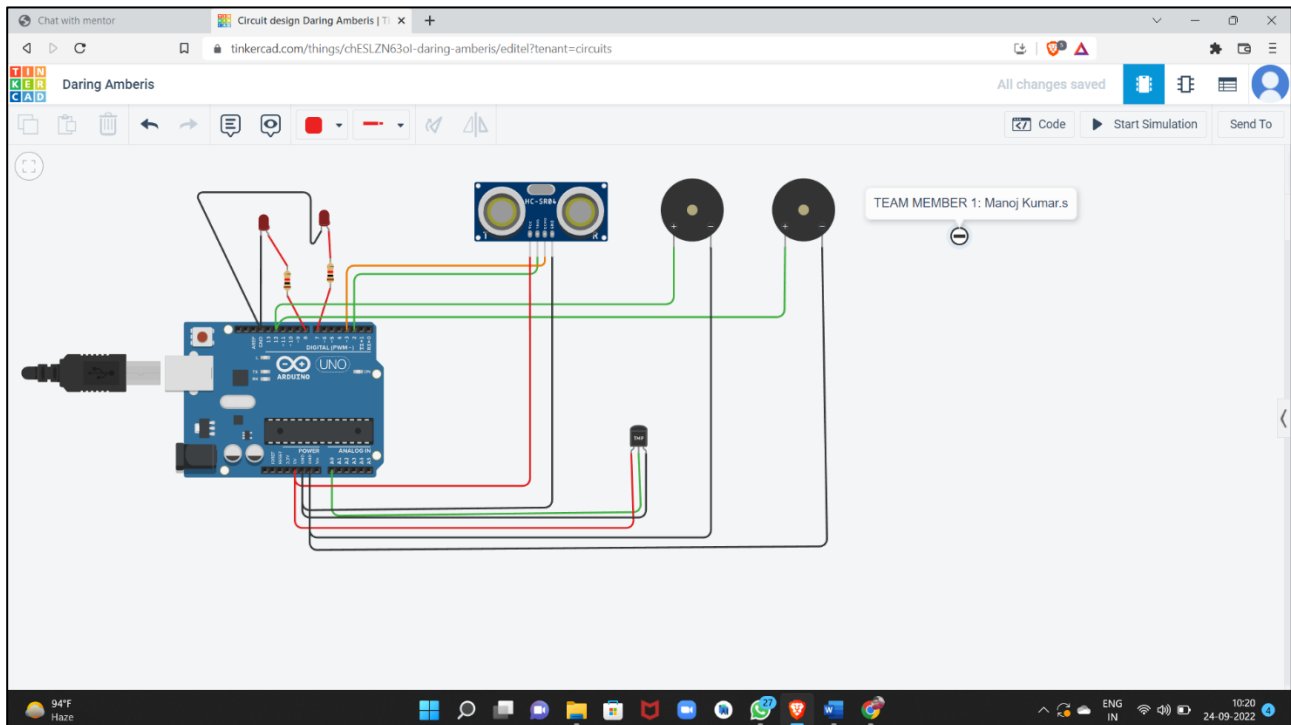
## OUTPUT:



**FEGURE 1**: HOME AUTOMATION USING ARUDINO