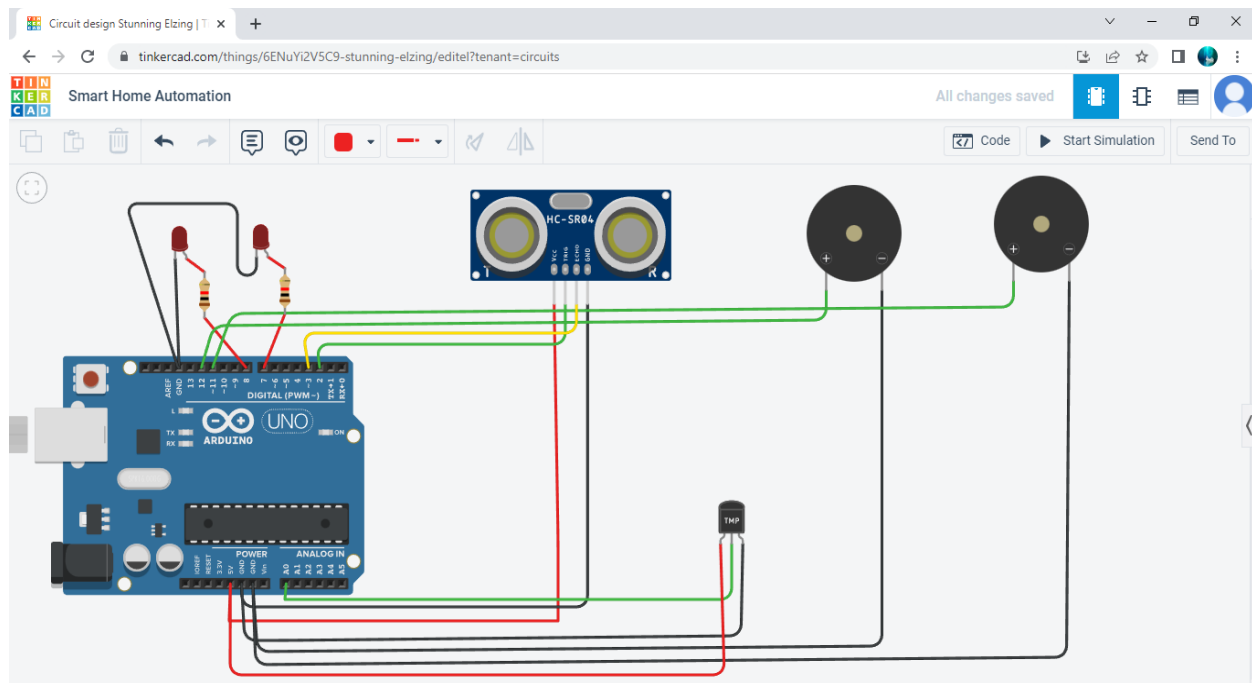# SMART HOME AUTOMATION

M.ARFIYA

REG NO:960219106031

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);

  }

 }
```

Tinkercad link:

https://www.tinkercad.com/things/6ENuYi2V5C9