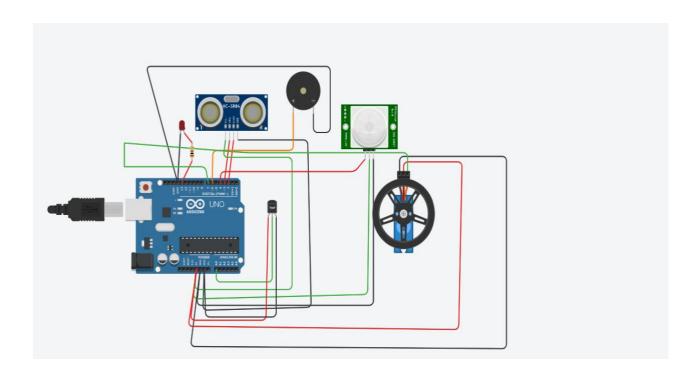# HOME AUTOMATION

PROGRAM:

#include<Servo.h>

Servo s;

int t=3;

int e=2;

int i=4;

void setup()

```
{
  Serial.begin(9600);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);
  pinMode(i,INPUT);
  pinMode(6,OUTPUT);
  pinMode(13,OUTPUT);
  pinMode(7,OUTPUT);
  s.attach(7);
}
void loop()
{
  digitalWrite(t,LOW);
  digitalWrite(t,HIGH);
  delayMicroseconds(10);
  digitalWrite(t,LOW);
  float dur=pulseIn(e,1);
  float dis=(dur*0.0343)/2;
  Serial.print("Distance:");
  Serial.println(dis);
  if(dis<50)
```

```arduino
{
 digitalWrite(13,1);
 delay(1000);
int p=digitalRead(4);
Serial.print("Door status:");
Serial.println(p);
for(int j=p;j==1;j++)
{
  tone(6,j);
  delay(1000);
  noTone(6);

}
double a=analogRead(A0);
double c=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(c);
Serial.print("\n");
 if(c>90)
 {
   s.write(0);
```

```
        delay(1000);

        s.write(7);

        delay(1000);

        s.write(135);

        delay(1000);

        s.write(180);

        delay(1000);

    }

}

 else

{

  digitalWrite(13,0);

 delay(1000);

    }

}
```