

HOME AUTOMATION

PROGRAM:

```
#include<Servo.h>

Servo s;

int t=2;

int e=3;

int l=11;


void setup()

{

  pinMode(t,OUTPUT);

  pinMode(e,INPUT);

  pinMode(l,OUTPUT);

  pinMode(13,OUTPUT);

  pinMode(4,INPUT);

  s.attach(5);

  Serial.begin(9600);

}


void loop()

{

  //ultrasonic sensor used to indicate BULB glowing and Door open(servo motor)

  digitalWrite(t,1);

  digitalWrite(t,0);

  delayMicroseconds(10);

  digitalWrite(t,0);

  float dur=pulseIn(e,1);

  float dis=(dur*0.0343)/2;

  Serial.print("distance:");

  Serial.println(dis);
```

```
if(dis>150){  
    digitalWrite(l,0);  
    s.write(180);  
}  
  
else{  
    digitalWrite(l,1);  
    s.write(0);  
}  
  
//Temprature sensor  
double a= analogRead(A0);  
double t= (((a/1024)*5)-0.5)*100;  
Serial.print("temprature value:");  
Serial.println(t);  
delay(1000);  
  
if(t>100)  
    digitalWrite(13,1);  
else  
    digitalWrite(13,0);  
    delay(1000);  
//PIR sensor  
digitalWrite(13,0);  
int a1=digitalRead(4);  
Serial.println(a);  
if(a1==1){  
    Serial.println("motion detected:");  
    digitalWrite(13,1);  
}  
delay(1000);  
}
```

SCREEN SHOT:

