TITLE: SMART HOME AUTOMATION USING SENSORS

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CODE:

```
#include <Servo.h>
Const int PIR_Sensor = 8;
Servo doorservo;
Int ldr = A0;
Int led = 12;
Int tmp = A1;
Int motor = 11;
Int d;
Int const trigPin = 7;
Int const echoPin = 6;
Int const buzzPin = 5;



Void setup()
{
  pinMode(ldr,INPUT);
  pinMode(led,OUTPUT);

  pinMode(tmp,INPUT);
  pinMode(motor,OUTPUT);
  doorservo.attach(10);
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  pinMode(buzzPin, OUTPUT);
  pinMode(2, OUTPUT);
```

```
  pinMode(3, OUTPUT);
  pinMode(4, OUTPUT);
  pinMode(9,INPUT);

}

Void loop()
{
  Int ldrs = analogRead(ldr);
  If(ldrs <= 300)
  {
            digitalWrite(led,HIGH);
    digitalWrite(2,HIGH);
    digitalWrite(3,HIGH);
    digitalWrite(4,HIGH);
  }
  Else
  {
    digitalWrite(led,LOW);
    digitalWrite(2,LOW);
    digitalWrite(3,LOW);
    digitalWrite(4,LOW);
  }
  Int reading = analogRead(tmp);
  Float voltage = reading * 5.0;
  Voltage /= 1024.0;
  Float temperatureC = (voltage – 0.5) * 100 ;
  If(temperatureC >= 30)
  {
```

```
  digitalWrite(motor,HIGH);
 }
 Else
 {
  digitalWrite(motor,LOW);
 }
 D = digitalRead(9);
  If(d== 1){
  Doorservo.write(100);
 }
 Else{
  Doorservo.write(0);
 }
Int duration, distance;

        digitalWrite(trigPin, HIGH);
        delay(1);
        digitalWrite(trigPin, LOW);

        duration = pulseIn(echoPin, HIGH);

        distance = (duration/2) / 29.1;

  if (distance <= 50 && distance >= 0) {

        digitalWrite(buzzPin, HIGH);
  } else {

        digitalWrite(buzzPin, LOW);
```

```
  }

   Delay(60);
 If (digitalRead(PIR_Sensor)==HIGH)
    {digitalWrite(buzzPin, HIGH);}

 Else  {digitalWrite(buzzPin, LOW);}
}
```

CIRCUIT DIAGRAM: