SMART HOME

CODE:

```
#include<Servo.h>
Servo s;
void setup()
{
  pinMode(2,OUTPUT); //Red LED
  pinMode(4,OUTPUT); //Blue LED
  pinMode(A0,INPUT); //Temperature Sensor
  pinMode(3,OUTPUT); //Buzzer
  s.attach(6); //ServoMotor
  pinMode(11,INPUT); //PIR Sensor
  Serial.begin(9600);
}

void loop()
{
 double a=analogRead(A0);
  double t=((((a/1024)*5)-0.5)*100);
  //If Temperature increases beyond 100 degree
  if(t>100){
    digitalWrite(2,HIGH); //Red led ON
    Serial.println("HIGH TEMPERATURE");
    Serial.println(t);
    tone(3,1000); //Buzzer ON
    delay(500);
    tone(3,500);
    delay(500);
    s.write(180); // Door/Window open
```

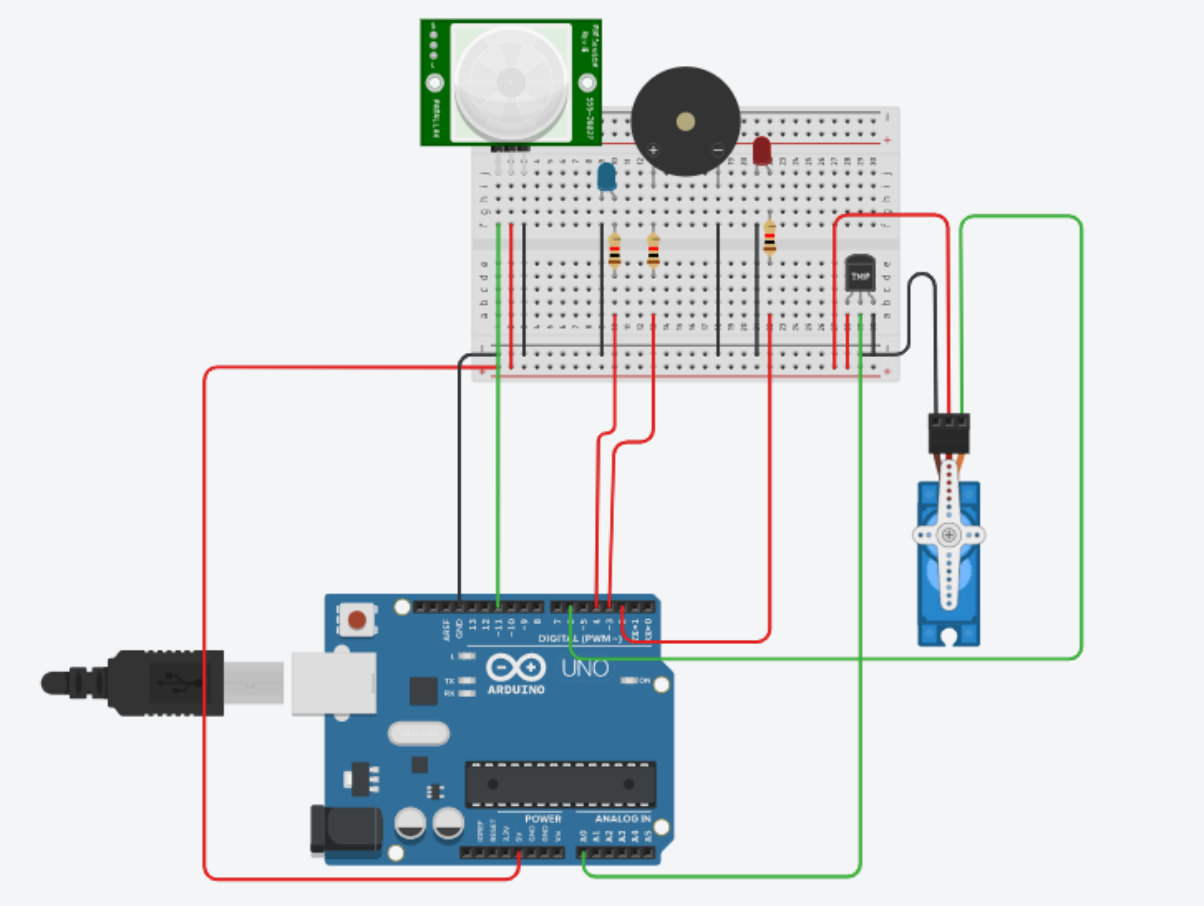
```
  delay(15);
 }

 else{
  digitalWrite(2,LOW);
  Serial.print("Temperature is ");
  Serial.println(t);
  noTone(3); //Buzzer OFF
  delay(1000);
  s.write(0);

 }
 delay(500);
 //If Motion is Detected
 digitalWrite(4,LOW);
 int b=digitalRead(11);
 if(b){
 Serial.println("MOTION DETECTED");
 digitalWrite(4,HIGH); //Blue led ON
  for(int i=1000;i<=1500;i++){
  tone(3,i); //Buzzer ON
  delay(10);
  }
 }
}
```

SERIAL MONITOR

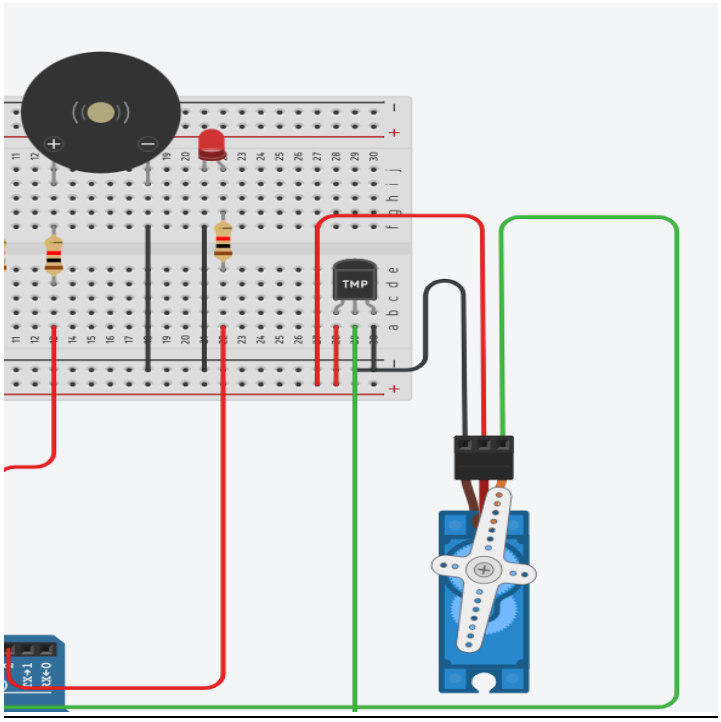
Serial Monitor

```
Temperature is 24.71
Temperature is 24.71
Temperature is 67.68
HIGH TEMPERATURE
110.64
HIGH TEMPERATURE
110.64
Temperature is 7.13
MOTION DETECTED
Temperature is 7.13
Temperature is 7.13
Temperature is 7.13
```

CIRCUIT



IF TEMPERATURE IS ABOVE 100 DEGREE → Red led, Servomotor and Buzzer turns on



IF MOTION IS DETECTED IN PIR SENSOR → Blue led and Buzzer turns on