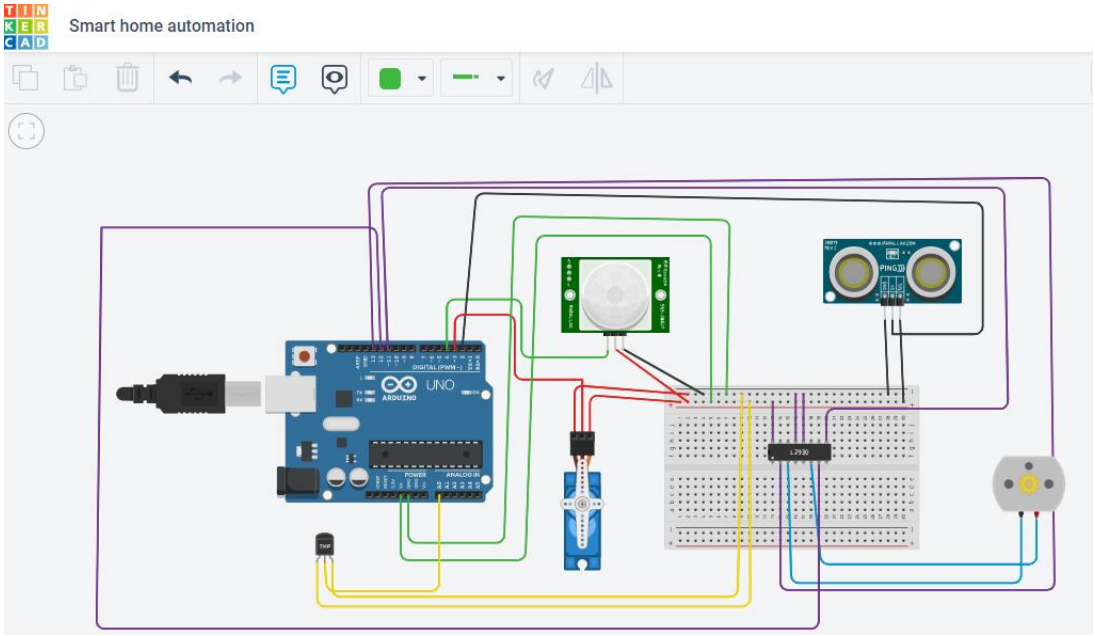
SMART HOME

CIRCUIT DIAGRAM:

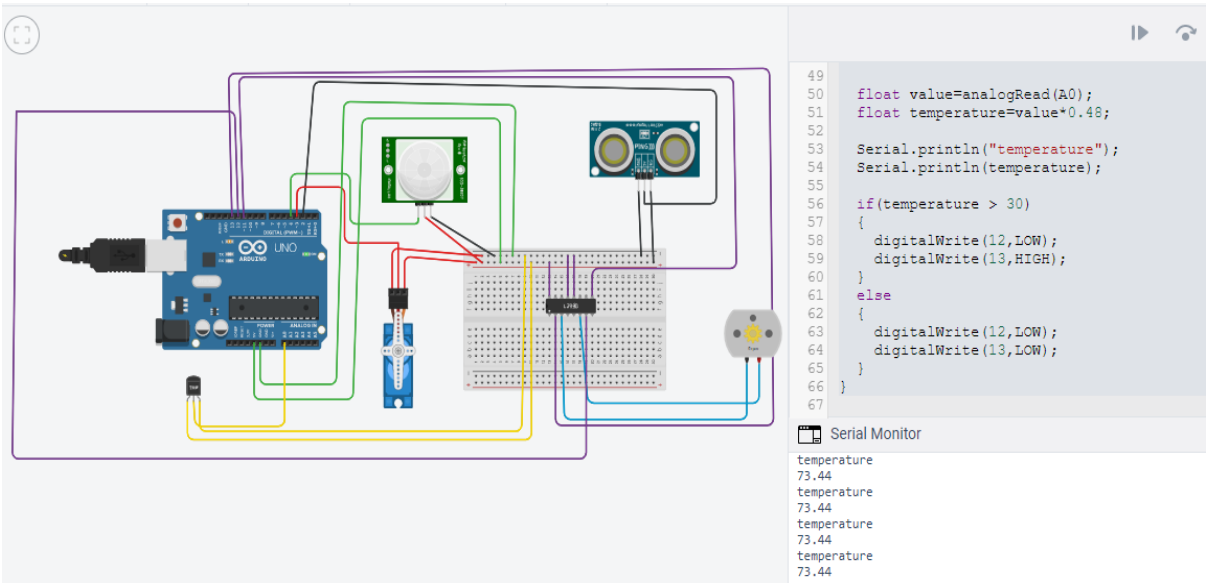


PROGRAM:

```
#include<Servo.h>
const int pingPin = 2;
int servoPin = 3;
Servo servo;
void setup() {
  Serial.begin(9600);
  servo.attach(servoPin);
  pinMode(4,INPUT);
  pinMode(5,OUTPUT);
  pinMode(11,OUTPUT);
  pinMode(12,OUTPUT);
  pinMode(13,OUTPUT);
  pinMode(A0,INPUT);
  digitalWrite(12,LOW);
  digitalWrite(11,HIGH);
  }
 void loop() {
```

```
  long duration, inches, cm;
  pinMode(pingPin, OUTPUT);
  digitalWrite(pingPin, LOW);
  delayMicroseconds(2);
  digitalWrite(pingPin, HIGH);
  delayMicroseconds(5);
  digitalWrite(pingPin, LOW);
  pinMode(pingPin, INPUT);
  duration = pulseIn(pingPin, HIGH);
  servo.write(0);
  if(cm < 60)
  {
    servo.write(45);
    delay(5000);
  }
  servo.write(0);
float value=analogRead(A0);
float temperature=value*0.48;
  Serial.println("temperature");
  Serial.println(temperature);
   if(temperature > 30)
  {
    digitalWrite(12,LOW);
    digitalWrite(13,HIGH);
  }
  else
  {
  digitalWrite(12,LOW);
    digitalWrite(13,LOW);
  }
}
```

OUTPUT:



```
49
50   float value=analogRead(A0);
51   float temperature=value*0.48;
52
53   Serial.println("temperature");
54   Serial.println(temperature);
55
56   if(temperature > 30)
57   {
58     digitalWrite(12,LOW);
59     digitalWrite(13,HIGH);
60   }
61   else
62   {
63     digitalWrite(12,LOW);
64     digitalWrite(13,LOW);
65   }
66 }
67
```

Serial Monitor

```
temperature
73.44
temperature
73.44
temperature
73.44
temperature
73.44
```