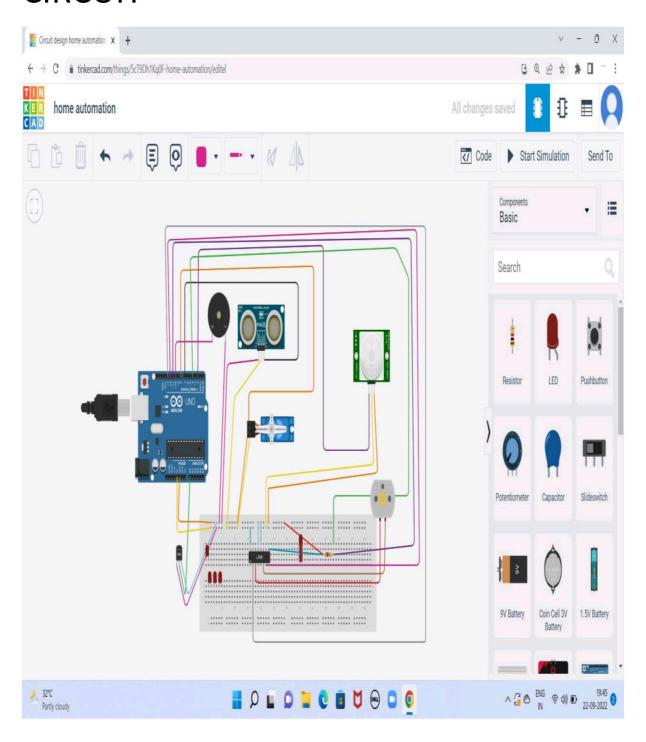
## **CIRCUIT**



## CODE

```
#include<Servo.h>
const int pingPin = 7;
int servoPin = 8;
Servo servo1;
void setup() {
  // initialize serial communication:
  Serial.begin(9600);
  servo1.attach(servoPin);
  pinMode(2,INPUT);
  pinMode(4,OUTPUT);
  pinMode(11,OUTPUT);
  pinMode(12,OUTPUT);
  pinMode(13,OUTPUT);
  pinMode(A0,INPUT);
 digitalWrite(2,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);
  // convert the time into a distance
  inches = microsecondsToInches(duration);
  cm = microsecondsToCentimeters(duration);
  Serial.print(inches);
  Serial.print("in, ");
```

```
Serial.print(cm);
Serial.print("cm");
Serial.println();
delay(100);
servo1.write(0);
if(cm < 40)
{
  servo1.write(90);
  delay(2000);
}
else
{
  servo1.write(0);
}
int pir = digitalRead(2);
if(pir == HIGH)
  digitalWrite(4,HIGH);
  delay(1000);
else if(pir == LOW)
  digitalWrite(4,LOW);
}
float value=analogRead(A0);
float temperature=value*0.48;
Serial.println("Temperature");
Serial.println(temperature);
if(temperature > 20)
{
  digitalWrite(12,HIGH);
  digitalWrite(13,LOW);
}
else
{
  digitalWrite(12,LOW);
  digitalWrite(13,LOW);
```

```
}
}
long microsecondsToInches(long microseconds) {
  return microseconds / 74 / 2;
}
long microsecondsToCentimeters(long microseconds) {
 return microseconds / 29 / 2;
}
int buzzer=10;
void setup(){pinMode(buzzer,OUTPUT);
void loop(){
digitalWrite(buzzer,HIGH);
int buzzer=10
void setup()
pinMode(buzzer,OUTPUT);
void loop(){
digitalWrite(buzzer,HIGH);
}
```