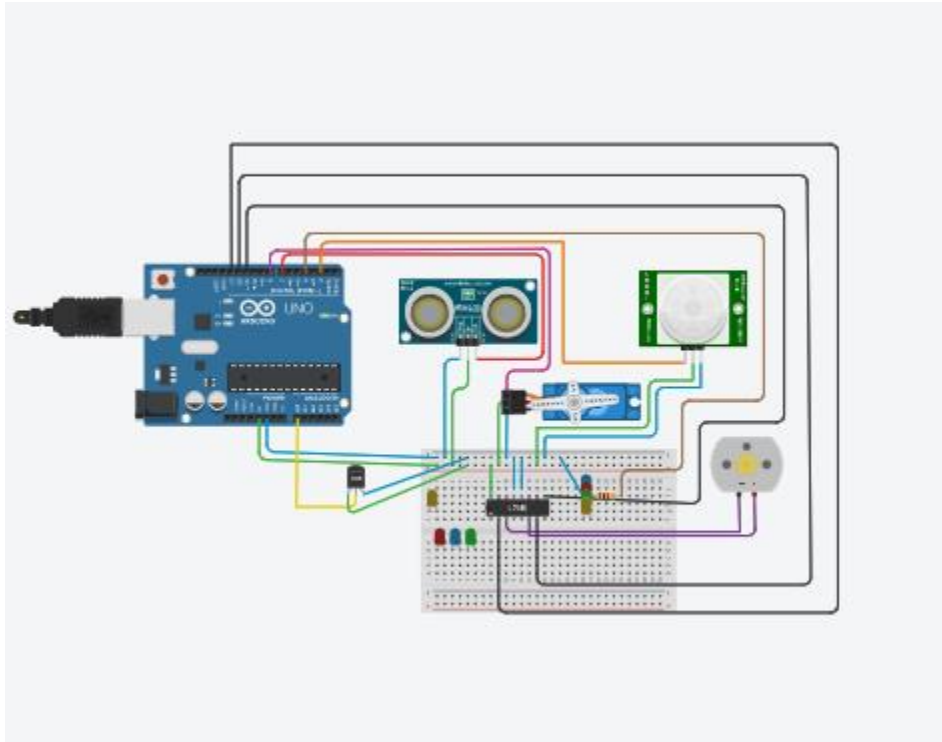


Home Automation using IOT



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);
  // The same pin is used to read the signal from the PING))) a HIGH pulse
  // whose duration is the time (in microseconds) from the sending of the ping
  // to the reception of its echo off of an object.
  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);
}
// PIR with LED starts
int pir = digitalRead(2);
if(pir == HIGH)
{
digitalWrite(4,HIGH);
delay(1000);
}
else if(pir == LOW)
{
digitalWrite(4,LOW);
}
//temp with fan
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;
}
```

OUTPUT :

IBM-EPBL x IBM-Proje x IBM x GitHub x empathy x Cybersecu x Dashboard x Circuit des x feels smar x

https://www.tinkercad.com/things/49jU3PRCnpV-copy-of-home-automation-system/editel?tenant=circuits

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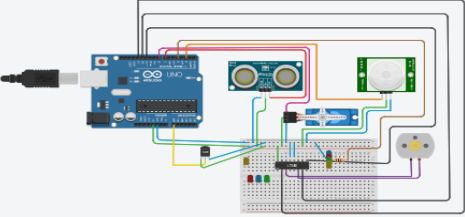
Copy of Home automation system

All changes saved

Code

Start Simulation

Send To



Text

1 (Arduino Uno R3)

```
1#include<Servo.h>
2int pingPin = 7;
3servoPin = 8;
4
5Servo servo1;
6
7void setup() {
8  // initialize serial communication:
9  Serial.begin(9600);
10 servo1.attach(servoPin);
11 pinMode(2, INPUT);
12 pinMode(4, OUTPUT);
13 pinMode(11, OUTPUT);
14 pinMode(12, OUTPUT);
15 pinMode(13, OUTPUT);
16 pinMode(A0, INPUT);
17 }
```

Serial Monitor

73.44
temperature
73.44
temperature
73.44
temperature
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temperatur

Send Clear

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