Circuit design Terrific Amur-Hango

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Terrific Amur-Hango

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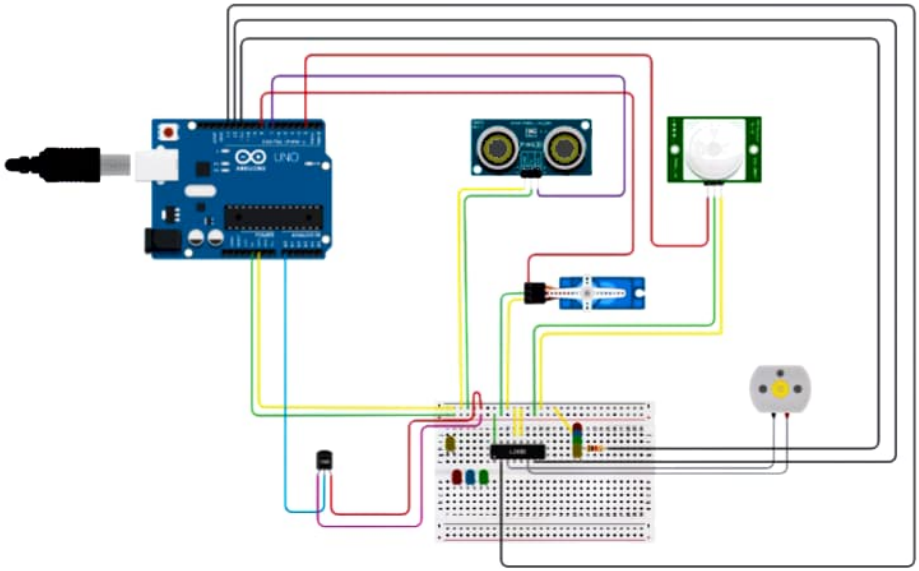
Code | Start Simulation | Send To



30°C
Mostly cloudy

ENG
IN

22:14
06-10-2022

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;
}
```