

**NAME:** GAUTHAM R

**REG NO:** 20BEC1336

**COURSE:** Internet of Things (IOT)

### **WEEK 1 ASSIGNMENT**

#### **AIM:**

To make an LED glow, if the distance is less than 100cm for an ultrasonic sensor.

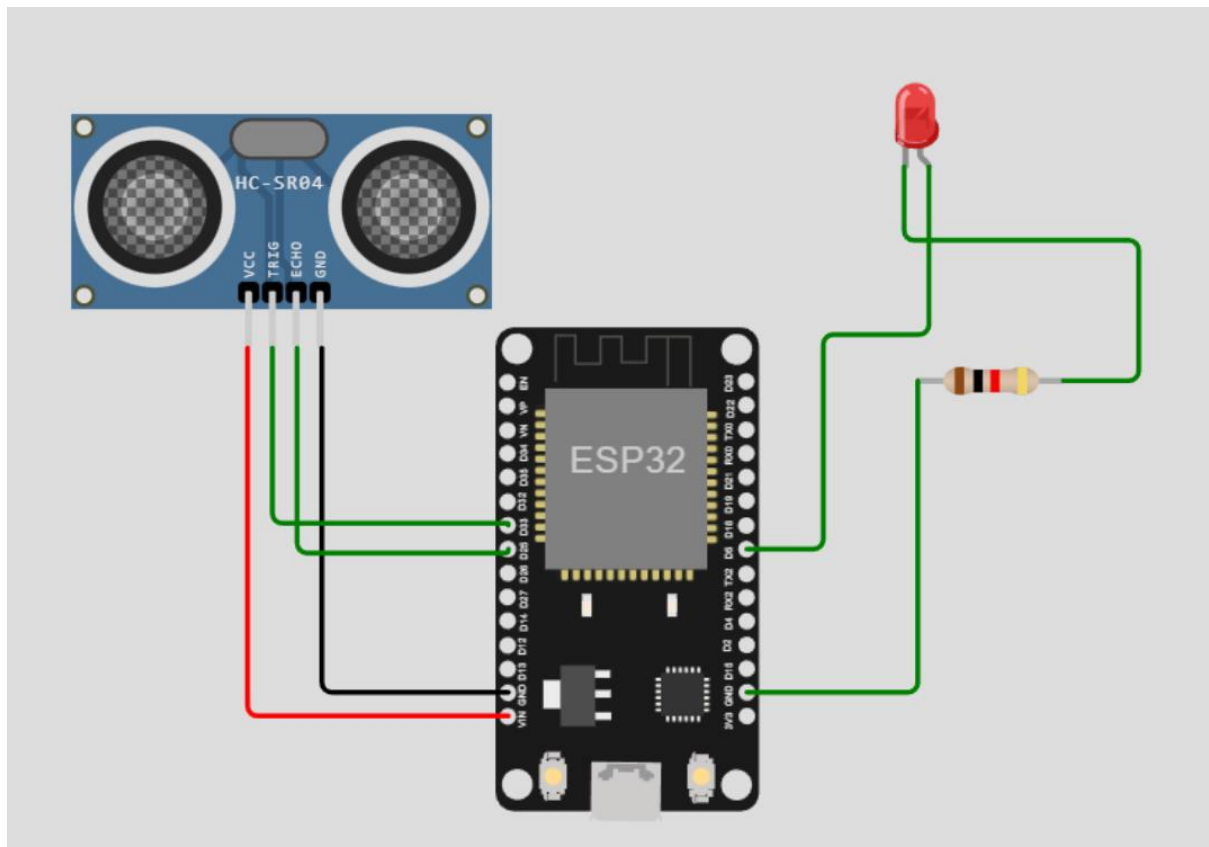
#### **SOFTWARE USED:**

WOKWI SIMULATOR

#### **WOKWI LINK:**

<https://wokwi.com/projects/365421199010578433>

#### **CIRCUIT DIAGRAM:**

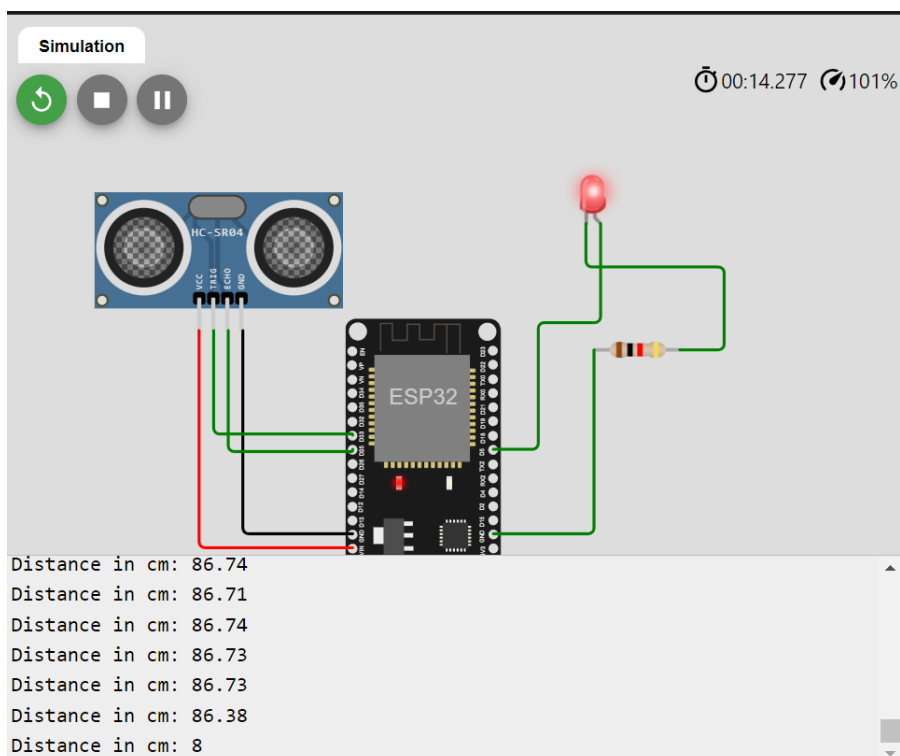


## CODE:

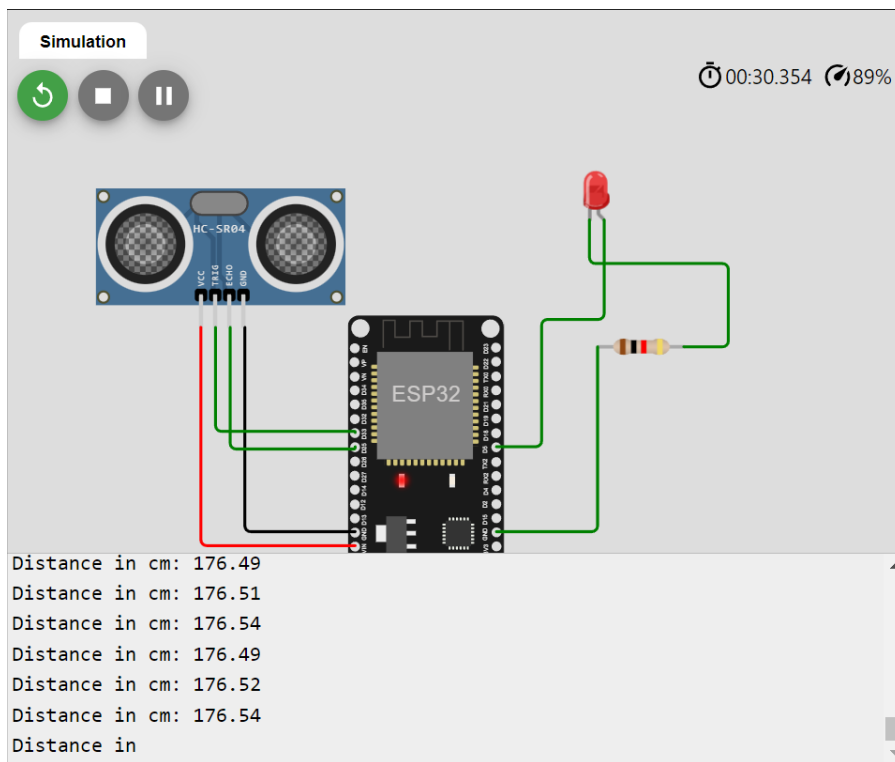
```
sketch.ino  diagram.json  Library Manager  ▼
1  int t=33;
2  int e=25;
3  void setup()
4  {
5      Serial.begin(9600);
6      pinMode(t,OUTPUT);
7      pinMode(e,INPUT);
8      pinMode(5,OUTPUT);
9  }
10 void loop()
11 {
12     digitalWrite(t,LOW);
13     digitalWrite(t,HIGH);
14     delayMicroseconds(10);
15     digitalWrite(t,LOW);
16     float t = pulseIn(e,HIGH);
17     float d = (t*0.0343)/2;
18     Serial.print("Distance in cm: ");
19     Serial.println(d);
20     if(d<100)
21     {
22         digitalWrite(5, HIGH);
23     }
24     if(d>100)
25     {
26         digitalWrite(5, LOW);
27     }
28 }
```

## OUTPUTS:

For distance less than 100cm:



For distance greater than 100cm:



## **RESULT:**

Given task was carried out successfully.