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TASK – 1

QUESTION:

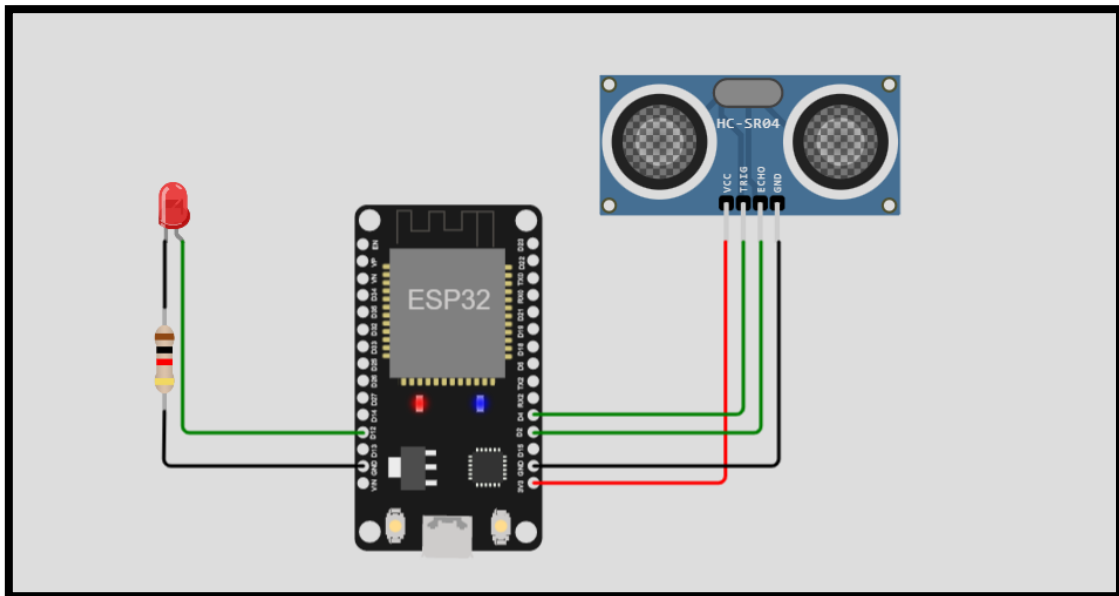
Design a circuit in wokwi, if the distance is less than 100 cms for the ultrasonic sensor, glow a LED.

SOLUTION:

Code:

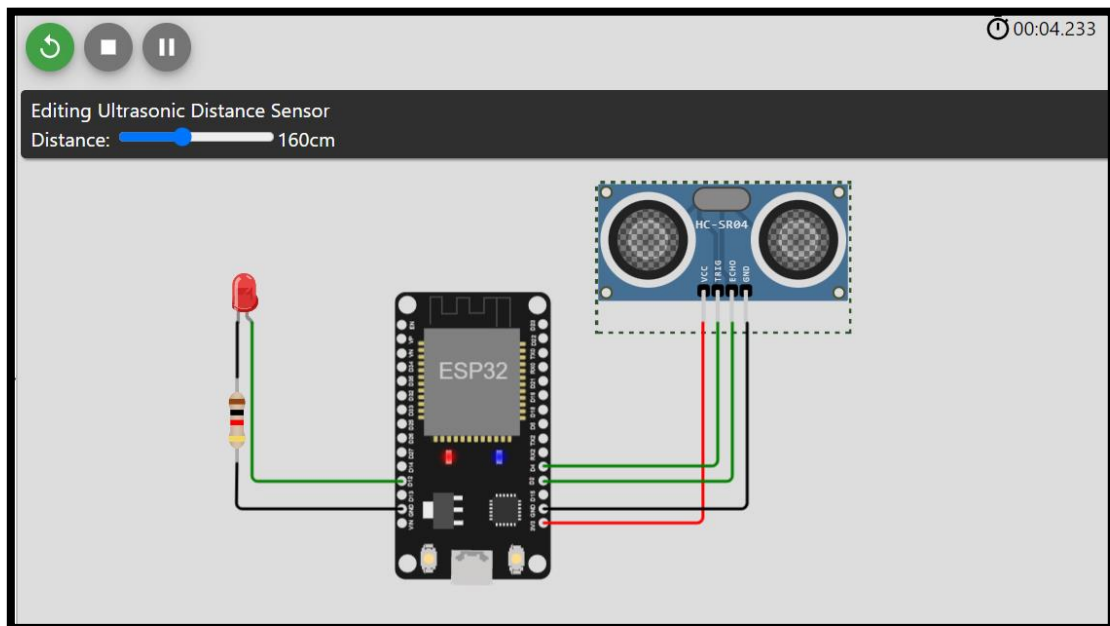
```
1  // VARSHINNE.P
2  int t = 4;
3  int e = 2;
4  int LED = 12;
5
6  void setup()
7  {
8
9      pinMode(t, OUTPUT);
10     pinMode(e, INPUT);
11     pinMode(LED, OUTPUT);
12 }
13
14 void loop()
15 {
16     digitalWrite(t,LOW);
17     digitalWrite(t,HIGH);
18     delayMicroseconds(10);
19     digitalWrite(t,LOW);
20     float dur = pulseIn(e,HIGH);
21     float dis = (dur*0.0343)/2;
22     if(dis<100)
23     {
24         digitalWrite(LED,HIGH);
25     }
26     else{
27         digitalWrite(LED,LOW);
28     }
29 }
30
```

Circuit:



Case 1 – when distance is more than 100 cms

The LED does not glow.



Case 2 – when the distance is less than 100 cms

The LED glows

