

SMARTBRIDGE IOT

ASSIGNMENT 1

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Challenging task:

In Wokwi, if the distance is less than 100 cm for ultrasonic sensor, glow a LED

Code:

```
int t=25;
int e=26;
void setup()
{
    Serial.begin(9600);
    pinMode(t, OUTPUT);
    pinMode(e, INPUT);
    pinMode(4, OUTPUT);
}

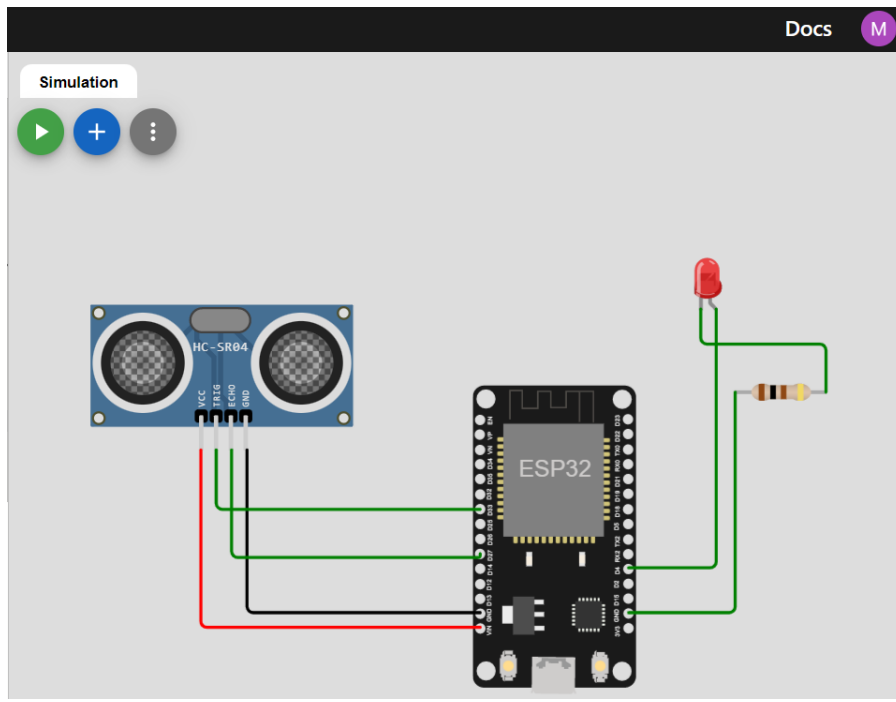
void loop()
{
    digitalWrite(t,LOW);
    digitalWrite(t,HIGH);
    delayMicroseconds(10);
    digitalWrite(t,LOW);
    float dur = pulseIn(e,HIGH);
    float dist = (dur*0.0343)/2;
    Serial.print("Distance in cm: ");
    Serial.println(dist);
    if(dist<100)
    {
        digitalWrite(4,HIGH);

    }
    else
    {
        digitalWrite(4,LOW);
    }
}
```

Wokwi link:

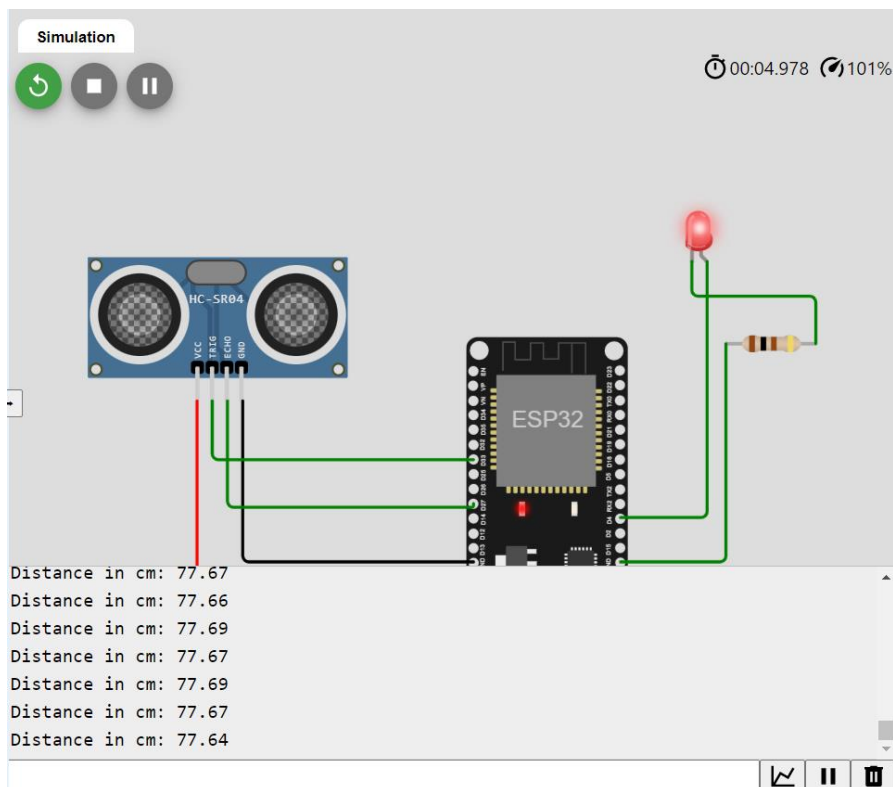
<https://wokwi.com/projects/365173647095876609>

Circuit diagram:

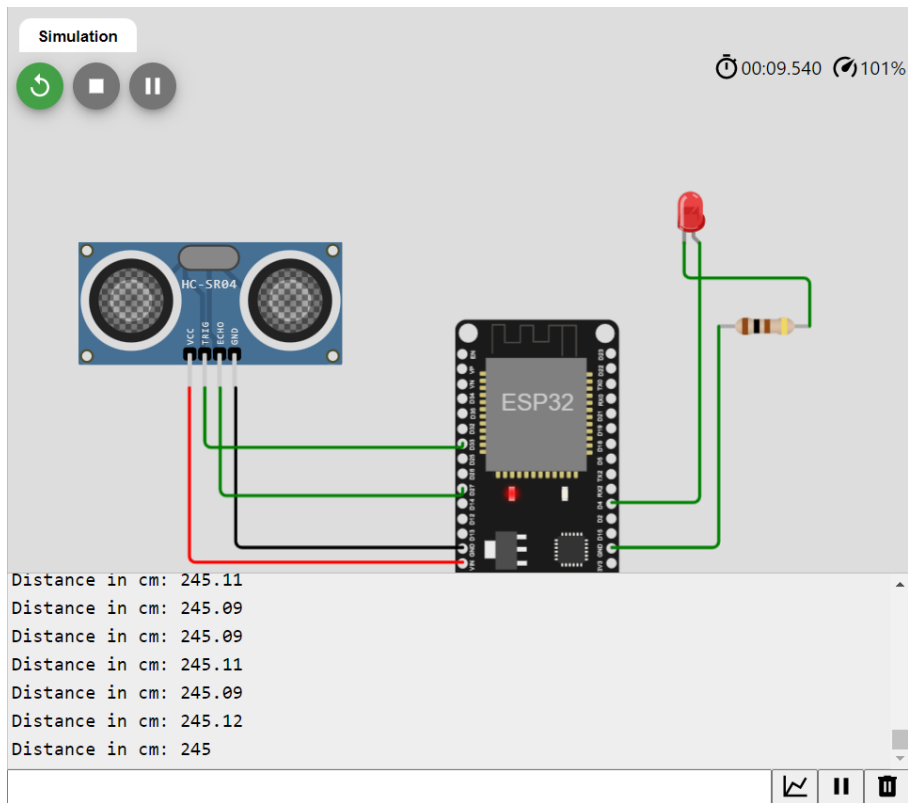


Output:

When the distance < 100 cm:



When the distance > 100 cm:



Result:

Thus, the task is done and the output is observed