

## Assignment-4

Assignment Date	25.10.2022
Student Name	S Janani
Student Roll Number	510119205005
Maximum marks	2 marks

Question:

Write a code and connection in Wokwi for ultrasonic sensor. whenever distance is low than 100cms send "Alert".

Program:

```
#define ECHO_PIN 2
#define TRIG_PIN 3

void setup() {
  Serial.begin(115200);
  pinMode(LED_BUILTIN, OUTPUT);
  pinMode(TRIG_PIN, OUTPUT);
  pinMode(ECHO_PIN, INPUT);
}

float readDistanceCM() {
  digitalWrite(TRIG_PIN, LOW);
  delayMicroseconds(2);
  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIG_PIN, LOW);
  int duration = pulseIn(ECHO_PIN, HIGH);
  return duration * 0.034 / 2;
}

void loop() {
  float distance = readDistanceCM();

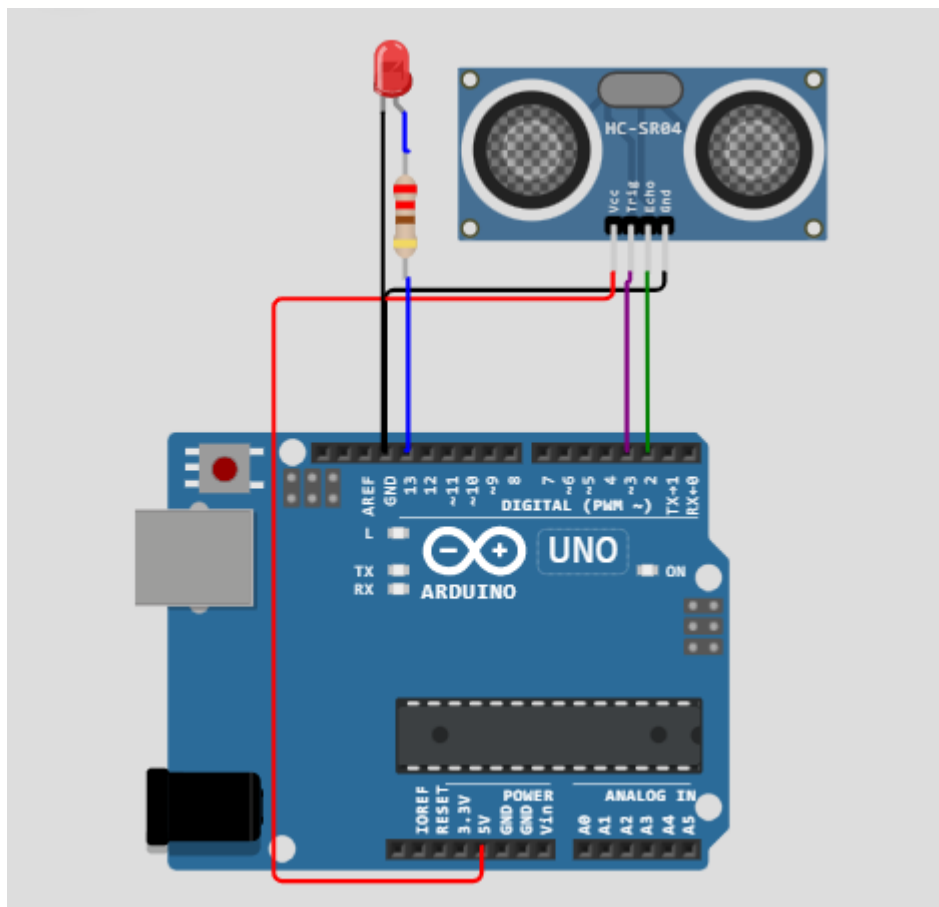
  bool isNearby = distance < 100;
```

```
digitalWrite(LED_BUILTIN, isNearby);

Serial.print("Measured distance: ");
Serial.println(readDistanceCM());

delay(100);
}
```

Output:



Wokwi Link:

<https://wokwi.com/projects/new/arduino-uno>