

ASSIGNMENT-4

Assignment date	2 November 2022
Student name	M Nandhini
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Maximum marks	2 marks

QUESTION-1

Write code and connections in wokwi for ultrasonic sensor.
Whenever distance is less than 100 cms send “alert”

CODING:

```
#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);

}
```

Circuit Diagram:

