Assignment 4

Student Name	Manoj Kumar M
Student Register Number	721219106026
Team ID	PNT2022TMID31852
Maximum Mark	2

```
#define ECHO_PIN 2

#define TRIG_PIN 3

void setup() {

Serial.begin(9600);

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();

if(distance <= 100)

{

Serial.println("person detected ");

}

else{

Serial.print("Measured distance: ");

Serial.println(readDistanceCM());

}
```

delay(1000);

}

Simulation:


```
Measured distance: 395.35
Measured distance: 395.25
Measured distance: 395.25
Measured distance: 395.25
Measured distance: 395.25
Measured distance: 395.27
Measured distance: 395.25
```