

#### ASSIGNMENT 4

Date	31 October 2022
Team ID	PNT2022TMID18367
Project Name	IoT Based Smart Crop Protection System for Agriculture
Maximum Marks	2 Marks

SOLUTION:

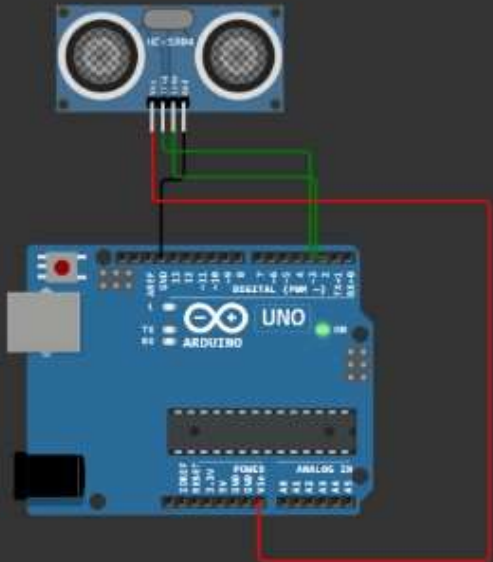
Code:

```
#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:

Simulation

00:19.604 72%



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

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IBM WATSON:

Browse

Action

Device Types

Interfaces

Add Device +

> 1234 Disconnected Ultrasonic Device Oct 26, 2022 8:53 PM

▼ Ultrasonic\_1 Connected Ultrasonic Device Oct 26, 2022 8:55 PM → ...

Identity

Device Information

Recent Events

State

Logs

×

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	{"status": "person detected"}	json	a few seconds ago
event_1	{"status": "person detected"}	json	a few seconds ago
event_1	{"status": "person detected"}	json	a few seconds ago
event_1	{"status": "person detected"}	json	a few seconds ago
event_1	{"status": "person detected"}	json	a few seconds ago

1 Simulation running