

## ASSIGNMENT 4

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### **# Case (i) : Distance < 100cm**

WOKWI

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hc-sr04.ino

diagram.json

Library Manager

```

1 // Pins
2 const int TRIG_PIN = 7;
3 const int ECHO_PIN = 8;
4
5 const int LED = 2;
6
7 // Anything over 400 cm (23200 us pulse) is "out of range"
8 const unsigned int MAX_DIST = 23200;
9
10 void setup() {
11
12     // The Trigger pin will tell the sensor to range find
13     pinMode(TRIG_PIN, OUTPUT);
14     digitalWrite(TRIG_PIN, LOW);
15
16     //Set Echo pin as input to measure the duration of
17     //pulses coming back from the distance sensor
18     pinMode(ECHO_PIN, INPUT);
19     pinMode(LED, OUTPUT);
20
21     // We'll use the serial monitor to view the sensor output
22     Serial.begin(9600);
23 }
24
25 void loop() {
26
27     unsigned long t1;
28     unsigned long t2;
29     unsigned long pulse_width;
30     float cm;

```

Simulation

00:20.332

1%

Distance: 52.69 cm

Distance: 52.76 cm

Distance: 52.76 cm

Distance: 52.69 cm

Distance: 52.76 cm

Distance: 52.76 cm

Distance: 52.69 cm

### # Case (ii) : Distance > 100cm

[illegible]