## **ASSIGNMENT 4**

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**TEAM ID: PNT2022TMID52751** 

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

```
WOKWI 🖥 SAVE
                                                                                                                                                                           Docs
 hc-sr04.ino ● diagram.json ● Library Manager ▼
                                                                                                                                                                         Ō00:20.332 (%)1%
        const int TRIG_PIN = 7;
const int ECHO_PIN = 8;
         // Anything over 400 cm (23200 us pulse) is "out of range" const unsigned int MAX_DIST = 23200;
         void setup() {
                                                                                                                                      E ⊙ UNO
           // The Trigger pin will tell the sensor to range find
           pinMode(TRIG_PIN, OUTPUT);
   14
           digitalWrite(TRIG PIN, LOW);
           //Set Echo pin as input to measure the duration of
           //pulses coming back from the distance sensor
pinMode(ECHO_PIN, INPUT);
                                                                                                                                        B D 2 2 8 8 5 2 2 2 2 2 2
    18
           pinMode(LED, OUTPUT);
                                                                                              Distance: 52.69 cm
           // We'll use the serial monitor to view the sensor output
   22
           Serial.begin(9600);
                                                                                              Distance: 52.76 cm
   23
                                                                                              Distance: 52.76 cm
                                                                                              Distance: 52.69 cm
         void loop() {
                                                                                              Distance: 52.76 cm
   27
           unsigned long t1;
unsigned long t2;
                                                                                              Distance: 52.76 cm
                                                                                              Distance: 52.69 cm
            unsigned long pulse_width;
```

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

```
₩OKWî 🔒 SAVE 🗸 🥕 SHARE
                                                                                                                                                                            Docs
 hc-sr04.ino ● diagram.json ● Library Manager ▼
                                                                                                  Simulation
                                                                                                                                                                         Ō00:39.132 (*)7%
          const int TRIG_PIN = 7;
         const int ECHO_PIN = 8;
         // Anything over 400 cm (23200 us pulse) is "out of range"
         const unsigned int MAX_DIST = 23200;
                                                                                                                                       E ⊙ UNO
           // The Trigger pin will tell the sensor to range find
pinMode(TRIG_PIN, OUTPUT);
    13
            digitalWrite(TRIG_PIN, LOW);
           //Set Echo pin as input to measure the duration of //pulses coming back from the distance sensor \,
    16
                                                                                                                                        107×885 11111
    18
           pinMode(ECHO_PIN, INPUT);
pinMode(LED, OUTPUT);
    20
            // We'll use the serial monitor to view the sensor output
                                                                                              Distance: 202.83 cm
    22
            Serial.begin(9600);
                                                                                              Distance: 202.83 cm
                                                                                               Distance: 202.83 cm
    24
                                                                                               Distance: 202.83 cm
         void loop() {
                                                                                              Distance: 202.83 cm
    26
    27
28
            unsigned long t1;
                                                                                               Distance: 202.83 cm
            unsigned long t2;
unsigned long pulse_width;
float cm;
                                                                                              Distance: 202.83 cm
```