

ASSESSMENT-4

ASSESSMENT DATE	05 November 2022
NAME	SORNAMALYA B
REGISTER NUMBER	621319106091
MARKS	2 Marks

CODE:

```
#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;
}

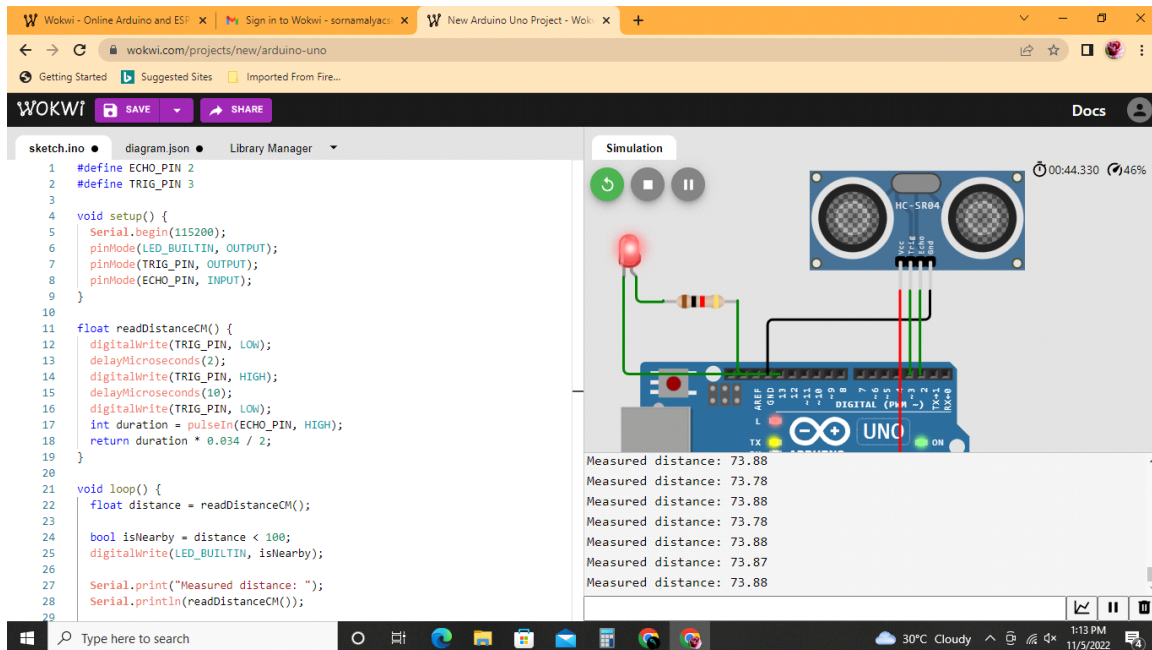
void loop() {
  float distance = readDistanceCM();

  bool isNearby = distance < 100;
  digitalWrite(LED_BUILTIN, isNearby);

  Serial.print("Measured distance: ");
  Serial.println(readDistanceCM());

  delay(100);
}
```

SIMULATION:



Link: <https://wokwi.com/projects/347475390374085204>

When object distance is >100:

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Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
12345	Disconnected	NodeMCU	Device	Oct 25, 2022 5:18 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	{"Distance":367,"object":"no"}	json	a few seconds ago
event_1	{"Distance":275,"object":"no"}	json	a few seconds ago
event_1	{"Distance":271,"object":"no"}	json	a few seconds ago
event_1	{"Distance":372,"object":"no"}	json	a few seconds ago
event_1	{"Distance":155,"object":"no"}	json	a few seconds ago

1 Simulation running

When object distance is <100:

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<input type="checkbox"/>	Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
	12345	Disconnected	NodeMCU	Device	Oct 25, 2022 5:18 PM	

IdentityDevice InformationRecent EventsStateLogs

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	{"Alert Distance":57,"object":"near"}	json	a few seconds ago
event_1	{"Alert Distance":45,"object":"near"}	json	a few seconds ago
event_1	{"Alert Distance":19,"object":"near"}	json	a few seconds ago
event_1	{"Alert Distance":93,"object":"near"}	json	a few seconds ago
event_1	{"Alert Distance":63,"object":"near"}	json	a few seconds ago

1 Simulation running