

VSB Engineering College, Karur-639111

Department of Electronics and Communication Engineering

IOT Assignment

Topic : Assignment on temperature and humidity sensing and alarm

DOMAIN NAME : Internet Of Things

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```
#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();

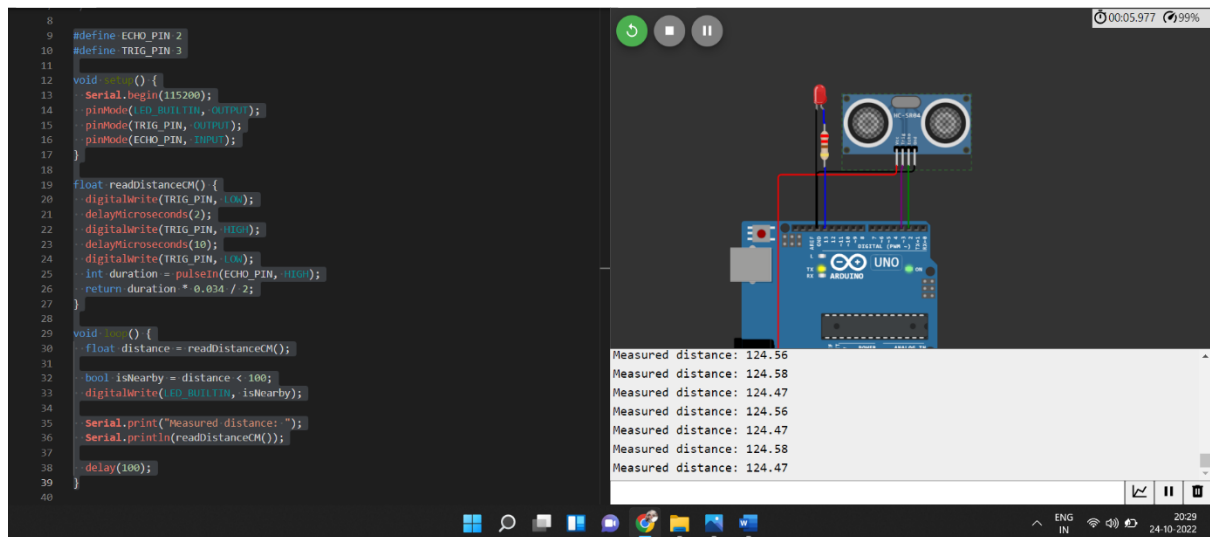
    bool isNearby = distance < 100;

    digitalWrite(LED_BUILTIN, isNearby);

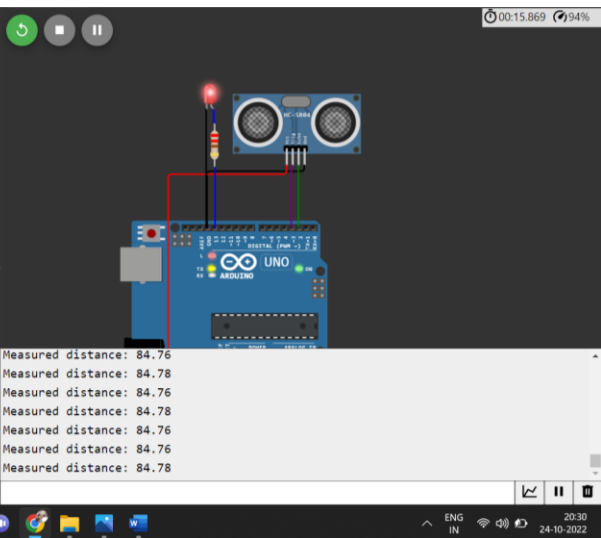
    Serial.print("Measured distance: ");
    Serial.println(readDistanceCM());

    delay(100);
}

```



```
8
9 #define ECHO_PIN 2
10 #define TRIG_PIN 3
11
12 void setup() {
13   Serial.begin(115200);
14   pinMode(LED_BUILTIN, OUTPUT);
15   pinMode(TRIG_PIN, OUTPUT);
16   pinMode(ECHO_PIN, INPUT);
17 }
18
19 float readDistanceCM() {
20   digitalWrite(TRIG_PIN, LOW);
21   delayMicroseconds(2);
22   digitalWrite(TRIG_PIN, HIGH);
23   delayMicroseconds(10);
24   digitalWrite(TRIG_PIN, LOW);
25   int duration = pulseIn(ECHO_PIN, HIGH);
26   return duration * 0.034 / 2;
27 }
28
29 void loop() {
30   float distance = readDistanceCM();
31
32   bool isNearby = distance < 100;
33   digitalWrite(LED_BUILTIN, isNearby);
34
35   Serial.print("Measured distance: ");
36   Serial.println(readDistanceCM());
37
38   delay(100);
39 }
40
```



Measured distance: 84.76
Measured distance: 84.78
Measured distance: 84.76
Measured distance: 84.78
Measured distance: 84.76
Measured distance: 84.76
Measured distance: 84.76