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() {
```
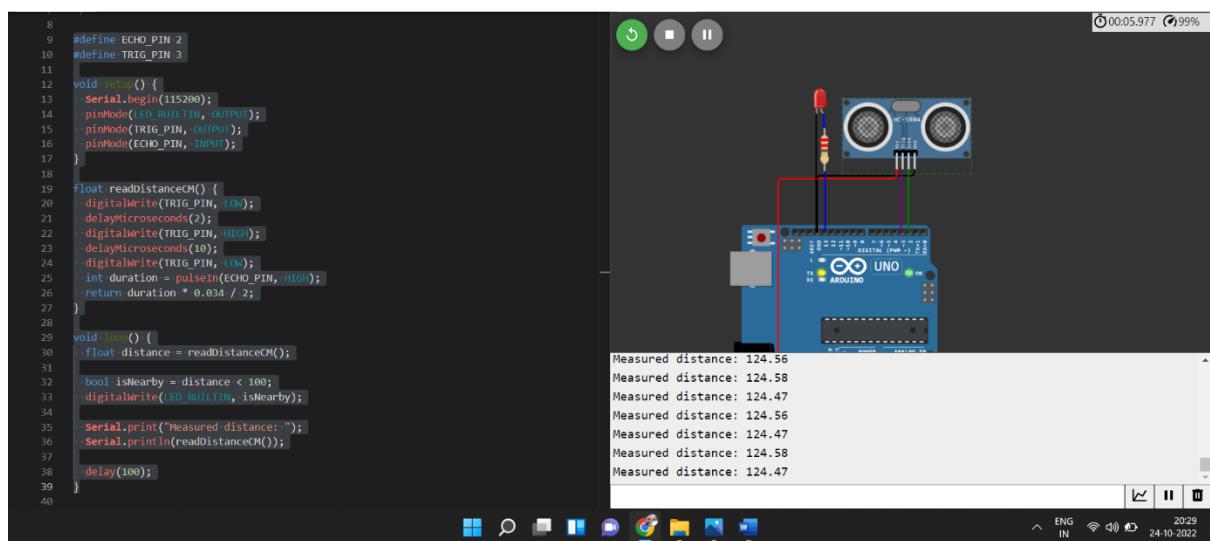
```
float distance = readDistanceCM();


bool isNearby = distance < 100;

digitalWrite(LED_BUILTIN, isNearby);


Serial.print("Measured distance: ");

Serial.println(readDistanceCM());


delay(100);
}
```
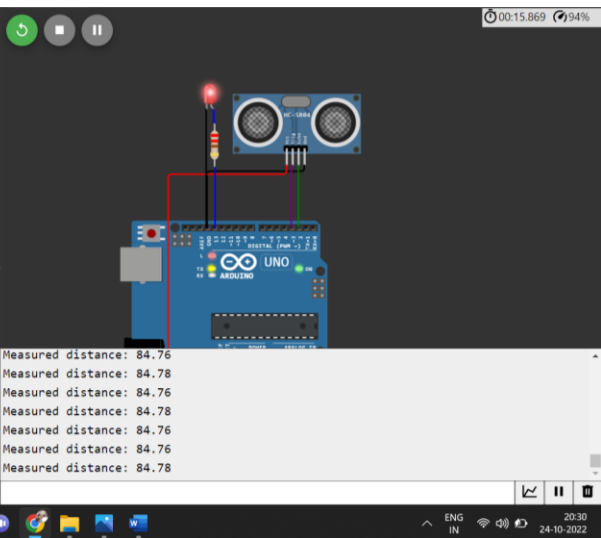
```
8
9   #define ECHO_PIN 2
10  #define TRIG_PIN 3
11
12  void setup() {
13      Serial.begin(115200);
14      pinMode(LED_BUILTIN, OUTPUT);
15      pinMode(TRIG_PIN, OUTPUT);
16      pinMode(ECHO_PIN, INPUT);
17  }
18
19  float readDistanceCM() {
20      digitalWrite(TRIG_PIN, LOW);
21      delayMicroseconds(2);
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: 84.78
```