ASSIGNMENT 3

Shaheed Sukhdev College of Business Studies
University of Delhi

Post Graduate Diploma in Cyber Security and Law

Sakshi Garg • Roll no-23726 • Subject- Internet of Things Security • Semester-II

Water Level Indicator using Arduino Mega 2560

Code:

```
1  // Define the analog pin for the water level sensor
2  const int sensorPin = A0;
3
4  // Define the digital pins for the LEDs
5  const int ledPin1 = 5;
6  const int ledPin2 = 6;
7  const int ledPin3 = 7;
8
9  // Define the digital pins for the pull-down resistors
10 const int resistorPin1 = 11;
11 const int resistorPin2 = 12;
12 const int resistorPin3 = 13;
13
14 void setup() {
15   // Initialize serial communication
16   Serial.begin(9600);
17
18   // Initialize LED pins as outputs
19   pinMode(ledPin1, OUTPUT);
20   pinMode(ledPin2, OUTPUT);
21   pinMode(ledPin3, OUTPUT);
22
23   // Initialize pull-down resistor pins as outputs and set them to
       LOW
24   pinMode(resistorPin1, OUTPUT);
25   digitalWrite(resistorPin1, LOW);
26   pinMode(resistorPin2, OUTPUT);
27   digitalWrite(resistorPin2, LOW);
28   pinMode(resistorPin3, OUTPUT);
29   digitalWrite(resistorPin3, LOW);
30 }
31
32 void loop() {
33   // Read water level sensor value
34   int sensorValue = analogRead(sensorPin);
```

```
35
36    // Print sensor value to Serial Monitor
37    Serial.print("Water Level Sensor Value: ");
38    Serial.println(sensorValue);
39
40    // Map sensor value to LED brightness levels
41    int brightness1 = map(sensorValue, 0, 1023, 0, 255);
42    int brightness2 = map(sensorValue, 0, 1023, 0, 255);
43    int brightness3 = map(sensorValue, 0, 1023, 0, 255);
44
45    // Set LED brightness levels
46    analogWrite(ledPin1, brightness1);
47    analogWrite(ledPin2, brightness2);
48    analogWrite(ledPin3, brightness3);
49
50    // Delay for a short period
51    delay(100); // Adjust delay as needed
52 }
```