#include <LiquidCrystal\_I2C.h>

LiquidCrystal\_I2C lcd(0x27, 16, 2); // Change the LCD address if necessary

const int piezoPin = 9;

const int greenLedPin = 10;

const int yellowLedPin = 11;

const int redLedPin = 12;

const int lowerThreshold = 200; // Adjust the thresholds as per your requirements

const int upperThreshold = 550;

int level = 0;

void setup() {

Serial.begin(9600);

lcd.begin(16, 2);

lcd.backlight();

pinMode(piezoPin, OUTPUT);

pinMode(greenLedPin, OUTPUT);

pinMode(yellowLedPin, OUTPUT);

pinMode(redLedPin, OUTPUT);

}

void loop() {

// Simulating water level reading

level = analogRead(A0); // Replace A0 with the actual pin connected to the water level sensor

if (level == 0) {

Serial.println("Water Level: Empty");

lcd.setCursor(0, 0);

lcd.print(" WATER LEVEL: ");

lcd.setCursor(0, 1);

lcd.print(" EMPTY ");

digitalWrite(redLedPin, HIGH);

tone(piezoPin, 1000, 1000); // Buzz for 1 second

delay(500);

digitalWrite(redLedPin, LOW);

delay(500);

}

else if (level > 0 && level <= lowerThreshold) {

Serial.println("Water Level: Low");

lcd.setCursor(0, 0);

lcd.print(" WATER LEVEL: ");

lcd.setCursor(0, 1);

lcd.print(" LOW ");

digitalWrite(greenLedPin, LOW);

digitalWrite(redLedPin, HIGH);

tone(piezoPin, 1000, 100); // Buzz for 0.1 second

delay(500);

}

else if (level > lowerThreshold && level <= upperThreshold) {

Serial.println("Water Level: Medium");

lcd.setCursor(0, 0);

lcd.print(" WATER LEVEL: ");

lcd.setCursor(0, 1);

lcd.print(" MEDIUM ");

digitalWrite(redLedPin, LOW);

digitalWrite(yellowLedPin, HIGH);

delay(500);

digitalWrite(yellowLedPin, LOW);

digitalWrite(greenLedPin, LOW);

}

else if (level > upperThreshold){

Serial.println("Water Level: High");

lcd.setCursor(0, 0);

lcd.print(" WATER LEVEL: ");

lcd.setCursor(0, 1);

lcd.print(" FULL ");

digitalWrite(redLedPin, LOW);

digitalWrite(greenLedPin, HIGH);

tone(piezoPin, 1000, 100); // Buzz for 0.1 second

delay(500);

}

delay(1000);

}