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/*
  Automatic water plant
*/

#include <Wire.h>
#include <LiquidCrystal_I2C.h>

int pumpPin = 13; // pin that turns on the pump!
int ledPin = 12;
LiquidCrystal_I2C lcd(0x27, 16, 2);

void setup() {
  pinMode(pumpPin, OUTPUT);
  Serial.begin(9600);
  // lcd.init();
  // lcd.backlight();
  lcd.init();
  lcd.clear();
  lcd.backlight();
}

void loop() {
  int moisturePin = analogRead(A0); //read analog value of moisture sensor
  int levelPin = analogRead(A1);
  // Serial.println(levelPin);
  int moisture = ( 100 - ( moisturePin / 1023.00 ) * 100 ); //convert analog value to
percentage

  // Should water
  if(moisture <= 70) {
    Serial.println("Se uda");
    digitalWrite(pumpPin, HIGH);
    Serial.println(levelPin);
    if(levelPin < 300) {
      Serial.println("Nivel mic");
      lcd.setCursor(0,0);
      lcd.print("Umiditate: ");
      lcd.print(moisture);
      lcd.print("%");
      lcd.setCursor(0,1);
      lcd.print("Nivel: scazut");
      delay(2000);
      lcd.clear();
      digitalWrite(ledPin, HIGH);
    } else {
      Serial.println("Nivel ok");
      lcd.setCursor(0,0);

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    lcd.print("Umiditate: ");
    lcd.print(moisture);
    lcd.print("%");
    lcd.setCursor(0,1);
    lcd.print("Nivel: ok");
    delay(2000);
    lcd.clear();
    digitalWrite(ledPin, LOW);
}

// Don't water
} else {
    Serial.println("Nu se uda");
    digitalWrite(pumpPin, LOW);
    Serial.println(levelPin);
    if(levelPin < 315) {
        Serial.println("Nivel mic");
        lcd.setCursor(0,0);
        lcd.print("Umiditate: ");
        lcd.print(moisture);
        lcd.print("%");
        lcd.setCursor(0,1);
        lcd.print("Nivel: scazut");
        delay(2000);
        lcd.clear();
        digitalWrite(ledPin, HIGH);
    } else {
        Serial.println("Nivel ok");
        lcd.setCursor(0,0);
        lcd.print("Umiditate: ");
        lcd.print(moisture);
        lcd.print("%");
        lcd.setCursor(0,1);
        lcd.print("Nivel: ok");
        delay(2000);
        lcd.clear();
        digitalWrite(ledPin, LOW);
    }
}
}
}

```