\_\_\_\_\_\_\_\_\_Automatic irrigation system using arduino uno\_\_\_\_\_\_\_\_\_

#include <LiquidCrystal.h>

// Initialize the library with the numbers of the interface pins

LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

const int sensorPin = A0; // Soil moisture sensor pin

const int relayPin = 8; // Relay module pin

int threshold = 600; // Threshold value for soil moisture

void setup() {

// Set up the LCD's number of columns and rows:

lcd.begin(16, 2);

lcd.print("Moisture: ");

pinMode(relayPin, OUTPUT);

digitalWrite(relayPin, LOW); // Ensure the pump is off at the start

}

void loop() {

int sensorValue = analogRead(sensorPin); // Read the sensor value

// Print the moisture level

lcd.setCursor(0, 1);

lcd.print(sensorValue);

// Check if the soil is dry

if (sensorValue > threshold) {

// Turn the pump on

digitalWrite(relayPin, HIGH);

lcd.print(" Pump ON ");

} else {

// Turn the pump off

digitalWrite(relayPin, LOW);

lcd.print(" Pump OFF");

}

delay(1000); // Wait for a second before taking another reading

}