**Overview:**

This code operates a small Watering Station designed to monitor soil moisture and air temperature, and automatically water plants based on predefined conditions. The system utilizes a LiquidCrystal display for user feedback and an analog sensor for soil moisture measurement.

**Hardware Requirements:**

* Arduino board (Uno, Nano, etc.)
* LiquidCrystal library
* Soil moisture sensor
* Temperature sensor (analog or digital)
* 16x2 LCD display
* Resistors and wires for connections

**Libraries Used:**

* LiquidCrystal.h: Used to control the LCD display.

**Pin Configuration:**

* LCD:
  + RS (Register Select): 12
  + EN (Enable): 11
  + Data Pins: d4 (5), d5 (4), d6 (3), d7 (2)
* Soil Moisture Sensor: A0
* Temperature Sensor: A2
* Watering Pump (Assumed): 8 (configured as OUTPUT)

**Functionality:**

1. **setup() Function**:
   * Initializes the LCD display.
   * Prints "STARTING" on the display for 1 second.
   * Clears the LCD display.
   * Configures pin A0 as input for soil moisture sensor.
   * Initializes Serial communication at a baud rate of 9600.
   * Configures pin 8 as output for controlling the watering pump.
2. **loop() Function**:
   * Reads analog values from the soil moisture and temperature sensors.
   * Converts the analog reading of the soil moisture sensor to a percentage value.
   * Calculates the air temperature based on the analog reading from the temperature sensor.
   * Prints the soil moisture and air temperature values to the Serial Monitor.
   * Checks predefined conditions:
     + If the air temperature is below 0°C, displays "Plant frozen" on the LCD.
     + If the air temperature is above 100°C, displays "Plant burned" on the LCD.
     + If soil moisture is below 60% and air temperature is below 24°C, activates the watering pump and displays "Watering" on the LCD.
     + Otherwise, displays "Monitoring" on the LCD and deactivates the watering pump.
   * Displays the current air temperature and soil moisture percentage on the LCD.