

#### Requirements:

Automatically control the irrigation of different plant types in a greenhouse.

- · Type 1 are aquatic plants in a pool where the water level must be kept within a certain range.
- Type 2 are to be irrigated each morning and evening for 3 minutes.
- Type 3 are to be irrigated every evening for 2 minutes.

The irrigation system should be able to be switched ON/OFF.

#### LOGO! Solution:

The water pump is enabled while the system is switched ON.

Irrigation routes are controlled via valves that allow water to flow to the different plant types when opened.

## Irrigation of type 1:

The water level in the pond is always kept within a set range via an analog ultrasonic level sensor.

2 threshold triggers are used to turn the water pump ON if the level reaches a certain level & OFF when full.

## Irrigation of type 2:

Via the time switch the irrigation pump is switched ON for three minutes (daily) from 6:00 to 6:03 in the morning and from 18:00 to 18:03 in the evening.

## Irrigation of type 3:

A photo-sensitive switch turns ON & OFF at a set thresholds in the mornings & evenings, irrigating only in the evenings for 2 minutes when the photo-sensitive switch at 13 turns OFF.

# Components used:

- LOGO! 230RC

Advantages:

The irrigation time can be changed in the mornings and evenings.

- Pond water level range can be easily asjusted if needed,

- Al1 Ultrasonic Sensor (0-10V)
- I1 Switch to enable automatically controlled watering (NO contact)
- I2 Photo-sensitive switch (NO contact)

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- Q1 Relay for Water Pump 1 (Plant Type 1)
- Q2 Relay for Water Pump 2 (Plant Type 2)
  - Q3 Relay for Water Pump 3 (Plant Type 3)

Creator:	adbejo0		Project:	Bewässerung von Gewächshauspflanzen	Customer:	SIEMENS AG
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B003(Al (AND)  B004(Al (Analog Trigger)  B005(La (Latchin Relay)  B006(Al (AND)  B007(W (Weekly Timer)  B009(O (On-Del Timer)  Q1(Outp Water Properties of the properties of t	1(AND) ·	(Type)		Parameter	
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