

# Outdoor and Indoor Lighting.....

## 1. Requirements

Outdoor and indoor lighting of a house is controlled using SR. When no person is in a house and it is dark, person approaching are to be detected and the lighting system is switched on via the motion detectors and the alarm contact.

## 2. SR Solution

There are 3 areas of outdoor lighting (QA0, QA1, QA2), each area has its own motion detector (IA1, IA2, and IA3). If one of these motion detectors is activated during a certain period, the according outdoor lighting is switched on for 90 seconds. The time period is set via a time switch integrated in SR (PM17:00 to AM7:00).

The photosensitive switch IA0 ensures that the lighting is only switched on when it is dark. The fourth motion detector (IA4) is nothing to time switch and darkness. IA4 is activated, all lighting is switched on for 90 seconds, outdoor lighting is switched on for 90 seconds via the alarm contact of alarm system.

Additionally after switching off the outdoor lighting, the indoor lighting is switched on for 90 seconds, and the indoor lighting is instant switched on for 90 seconds via the motion detector IA4 or the alarm contact.

## 3. Components used

Input	Output
IA0 Photosensitive switch (NO contact)	QA0 Outdoor lighting 1
IA1 Motion detector IA0 (NO contact)	QA1 Outdoor lighting 2
IA2 Motion detector IA1 (NO contact)	QA2 Outdoor lighting 3
IA3 Motion detector IA2 (NO contact)	QA3 Indoor lighting
IA4 Motion detector IA3 (NO contact)	
IA5 Alarm contact (NO contact)	

## 4. Advantages and Specialties

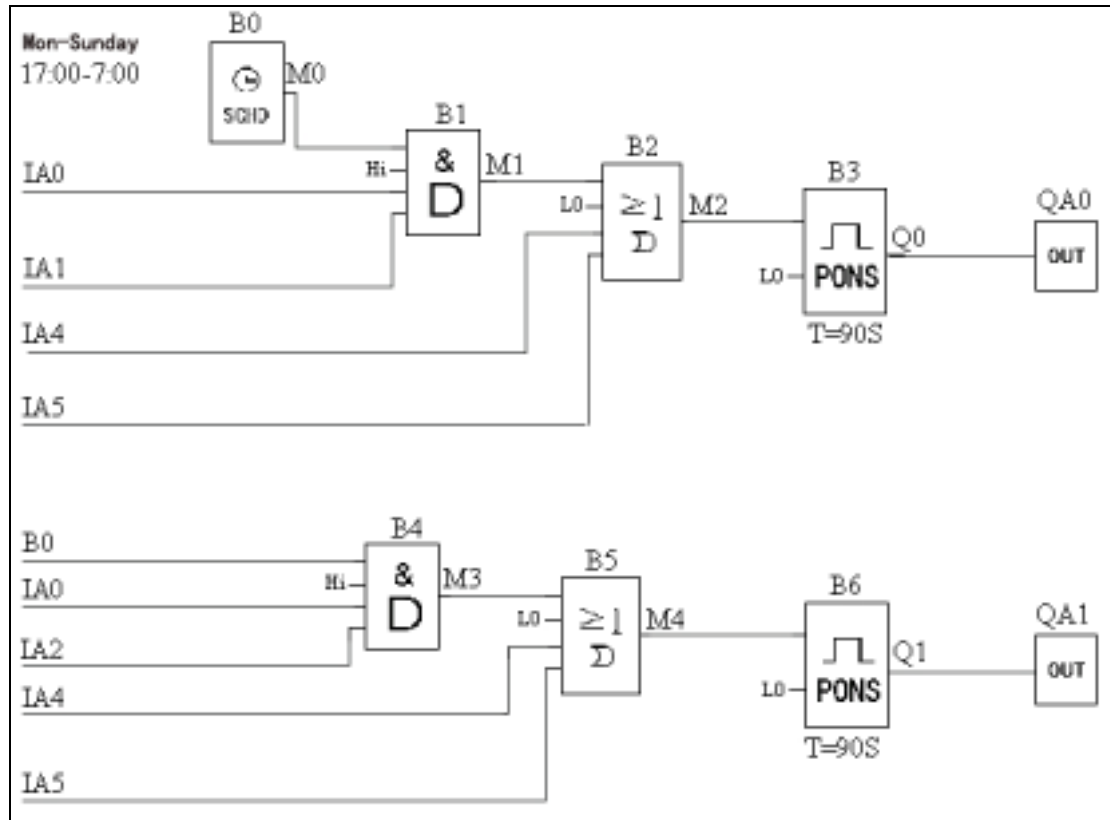
Saving Energy due to adopting of the time switch, the photosensitive switch and the motion detector.

The set time can easily be changed, e.g. time range of time switch or time periods for lighting.

Fewer components are necessary than the traditional solutions.

## 5. Software Circuit Diagram

Part I.....



Part II.....

