

**Mastering Embedded System Online Diploma**

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**First Term (Final Project 1 )**

**Eng. Omar adel shahin**

My Profile:

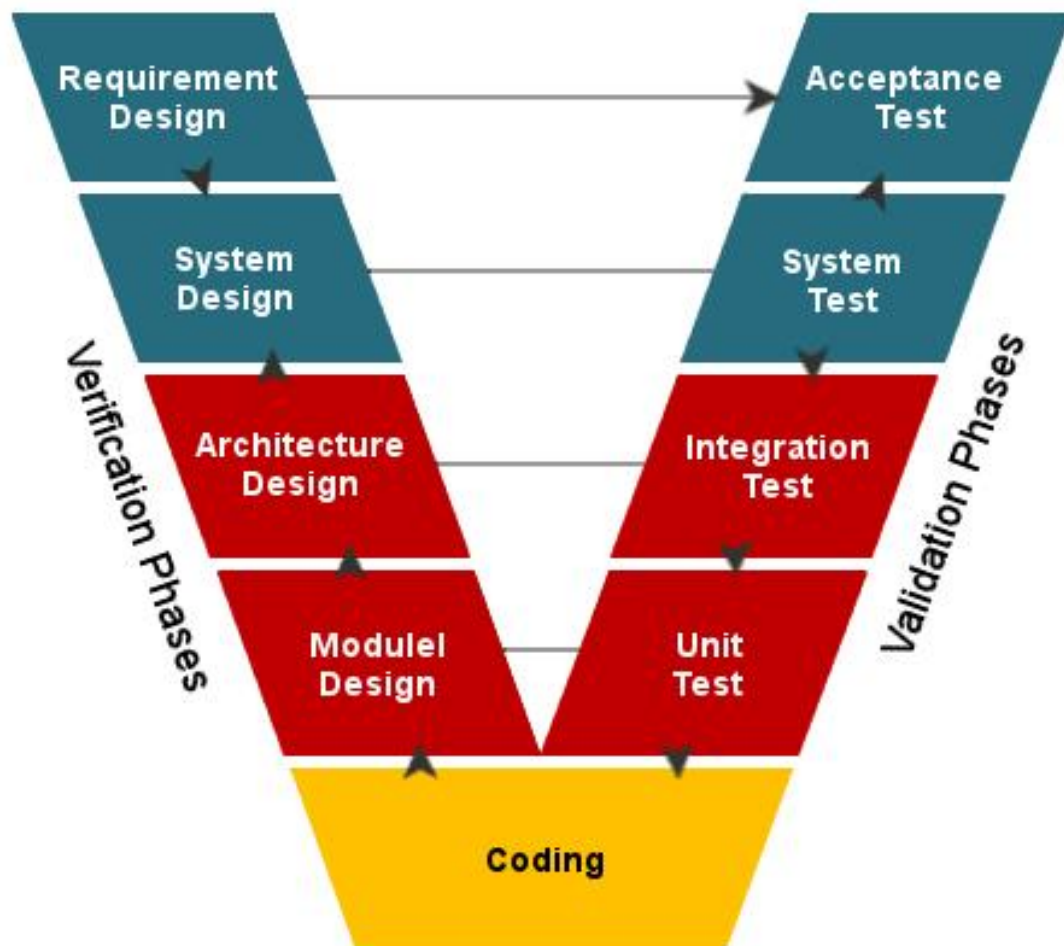
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# **REPORT**

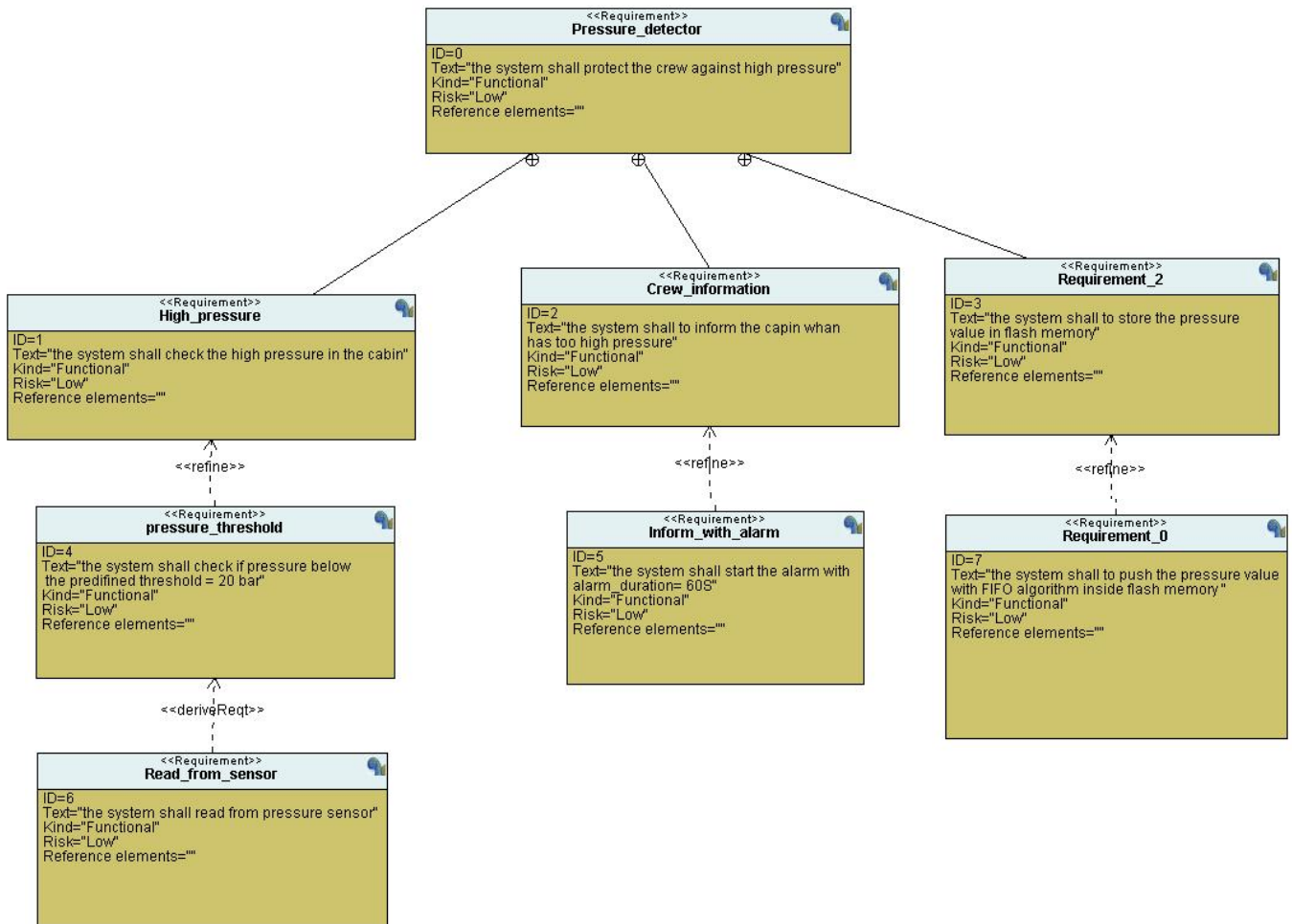
## DESCRIPTION:

When the pressure inside a cabin exceeds 20 bars, a pressure controller alerts the crew of the cabin with an alarm. The alarm goes on for 60 seconds.

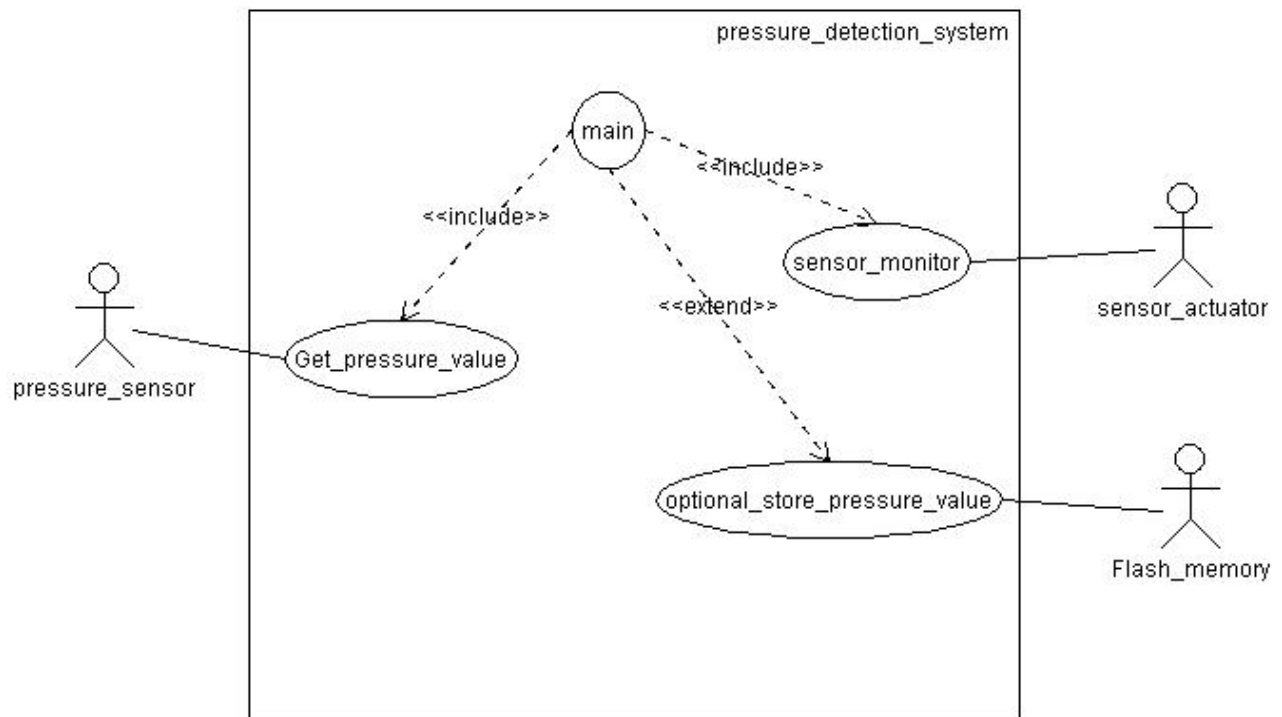
## METHOD:



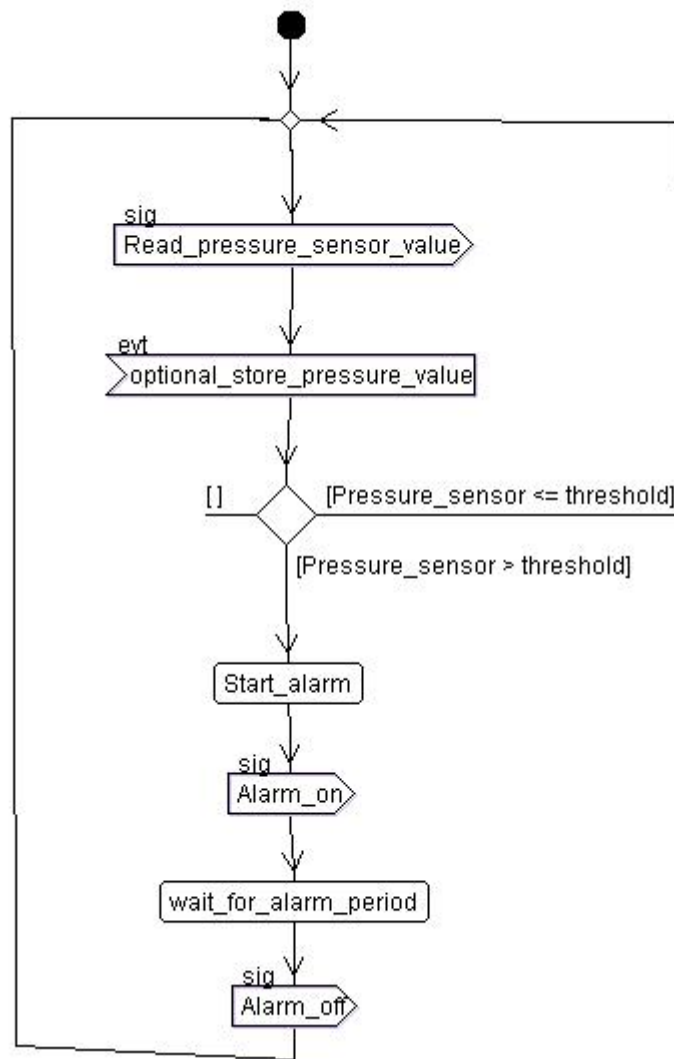
# REQUIREMENT DIAGRAM



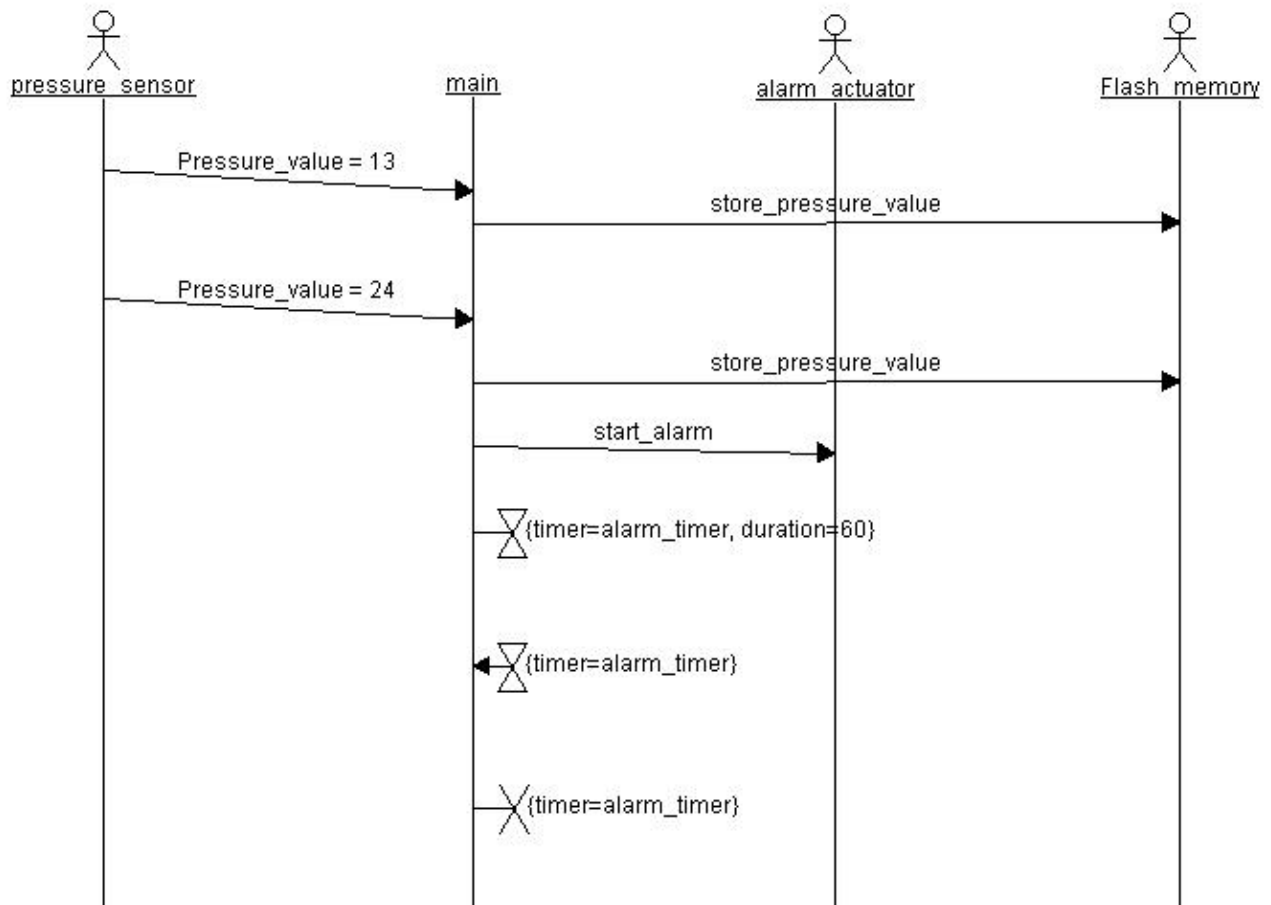
# SYSTEM ANALYSES : USE CASE DIAGRAM



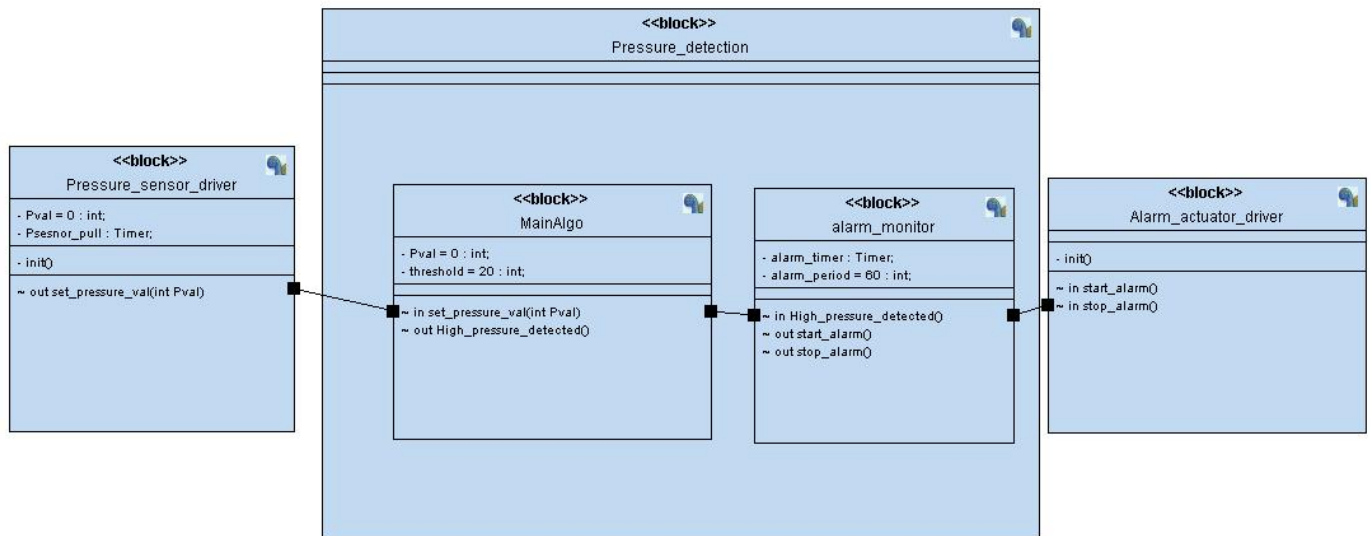
## SYSTEM ANALYSES : ACTIVITY DIAGRAM



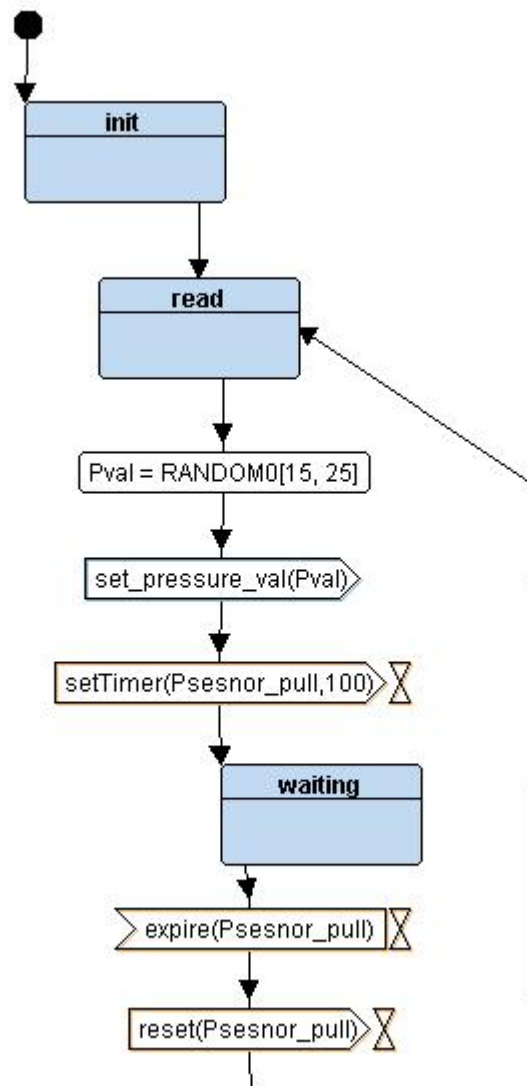
## SYSTEM ANALYSES : SEQUENCE DIAGRAM



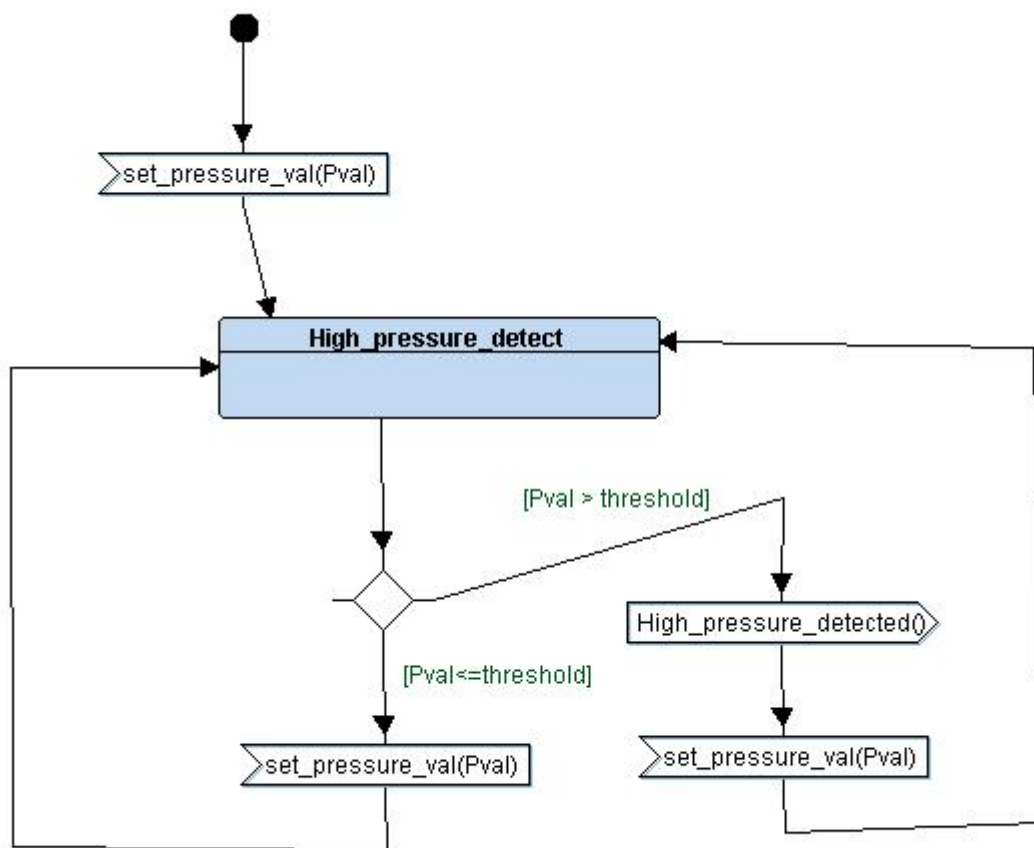
# SYSTEM DESIGN



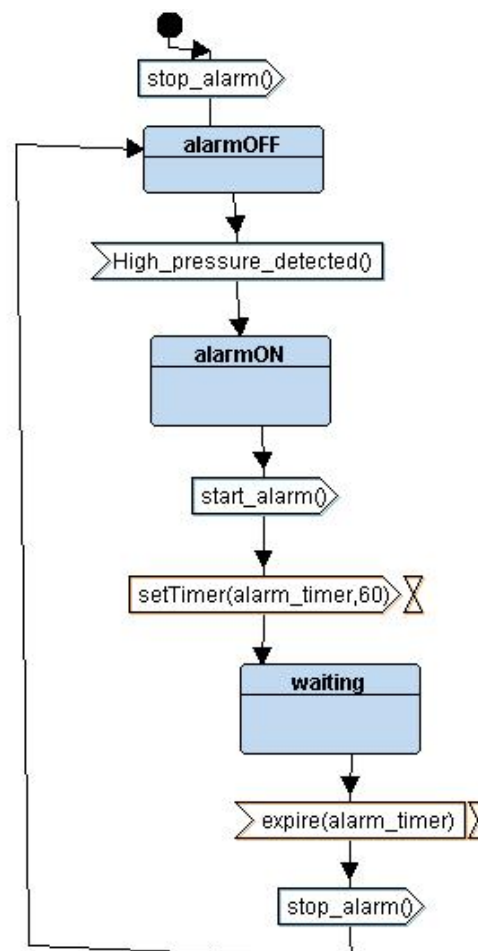
## Pressure sensor driver block:



## MainALG block:

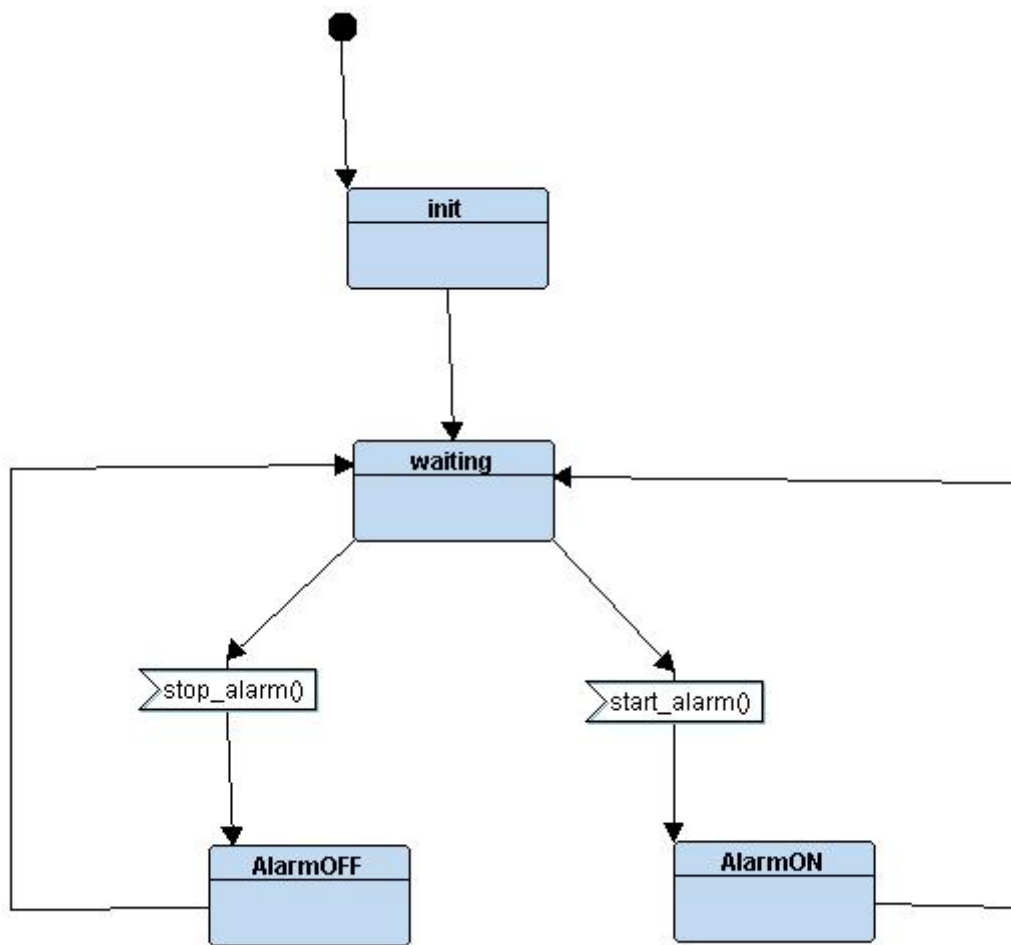


## Alarm monitor block:



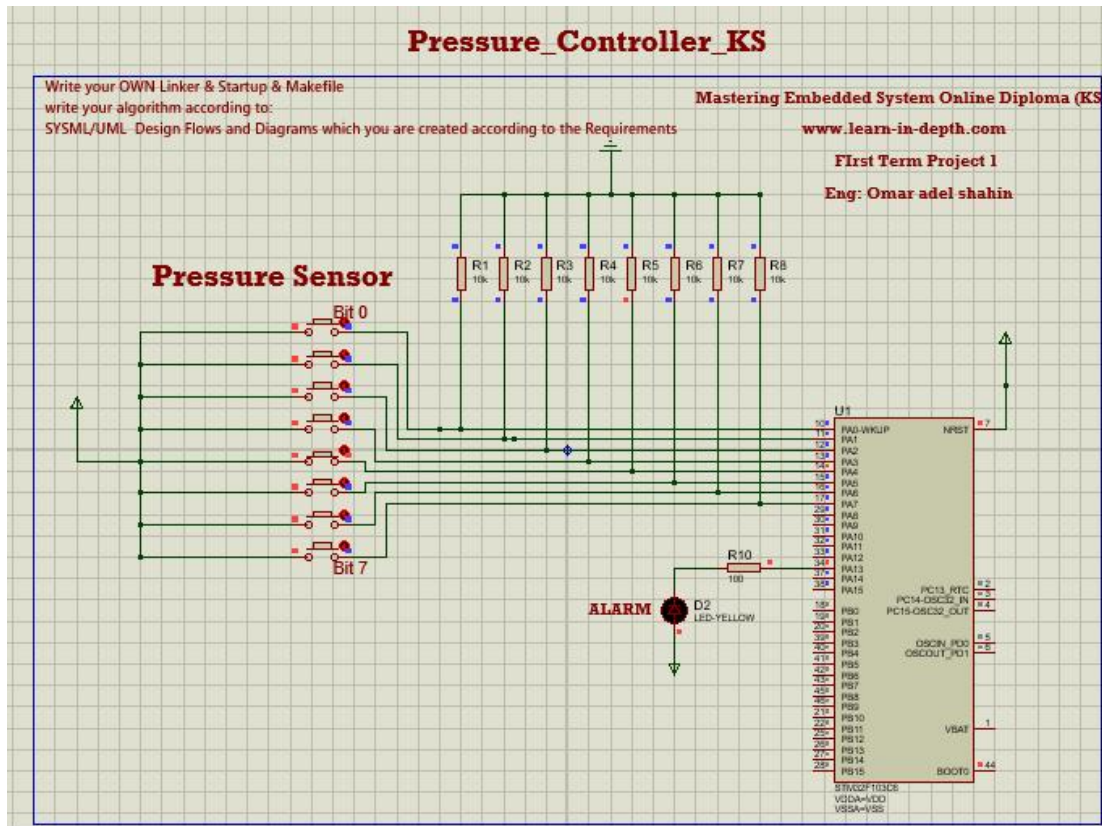


## Alarm actuator block:



# PROTEUS

- pressure = 16 ---> alarm off



pressure = 24 ---> alarm on

