Mastering Embedded System

Online Diploma

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First Term Project 1 :-

High Pressure Detection System

BY :

Eng. Mohamed Kamel Aly

My Profile :

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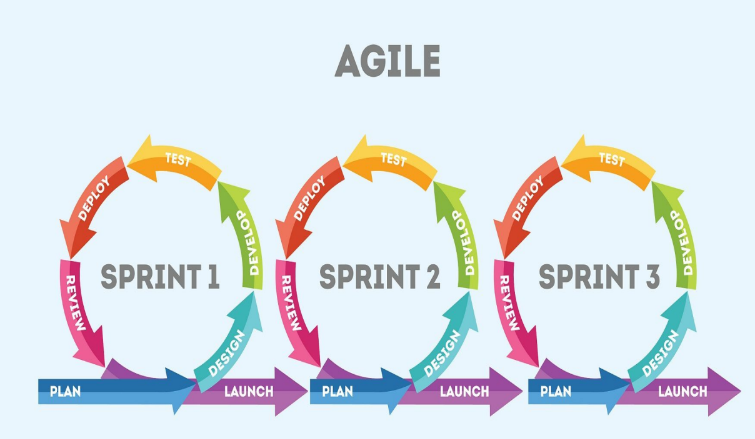
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# Methodology

Agile methodology is an iterative and incremental approach to software development that prioritizes flexibility, collaboration, and customer satisfaction. It emerged as a response to the shortcomings of traditional waterfall methodologies, which often resulted in lengthy development cycles and a lack of adaptability to changing requirements.

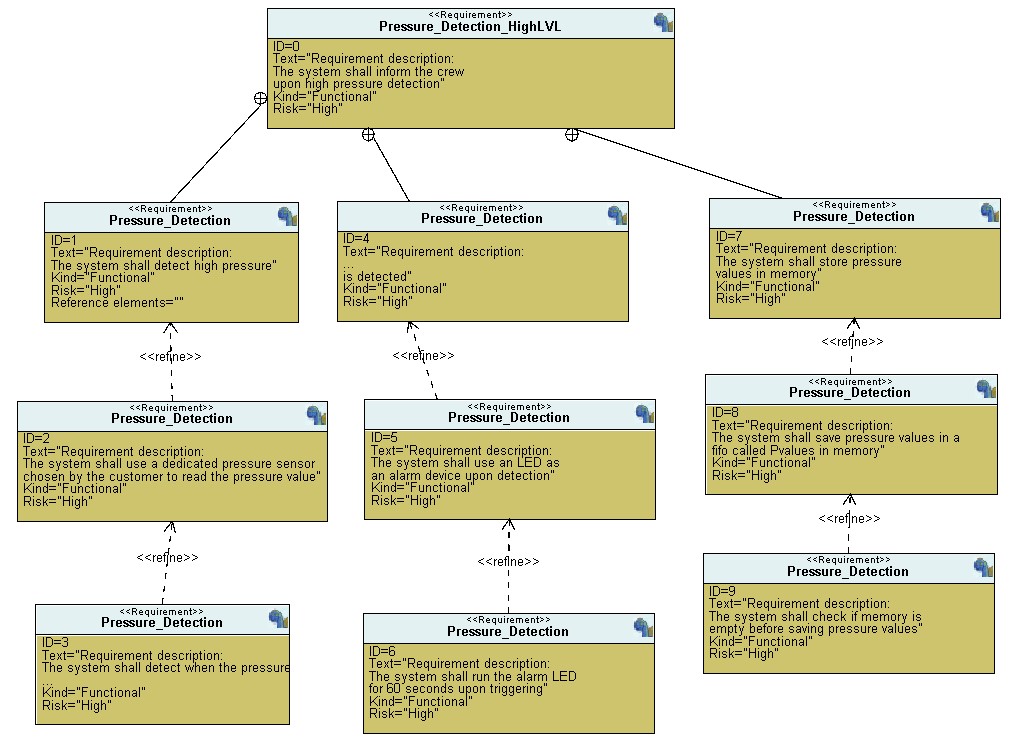
# Requirements

A ”client” expects to deliver the software of the following system

specification (from the client) A pressure controller informs the crew of a

cabin with an alarm when the pressure exceeds 20 bars in the cabin the

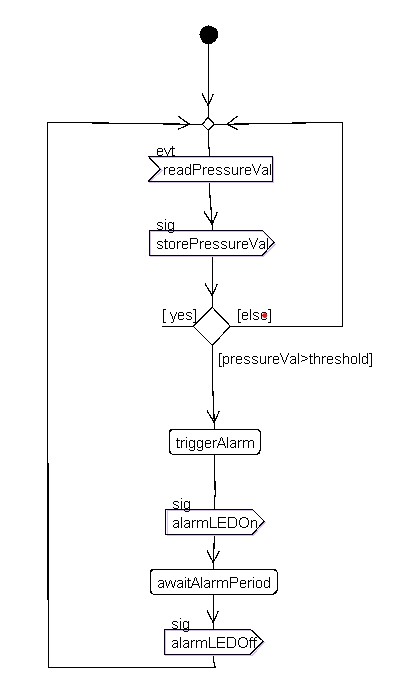
alarm duration equals 60 seconds.



# System Analysis

## Use Case Diagram

## Activity Diagram

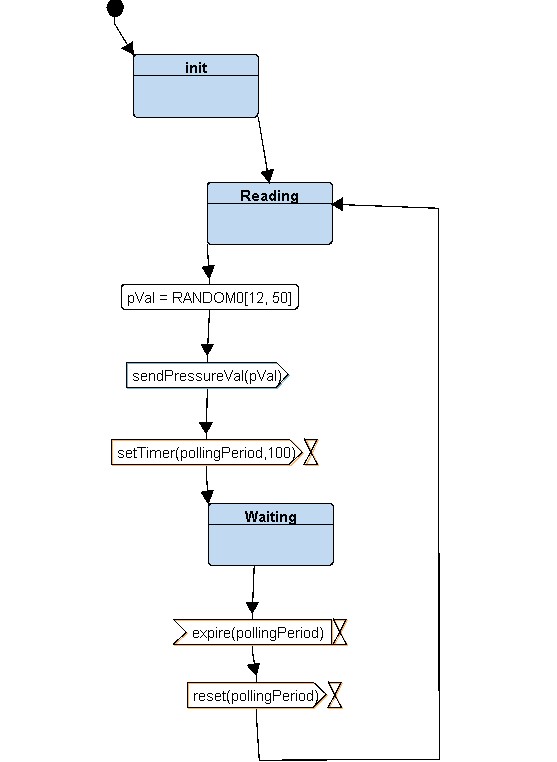


## Sequence Diagram

# System Design

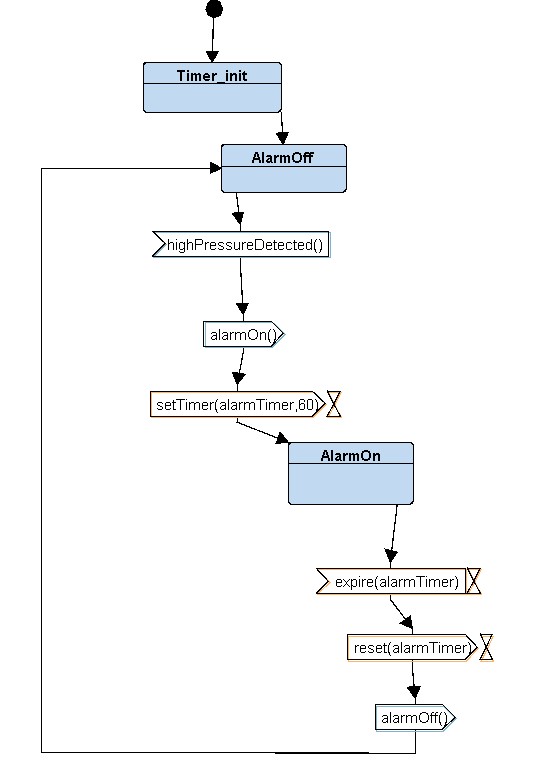
## Block Diagram

## Pressure Sensor State Machine

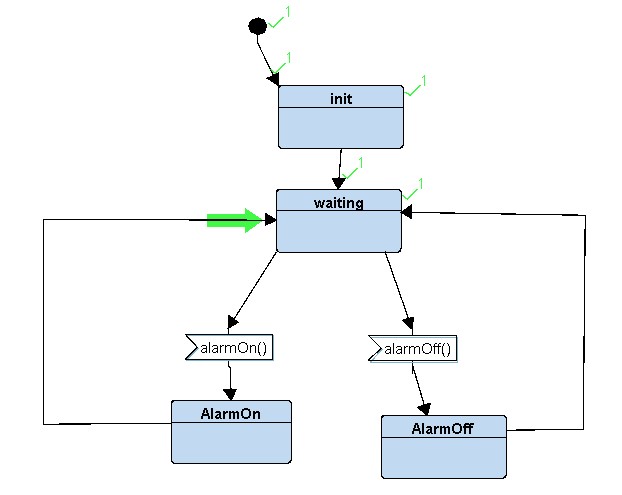


## Alarm Monitor State Machine

## Main Algorithm State Machine



## Alarm State Machine



# Simulation

# Code