Mastering Embedded System Online Diploma

First Term - Final Project 1

High Pressure Detection Project

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# Case Study

* A Pressure Controller informs the crew of cabin with an alarm when the pressure exceeds 20 Bars in the cabin.
* The Alarm duration equals 60 Seconds.
* Keep track of the measured values.

# Assumptions

* The System setup and shutdown procedures are not modeled.
* The System maintenance is not modeled.
* The Pressure Sensor never fails.
* The Alarm never fails.
* The System never faces power cut.

# A computer screen shot of a computer Description automatically generated with medium confidenceRequirements

System Analysis : Use Case Diagram **A diagram of a company

Description automatically generated**

## A diagram of a flowchart Description automatically generatedSystem Analysis : Activity Diagram

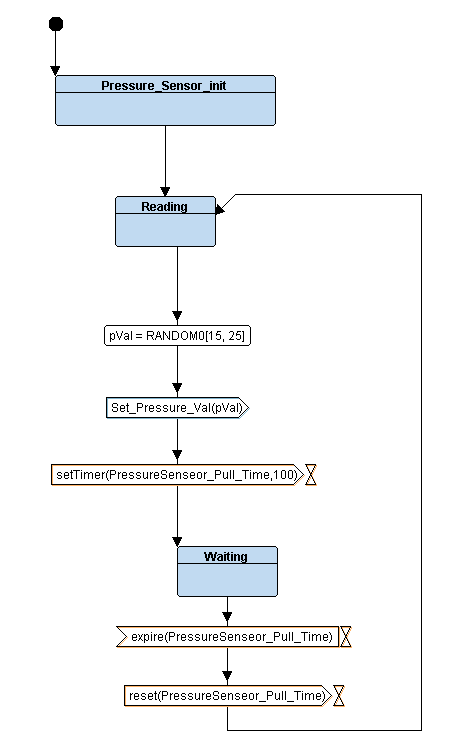
## System Analysis : Sequence Diagram

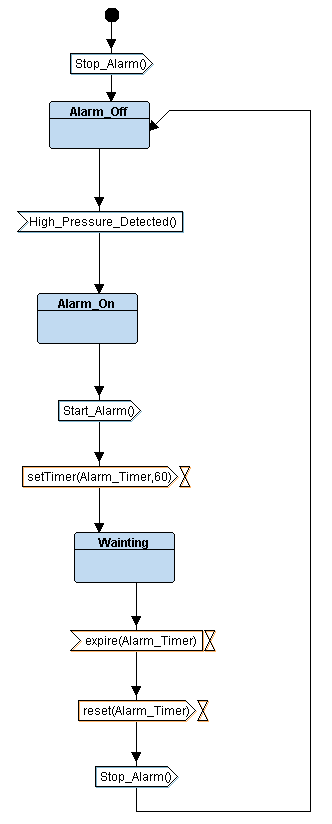
# System Design

## Pressure Sensor

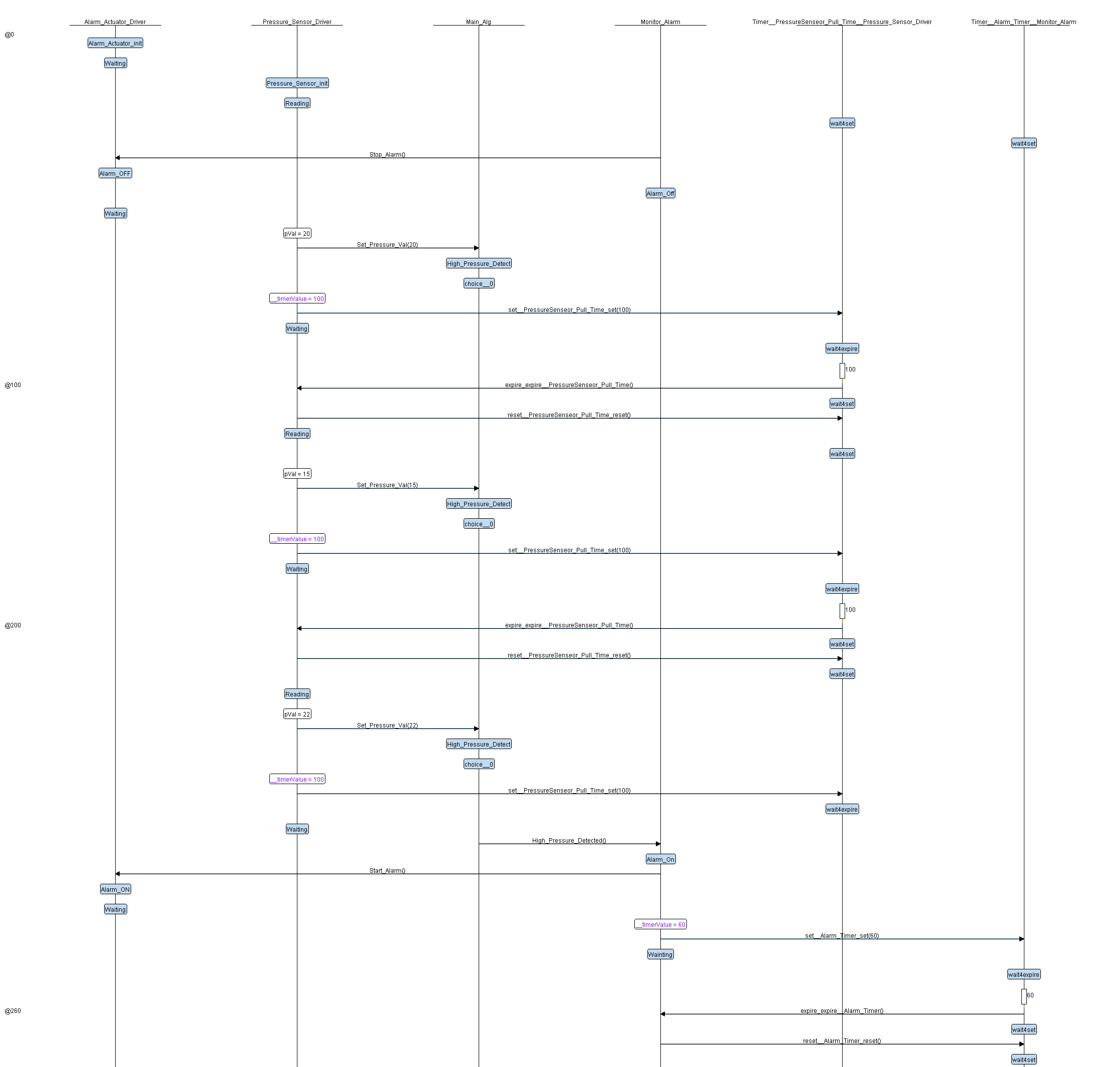
## Main Algorithm

## Alarm Actuator

Monitor AlarmPressure Sensor

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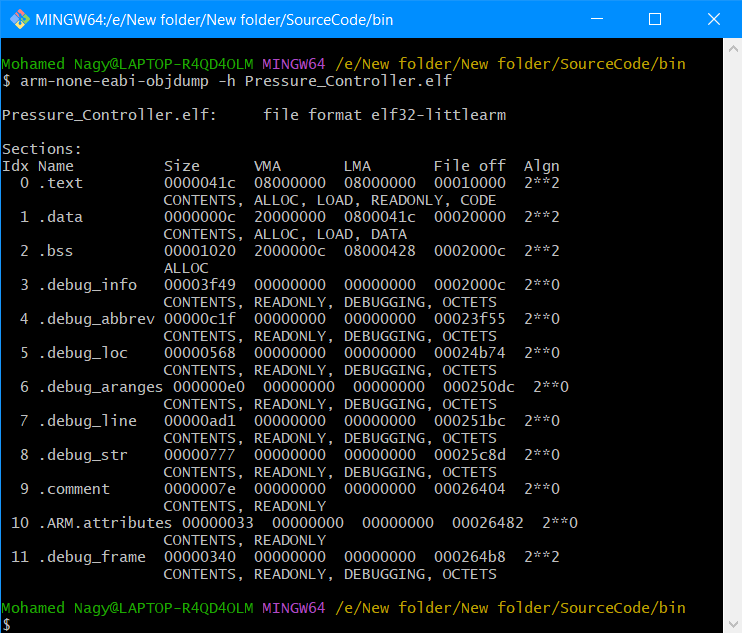
**Simulation trace from ttool**

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# Implementation

**Press the Link below.**

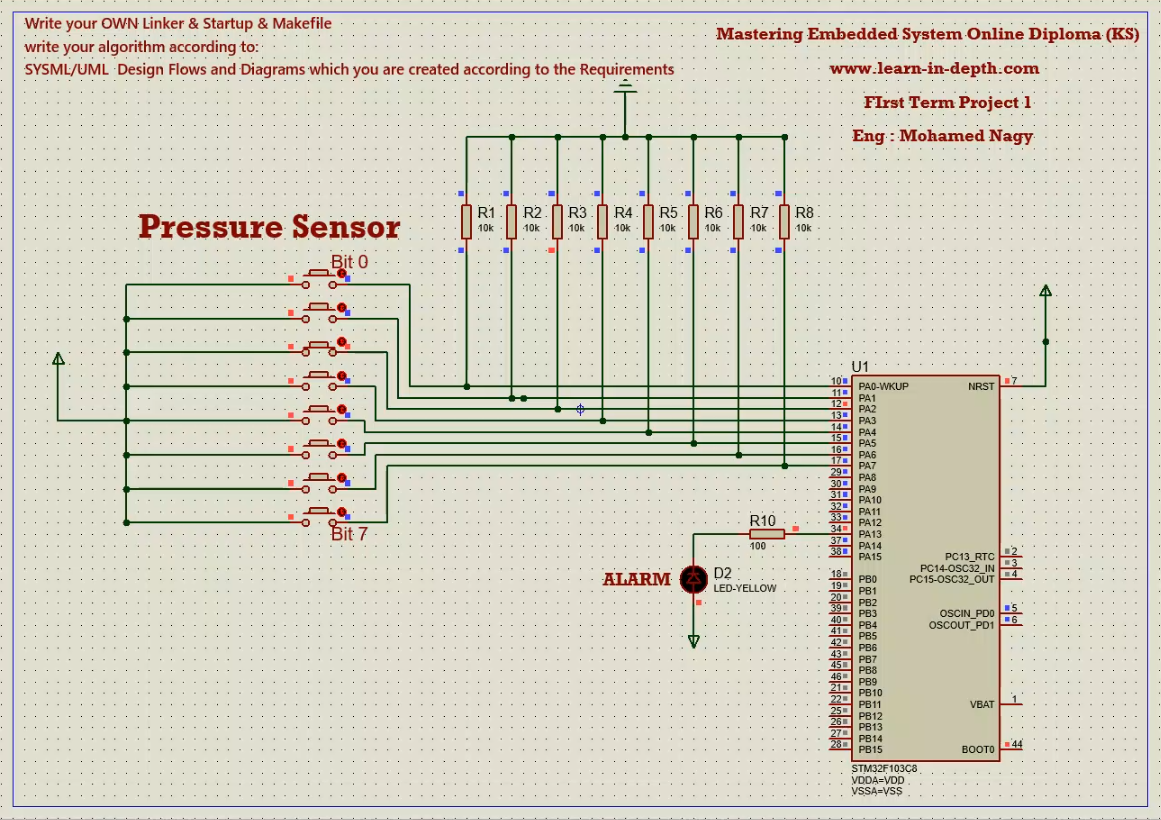
# Memory Sections

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# Symbol Table

# PROTEUS

## The output in case of Low-Pressure value, so the alarm is OFF

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The output in case of High-Pressure value, so the alarm is ON

A computer screen shot of a computer

Description automatically generated