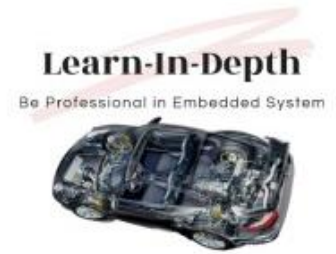


SafePressure Alert



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Requirement Gathering Document

First Term (Final Project 1)

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Requirement Gathering for Pressure Control System (PCS)

Version 1.0 approved

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1. Introduction

1.1 Objective

Define the requirements for a pressure control system that alerts the crew in a cabin when the pressure exceeds 20 bars, including an alarm that lasts for 60 seconds.

1.2 Scope

This project aims to develop a software system that monitors cabin pressure and triggers an alert if the pressure exceeds 20 bars. The alert will last for 60 seconds.

2. Functional Requirements

2.1 Pressure Monitoring

- The system must continuously monitor the cabin pressure.
- The system should detect when the pressure exceeds 20 bars and trigger an alert.

2.2 Alarm

- There must be an audible or visual (or both) alarm to notify the crew when the pressure exceeds 20 bars.
- The alarm must continue for 60 seconds.

2.3 Alarm Termination

- After the 60-second alarm duration, the alarm should stop automatically.
- There should be an option to manually deactivate the alarm if necessary.

3. Non-Functional Requirements

3.1 Performance

- The alarm should be triggered within 2 seconds of the pressure exceeding the threshold.
- The alarm must be clear and audible or visible in the cabin's operating conditions.

3.2 Security

- The system must be reliable and capable of operating continuously without interruption.
- Data transmitted from pressure sensors to the system must be secure.

3.3 Usability

- The system should be easy for the crew to configure and operate.
- The alarm interface should be simple and clear.

4. Constraints

4.1 Technical

- The system must be compatible with the existing pressure measurement devices in the cabin.
- The alarm must be suitable for the cabin's operating environment (noise, lighting, etc.).

4.2 Regulatory

- The system must comply with industry standards for pressure alert systems.

5. Assumptions

- It is assumed that the cabin has reliable pressure measurement devices connected to the system.
- It is assumed that the crew will receive adequate training on how to handle the alarm system.

6. Contractual Requirements

- The system must adhere to the technical specifications provided by the client in the specification document.