**PO4\_DGELV\_DIGITAL ELEVATOR**

**SRS DOCUMENT**

**Version 1.1**

**Draft**

**Revision History**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Document** | **Author** | **Date** | **Version** | **Status** |
| Initial Release, specifying software used functions. | Mira Mousa | 1/24/2020 | 1.0 | Released |
| The State machine diagram was added. | Salma Amr | 1/24/2020 | 1.1 | Released |
| Reviewed and updated requirements, input and output. | Salma Amr  Mira Mousa | 1/31/2020 | 1.2 | Reviewed |

**Reference History**

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# 1. Introduction

## 

## 1.1 Purpose

This SRS the software functional and nonfunctional requirements.

## 1.2 Specification Objectives

The objectives of this specification are to:

* Provide a Software system overview for a digital Elevator with lock system.
* Control the hardware for the user interface.
* Control the movements of the digital Elevator.

# 2. System Overview

## 2.1 Definition

The digital Elevator has lock system for 10 users that can be configured and edited by the user with high security sequence to ensure that only approved users can use the elevator .

The system control the movement of the motors and displays of the elevator.

## 2.2 Software Requirement

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **REQ\_ID** | **Description** | **Coverage** | **Input** | **Output** |
| REQ\_ PO4\_DGELV \_SRS\_01\_V1 | * This software can accept users from 0 to NumberOfUsers, NumberOfUsers = 10. * When UserNum is more than NumberOfUsers then the system will reject it. | CYRS\_Req\_1 | UserNum | Status=Rejected  Or  Status=Accepted |
| REQ\_ PO4\_DGELV \_SRS\_02\_ | For the first use :   * The software should ask the user for NewID with limitation of 10 characters and NewPassword with limitation of 4 digits. * if the NewID is already taken the software asks for another one. * Then return ok to use the elevator. | CYRS\_Req\_2  CYRS\_Req\_3  CYRS\_Req\_5 | NewID, NewPassword | Status=OkToUse |
| REQ\_ PO4\_DGELV \_SRS\_03\_V1 | * This software asks the user for UserID and UserPass to be able to use the elevator. * If the UserID and UserPass are correct it displays Ok on LCD and enable the control of the elevator. * When UserID or UserPass are wrong it displays NOK on LCD and a buzzer sound to alert. * Allow the user for 3 trials then block the user for 5 sec . | CYRS\_Req\_4  CYRS\_Req\_6  CYRS\_Req\_7  CYRS\_Req\_8 | UserID, UserPass | Signal to display Ok or Nok on LCD, Signal to start buzzer sound and Status = LoggedIn  or Status = Blocked |
| REQ\_ PO4\_DGELV \_SRS\_04\_V1 | * The software can control the elevator to go up and down when receiving a signal from up/down push buttons. | CYRS\_Req\_9 | SignalUp, SignalDown | Signal controls the elevator to move up or Down |
| REQ\_ PO4\_DGELV \_SRS\_05\_V1 | * This software can go to reset itself when the up/down push buttons are pressed together for 2 sec. | CYRS\_Req\_10 | SignalUp and SignalDown | Status = reset, signal resets all system |

## 2.3 State Machine

This diagram is a draft describes the changes happening in the system status during the software running.

