***SRS***

**Version Control:**

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| Version | Author | Changes | Status |
| 1.1 | Basma  Mohamed  Osman  Bishoy  Nada | Initial version | Reviewed |
| 1.2 | Bishoy  Nada | Changing the SRS based on the changes in the CRS | Reviewed |
| 2.1 | Basma | Creating new SRS based on the new project idea | Reviewed |
| 3.1 | Nada | Creating new SRS based on the meeting’s updates | Reviewed |
| 3.2 | Nada | Editing the SRS based on the meeting’s updates | Reviewed |
| 3.3 | Nada | updating the SRS based on the meeting’s requirments | Reviewed |
| 3.4 | Nada | Modifying the SRS based on the meeting’s updates | Released |

**Introduction:**

This documentation contains the Software Requirements Specifications for the Safe. The aim of this document is to gather, analyze, and give an in-depth insight of the complete Safe System. Thus, this documentation includes the requirements IDs that covers all the customer requirements.

**General Description:**

This Safe System is designed to insure the security, and safety of consumers’ belongings. There is a display screen to make the safe more user friendly. The key/Password consists of four numbers, which is displayed on the screen as “\*\*\*\*” to ensure that no one else steals it. When the user enters the password correctly, the safe opens, and “Successful Attempt” is displayed on the screen. On the other hand, If the user entered wrong password 3 consecutive times, the safe stays locked, the alarm led starts blinking, and “Wrong Password” is displayed on the screen.

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| Access Type | Req\_SRS\_ID\_1.1 |
| Description | Software shall read the 4 number password (signal on locking Pin is high) that is set by the user.  For testing use the password: 1234 |
| Type | Functional |
| Covers | Req\_CRS\_ID\_1 |

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| Access Type | Req\_SRS\_ID\_1.2 |
| Description | Software shall wait (delay the system) up to 2 sec between entering each digit of the password |
| Type | Non-Functional |
| Covers |  |

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| Access Type | Req\_SRS\_ID\_1.3 |
| Description | In Case delay/waiting period between entering each digit of the password is exceeded the Software clears the written digits, and the user has to enter the password form the beginning. |
| Type | Functional |
| Covers | Req\_CRS\_ID\_1 |

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| Unlocking the safe | Req\_SRS\_ID\_2.1 |
| Description | In case the user enters the password correctly, Software shall open the safe (signal on locking Pin is high). |
| Type | Functional |
| Covers | Req\_CRS\_ID\_1 |

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| Unlocking the safe | Req\_SRS\_ID\_2.2 |
| Description | Unlocking the safe (signal on locking Pin is high) when correct password is entered should be within 30 secs from entering the correct password. |
| Type | Non-Functional |
| Covers |  |

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| Unlocking the safe | Req\_SRS\_ID\_2.3 |
| Description | In case the user enters the password correctly, Software shall display “Successful Attempt” on the screen. |
| Type | Functional |
| Covers | Req\_CRS\_ID\_1 |

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| Password Protection System | Req\_SRS\_ID\_3.1 |
| Description | Software shall display the password on LCD as: “\*\*\*\*” |
| Type | Functional |
| Covers | Req\_CRS\_ID\_1 |

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| Password Protection System | Req\_SRS\_ID\_3.2 |
| Description | The “ \* ” for each digit entered should appear on the screen within 0.5 secs. |
| Type | Non-Functional |
| Covers |  |

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| Safety insurance System | Req\_SRS\_ID\_4.1 |
| Description | If the user entered wrong password 3 consecutive times, the safe stays locked (signal on locking Pin is low) . |
| Type | Functional |
| Covers | Req\_CRS\_ID\_1 |

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| Safety insurance System | Req\_SRS\_ID\_4.2 |
| Description | If the user entered wrong password 3 consecutive times, “Wrong Password” is displayed on the screen. |
| Type | Functional |
| Covers | Req\_CRS\_ID\_1 |

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| Safety insurance System | Req\_SRS\_ID\_4.3 |
| Description | If the user entered wrong password 3 consecutive times, the systems stays on hold for 2 minutes. So, that the system does not accept any input within those 2 minutes |
| Type | Functional |
| Covers | Req\_CRS\_ID\_1 |

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| Safety insurance System | Req\_SRS\_ID\_4.4 |
| Description | If the safe was on hold twice due to the wrong password entered 3 consecutive times within 15 minutes the user has to open the safe with the solid key. |
| Type | Functional |
| Covers | Req\_CRS\_ID\_1 |

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| Led Alarm System | Req\_SRS\_ID\_5.1 |
| Description | Alarm led starts blinking (signal on Alarm led Pin is high then low repeatedly) if user entered wrong password 3 consecutive times. |
| Type | Functional |
| Covers | Req\_CRS\_ID\_2 |

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| Led Alarm System | Req\_SRS\_ID\_5.2 |
| Description | The accepted blinking rate for the Alarm led is up to 0.8 sec |
| Type | Functional |
| Covers | Req\_CRS\_ID\_2 |

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| Led Alarm System | Req\_SRS\_ID\_5.3 |
| Description | Other than the case that wrong password is entered, the led stays turned off (signal on Alarm led Pin is low). |
| Type | Functional |
| Covers | Req\_CRS\_ID\_2 |