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| **Student Name** | **Student ID** | **Date** |
| Alex Dinardo | 100737587 | February 15th, 2011 |
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| **Use Case Name:** | **Arm System** |
| **Brief Description:** | The user uses the keypad interface to send the arm system signal to the System Handler. Password verification is needed for this function. |
| **Precondition** | The system is enabled.  The system is not already armed.  The system is in ready state (no sensors are triggered). |
| **Primary Actor** | Keypad |
| **Secondary Actors** | Alarm, Sensor |
| **Dependency** | INCLUDE USE CASE Enter Password |
| **Generalization** |  |

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| **Basic Flow** | |
| **Step #** |  |
|  | The arm system button on the keypad is pressed. |
|  | Include use case ENTER PASSWORD |
|  | The system VALIDATES THAT password is correct. |
|  | The system sends arming signal to all sensor cells. |
| **Postcondition**: | The system is armed. |

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| **Specific Alternative Flows**: Incorrect Password | | |
| **BFS** 3 | **Branching action** | |
|  | **Steps** | **Action** |
|  | ABORT |
| **Postcondition**: | System is not armed. | | |

Test Plan:

-Ensure post condition on the basic flow is asserted (all cells are indeed armed)

-Ensure system returns to previous state when incorrect password is entered

-Ensure that use case is not executed when system is not in ready state (assert the preconditions)