**Use Cases**

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| ID | UC-1 |
| Title: | Start Application |
| Description: | The application loads correctly when run |
| Primary Actor: | Instructor |
| Preconditions: | Executable file ran |
| Postconditions: | Program loads on computer and launcher is in idle mode |
| Main Success Scenario: | 1. Executable is ran from user computer  2. Program starts up and GUI displays  3. Launcher is in idle mode |
| Extensions: | 1. Program does not load correctly or crashes |
| Frequency of Use: | Using application |
| Owner: | Team N7 |
| Priority: | P4 - Normal |
| Risk: | MITIGATION\_06 |

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| ID | UC-2 |
| Title: | Fire Missiles |
| Description: | Fire button pressed in the GUI and a missile is fired. |
| Primary Actor: | Instructor |
| Preconditions: | Software is in idle mode |
| Postconditions: | Missile is fired |
| Main Success Scenario: | 1. Fire button on GUI is clicked  2. Launcher shoots a dart  3. Launcher goes back into idle mode |
| Extensions: |  |
| Frequency of Use: | Testing |
| Owner: | Team N7 |
| Priority: | P5 - Low |
| Risk: | MITIGATION\_06 |

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| ID | UC-3 |
| Title: | Launcher left movement |
| Description: | Clicking the left arrow button in the GUI causes the launcher to move left. |
| Primary Actor: | Instructor |
| Preconditions: | Software is in idle mode |
| Postconditions: | Launcher moves left |
| Main Success Scenario: | 1. Left directional arrow on the GUI is clicked  2. The missile launcher turns left  3. The missile launcher stops moving (returns to idle mode) |
| Extensions: | 1. Directional arrow is held down rather than single clicked  2. The launcher will continue movement while arrow is held down  3. The user lets off of the left mouse click on the arrow or launcher reaches maximal turning point  4. The launcher stops moving (returns to idle mode) |
| Frequency of Use: | Testing |
| Owner: | Team N7 |
| Priority: | P2 - Low |
| Risk: | MITIGATION\_11 |

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| ID | UC-4 |
| Title: | Launcher up movement |
| Description: | Clicking the up arrow button in the GUI causes the launcher to move up. |
| Primary Actor: | Instructor |
| Preconditions: | Software is in idle mode |
| Postconditions: | Launcher moves up |
| Main Success Scenario: | 1. Up directional arrow on the GUI is clicked  2. The missile launcher turns up  3. The missile launcher stops moving (returns to idle mode) |
| Extensions: | 1. Directional arrow is held down rather than single clicked  2. The launcher will continue movement while arrow is held down  3. The user lets off of the left mouse click on the arrow or launcher reaches maximal turning point  4. The launcher stops moving (returns to idle mode) |
| Frequency of Use: | Testing |
| Owner: | Team N7 |
| Priority: | P2 – Low |
| Risk: | MITIGATION\_11 |

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| ID | UC-5 |
| Title: | Launcher right movement |
| Description: | Clicking the right arrow button in the GUI causes the launcher to move right. |
| Primary Actor: | Instructor |
| Preconditions: | Software is in idle mode |
| Postconditions: | Launcher moves right |
| Main Success Scenario: | 1. Right directional arrow on the GUI is clicked  2. The missile launcher turns right  3. The missile launcher stops moving (returns to idle mode) |
| Extensions: | 1. Directional arrow is held down rather than single clicked  2. The launcher will continue movement while arrow is held down  3. The user lets off of the left mouse click on the arrow or launcher reaches maximal turning point  4. The launcher stops moving (returns to idle mode) |
| Frequency of Use: | Testing |
| Owner: | Team N7 |
| Priority: | P2 – Low |
| Risk: | MITIGATION\_11 |

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| ID | UC-6 |
| Title: | Launcher down movement |
| Description: | Clicking the down arrow button in the GUI causes the launcher to move down. |
| Primary Actor: | Instructor |
| Preconditions: | Software is in idle mode |
| Postconditions: | Launcher moves down |
| Main Success Scenario: | 1. Down directional arrow on the GUI is clicked  2. The missile launcher turns down  3. The missile launcher stops moving (returns to idle mode) |
| Extensions: | 1. Directional arrow is held down rather than single clicked  2. The launcher will continue movement while arrow is held down  3. The user lets off of the left mouse click on the arrow or launcher reaches maximal turning point  4. The launcher stops moving (returns to idle mode) |
| Frequency of Use: | Testing |
| Owner: | Team N7 |
| Priority: | P2 – Low |
| Risk: | MITIGATION\_11 |

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| ID | UC-7 |
| Title: | Idle Mode |
| Description: | The launcher sits idle awaiting input from user |
| Primary Actor: | Instructor |
| Preconditions: | Application executable was ran or launcher is in search and destroy mode. |
| Postconditions: | Launcher enters idle mode and awaits further user input |
| Main Success Scenario: | 1. The launcher is stationary and not currently firing a missile  2. The launcher is ready to accept further user input |
| Extensions: |  |
| Frequency of Use: | Using application |
| Owner: | Team N7 |
| Priority: | P4 - Normal |
| Risk: | MITIGATION\_06 |