Jake White

# Functional Requirements

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| ID | Category | Requirement Title | Requirement Type | Requirement Description |
| 1.0 | Ammunition | Shoot Bullet | Functional | The tank must be able to fire ammunition of a bullet in the direction the tank is facing |
| 1.1 | Ammunition | Bullet Speed | Functional | Depending on the tank chosen the bullet speed must be increased or decreased based on the tank type |
| 2.0 | Terrain | Modify Style Background | Functional | The background or terrain must be changed to the selected background such as a grass field  The system must have the ability to change the background that the battle is taking place |
| 3.0 | Effects | Play Sound | Functional | The system must be able to play a sound when the user chooses to fire a bullet by pressing the fire key |
| 4.0 | Model |  | Technical |  |
| 5.0 | View |  | Technical |  |
| 6.0 | Controller |  | Technical |  |

# Testing Plan

1. Shooting

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| Item | Test Scenario | Expected Results |
| 1.0 – Space Bar | After launching the program – press the space bar to execute the shooting command for the tank | A bullet should be fired from the tank in the direction that the tank is facing  If another tank is hit, the opposing tank should be destroyed  Upon firing a sound should be played when the space bar is pressed  Depending on the tank that is used the bullet should go faster or slower based on the tank type |
| 1.1 – Ammunition Speed | Press the space bar to fire a bullet | Upon pressing the fire key the bullet speed should be faster or slower based on the tank type |
| 1.2 – Negative Test Key | Press any key on the keyboard except the space bar | Nothing should happen, and no bullet is fired  No sound should be played upon pressing any other key |

1. Style Background

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| Item | Test Scenario | Expected Results |
| 2.1 – Change Terrain | After launching the program – from the menu the user should be able to change the background terrain to a grass field environment | When selecting the terrain change the background should be displayed that was selected  The tank positions should not change and no sound should be played |
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1. Sound Effects

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| Item | Test Scenario | Expected Results |
| 3.1 – Play Sound | The fire button plays a sound | When the play sound key is pressed a sound should be played from the speakers  The sound should be played each time the space bar key is pressed by the user |
| 3.2 – Negative Test | Pressing any other key besides the space bar | When any other key is pressed by the user it should not play any sound |

1. Model Testing

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| Item | Test Scenario | Expected Results |
| 4.1 – |  |  |
| 4.2 – |  |  |

1. View Testing

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| Item | Test Scenario | Expected Results |
| 5.1 – |  |  |
| 5.2 – |  |  |

1. Controller Testing

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| Item | Test Scenario | Expected Results |
| 6.1 – |  |  |
| 6.2 – |  |  |