Testing Plan

In order to ensure that the program is operating with the planned behaviors and specifications outlined in the rubric, several tests must be conducted:

1. The enemies should travel across the screen, then downward, slowly making their way down towards the bottom.
2. The player should move across one axis at the bottom of the screen and not be allowed to leave the game frame.
3. Projectiles and enemies should both be removed from the game when they come in contact with one another. Projectiles should also be removed from the game upon leaving the game area.
4. The game should end, and ask to restart the game, if any of the victory conditions are met.

|  |  |  |
| --- | --- | --- |
| Turning point | Turns? | Moves Down? |
| Left side | Yes | Yes |
| Right side | Yes | Yes |
| Left side | Yes | Yes |
| Right side | Yes | Yes |

The enemies follow correct behavior.



|  |  |  |  |
| --- | --- | --- | --- |
| Hits wall? | Is moving? | L/R key pressed? | xPos |
| Yes | No | Yes | 0 |
| Yes | No | Yes | FRAME\_SIZE |
| Yes | No | No | 0 |
| Yes | No | No | FRAME\_SIZE |
| No | Yes | Yes | 100 |
| No | No | No | 20 |

The player follows the correct behavior determined by the user’s input.



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| OverLaps? | Shot xPos | Shot yPos | Enemy xPos | Enemy yPos | Removed? |
| Yes | 231 | 430 | 225 | 432 | Yes |
| No | 50 | 656 | 25 | 231 | No |
| Yes | 347 | 0 | - | - | Yes |
| No | 562 | 612 | - | - | No |

The collision detection works well. Enemies and projectiles are removed correctly, and at the correct times.



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Win? | EndGame? | killCounter | TotalEnemies | Enemy pos |
| Yes | Yes | 100 | 100 | - |
| TBD | No | 52 | 100 | - |
| No | Yes | 32 | 100 | Bottom |
| TBD | No | 0 | 100 | - |

The game functions as it should, and checks if any of the end game conditions have been met.

The program operates within the correct behaviors outlined above.