



TEST PLAN

COM4050-N Rapid Application Development



2016/17

RICHARD LUCAS N3088581

Preface

This test plan assumes that the user has started the game, and an Xbox 360 controller is attached to the computer.

Test Plan

Completed: 2. Total: 34. 73.5% completed.

Step	Requirement	Steps Taken	Expected Outcomes	Result	Priority	Notes
1	Can the system take an input from the controller?	1. The user presses a button on the controller	The appropriate action is taken by the system depending on the button pressed	PASS	VERY HIGH	
2	Can the player Move their ship?	1. The user moves the left analogue stick	The player's ship moves in the same direction the analogue stick is pressed	PASS	HIGH	Jittery
3	Can the player rotate their ship?	1. The user moves the right analogue stick	The player's ship rotates to match the angle that the stick is pressed	PASS	HIGH	
4	Can the player fire bullets?	1. The user moves the right analogue stick	The ship is rotated and a bullet is fired, and continues firing every 0.2 seconds in that direction while the analogue stick is held	PASS	HIGH	
5	Can the player fire missiles?	1. The user presses the A button 2. The missile is Spawned 3. It chooses a target 4. It aligns itself to face that target	A missile is spawned that choses a target and then homes in on it moving faster over time	PASS	HIGH	Slight bug with the target alignment algorithm
6	Can the player fire missiles while they are on cooldown?	1. The user presses the A button while the Missile is on cooldown	Nothing	PASS	HIGH	

7	Can the player boost when they have less than the minimum boost required?	1. The user presses the X button while they have less than minimum boost	Nothing	PASS	HIGH	
8	Can the Player boost forwards?	2. The user presses the X button	The player moves in the direction they are facing very rapidly while making their ship invulnerable for the duration	PASS	HIGH	
9	Does the player's boost recharge over time?		The players boost increases on a per frame basis	PASS	MEDIUM	Could be done better with a regen amount *Time.deltaTime
10	Can the player dodge when it is on cooldown?	1. The user presses any one of the dodging buttons while the dodging ability is on cooldown	Nothing	PASS	HIGH	
11	Can the player dodge to the left?	1. The user presses the left trigger	Rotate the ship 360 degrees anti clockwise about its length while the ship is moved to its port(left) side by a predefined amount and the ship is made invulnerable. Additionally, set the Function to being on cool-down.	PASS	HIGH	
12	Can the player dodge to the right?	1. The user presses the right trigger	Rotate the ship 360 degrees clockwise about its length while the ship is moved to its Starboard(right) side by a predefined amount and the ship is made invulnerable. Additionally, set the Function to being on cool-down.	PASS	HIGH	
13	Can the player dodge on the spot?	1. The user presses either bumper button	Rotate the ship 360 degrees about the ships width and the ship is made invulnerable. Additionally, set the Function to being on cool-down.	PASS	HIGH	
14	Does the player get scrap from killing enemy ships?	1. The user destroys an enemy ship	An amount of pre-calculated scrap is added to the user's scrap	PASS	MEDIUM	A fixed amount is added

15	Can the player open the upgrade screen?	1. The user presses the Y button	The upgrade screen appears and the game is paused	FAIL	MEDIUM	NOT IMPLEMENTED
16	Can the Player upgrade their ship?	1. The user presses the Y button	The player selects and upgrade from the upgrade screen costing an amount of scrap	FAIL	MEDIUM	Done automatically by swapping the players ship and costs no scrap
17	Does the player's ship grow larger as the player levels up?	1. The user Presses the Y button	Upon levelling up the Ships scale variable is set to the player's level	PASS	LOW	The player is initially at level 0, and the scale only increases from level 2
18	Can the player use Power-Ups?	1. The users ship touches a power-up object	Upon touching a power-up, the player's ship will respond in the appropriate manner depending on the power-up type.	FAIL	LOW	NOT IMPLEMENTED
19	Can the player pause the game?	1. The user presses the start button	The game is paused and the pause menu is displayed	FAIL	LOW	NOT IMPLEMENTED
20	Can the AiPlayer change its playstyle?	1. At random intervals 2. Or upon spawning	The Aiplayer's playstyle will be randomly selected	Pass	LOW	
21	Can the AiPlayer chase the player?	1. Depending on playstyle and the distance to the player	The AiPlayer moves towards the player's ship	FAIL	LOW	NOT IMPLEMENTED
22	Can the AiPlayer set its distance to the user appropriate to its playstyle?	1. Depending on playstyle and the distance to the player	The AiPlayer moves so that it is a set distance from the player's ship	FAIL	MEDIUM	NOT IMPLEMENTED
23	Can the AiPlayer shoot bullets at the user?	1. Depending on playstyle and the distance to the player	The Aiplayer activates the fire bullet function	Pass	MEDIUM	

24	Can the AiPlayer fire missiles at the user?	1. Depending on playstyle and the distance to the player	The Aiplayer activates the fire missile function	Pass	LOW	
25	Can the AiPlayer dodge the user's bullets and missiles?	1. Depending on playstyle and there are projectiles in range	The Aiplayer activates a dodge function chosen at random	FAIL	LOW	NOT IMPLEMENTED
26	Can the AiPlayer Boost into the user?	1. Depending on playstyle and within range	The Aiplayer activates the boost function	FAIL	LOW	Functionality is there but doesn't work as expected
27	Can the AiPlayer Randomise its upgrades upon spawning?	1. Upon AiPlayer spawning	The AiPlayer has a random assortment of upgrades for its level	FAIL	LOW	NOT IMPLEMENTED
28	Does the player's health bar go down as expected?	1. The player either takes armour piercing damage 2. Or the player takes damage while having no shield left	The bar reduces by the amount of health missing	PASS	MEDIUM	
29	Does the player's shield bar go down as expected?	1. The player takes normal damage	The bar reduces by the amount of shield missing	PASS	MEDIUM	
30	Does the player's boost bar go down as expected?	1. The player presses the X button to Boost	The bar reduces by the amount of boost missing	PASS	MEDIUM	
31	Does the player's scrap go up as expected?	1. As the player kills ships the appropriate scrap is given	The bar increases by the amount of scrap owned	PASS	MEDIUM	

		which moves the bar				
32	Does the player's missile cooldown display?		As the player's missile cooldown remaining reduces the amount of greyed out icon is reduced	PASS	MEDIUM	
33	Does the player's dodge cooldown display?		As the player's dodge cooldown remaining reduces the amount of greyed out icon is reduced	PASS	MEDIUM	
34	When an action is performed does a sound play?	1. An input is received by the system	The system plays the appropriate sound	PASS	LOW	All audio works apart from hit sounds, the code is there but I cant get it to run