Black Box Tests

Test ID	Descriptio n	Expected result	Requirement	Pass /Fail	Evidence/ Comments
TC1	Press mouse buttons	'Mouse Button' - Water projectile is spawned at position Fire Engine and moves in direction of mouse pointer Letting go of all buttons stops any activity	FR_Attack FR_Input	Pass	Expected Result
TC2	Press WASD keys	'W' - Moves forward 'A' - Rotates left 'S' - Rotates right 'D' - Moves back Letting go of button stops all movement	FR_Move FR_Input NFR_Controls	Pass	

					Expected Result
TC3	Leave water to not hit anything	Water continues in a straight trajectory and disappears after hitting its max range (3)	FR_Attack	Pass	3

					Expected Result
TC5	Leave Explosive Bullet to not hit anything	Explosive continues in a straight trajectory, after hitting its max range (2.5) it changes to explosive Spite and then Explosive Sprite disappears	FR_Attack	Pass	Expected Result

TC9	Water hits any turret	Turret takes damage. Turret health bar shrinks.	FR_Attack	Pass	
					Expected Result

TC15	Fire engine drives into edge of map	Fire engine collides with edge and cannot move past	FR_Restricted	Pass	Expected Result
TC16	Fire engine hits building or water	Fire engine collides with building/water and cannot move past	FR_Restricted	Pass	Expected Result

TC17	Any Projectile hits building or water	Projectile is destroyed upon contact with edge.	FR_Restricted	Pass	Expected Result
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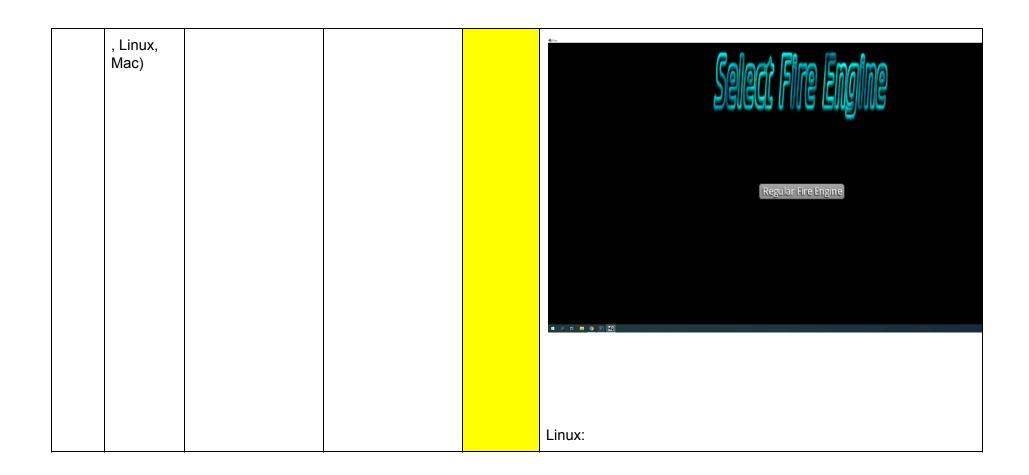
TC18	Fire engine hits fire station	Opens up 'Select Fire Engine' menu which allows you to click on Regular	FR_Change	Pass	Select Fire Engine
		or Large Engine. Destroyed Fire Engines don't appear			Regular Fire Engine Large Fire Engine
					Select Fire Engine
					Regular Fire Engine
					Expected Result

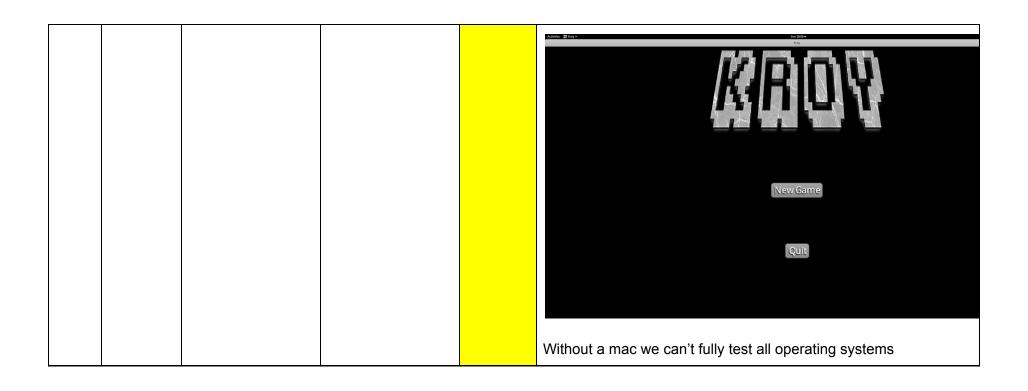
Expected Result	TC19	Select fire engine	Changes Sprite to selected Engine. Refills health and water.	FR_Change	Pass	Water 400 FPS: 60 Expected Result
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TC20	Fire Engine health hits 0	Fire Engine is removed. Fire Engine selection is brought up showing only remaining Fire Engines. If no more Fire Engines remain the Game Over Screen is shown	FR_Lose	Pass	FIRE ENCINE DESTROYED
					Expected Result

TC21	Press 'ESC' key	Game should pause, bring up the pause menu.	FR_Menu FR_Pause FR_Input	Pass	Game Paused
					Resume
					Quit
					Expected Result
TC22	Destroy all towers	Game win screen appears	FR_Win	Pass	Expected Result
TC23	Destroy first tower and wait	Game should continue to run normally After 8	FR_Difficulty		Expected result

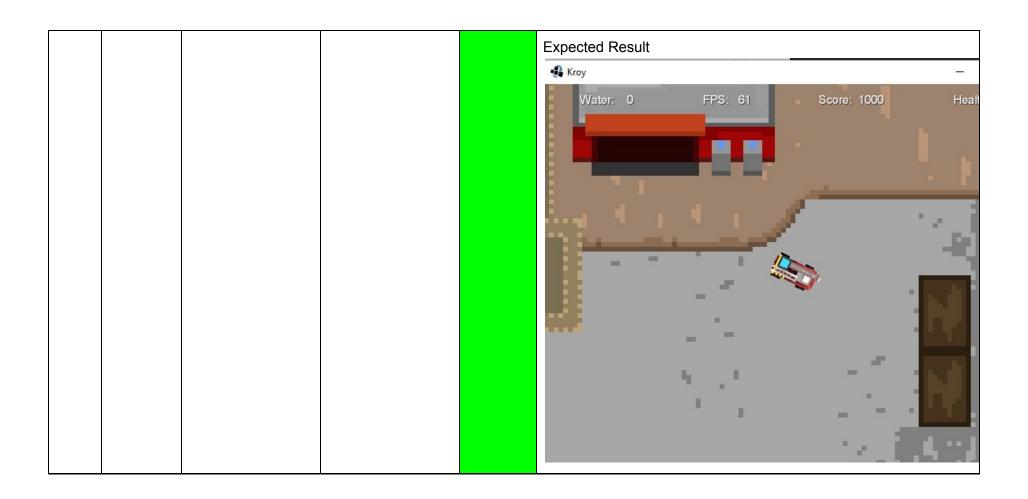
	8 minutes	minutes time Fire Station should be destroyed			
TC24	Spam all buttons	All buttons that perform actions should perform their actions	FR_Move	Pass	Expected result
TC25	Open game on different OS (Windows	No changes between operating systems	NFR_ Operating	Partially Passed	Windows:





TC26	Pressing Mouse button after Water level hits 0	Using left mouse click no longer spawns water. Water level remains at 0 does not go into negatives	FR_Quit	Pass	Expected Result
TC27	Open Game	Game should open on menu that allows them to quit or play the game	FR_Quit	Pass	New Game Quit

					Expected Result
TC28	Press x in the top right corner or press the quit button	Game should close, without any delay	FR_Input	Pass	Expected result
TC29	Test scores on destroyin g turret, getting hit and losing Fire Engine	Gain 1000 points for destroying tower Lose score based on damage taken Lose 200 for destroyed Fire Engine	FR_Score	Pass	Water: 400 FPS: 60 Score: 0 Healt

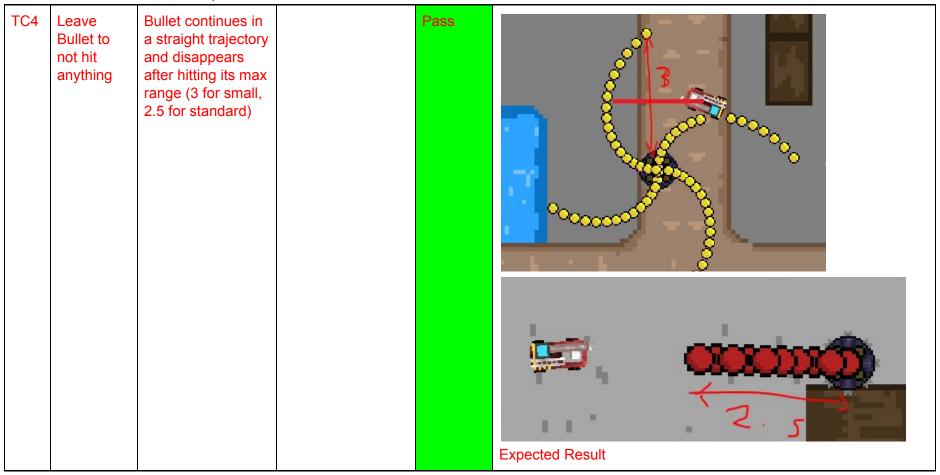


v r g t v	Test whether mini game is triggered when in sight of alien patrol	When in range of an alien patrol, the mini game should be triggered	FR_ Minigame		•	350jg; 2193	1135
				Expected resu	ilt		

TC31	Test whether after 8 mins after the first fortress is destroyed , the fire station is destroyed	Once first fortress is destroyed, fire station is destroyed after 8 mins	FR_Destroy		
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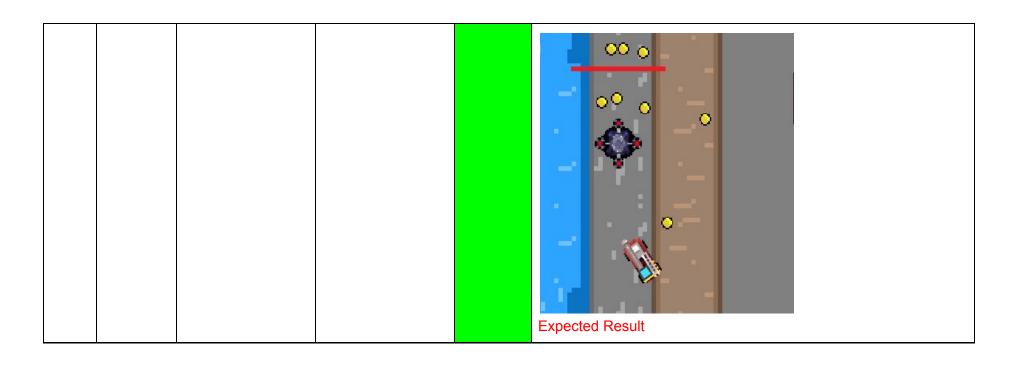
Omitted Tests

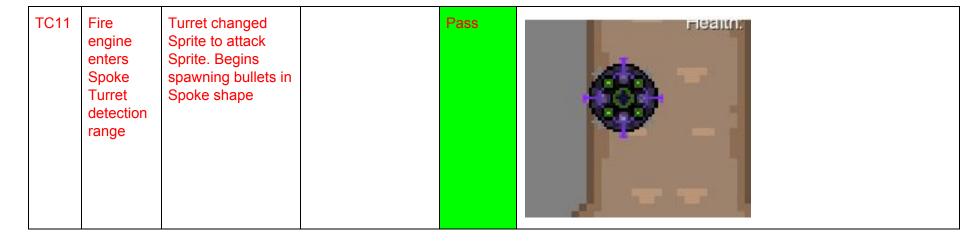
Omitted as does not link to a requirement



TC6	Drive into Spoke bullet	Spoke Bullet disappears and Fire Engine damage	Pass	Expected Result
TC7	Drive into Direct bullet	Direct Bullet disappears and Fire Engine takes damage	Pass	Expected Result

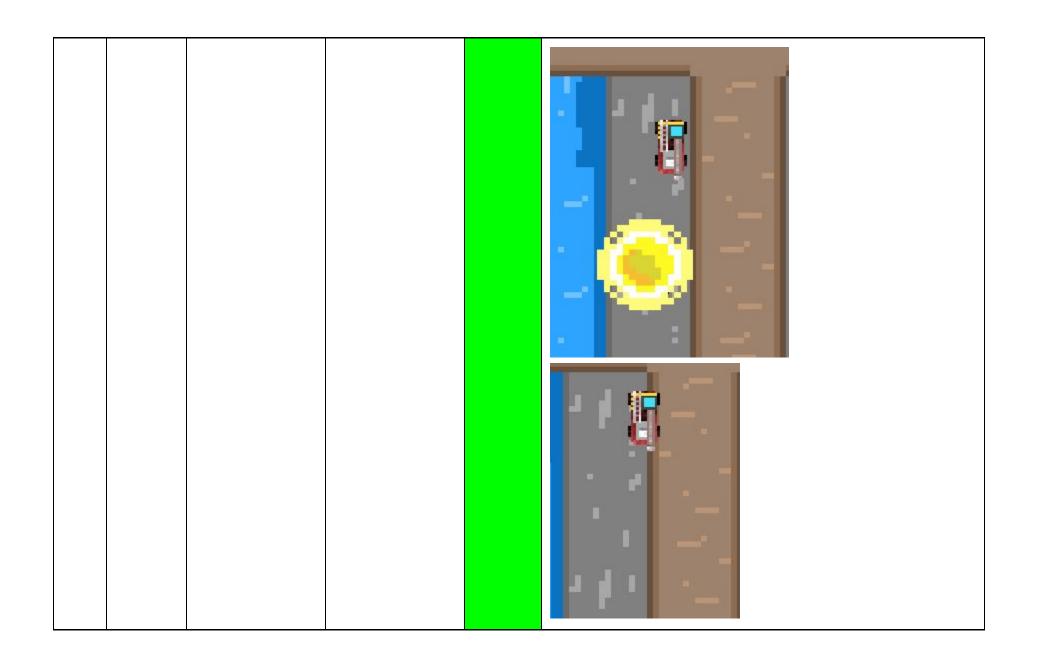
TC8	Drive into explosive bullet	Explosive bullet is replaced with explosion Sprite. The fire engine then takes damage and is moved away from the centre of explosion	Pass	Expected Result
TC10	Fire engine enters explosive Turret detection range	Turret changed Sprite to attack Sprite. Begins spawning explosive bullets in random directions	Pass	





				Expected Result
TC12	Fire engine enters direct Turret detection range	Turret changed Sprite to attack Sprite. Begins spawning bullets in the direction of Fire Engine	Pass	

					Expected Result
TC13	Turret health hits 0	Turret is destroyed. Can no longer be seen and will no longer shoot bullets	Pe	ass	



		Expected Result
TC14 Rescale window	Game should run exactly the same no matter the scale of the window.	Expected Result

