

Test ID	Description	Related Requirement	Category	Author	Status
test_1.1	Testing that the 'position' and 'topRight' variables are initialised correctly for the Entity Class	UR_four_trucks FR_truck_movement	Functional, Unit	Bruno Davies	Pass
test_1.2	Testing that setPosition() of the Entity class will allow for the boundary input of 0	UR_four_trucks FR_truck_movement FR_precision	Functional, Unit	Bruno Davies	Pass
test_1.3	Testing that passing negative numbers to the setPosition() function of the Entity class throws an IllegalArgumentException	UR_four_trucks FR_truck_movement FR_precision	Functional, Unit	Bruno Davies	Pass
test_1.4	Testing that the entity responds correctly to a changing texture	UR_minigame FR_minigame_opponents	Functional, Unit	Peter Clark	Pass
test_2.1	Test to ensure default constructors for the Unit class work as intended via getters	UR_fresh_health FR_auto_repair	Functional, Unit	Bruno Davies	Pass
test_2.2.1	Test if the Unit class' isDead() function works when health is above 0	UR_six_ETS FR_enemies_die FR_engine_destroyed	Functional, Unit	Bruno Davies	Pass
test_2.2.2	Test if the Unit class' isDead() function works when health is zero	UR_six_ETS FR_enemies_die FR_engine_destroyed	Functional, Unit	Bruno Davies	Pass
test_2.3	Test if the Unit class' setCurrentHealth() function throws an IllegalArgumentException when health is negative	UR_fresh_health FR_auto_repair	Functional, Unit	Bruno Davies	Pass
test_2.4.1	Test if the Unit class' setCurrentHealth() function will cap the health input to the max from constructor	UR_fresh_health FR_auto_repair	Functional, Unit	Bruno Davies	Pass
test_2.4.2	Test if the Unit class' addHealth() function will add health (not hitting max health)	UR_six_ETS UR_station_refill FR_fortress_recover	Functional Unit	Bruno Davies	Pass

test_2.4.3	Test if setCurrentHealth() will cap the additional health to maxHealth	UR_fresh_health FR_auto_repair	Functional Unit	Bruno Davies	Pass
test_2.4.4	Test if addHealth() will take the absolute value of the parameter passed to it	UR_six_ETS UR_station_refill FR_fortress_recover	Functional Unit	Bruno Davies	Pass
test_2.5.1	Test if the Unit class' takeDamage() works within a standard range (not 0 or negatives)	UR_four_trucks FR_engine_fire	Functional Unit	Bruno Davies	Pass
test_2.5.2	Test if takeDamage() prevents the health from going below zero. .	UR_four_trucks FR_engine_fire	Functional Unit	Bruno Davies	Pass
test_3.1.1	Test to ensure default constructor for the Projectile class works as intended via getters	UR_four_trucks FR_engine_fire	Functional Unit	Bruno Davies	Pass
test_3.1.2	Test to ensure second constructor for the Projectile class works as intended via getters	UR_four_trucks FR_engine_fire	Functional Unit	Bruno Davies	Pass
test_3.2	Test if the Projectile class' setLength() function correctly sets the length with standard values	UR_four_trucks FR_precision FR_engine_fire	Functional Unit	Bruno Davies	Pass
test_3.3.1	Test if the Projectile correctly identifies that it has hit a Unit	UR_four_trucks UR_patrols FR_engine_fire FR_patrols_attack	Functional Unit	Peter Clark	Pass
test_3.3.2	Test if the Projectile correctly identifies that it has not hit a Unit	UR_four_trucks UR_patrols FR_engine_fire FR_patrols_attack	Functional Unit	Peter Clark	Pass
test_4.1.1	Test to ensure default constructor for the Fortress class works as intended for Level 1	UR_select_level UR_fresh_health FR_auto_repair	Functional Unit	Bruno Davies	Pass
test_4.1.2	Test to ensure default constructor for the Fortress class works as intended for Level 2	UR_select_level UR_fresh_health FR_auto_repair	Functional Unit	Bruno Davies	Pass

test_4.1.3	Test to ensure default constructor for the Fortress class works as intended for Level 3	UR_select_level UR_fresh_health FR_auto_repair	Functional Unit	Bruno Davies	Pass
test_4.1.4	Test to ensure default constructor for the Fortress class works as intended for Level 4	UR_select_level UR_fresh_health FR_auto_repair	Functional Unit	DicyCat	Pass
test_4.1.5	Test to ensure default constructor for the Fortress class works as intended for Level 5	UR_select_level UR_fresh_health FR_auto_repair	Functional Unit	DicyCat	Pass
test_4.1.6	Test to ensure default constructor for the Fortress class works as intended for Level 6	UR_select_level UR_fresh_health FR_auto_repair	Functional Unit	DicyCat	Pass
test_4.2	Test to ensure the aliens are initialised in the correct positions for a given level	UR_select_level UR_fresh_health FR_auto_repair	Functional Unit	Peter Clark	Pass
test_4.3.1	Tests that the 'getters' for the Fortress' weapons work as intended	UR_six_ETs FR_fortresses_attack	Functional Unit	Peter Clark	Pass
test_4.3.2	Test that the 'setter' for the fortress' health works as intended	UR_six_ETs FR_fortress_recover	Functional Unit	Peter Clark	Pass
test_4.3.3	Test that the 'setter' for the alien positions related to a fortress works as expected	UR_patrols FR_patrols_areas	Functional Unit	Peter Clark	Pass
test_5.1	Test to ensure default constructor for the Character class works as intended via getters	UR_four_trucks	Functional Unit	Bruno Davies	Pass
test_5.2	Testing to make sure setTarget sets the character's target to the given unit	UR_four_trucks	Functional Unit	Bruno Davies	Pass
test_6.1	Test to ensure default constructor works as intended for the FireTruck class via getters	UR_refill_warning	Functional Unit	Bruno Davies	Pass

test_6.2.1	Testing that the FireTruck class' updateCurrentWater() function works with standard input	UR_four_trucks UR_refill_warning	Functional Unit	Bruno Davies	Pass
test_6.2.2	Testing that updateCurrentWater() allows the water value to remain at 0	UR_four_trucks UR_refill_warning	Functional Unit	Bruno Davies	Pass
test_6.2.3	Testing that UpdateCurrentWater() if in the negative water level sets it to zero	UR_four_trucks UR_refill_warning	Functional Unit	Bruno Davies	Pass
test_6.2.4	Test if the truck moves correctly when commanded	UR_four_trucks	Functional, Unit	Peter Clark	Pass
test_6.2.5	Test if the truck returns to its original position if it is moved equally in all directions	UR_four_trucks	Functional, Unit	Peter Clark	Pass
test_6.3.1	Test if the truck changes direction to suit a given key being pressed	UR_four_trucks	Functional, Unit	Peter Clark	Pass
test_6.3.2	Test if the truck turns diagonally if two adjacent arrow keys are pressed at once.	UR_four_trucks	Functional, Unit	Peter Clark	Pass
test_6.4.1	Test that the truck moves if there are no obstacles in its way and it is not at the edge of the screen	UR_four_trucks	Functional, Unit	Peter Clark	Pass
test_6.4.2	Tests that the truck does not move when there is an obstacle in its way.	UR_four_trucks	Parameterised, Functional, Unit	Peter Clark	Pass
test_6.5.1	Tests whether the truck's speed doubles when the 'double speed' power up is activated	UR_interest FR_powerup	Functional, Unit	Peter Clark	Pass
test_6.5.2	Tests whether the truck's damage doubles when the 'double damage' power up is activated	UR_interest FR_powerup	Functional, Unit	Peter Clark	Pass
test_6.5.3	Tests whether the truck's range doubles when the 'double range' power up is activated	UR_interest FR_powerup	Functional, Unit	Peter Clark	Pass

test_6.5.4	Tests whether the truck's maximum health and current health increase when the 'increase max health' power up is activated	UR_interest FR_powerup	Functional, Unit	Peter Clark	Pass
test_6.5.5	Tests whether the truck is unable to be damaged when the 'infinite health' power up is activated	UR_interest FR_powerup	Functional, Unit	Peter Clark	Pass
test_6.6.1	Tests whether the 'setter' for the FireTruck's water works as expected	UR_station_refill	Functional, Unit	Peter Clark	Pass
test_6.6.2	Tests whether the 'setter' for the FireTruck's health works as expected	UR_station_refill	Functional, Unit	Peter Clark	Pass
test_7.1	Test to ensure default constructor works as intended for the Alien class via getters (not including those in the Entity class)	UR_patrols	Functional Unit	Bruno Davies	Pass
test_7.2.1	Test if the Alien class' truckInRange() function will set a new target with an in-range <b>mocked</b> truck	UR_patrols UR_attack_notification FR_precision	Mocking Functional Unit	Bruno Davies	Pass
test_7.2.2	Test if truckInRange() will not change the target for a <b>mocked</b> truck not in range	UR_patrols UR_attack_notification FR_engine_destroyed FR_precision	Mocking Functional Unit	Bruno Davies	Pass
test_7.2.3	Test if truckInRange() will set target to null if current target has no health	UR_patrols UR_attack_notification FR_engine_destroyed FR_precision	Mocking Functional Unit	Bruno Davies	Pass
test_7.2.4	Tests whether the Alien changes its waypoint when the previous one is reached	UR_patrols FR_patrols_areas	Functional, Unit	Peter Clark	Pass
test_7.2.5	Tests whether the Alien returns to its initial waypoint once all waypoints have been reached	UR_patrols FR_patrols_areas	Functional, Unit	Peter Clark	Pass
test_7.2.6	Tests whether the alien moves towards its given waypoint	UR_patrols FR_patrols_areas	Functional, Unit	Peter Clark	Pass

test_7.2.7	Tests whether an Alien moves towards the Fire Station along the x-axis	UR_patrols FR_patrols_areas FR_move_towards_station	Functional, Unit	Peter Clark	Pass
test_7.2.8	Tests whether an Alien moves towards the Fire Station along the y-axis if at the correct x position	UR_patrols FR_patrols_areas FR_move_towards_station	Functional, Unit	Peter Clark	Pass
test_7.3.1	Tests that aliens loop through all wayPoints	UR_minigame, UR_patrols	Mocked	DicyCat	Pass
test_7.3.2	Tests that the 'updateTimeSinceAttack' function in the Alien class does as expected	UR_patrols FR_patrols_attack	Functional, Unit	Peter Clark	Pass
test_7.3.3	Tests that the 'resetTimeSinceAttack' in the Alien class sets the time back to 0	UR_patrols FR_patrols_attack	Functional, Unit	Peter Clark	Pass
test_8.1.1	Tests that the bomb inside minigame does damage	UR_minigame FR_minigame_opponents FR_minigame_bomb	Functional, Mocked	DicyCat	Pass
test_8.1.2	Tests the correct functioning of minigame's character's constructor	UR_minigame,	Functional, Mocked	DicyCat	Pass
test_8.1.3	Tests the correct functioning of minigame's character's unit-setter function	UR_minigame,	Functional, Mocked	DicyCat	Pass
test_8.2.1	Tests that the PowerUp class is initialised correctly	UR_interest FR_powerup	Functional, Unit	Peter Clark	Pass
test_9.1.1	Test the start screen appears when opening the game for the first time	UR_start_screen UR_music FR_play_music	Manual	NP Studios	Pass
test_9.1.2	Test start screen comes back in correct position when coming back from Level select page	UR_start_screen UR_music FR_play_music	Manual	NP Studios	Pass

test_9.1 .3	Test start screen comes back in correct position when coming back from settings page	UR_start_screen UR_music FR_play_music	Manual	NP Studios	Pass
test_9.1 .4	Test start screen comes back in correct position when coming back from instructions page	UR_start_screen UR_music FR_play_music	Manual	NP Studios	Pass
test_9.1 .5	Test start screen comes back in correct position when coming back from credits page	UR_start_screen UR_music FR_play_music	Manual	NP Studios	Pass
test_9.2 .1	Test that the next levels become unlocked when finishing all levels.	UR_start_screen UR_select_level UR_fresh_health UR_music FR_auto_repair FR_new_level FR_play_music	Manual	NP Studios	Pass
test_9.2 .2	Test that the next levels do not become unlocked when finishing level 1 and 2 but failing 3	UR_select_level UR_fresh_health UR_music FR_end_game FR_auto_repair FR_new_level FR_play_music	Manual	NP Studios	Pass
test_9.2 .3	Test that level 3 does not become unlocked when finishing only level 1 and failing 2	UR_save_load_quit UR_select_level UR_fresh_health UR_music UR_collisions FR_end_game FR_auto_repair FR_new_level FR_play_music FR_security	Manual	NP Studios	Pass
test_9.2 .4	Test that the next levels become unlocked when completing some levels, closing the game, and then opening it again	UR_start_screen UR_select_level UR_fresh_health UR_music UR_collisions FR_auto_repair FR_new_level FR_play_music	Manual	NP Studios	Pass
test_9.2 .5	Test that the next level does not become unlocked if a level is quit halfway through playing	UR_save_load_quit	Manual	NP Studios	Pass

test_10.1	Tests that the pause screen appears when the Escape button is pressed	UR_pause FR_pause_inlevel	Manual	Dalai Java	Pass
test_10.2.1	Tests that the user completes a level once the health of the enemy base has been reduced to 0	UR_ease FR_end_game	Manual	Dalai Java	Pass
test_10.2.2	Tests that the user fails a level if all of their Fire Engines have been destroyed	UR_ease FR_end_game	Manual	Dalai Java	Pass
test_10.2.3	Tests that a 'win' screen appears when the user completes a level	UR_ease UR_end_game_screen FR_end_game	Manual	Dalai Java	Pass
test_10.2.4	Tests that a 'lose' screen appears when the user does not complete a level	UR_ease UR_end_game_screen FR_end_game	Manual	Dalai Java	Pass
test_10.3.1	Tests whether a 'warning' icon appears when the selected FireEngine's water level is below 20	UR_refill_warning	Manual	Dalai Java	Pass
test_10.3.2	Tests whether a destroyed Fire Station prevents an engine from repairing or refilling	UR_station_refill FR_no_refill	Manual	Dalai Java	Pass
test_10.4.1	Tests whether a warning icon appears when the fire engine is 15 seconds away from being destroyed	UR_attack_notification	Manual	Dalai Java	Pass
test_10.4.2	Tests whether the user is unable to move through obstacles	UR_collisions FR_deny_collsion	Manual	Dalai Java	Pass
test_10.4.3	Tests whether a timer appears on the screen as the game is being played	UR_attack_notification FR_display_timer	Manual	Dalai Java	Pass
test_10.5.1	Tests that the minigame begins when the level is complete	UR_minigame FR_open_minigame	Manual	Dalai Java	Pass
test_10.5.2	Tests the character jumps correctly in the minigame	UR_minigame, NFR_artwork, NFR_user_interaction	Manual	DicyCat	Pass
test_10.5.3	Tests that projectiles for aliens are	UR_minigame	Manual	DicyCat	Pass



	re-enabled after the minigame				
test_10.5.4	Tests that projectiles for firetrucks are re-enabled after the minigame	UR_minigame	Manual	DicyCat	Pass
test_10.5.5	Tests that minigame difficulty is constantly increasing	UR_interest, UR_ease, FR_level_gimmicks, NFR_main_focus	Manual	DicyCat	Pass
test_10.6.1	Tests that the 'difficulty' toggle on the Level Select screen can only select one difficulty at once	UR_difficulty FR_select_difficulty	Manual	Dalai Java	Pass
test_10.6.2	Tests that changing the difficulty setting changes the health of the ET Fortress	UR_difficulty FR_select_difficulty	Manual	Dalai Java	Pass
test_10.7.1	Tests that that a specific game state can be saved and loaded, maintaining all aspects of the game at the point at which it was exited.	UR_save_load_quit FR_save_game FR_load_game	Manual	Dalai Java	Pass