

Requirement ID	Test Category ID	Code Method Reference	Status	Test Description	Expected Outcome	
FR_CONTROLS	MAN_CONTROLS	N/A	Pass	Test that the controls screen is visible to the user	The controls screen on start up and can be closed with the x button or 'C', it can then be re-opened with the button or 'C' again	
FR_MENU	MAN_MENU	N/A	Pass	Test that the menu screen is both visible and easy to navigate	When closing the controls screen then the menu screen appears, and clicking the play button starts the game	
FR_GAME_OVER	MAN_GAME_OVER_WIN	N/A	Pass	Test that the game over 'win' screen is visible to the user if they've won	When all of the fortresses are destroyed then the win screen appears	
	MAN_GAME_OVER_LOSE	N/A	Pass	Test that the game over 'lose' screen is visible to the user if they've lost	When all of the trucks are destroyed then the lose screen appears	
FR_SOUND	MAN_SOUND	N/A	Pass	Test that the sound is audible for the user	Music and sound effects are played throughout the game	
FR_SOUND_OFF	MAN_SOUND_OFF	N/A	Pass	Test that it's possible for the sound to be turned off	The music can be turned off by pressing the sound icon in the top right of the screen	
FR_ANIMATION	MAN_HEALTH_BARS	N/A	Pass	Test that health bars are visible to the user	When clicking on a truck/fortress, their health is then displayed in the stats area in the top left of the screen	
FR_REPAIR_REFILL	STAT_REPAIR	FireStationTest.repairPassTest()	Pass	Test that the station will increase the health of the fire truck	After repairing the truck the health should be higher	
		FireStationTest.repairIncorrectPositionTest()	Pass	Test that the station will not repair the fire truck if it is not on the correct tile	The HP of the firetruck stays the same as it isn't on the correct tile (the tile is not specified to be a 'bay tile')	
		FireStationTest.repairAlreadyFullyRepairedTest()	Pass	Test that the station will not repair if the fire truck is already fully repaired	The HP will not increase as it is already at maximum HP	
	STAT_REFILL	FireStationTest.refillPassTest()	Pass	Test that the station will increase the reserve of the fire truck	After refilling the value of the reserve for the truck should be higher	
		FireStationTest.refillIncorrectPositionTest()	Pass	Test that the station will not refill the fire truck if it is not on the correct tile	The reserve of the truck will not change as it isn't on the correct tile (the tile is not specified to be a 'bay tile')	
		FireStationTest.refillAlreadyFullTest()	Pass	Test that the station will not refill if the fire truck already has a full tank	The reserve will not increase as it is already at maximum reserve	
	TRUC_SPEED	FireTruckTest.differentSpeedTest()	Pass	Test that the speed that trucks can travel around the map is different	The 'Speed Truck' should have different 'Speed' stats	
		FireTruckTest.speedTruckShouldMove3TilesIn15FramesTest()	Pass	Test that the 'Speed Truck' can move 3 tiles within 15 frames	The 'Speed Truck' should get to its destination within 15 frames	
		FireTruckTest.oceanTruckShouldNotMove3TilesIn25FramesTest()	Pass	Test that the 'Ocean Truck' cannot move 3 tiles within 25 frames	The 'Ocean Truck' should NOT get to its destination within 25 frames	
		FireTruckTest.oceanTruckShouldMove3TilesIn50FramesTest()	Pass	Test that the 'Ocean Truck' can move 3 tiles within 50 frames	Showing that the 'Ocean Truck' is slower than the 'Speed Truck' as the truck should move 3 tiles in 50 frames rather than 25	
		FireTruckTest.tankTruckShouldMove3TilesIn50FramesTest()	Pass	Test that the 'Tank Truck' can move 3 tiles within 50 frames	The 'Tank Truck' should reach its destination within 50 frames.	
		FireTruckTest.attackTruckShouldMove3TilesIn25FramesTest()	Pass	Test that the 'Attack Truck' can move 3 tiles within 25 frames	The 'Attack Truck' should reach its destination within 25 frames.	
		TRUC_VOLUME	FireTruckTest.differentMaxVolumeTest()	Pass	Test that the volume of water held by each truck is different	The max reserve should be different for all trucks
			FireTruckTest.checkTrucksFillToDifferentLevels()	Pass	Test that from 0 reserve, when refilling, there will be a point where one truck will become full whilst the other truck will not be	After refilling, the 'Ocean Truck' should have a higher reserve than the 'Speed Truck' as 'Ocean Truck' has not yet reached capacity
FR_FIRE_TRUCKS	TRUC_HEALTH	FireTruckTest.differentMaxHPTest()	Pass	Test that the max health of the trucks are different	The max HP for all four trucks should be different.	
		FireTruckTest.checkTrucksRepairToDifferentLevels()	Pass	Test that from 0 HP, when repairing, there will be a point where one truck will have full HP whilst the other truck will not	The 'Speed Truck' should have higher HP after repairing than the 'Speed Truck'	
	TRUC_RANGE	FireTruckTest.differentRangeTest()	Pass	Test that the range of the trucks are different	The range for all four trucks should be different.	
		FireTruckTest.checkDifferentRangeTest()	Pass	Test that the range of the 'Ocean Truck' allows the truck to attack a fortress within its specified range and that the Speed Truck cannot	The 'Ocean Truck' is within range of the fortress, where as 'Speed Truck' is not	
	MAN_DESTROY_TRUCK	N/A	Pass	Test that the truck can be destroyed after being attacked enough for the HP to reach 0	The truck should disappear from the screen when its HP reaches 0	
	FR_TRUCK_ATTACK	TRUC_ATTACK	FireTruckTest.truckShouldDecreaseHealthOfFortress()	Pass	Test that when within range and has reserve left, a Fire Truck can attack a Fortress and it will decrease the health of that Fortress	The health of the fortress should decrease after being attacked
		FireTruckTest.truckShouldDecreaseReserveWhenAttackingFortress()	Pass	Test that when within range and has reserve left, a Fire Truck can attack a Fortress and it will decrease the reserve of the Fire Truck	The reserve of the truck should be less after being attacked	
FR_MOBILITY	TRUC_MOVE	FireTruckTest.moveTest()	Pass	Test that the Fire Truck can move from one tile to another	After specifying a path, the truck will move to that position	
FR_FORTRESS	STAT_COLLIDE	FireStationTest.trucksShouldNotMovePastEachOtherTest()	Pass	Test that the trucks cannot go past each other	The trucks will halt when they come into contact with each other and not end up at their final destination	
		FireStationTest.trucksCannotOccupySameTileTest()	Pass	Test that the trucks cannot occupy the same tile on the map	The trucks will halt when they come into contact with each other and not end up at their final destination	
	FORT_HEALTH	FortressTest.allFortressesDifferentMaxHPTest()	Pass	Test that the max health of the fortresses are different	The HP of all six fortresses is different.	
	FORT_RANGE	FortressTest.allFortressesDifferentRangeTest()	Pass	Test that the range of the fortresses are different	The range of all six fortresses is different.	
	FORT_RATE	FortressTest.allFortressesDifferentFireRateTest()	Pass	Test that the rate that fortresses can fire is different	The fire rate of all six fortresses is different.	
	FORT_ATTACK	FortressTest.allFortressesDifferentAPTest()	Pass	Test that the AP of the fortresses are different	The AP of all six fortresses is different.	
	MAN_DESTROY_FORTRESS	N/A	Pass	Test that when the fortress has been attacked sufficiently for it to reach 0 HP, it is then destroyed	When the health of a fortress reaches 0, it should no longer be visible to the user	
FR_AI_FR_FORTRESS_ATTACK	FORT_ATTACK_WALMGATE	FortressTest.attackTruckFromWalmgateFortressDamageTest()	Pass	Test that the damage that the 'Walmgate Fortress' does to a Fire Truck is correct	The HP of the 'Speed Truck' after being attacked is 132	
		FortressTest.attackTruckFromWalmgateFortressBeforeRangeBoundaryTest()	Pass	Test that the 'Walmgate Fortress' can attack a firetruck that is in its range	The HP of the 'Speed Truck' decreases when in the range of 'Walmgate fortress'	
		FortressTest.attackTruckFromWalmgateFortressOnRangeBoundaryTest()	Pass	Test whether the 'Walmgate Fortress' can attack a firetruck that is on the boundary of it's range	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Walmgate fortress'	
		FortressTest.attackTruckFromWalmgateFortressAfterRangeBoundaryTest()	Pass	Test whether the 'Walmgate Fortress' cannot attack a firetruck that is out of it's range	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Walmgate fortress'	
	FORT_ATTACK_CLIFFORD	FortressTest.attackTruckFromCliffordFortressDamageTest()	Pass	Test that the damage that the 'Clifford Fortress' does to a Fire Truck is correct	The HP of the 'Speed Truck' after being attacked is 126	
		FortressTest.attackTruckFromCliffordFortressBeforeRangeBoundaryTest()	Pass	Test that the 'Clifford Fortress' can attack a firetruck that is in it's range	The HP of the 'Speed Truck' decreases when in the range of 'Cliffords fortress'	
		FortressTest.attackTruckFromCliffordFortressOnRangeBoundaryTest()	Pass	Test whether the 'Clifford Fortress' can attack a firetruck that is on the boundary of it's range	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Cliffords fortress'	
		FortressTest.attackTruckFromCliffordFortressAfterRangeBoundaryTest()	Pass	Test whether the 'Clifford Fortress' cannot attack a firetruck that is out of it's range	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Cliffords fortress'	
	FORT_ATTACK_REVOLUTION	FortressTest.attackTruckFromRevolutionFortressDamageTest()	Pass	Test that the damage that the 'Revolution Fortress' does to a Fire Truck is correct	The HP of the 'Speed Truck' after being attacked is 138	
		FortressTest.attackTruckFromRevolutionFortressBeforeRangeBoundaryTest()	Pass	Test that the 'Revolution Fortress' can attack a firetruck that is within it's range	The HP of the 'Speed Truck' decreases when in the range of 'Revolution fortress'	
		FortressTest.attackTruckFromRevolutionFortressOnRangeBoundaryTest()	Pass	Test whether the 'Revolution Fortress' can attack a firetruck that is on the boundary of it's range	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Revolution fortress'	
		FortressTest.attackTruckFromRevolutionFortressAfterRangeBoundaryTest()	Pass	Test whether the 'Revolution Fortress' cannot attack a firetruck that is out of it's range	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Revolution fortress'	
	FORT_ATTACK_TRAINSTATION	FortressTest.attackTruckFromTrainStationFortressDamageTest()	Pass	Test that the damage that the 'Walmgate Fortress' does to a Fire Truck is correct	The HP of the 'Speed Truck' after being attacked is 135	
		FortressTest.attackTruckFromTrainStationFortressBeforeRangeBoundaryTest()	Pass	Test that the 'TrainStation Fortress' can attack a firetruck that is in it's range	The HP of the 'Speed Truck' decreases when in the range of 'TrainStation fortress'	
		FortressTest.attackTruckFromTrainStationFortressOnRangeBoundaryTest()	Pass	Test whether the 'TrainStation Fortress' can attack a firetruck that is on the boundary of it's range	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'TrainStation fortress'	
		FortressTest.attackTruckFromTrainStationFortressAfterRangeBoundaryTest()	Pass	Test whether the 'TrainStation Fortress' cannot attack a firetruck that is out of it's range	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'TrainStation fortress'	
FORT_ATTACK_MINSTER		FortressTest.attackTruckFromMinsterFortressDamageTest()	Pass	Test that the damage that the 'Minster Fortress' does to a Fire Truck is correct	The HP of the 'Speed Truck' after being attacked is 129	
		FortressTest.attackTruckFromMinsterFortressBeforeRangeBoundaryTest()	Pass	Test that the 'Minster Fortress' can attack a firetruck that is in it's range	The HP of the 'Speed Truck' decreases when in the range of 'Minster fortress'	
		FortressTest.attackTruckFromMinsterFortressOnRangeBoundaryTest()	Pass	Test whether the 'Minster Fortress' can attack a firetruck that is on the boundary of it's range	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Minster fortress'	
		FortressTest.attackTruckFromMinsterFortressAfterRangeBoundaryTest()	Pass	Test whether the 'Minster Fortress' cannot attack a firetruck that is out of it's range	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Minster fortress'	
FORT_ATTACK_SHAMBLES	FortressTest.attackTruckFromShamblesFortressDamageTest()	Pass	Test that the damage that the 'Shambles Fortress' does to a Fire Truck is correct	The HP of the 'Speed Truck' after being attacked is 132		
	FortressTest.attackTruckFromShamblesFortressBeforeRangeBoundaryTest()	Pass	Test that the 'Shambles Fortress' can attack a firetruck that is within it's range	The HP of the 'Speed Truck' decreases when in the range of 'Shambles fortress'		
	FortressTest.attackTruckFromShamblesFortressOnRangeBoundaryTest()	Pass	Test whether the 'Shambles Fortress' can attack a firetruck that is on the boundary of it's range	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Shambles fortress'		
	FortressTest.attackTruckFromShamblesFortressAfterRangeBoundaryTest()	Pass	Test whether the 'Shambles Fortress' cannot attack a firetruck that is out of it's range	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Shambles fortress'		
FR_ACCESS_MINIGAME	MAN_MINIGAME_LAUNCH	N/A	Pass	Test whether the minigame is accessed from within the main game.	The minigame screen loads and it starts playing.	
FR_FORTRESS_IMPROVE	MAN_FORTRESS_IMPROVE	N/A	Pass	Test whether fortresses improve over time during the game.	The level of each fortress increases by 1 after a minute of gameplay.	
FR_VIEW_TIMER	MAN_ATTACK_COUNTDOWN	N/A	Pass	Test whether there's a countdown showing the player how long is left until the fire station is destroyed.	A countdown clock counts from 15 minutes to zero minutes once the first attack has been made.	
FR_PATROL_ATTACK	MAN_PATROL_ATTACK	N/A	Pass	Test whether ET patrols can attack fire trucks when in range.	ET's patrols should stop and shoot at any fire trucks that are in their range.	
FR_STATION_DESTROY	MAN_NO_REPAIR_REFILL	N/A	Pass	Test that fire trucks can't repair and refill at the fire station when it's destroyed.	Fire trucks placed in the location of the destroyed fire station should not be repaired or refuelled.	