# Surface-To-Air Saviors: Tower Defense Requirements and Test Document

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#### INTRODUCTION:

This document provides requirement and test cases for the game "Surface-To-Air Saviors: Tower Defense". Refer to the Software Design Document for a description of the game.

#### **BACKGROUND INFORMATION:**

Refer to the Software Design Document for all of the terms used in this program.

### **REQUIREMENTS:**

This section contains requirements for Surface-To-Air Saviors: Tower Defense. Each requirement defines one piece of functionality the program is required to have. All requirements are tested in the test cases section.

R1: The leftmost Missile Silo shall shoot a P-Missile when the Player presses the "1" key during the game. This requirement is associated with User Story 11.

R2: The middlemost Missile Silo shall shoot a P-Missile when the Player presses the "2" key during the game. This requirement is associated with User Story 12.

R3: The rightmost Missile Silo shall shoot a P-Missile when the Player presses the "3" key during the game. This requirement is associated with User Story 13.

R4: The leftmost Missile Silo shall shoot a P-Missile aimed towards the Player's crosshair. This requirement is associated with User Story 14.

R5: The middlemost Missile Silo shall shoot a P-Missile aimed towards the Player's crosshair.

This requirement is associated with User Story 14.

R6: The rightmost Missile Silo shall shoot a P-Missile aimed towards the Player's crosshair.

This requirement is associated with User Story 14.

R7: P-Missiles shall travel at a speed of 2400 pixels per second.

This requirement is associated with User Story 19.

## TEST CASES:

Req't Case ID		Initial Conditions And Input	Expected Behavior Or Output	Actual Behavior Or Output	Pass Fail
1	1a	User presses the "1"	The leftmost	The leftmost Missile	
		key during the game.	Missile Silo shall	Silo shall shoot a P-	
			shoot a P-Missile.	Missile.	
	1b	User presses the "H"	Nothing happens.	Nothing happens.	
		key during the game.			
	1b	User presses the "D"	Nothing happens.	Nothing happens.	
		key during the game.			
2	2a	User presses the "2"	The middlemost	The middlemost	
		key during the game.	Missile Silo shall	Missile Silo shall shoot	
			shoot a P-Missile.	a P-Missile.	
	2b	User presses the "H"	Nothing happens.	Nothing happens.	
		key during the game.			
	2c	User presses the "D"	Nothing happens.	Nothing happens.	
		key during the game.			
3	3a	User presses the "3"	The rightmost	The rightmost Missile	
		key during the game.	Missile Silo shall	Silo shall shoot a P-	
			shoot a P-Missile.	Missile.	
	3b	User presses the "H"	Nothing happens.	Nothing happens.	
		key during the game.			
	3c	User presses the "D" key during the game.	Nothing happens.	Nothing happens.	

4	4a	User places their	The leftmost	The leftmost Missile	
		crosshair at X = 0, Y =	Missile Silo shall	Silo shall shoot a P-	
		150.	shoot a P-Missile	Missile aimed	
			aimed towards the	towards the crosshair	
			crosshair at (X = 0,	at (X = 0, Y = 150).	
			Y = 150).		
	4b	User places their	The leftmost	The leftmost Missile	
		crosshair at X = 75, Y =	Missile Silo shall	Silo shall shoot a P-	
		150.	shoot a P-Missile	Missile aimed	
			aimed towards the	towards the crosshair	
			crosshair at (X =	at (X = 75, Y = 150).	
			75, Y = 150).		
	4c	User places their	The leftmost	The leftmost Missile	
		crosshair at X = 150, Y	Missile Silo shall	Silo shall shoot a P-	
		= 150.	shoot a P-Missile	Missile aimed	
			aimed towards the	towards the crosshair	
			crosshair at (X =	at (X = 150, Y = 150).	
			150, Y = 150).		
5	5a	User places their	The middlemost	The middlemost	
		crosshair at X = 0, Y =	Missile Silo shall	Missile Silo shall shoot	
		150.	shoot a P-Missile	a P-Missile aimed	
			aimed towards the	towards the crosshair	
			crosshair at (X = 0,	at (X = 0, Y = 150).	
			Y = 150).		
	5b	User places their	The middlemost	The middlemost	
		crosshair at X = 75, Y =	Missile Silo shall	Missile Silo shall shoot	
		150.	shoot a P-Missile	a P-Missile aimed	
			aimed towards the	towards the crosshair	
			crosshair at (X =	at (X = 75, Y = 150).	
			75, Y = 150).		
	5c	User places their	The middlemost	The middlemost	
		crosshair at X = 150, Y	Missile Silo shall	Missile Silo shall shoot	
		= 150.	shoot a P-Missile	a P-Missile aimed	
			aimed towards the	towards the crosshair	
			crosshair at (X =	at (X = 150, Y = 150).	
			150, Y = 150).		

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**APPENDICES:**