

# **HTML5 Shooter Game Manual**

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## **CONTROLS**

**Right Arrow Key:** Move player's ship right

**Left Arrow Key:** Move player's ship left

**'E' Key:** Pause/Unpause game

**'F' Key:** Toggle selected player's weapon (Main Cannon/ Wing Cannon/ Tri Cannon)

**'Spacebar' Key:** Fire selected weapon

**'Q' Key:** Enable/Disable DEBUG Mode (Default Condition: DEBUG Mode is disabled)




**'C' Key:** Press while game is paused to enter in cheat code

## **GAME PLAY**

### **General Description**

The goal of this game is to survive as long as you can and to earn the highest score you can. Falling meteors, Enemy Ships, and Enemy Lasers are all capable of injuring the player's ship. The player is given 3 lives at the start of the game. The only way to obtain more lives is to use the built in cheat codes. *NOTE: This game is designed to be run in a full screen browser window*

### **Player Weapon Descriptions**

<u>Weapon Name</u>	<u>Weapon Image</u>	<u>Number of Lasers per Shot</u>	<u>Number of Shots Provided at Start of Game</u>	<u>Maximum Shot Capacity</u>
Main Cannon		1	75	200
Wing Cannons		2	50	100
Tri-Cannons		3	25	50

## HUD Description

**SCORE:** Indicates what the player's current score is

**LIVES:** Indicates how many lives the player currently has

**DIFFICULTY LV:** Indicates what difficulty level the game is currently running at

**MAIN CANNON AMMO:** Indicates how much Main Cannon ammo the player currently has

**WING CANNON AMMO:** Indicates how much Wing Cannon ammo the player currently has

**TRI-CANNON AMMO:** Indicates how much Tri-Cannon ammo the player currently has

**OUT OF Main Cannon/Wing Cannon/Tri Cannon AMMO:** This message will display slightly above the player's ship in dark red only when the player pressed the fire weapon key (spacebar) and there is no ammo of that type available.

## DEBUG Mode HUD Description

**FrameNumber:** Indicates what frame the game is currently on

**Player\_X:** Indicates what X coordinate the player's ship is currently located at

**Player\_Y:** Indicates what Y coordinate the player's ship is currently located at

**# Enemy Ships:** Indicates how many enemy ships are stored in the enemyShips array

**# Formation Enemy Ships:** Indicates how many formation enemy ships are stored in the enemyFormationShips array


## DEBUG Mode Collision Lines Description

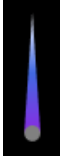

When DEBUG Mode is enabled, orange lines will appear around the player's ship. These lines represent where the collision detection occurs around the player's ship. The extra parts of the lines that are not part of the box that directly surrounds the ship are not part of the collision detection.


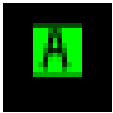
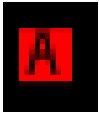
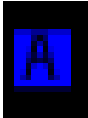
## Difficulty Levels

Difficulty Level	Active Frames	Max Number of Enemy Ships (Non-Formation)	Spawn Rate for Enemy Ships	Spawn Rate for Formation Enemy Ships	Spawn Rate for Meteors	Spawn Rate for Fast Meteors
1	Starts: Frame 1 Ends: Frame 2499	5	Every 175 Frames	No Formation Ships Spawn	Min: Every 300 Frames Max: Every 700 Frames	Min: Every 1000 Frames Max: Every 2000 Frames
2	Starts: Frame 2500 Ends: Frame 3999	7	Every 150 Frames	Min: Every 1000 Frames Max: Every 3000 Frames	Min: Every 300 Frames Max: Every 600 Frames	Min: Every 900 Frames Max: Every 1750 Frames
3	Starts: Frame 4000 Ends: Frame 5999	10	Every 125 Frames	Min: Every 800 Frames Max: Every 1500 Frames	Min: Every 300 Frames Max: Every 500 Frames	Min: Every 800 Frames Max: Every 1500 Frames
4	Starts: Frame 6000 Ends: Frame 7999	15	Every 100 Frames	Min: Every 600 Frames Max: Every 1250 Frames	Min: Every 300 Frames Max: Every 400 Frames	Min: Every 700 Frames Max: Every 1250 Frames
5	Starts: Frame 8000 Ends: Frame 9999	18	Every 75 Frames	Min: Every 400 Frames Max: Every 1000 Frames	Min: Every 200 Frames Max: Every 300 Frames	Min: Every 600 Frames Max: Every 1000 Frames
6	Starts: Frame 10000	21	Every 60 Frames	Min: Every 300 Frames Max: Every 750 Frames	Min: Every 125 Frames Max: Every 200 Frames	Min: Every 500 Frames Max: Every 750 Frames

## Game Elements

Element Name	Element Image	How They Spawn	How Often They Spawn	First Appears At Difficulty Level
Meteors		Automatically spawn after a certain period of time	<p><u>At Difficulty 1:</u> Earliest: Every 300 frames Latest: Every 700 frames</p> <p><u>At Difficulty 2:</u> Earliest: Every 300 frames Latest: Every 600 frames</p> <p><u>At Difficulty 3:</u> Earliest: Every 300 frames Latest: Every 500 frames</p> <p><u>At Difficulty 4:</u> Earliest: Every 300 frames Latest: Every 400 frames</p> <p><u>At Difficulty 5:</u> Earliest: Every 200 frames Latest: Every 300 frames</p> <p><u>At Difficulty 6:</u> Earliest: Every 125 frames Latest: Every 200 frames</p>	1

Element Name	Element Image	How They Spawn	How Often They Spawn	First Appears At Difficulty Level
Fast Meteors		Automatically spawn after a certain period of time	<p><u>At Difficulty 1:</u> Earliest: Every 1000 frames Latest: Every 2000 frames</p> <p><u>At Difficulty 2:</u> Earliest: Every 900 frames Latest: Every 1750 frames</p> <p><u>At Difficulty 3:</u> Earliest: Every 800 frames Latest: Every 1500 frames</p> <p><u>At Difficulty 4:</u> Earliest: Every 700 frames Latest: Every 1250 frames</p> <p><u>At Difficulty 5:</u> Earliest: Every 600 frames Latest: Every 1000 frames</p> <p><u>At Difficulty 6:</u> Earliest: Every 500 frames Latest: Every 750 frames</p>	1
Enemy Ships		Automatically spawn after a certain period of time	<p><u>At Difficulty 1:</u> Every 175 frames (Max: 5 ships)</p> <p><u>At Difficulty 2:</u> Every 150 frames (Max: 7 ships)</p> <p><u>At Difficulty 3:</u> Every 125 frames (Max: 10 ships)</p> <p><u>At Difficulty 4:</u> Every 100 frames (Max: 15 ships)</p> <p><u>At Difficulty 5:</u> Every 75 frames (Max: 18 ships)</p> <p><u>At Difficulty 6:</u> Every 60 frames (Max: 21 ships)</p>	1

Element Name	Element Image	How They Spawn	How Often They Spawn	First Appears At Difficulty Level
Enemy Formation Ships		Automatically spawn after a certain period of time	<u>At Difficulty 1:</u> Doesn't Spawn <u>At Difficulty 2:</u> Earliest: Every 1000 frames Latest: Every 3000 frames <u>At Difficulty 3:</u> Earliest: Every 800 frames Latest: Every 1500 frames <u>At Difficulty 4:</u> Earliest: Every 600 frames Latest: Every 1250 frames <u>At Difficulty 5:</u> Earliest: Every 400 frames Latest: Every 1000 frames <u>At Difficulty 6:</u> Earliest: Every 300 frames Latest: Every 750 frames	2
Main Cannon Ammo Box		Dropped by destroyed Enemy Ship or Enemy Formation Ship	60% chance of being dropped*	1
Wing Cannon Ammo Box		Dropped by destroyed Enemy Ship or Enemy Formation Ship	30% chance of being dropped*	1
Tri Cannon Ammo Box		Dropped by destroyed Enemy Ship or Enemy Formation Ship	10% chance of being dropped*	1

\*An ammo box will always drop when an enemy ship or enemy formation ship is destroyed. What type of ammo box depends on a randomly generated number.



## CHEAT CODES

### List of Valid Cheat Codes

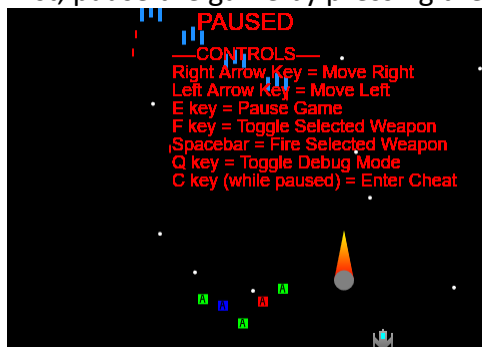
**ammo:** (*numbers that will appear at the bottom of the screen: 65777779*) Gives the player the maximum amount of every kind of ammo (main Cannon = 200, wing Cannon = 100, tri Cannon = 50)

**3up:** [using normal number key] (*numbers that will appear at the bottom of the screen: 518580*) Adds 3 lives to the player's current number of lives.

**3up:** [using the number pad key] (*numbers that will appear at the bottom of the screen: 995880*) Adds 3 lives to the player's current number of lives.

### How to Input the Cheat Codes

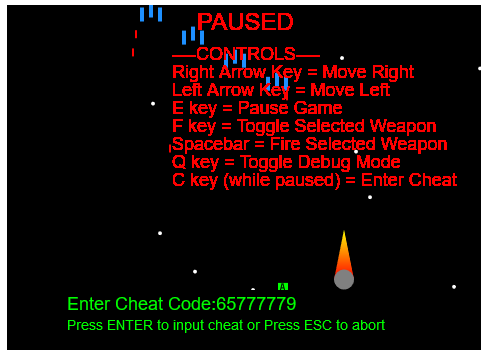
First, pause the game by pressing the 'E' key.



Second, press the 'C' key to bring up the cheat code prompt.



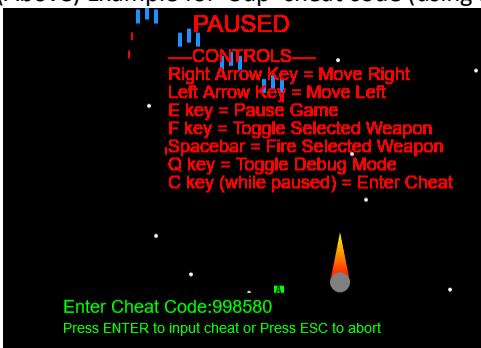
Third, enter in a valid cheat code (bold words listed above). Do not include the ':' when entering the cheat code.



(Above) Example for 'ammo' cheat code



(Above) Example for '3up' cheat code (using number keys)

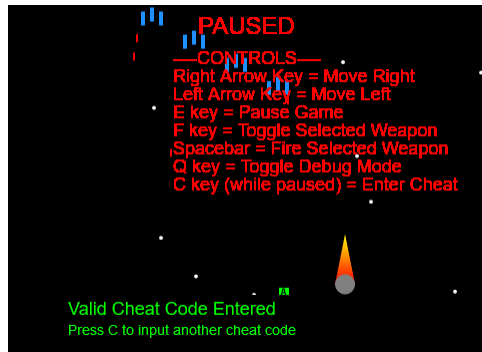


(Above) Example for '3up' cheat code (using the number pad)

Finally, either press the 'ENTER' key to enter the cheat code or press the 'Esc' key to abort entering the cheat code. If the cheat code was invalid, it will display 'Invalid Cheat Code Entered'.



Example for invalid cheat code



Example for a valid cheat code

If you want to enter in another cheat code, press the 'C' key again and then repeat the process.