**Stahr Wars Game Manuel**

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* When the game begins, you are put into a random location in the universe. The universe is a 16x16 grid that is composed of 256 sectors. Any number of players can join the game (until it’s too much for the server to handle). The sectors completely wrap around making the universe “infinite”.
* You can view the other players in the universe as well as their locations with the “u” key.
* The objective of the game is to destroy all of the enemy ships and be the last one remaining in the universe.
* The other player’s locations are only updated when you move yourself. This was done to reduce strain on the server while still getting good updates of their locations.
* On the right side of the screen, you can see that you have values for health (100), fuel (50), phasors (50), and torpedos (10). These values will change throughout the game, and will all be replenished if the player lands on a planet.
* Use the arrow keys to move and change your ship’s orientation. Every time you move your fuel will go down by 1. If you run out of fuel you will be unable to move for the rest of the game.
* If you hit a star, your health is set to zero and you lose.
* If you enter a blackhole, you are teleported to a random sector in the universe.
* The player can also use “h” to hyperspace and go to a random sector in the universe (consumes 5 fuel).
* If you find a spot with treasure, a message appears telling you.
* “f” is the fire key, and if you do not have the torpedo box checked, you will fire phasors by default. Phasors do 5 damage per hit to the other players and torpedos do 15. Checking the torpedo box will ensure you are shooting them with “f”.
* “s” is the toggle shield button. When your shield is on you can not move and cannot shoot, but can also not be hit by the enemies’ weapons.
* If you hit a star, you get a message saying you died and are removed from the game and no longer shown.
* If you are shot enough to lose all of your health, you disappear from everyone else’s view and get an input string message – you cannot do anything though and are forced to leave the server.
* The server returns a byte array data structure for the locations of the planets/stars/blackholes/treasure as well as a byte array data structure for player locations, health, fuel etc. All of this is sent via bytes to put less strain on the server.
* The server sends normal strings to update the player’s orientation, send all player locations when “u” is pressed, phasor count, and torpedo count.
* The only known issues with the game include the server crashing sometimes when you enter a blackhole/hyperspace.