Asteroids Game Design Doc

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Bullets

* To shoot bullet player will need to press left mouse click
* Bullet will be released on the release of the left mouse click
* Bullet will collide with enemies and once they collide bullet will disappear and return to its default position
* It is going to be array of bullets = 5 bullets. 5 bullets max on the screen.
* Once bullet will touch sides of the screen it will disappear and return to its default position
* Bullets will travel with same velocity.
* Bullet will reset itself and return it default position (player position or -100 -100) after traveling for a few (5) seconds and not colliding with anything

Movement

* Movement of the player ship will be done by using WASD and arrow keys.
* Player movement will be rotational, depending on the players direction key angle in radians will get raised
* Fuel will be synced with the movement of the player. Player will be able to move a certain amount depending on the Fuel bar
* Once the player will go out the side of the screen, he will come out from the opposite screen side (if he goes in the right side of the screen he will come out from the left side instead of being stopped)

Fuel Bar

* This bar will determine for how long player is able to move
* It will decrease every time the player moves
* Once depleted the player will be unable to move

Asteroid enemy

* It will come out randomly from X and Y axis
* They will move in a straight line with no changing position
* The asteroid will flip sides of the screen and will move at a faster pace
* When asteroid collides with the player it will explode
* When asteroid collides with a bullet it will explode into smaller part that will go random directions
* They will move by itself starting from a random position

Smart enemy

* This type of enemy will spawn at random position as well but not as often as the asteroids
* This enemy will follow the player unless it collides with the player Sprite or with the bullet.
* Respawn of this enemy will be linked with the scoring system. Once player hits 20 of the score this enemy will come out
* It will move slower than the player
* It will move by having a line between player and the enemy itself. It will move along the line using a velocity

Scoring

* Killing enemy will grant you score and credits for upgrades

Leveling Up and upgrading

* Level system will allow player to buy new stuff once they level up.
* Killing enemies will grant XP to level up
* Credits will be used to buy parts once they are unlocked

Boost

* Spacebar will activate boost for the player ship
* Boost will temporarily (10 sec for now) increase the speed of the player
* It will drop with 20% form the smart enemy

Game levels

* As the player progresses through the game new harder and more rewarding levels will be unlocked
* Each level will bring the player closer to the final boss fight

Upgrades

* Upgrades are acquired by using credits you have collected
* Special legendary ship parts can be acquired by collecting certain ship parts
* Upgrades can be made to your ships rotational speed, fire speed, fuel capacity, and speed.

Game States

* We will have at least 7 Game States
* Main Menu, How To Play, Hangar, Star Map, Standard gameplay, Boss fight gameplay and Upgrades.

-Main Menu

* Choose what you want to do next, joins all game states together

-How To Play

* Displays instructions on how to play the game

-Hangar

* The player will be able to choose which spaceship they wish to use

-Star Map

* Player will be able to choose which level they wish to play and view what rewards they will receive for this particular level.

-Standard Gameplay

* Player controls spaceship, asteroids are flying around the screen
* Played tries to destroy all asteroids while collecting credits and ship parts
* Player must also destroy enemy ships

-Boss Fight

* The Boss fight will not have asteroids present but rather one large enemy ship.
* The boss has an abnormally large health
* His attacks are instant kill and are very hard to dodge
* The “CLIMAX” of the game

-Upgrades

* The player can upgrade their chosen ship here

Story Line

You are flying a spaceship through space collecting materials, credits, and XP from enemy starfighters. On your way you fly through asteroid fields. You collect special ship parts and credits from destroying asteroids which you can use to upgrade your ship. Your main goal is to proceed through a set of planets while upgrading your ship and collecting necessary materials for your final battle. You have to save your home world from a mad titan, a destroyer of worlds. His next target is your planet and you must gather all of the upgrades you can to stop him. Your chances are low, but you are a great pilot all you need is a powerful ship. To defeat him you will need everything you can possibly get but you have to hurry he is already on his way to your planet. Be fast and successful on your way to glory and you will have a high chance of saving your people.

Art Style

* Art style will not be realistic although it will not be stupid
* It will be a cartoon-like theme
* Each object will be easily identifiable
* All assets are only concepts as of right now

Music

* Music will be based off of preexisting “Space Songs” and games about space
* Music has not yet been chosen, edited or used