Endless

Game Design Document

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Proposed by King's Council

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Project Information

Target Platforms

Endless will be available on Windows, Mac, and Linux machines.

Language and Game Engine

Endless will be developed using the Unity Game Engine with C# scripting.

Source Control

Bitbucket

Ticket Tracking

JIRA / Trello

Game Information

High Concept

Players are pitted against each other in action packed combat built around each players ability to pilot in space.

Genre

Action Arcade Shooter

Objectives

Players duke it out in all out space combat
Each player gets to choose from multiple ship styles.
Each Individual ship has different strengths and weaknesses.
Players use these

Setting

You're in space shooting things. Mostly Other people.

<u>Gameplay</u>

Ships

Seeker	
Hull	Weak
Shield	Weak
Thrusters	Strong

Primary Weapon - Machine Gun - Rapid fire shots with cone of accuracy
Secondary Weapon - Twin Laser Burst - Straight line duo laser shots
Special - Thruster Boost - The Seeker's Thruster strength increases based on the amount of hull damage it has

Dozer	
Hull	Strong
Shield	Medium
Thrusters	Weak

Primary Weapon - Duo Laser Cannons - Two continuous beams form angle
Secondary Weapon - Photon Torpedos - Straight line missiles
Special - Weapon Proficiency - Can fire both weapons simultaneously

Urchin	
Hull	Weak
Shield	Medium
Thrusters	Medium

Primary Weapon - Shrapnel Mine - Delayed explosion of bullets, slow fire rate
Secondary Weapon - Magnetic Mines - Drop mines that gravitate towards nearby enemies
Special - Shrapnelsplosion - Release several shrapnel mines upon death

Dish	
Hull	Medium
Shield	Weak
Thrusters	Weak

Primary Weapon - Magnetic Field - Laser damage, does not affect hulls, cone area affected, slows enemies
Secondary Weapon - Homing Rockets - Missiles arc towards nearby enemies
Special - Medically Engineered - Allies inside of Magnetic Field regenerate shield strength to a max of 110%, slow effect does affect allies

Mom	
Hull	Strong
Shield	Strong
Thrusters	Weak

Primary Weapon - Mini Gatling Turret - Rapid fire bullets in a cone of accuracy
Secondary Weapon - Mini Tesla Turret - Laser damage, fires ball in straight line, if enemy hit, jump to nearby targets
Special - Cover Shield - Allies can permeate Mom's shield and receive cover

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Shniper	
Hull	Weak
Shield	Weak
Thrusters	Medium

Primary Weapon - Shotgun Blast - Cone of short range bullets
Secondary Weapon - Laser Spike - Long range straight line instant laser
Special - Patience is a Virtue - While not firing a weapon, the Shniper is building power for his next attack. Firing either of his weapons reduces this bonus to zero.

Level Designs

Level ideas Summary
- Asteroid Field (quick teamfight map, fast pace)
- Planet PAIN! (free for all, gravity)
- Sunshine (larger team fight, gravity and asteroids)

Asteroid Field
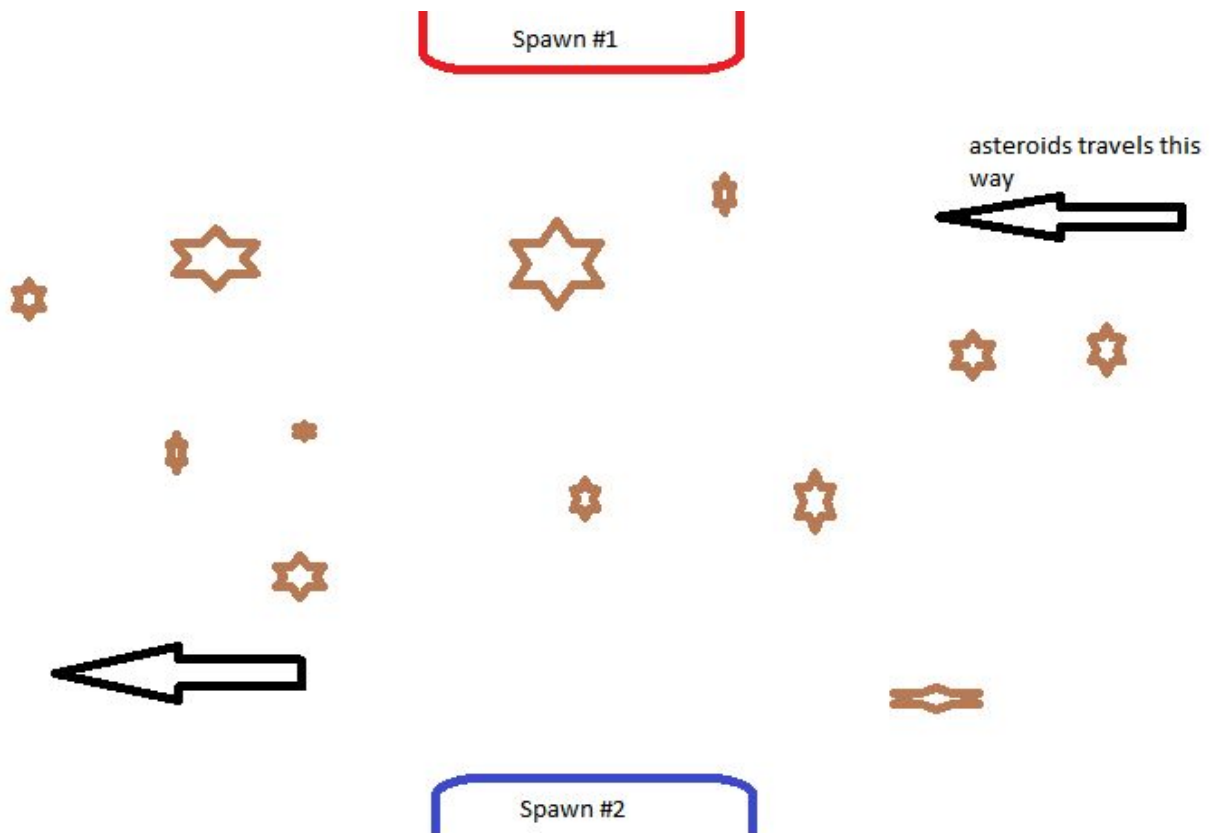
- medium sized map
- team death match
- asteroids contain power-ups and can be destroyed to collect them
- spawns contain a fog-of-war so enemies cannot see within and enemies cannot fly into their opponents' spawns (death?)
- spawn locations are invulnerable from outside attacks and ships cannot fire within it

Planet PAIN!
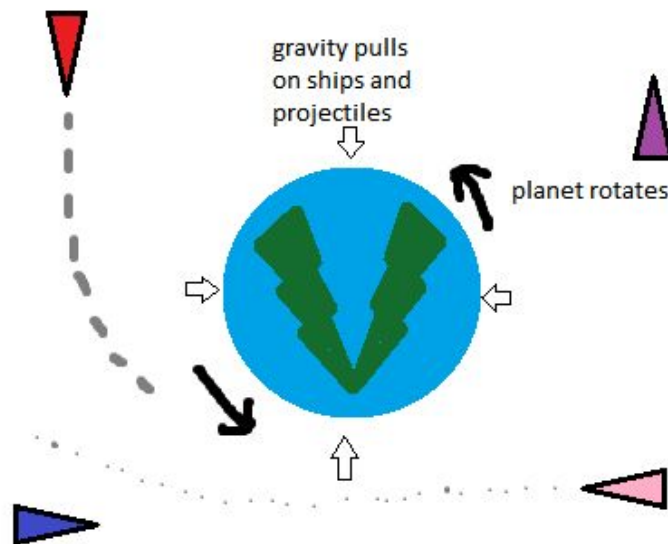
- small size
- free-for-all
- randomized spawns, when a ship spawns they are invulnerable for 5 seconds or until they shoot
- gravity pulls the players, rockets, and bullets towards the planet
  - missiles pull faster than the bullets
- IDEA: PvE with the planet? if it hit w/ enough bullets and missiles it will start to fight back

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Sunshine

- large map
- dynamic cycles
  - sun w/ solar flares, the sun has gravity, and asteroid belt
  - supernova, sun explodes, must hide behind blast shields or perish
  - black hole, gravity is greatly increased, asteroids fly into black hole
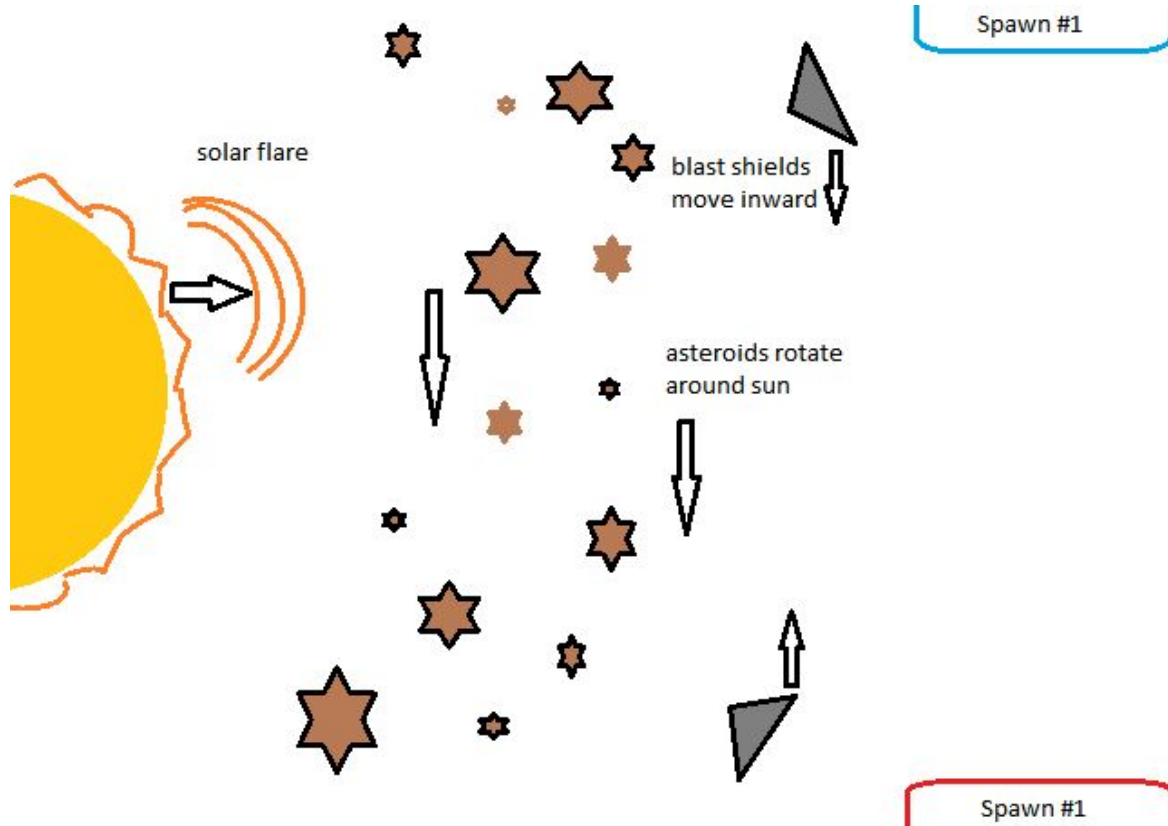
During the supernova phase the blast shields move from off level onto level. Ships must hide behind the blast shields or they will be killed by the blast. The map will increase in brightness, dim quickly, then flash extremely bright destroying everything caught in it.
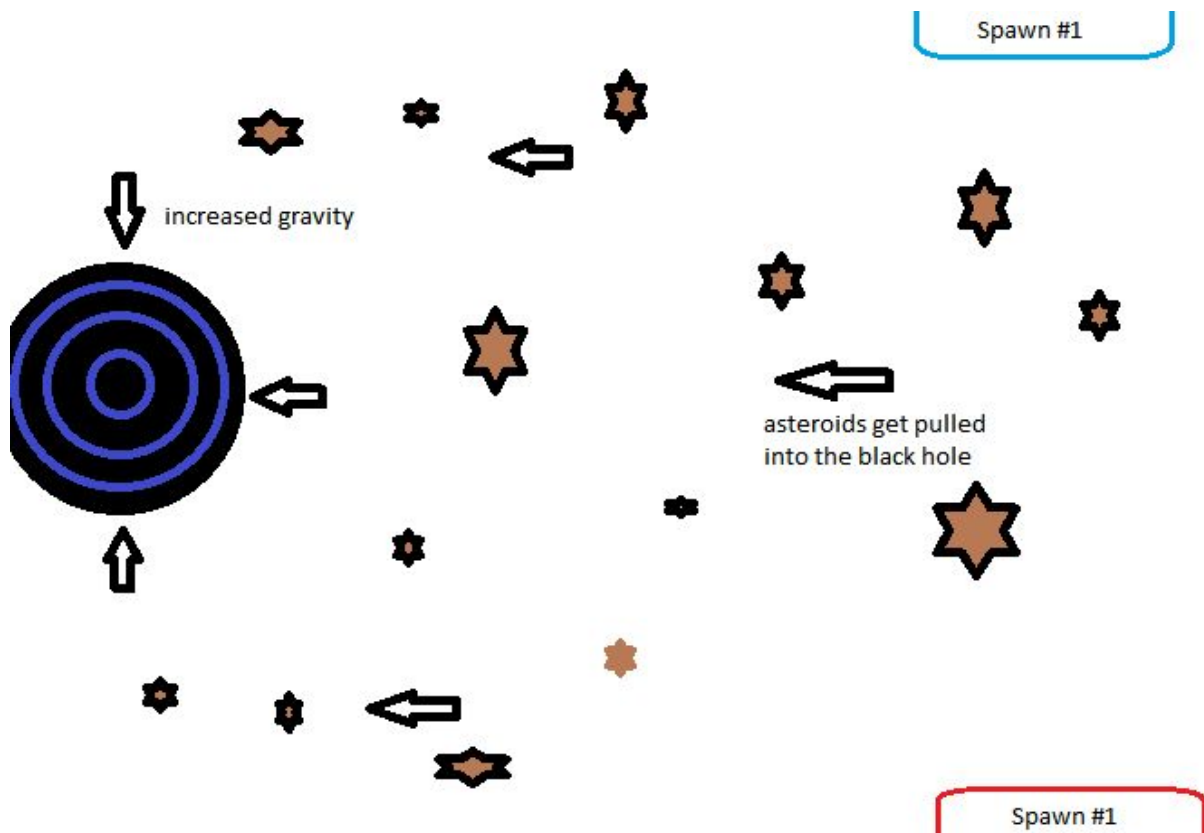
After supernova, the sun turns into a black hole increasing gravity and pulled ships and asteroids into it, "eating" them. After the black hole has devoured enough, it reverts back to the first state, a sun.

Game Mechanics

Basic Game Rules

- All ships possess the following :
    - Hull
        - Used to measure a ship's integrity. When the integrity reaches 0%, the ship is dead
    - Shield
        - Provides protection for the hull. If shield is reduced to 0%, the ship is not dead.
    - Engine
        - Determines the thruster capability of the ship (acceleration, max velocity, turning speed)
    - Primary Weapon
        - A weapon for the ship. Can shoot bullets, lasers, or missiles.
    - Secondary Weapon

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           ■   Another weapon for the ship. Can shoot bullets, lasers, or missiles.
- ○ Special
    - ■ A passive ability that improves a specific functionality of the ship

Weapon Types

- Bullet
    - Ignore shields
    - Typically deal very low hull damage
- Missile
    - Extremely reduced damage versus shields
    - Typically deal very high hull damage
    - Can be destroyed mid-air
- Laser
    - Improved damage versus shields
    - Typically deal low hull damage
    -

Subsystem Management

Each ship has three subsystems
- Weapons
- Shields
- Thrusters / Hull

Two points will be allocated to each subsystem by default. This gives a total of 6 points to allocate out. Any subsystem can only have a max of 4 points at any given time.

Each system benefits from the amount of focus placed on them. 4 points makes a subsystem work at optimal power and output while the other two systems end up running sub par.

Systems have power requirements. Each system will have an available buffer that expends itself and the recharge rate of this buffer will be augmented by the subsystem management of each player.

Power-ups

Three various kinds.
- Weapons
- Shields
- Thrusters / Hull

Power-ups can be collected by destroying asteroids or ships currently powered up. (At a reduced amount)

Power-ups give boosts to ship systems to give players an advantage in combat.

Each ship can have a max number of power-ups X

Game Modes

- Free for All
- Team Deathmatch
- Capture the Flag - Low Priority
- Real-Time Strategy - Low Priority
  - Real-Time Strategy mode will change it to where ships have varying cargo capacity that allow them to collect and secure resources from around the map and bring them back to their home base for permanent team upgrades. On death, players will drop the resources they are currently carrying and either team may intercept the resources to place them in their cargo. The end goal is to eliminate the enemy base and all remaining ships.

Game Controls

Each action can be mapped to any keypress or mouse button when using a keyboard and mouse, or any button press when using a controller.

Ship Actions:
    Weapons:
        Primary Weapon- Activates the ship's first weapon.
        Secondary Weapon- Activates the ship's second weapon.
        Special Weapon- Activates the effects of the ship's unique special weapon.
    Thrusters:
        Forward Thrusters- Activates the thrusters which propel the ship forward.
        Backward Thrusters- Activates the thrusters which propel the ship backward.
        Leftward Thrusters- Activates the thrusters which propel the ship to its left.
        Rightward Thrusters- Activates the thrusters which propel the ship to its right.
        Left Rotational Thrusters- Activate thrusters to rotate the ship counterclockwise.
        Right Rotational Thrusters- Activate thrusters to rotate the ship clockwise.
    Modes:
        Change Energy Focus (Thrusters/Hull, Weapons, Shields)- Switches the ship into modes which alter the regeneration rates of various subsystems. Exact mechanics to be determined.

Each player's Camera can be controlled by mapped key or button presses. On systems with a mouse present, bringing the cursor to the edge of the screen will move the camera in that direction, and clicking on the minimap will untoggle Camera Follow and move the Camera to the location corresponding to the area clicked.

Camera Controls:
       Button Controls:
              Toggle Camera Follow- The Camera will center itself above the player's ship.
              Move Camera:
                     Left- The Camera will move to the screen's left.
                     Right- The Camera will move to the screen's right.
                     Up- The Camera will move to the screen's upward direction.
                     Down- The Camera will move to the screen's downward direction.
                     Towards Screen (Zoom in)- The Camera's size will be lowered, simulating that the camera has moved in towards the screen or been zoomed in.
                     Away from Screen (Zoom out)- The Camera's size will be raised, simulating that the camera has moved out away from the screen or been zoomed out.
       Mouse Controls:
              Jump to location on minimap- Moves the Camera to the location on the minimap.
              Pan Camera:
                     Left- The Camera will move to the screen's left.
                     Right- The Camera will move to the screen's right.
                     Up- The Camera will move to the screen's upward direction.
                     Down- The Camera will move to the screen's downward direction.

User Interface

Overall rules to GUI theme:
1.   Consistent throughout all platforms.
2.   GUI encompasses map
     ● Map disappears when GUI is swiped/minimized.
     ● Map will not take up too much of screen.
3.   Visual window square in map to show vision.
4   Must be easy to navigate through!
5.   Check control buttons on phone devices to make sure user is comfy.
6.   Style Options
     ● Fun and Colorful (comical)
     ● Grittier, more realistic (starcraft II style)
     ● Combination of both (first two options)
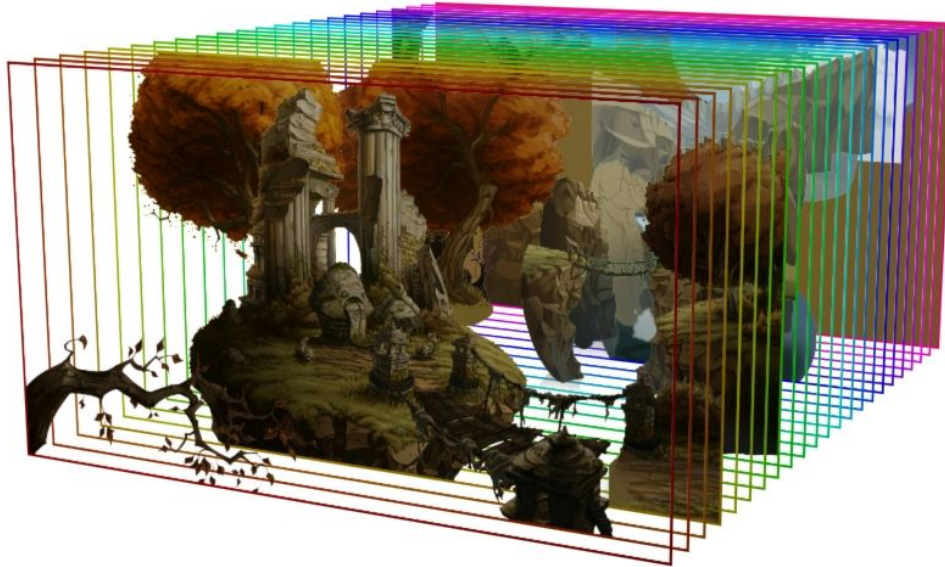7.   GUI will encompass a specific layer. The layer will dictate what ship the user is using.

*Diagram first mock ups will be posted here.

Assets

Art

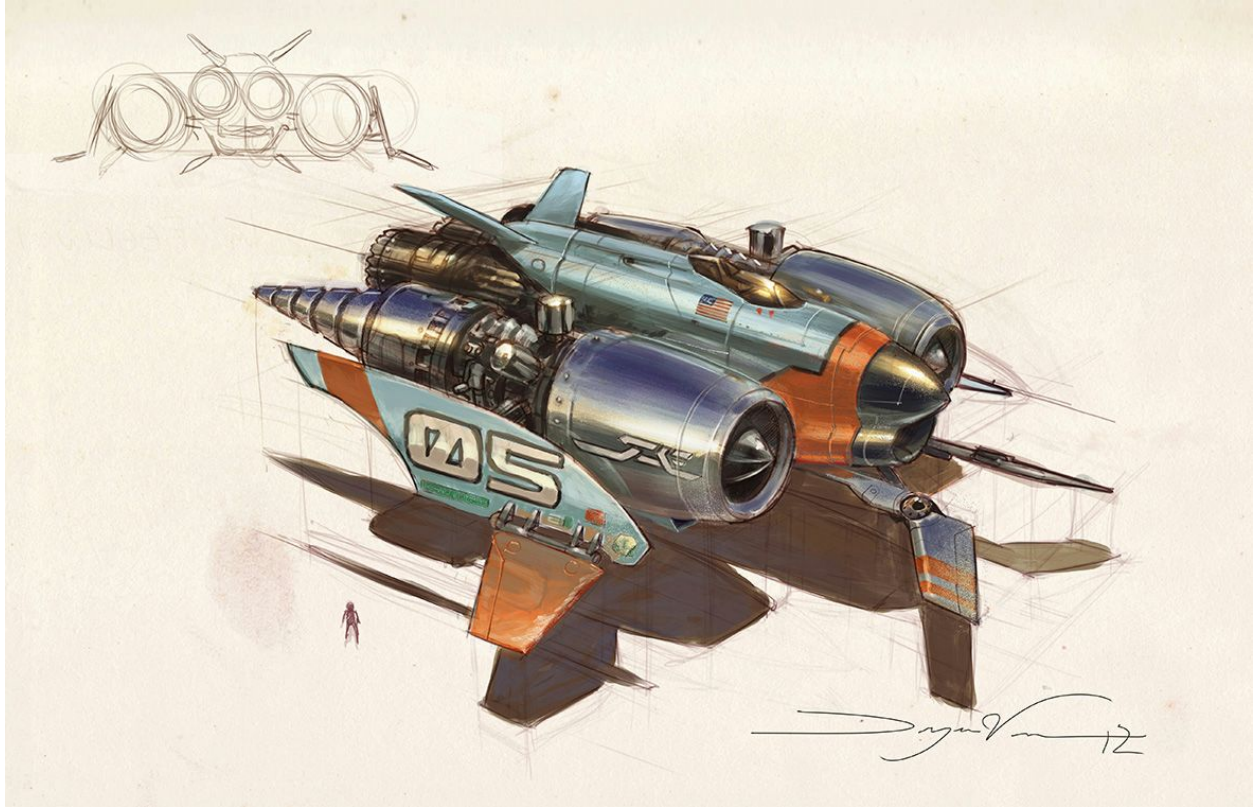<Insert Discussion of Art Style, and Example Assets>

Backgrounds with Parallax!

The following three pictures are just cool, I'd like to see some diversity of color similar to these if possible.

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BACK VIEW

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Sound and Music

<Music Style? Sample Tracks via Soundcloud Account or something>

1. https://soundcloud.com/monstercat/puppet-soft-spoken
2. https://soundcloud.com/cma-music/moving-forward?in=cma-music/sets/dreams-ep
3. https://soundcloud.com/sizzlebird/free?in=ezetreezy/sets/video-game
4. https://soundcloud.com/user3303533/mass-effect-3-earth
5. https://soundcloud.com/future/o-r-i-o-n-plop-exclusive
6. https://soundcloud.com/ramesesb/rameses-b-night-sky
7. https://soundcloud.com/ramesesb/rameses-b-moonlight
8. https://soundcloud.com/mitis/mitis-for-so-long-original-mix
9. https://soundcloud.com/monstercat/nitro-fun-soldiers
10. https://soundcloud.com/audien/audien-hindsight-preview?in=ezetreezy/sets/down
11. https://soundcloud.com/audien/audien-eventide-unity?in=ezetreezy/sets/down
12. https://soundcloud.com/audien/audien-iris-out-now?in=ezetreezy/sets/down