We Need Space

Blast through countless waves of incoming alien ships in hopes of saving Earth from total annihilation

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Game Design

Summary

You play as a lone soldier protecting Earth from invaders - the last line of defense for human kind.

Related Games

- Galaga
- Star Wars (1983 Video Game)
- Star Wars: Squadrons

Gameplay

Your goal is to survive for as long as possible by clearing endless waves of enemies.

Narrative

You are Earth's last line of defense from an incoming galactic hive.

Technical

Theming

Your enemies are a galactic species of aliens who have come to invade Earth. Different classes of enemy ships have different behaviors and attack patterns, but all spawn in waves from a central mothership.

Mechanics

The game is a 3D space shooter, and you must use your ship's weapons and your flying abilities to shoot and evade enemies as they try to attack you.

Progress by defeating growing waves with varying enemies and sizes, aiming for a high score with only small pauses in between waves. Acting as obstacles, asteroids litter the battlefield and offer cover but also force you to swerve between them while having to maintain a constant speed.

Set Up

The player starts at the center of the world, with no velocity. From the first time they press the acceleration button it becomes impossible to return to 0 (except for brief instants while turning).

The first wave to spawn is a small one, and the player must attempt to clear it before it kills them.

Rules

Score points by killing enemies quickly and accurately and by clearing waves. Bonuses are awarded for quickly clearing a wave, as well as consecutive hits on enemies without missing.

Controls

| PC Control	Action
W	Increase acceleration
S	Decrease Acceleration
Spacebar/Left Click	Fire weapon
Mouse Movement	Move crosshair/pitch and yaw
A/D	Roll

Design

(TODO: Note: These sections can safely be skipped if they're not relevant, or you'd rather go about it another way. For most games, at least one of them should be useful. But I'll understand if you don't want to use them. It'll only hurt my feelings a little bit.)
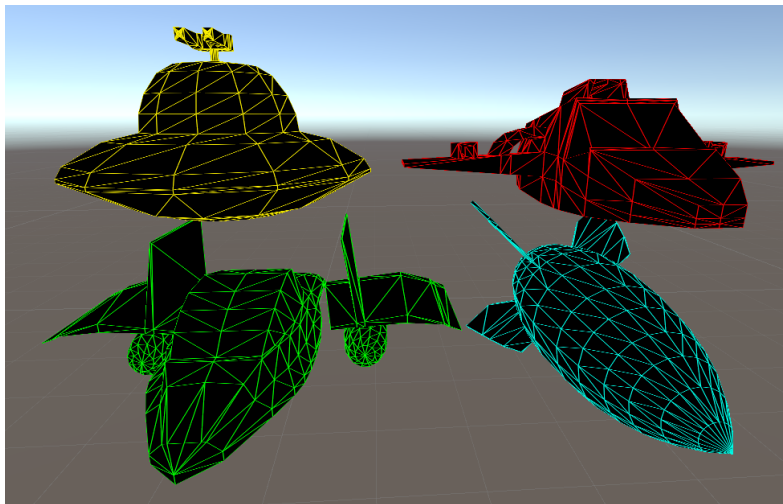
Visual Style

The visual style of the game is that of an arcade shooter. All models will have a vibrant color scheme with a wireframe design to facilitate this styling.

Inspiration
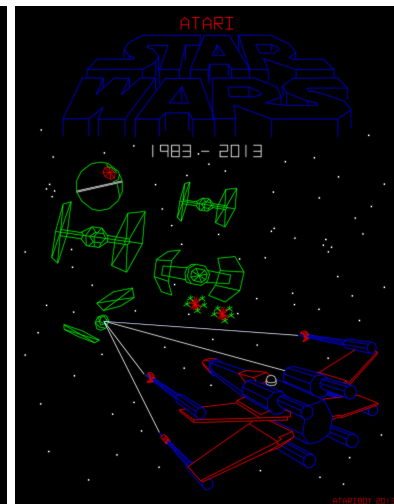
Enemy Models

Game Flow

The game progresses as follows:
1. The player starts at the center of the map
2. From a distance, the first wave of enemies will spawn of varying difficulty and with varying movement patterns
3. The player must destroy every enemy in this wave while trying to avoid taking damage
4. When every enemy in the wave is destroyed, a slightly harder wave will spawn
5. The game continues until the player is defeated

Development

Playtest Results

TODO: Summarize your experience of the different states of your game and what revisions took place after each iteration. What problems did you experience? How did you address them? Reflect on the efficacy of the prototype at each stage. Do include images of each state.

Future Work

Some things on the backlog that have yet to be implemented include:
- A minimap to show the relative positions of enemies around the player
- An upgrade system between waves to help the player defeat enemies and/or gain health/defense upgrades
- The addition of a third-person perspective

Viability

Star Wars (1983 Video Game)

This game, which has a similar visual style and similar gameplay, was quite successful. According to Wikipedia, it was "Atari's top-selling 1983 arcade release, with Atari producing 12,695 total arcade units."

Star Wars: Squadrons

This game, which has similar gameplay and controls was also relatively successful, with many reviewers praising the combat and flight mechanics. It retains a 7/10 on Gamespot, a 79/100 on Metacritic, and an 8/10 on IGN.