

NOVA

GAME PITCH

SUMMARY

Story Abstract

Aliens are attacking the Earth, and it is up to the player to defend the planet. Unfortunately, due to bureaucratic incompetence, only one ship has made it to the battle. The player must use that ship, the *Nova*, to destroy the attacking fleet.

GAMEPLAY – LOOK & FEEL

The gameplay of *Nova* is in the genre of classic arcade games such as *Space Invaders*, *Galaxian*, and *Phoenix*. The player's primary goal is to eliminate the aliens without getting destroyed. As a side goal, the player can collect credits to spend on various upgrades.

Appearance

Nova will use the "Space" tileset from the Construct 2 Media Bundle. Music, audio, and sound effects will be taken from this bundle as well.

Graphical Interface

A mockup of the user interface is displayed at right. The enemies occupy the top portion of the screen, and the player can move around the bottom.



The blue bar across the bottom of the screen indicates the player's health – when this reaches zero, the player is destroyed. The text at the top indicates the player's credit balance, and the current level.

Shots fired by both the player and the enemies can be seen throughout the mockup. Note that there are two types of enemy visible on the screen; many levels will contain this.



Player Role and Actions

The player will control a single spaceship, the *Nova*, and must defeat each successive wave of enemy fighters.

The *Nova* will fire its guns constantly whenever enemies are present on the screen, so the player will only control its movement. This will be done using the arrow keys or WASD on a keyboard, clicking a spot on the screen with the mouse, or touching the destination on a touch screen.



Whenever an enemy is destroyed, there is a chance that it will drop a reward in the form of “credits”. These will fall from the point at which the ship was destroyed, and the player may collect it by intersecting it with the *Nova* before it leaves the screen. A reward will come in one of three different values; both the chance of it appearing and its value when it does are determined by the enemy that was destroyed

Every few levels, the player will be taken to a “store” screen, where they can use these credits to purchase upgrades such as more powerful weapons, repairs for their ship, and increased firing rate. The upgrades will be numbered from 1 to 9. Items in the store can be selected using the arrow keys (up and down to select, Enter to choose), the number keys, or selecting directly with mouse or touch.

Strategies

The player has three tasks in each level: avoid enemy shots, collect credits, and destroy the enemy ships. To add complexity, there will often be two (or more) types of enemy in the level, requiring the player to prioritize, and credits will come in multiple levels. Balancing these factors suggests a few strategic approaches:

- The player could focus on destroying a particular type of enemy first. For example, some players may prefer to eliminate the weaker enemies, giving a clear shot at the stronger ones, while others will focus on the greatest threat first.
- The player could focus on defense, avoiding enemy shots at all cost. However, this may cause them to miss collecting credits.
- The player could focus on collecting as many credits as possible, although this would place them at a higher risk of taking damage.

Level Summary and Story Progression

Each level will consist of a formation of attacking enemies, becoming more powerful as the game progresses. The enemies will not always be of the same type, but each type of enemy moves in a consistent manner between levels.

The behavior of each enemy is detailed below:

Scythe

The Scythe is the most basic enemy. It appears in large block formations, moving in a regular pattern. Each Scythe fires a single weak shot straight down, and can be destroyed by a single shot from the weakest weapon.



Slicer

The Slicer is very similar to the Scythe – it moves in large block formations, firing straight down. There are differences, though: the Slicer is smaller (making it harder to hit), its shots move faster and do more damage, and the ship can take more damage before being destroyed.



Bug-Eye

The Bug-Eye functions as a “boss” in early levels. It moves independently around the screen, and fires six shots in rapid succession. These shots curl around until they are pointing at the player, and then move in a straight line. The Bug-Eye is much harder to destroy than earlier ships.



Saucer

The Saucer wanders the screen in a semi-random path. Its speed is highly variable and can change rapidly, making it hard to hit. They attack in large



groups, and all fire simultaneously, directly at the player. This makes their shots easy to dodge, but devastating when they hit.

Blades

The Blades is a significantly more powerful version of the Saucer. They appear in smaller numbers, move in more predictable ways, and fire independently of each other. Their shot is extremely large and causes a lot of damage, but they do not fire very frequently.



Crescent

The Crescent enemies move in rapid circular paths, interlocking with each other, giving the appearance of expanding and contracting circles. They fire a shot that spirals outward, making it difficult to dodge.



Fighter

The Fighter is the most powerful enemy in the game. It fires a rapid burst of six shots straight down, with enough combined damage to destroy the player in three bursts. Fighters appear in long ranks, allowing them to cover the screen with constant fire.



DEVELOPMENT SPECIFICATION

Hardware

Nova will be flexible and largely platform-independent. It will be designed for mobile platforms, but will be able to run on any HTML5-capable device.

The player will be able to control the game using any combination of keyboard, mouse, and touch, so Nova needs only one of these to be present.

Software

As stated above, Nova will be playable on any HTML5-capable device. Initially, it will be released for embedding in a web page; eventually stand-alone executables for Windows, Linux, Android, Windows 8, iOS, Windows Mobile, and other platforms will be released.

Algorithm Style

- The enemy ships will move in predetermined patterns, as detailed under “Level Summary and Story Progression”.
- All animations will be handled using Construct2’s animation effects. The sprites are pre-animated, so this will merely consist of looping through different frames.
- The camera will not move, but the background will slowly scroll past to give an illusion of movement.
- The player’s ship will be restricted to the bottom portion of the screen and enemies will usually be restricted to the top. However, a few enemies can come to the bottom and collide with the player.