

Project 2

Asteroids

Project Description

A version of the classic game Asteroids where a player controls a space ship and must dodge or destroy incoming objects or else be destroyed by them.

Game Menu Page Interface

The game will be fullscreen flash and will be made to be played online. When the site first loads it will fill the browser window and have five buttons.

The two main buttons:

Instructions - opens a small window explaining the game.

Play - starts the game and switches the screen to fullscreen mode.

And three smaller buttons:

Volume - duh.

About this game - about section and my portfolio link.

Leaderboard - opens the leaderboard window of the top scores.

In-Game Interface

Player Info - shows number of lives and hit points remaining.

Inventory - a line of icons showing the players different guns and special items.

Score - shows both current level and total score.

User Control

The game will be completely mouse controlled. This will allow users to do everything needed in the game while only requiring minimal effort with one hand on their part. When the mouse cursor is within a short range of the ship it will rotate the ship to face the cursor. When the mouse is moved outside of this range the ship will follow the cursor to its new location. To fire the ships gun the player just clicks. The gun can be fired at any time.

Game Progression

The game will have around 10 levels, each with a set number of asteroid objects that will move across the screen. Players will progress to the next level when all the objects have finished moving and the player is still alive. Each level will have more objects and they will move faster.

Score Calculation

The player's total score is calculated by adding points for asteroids destroyed and subtracting points when the player ship is hit by asteroids. There may also be bonus points that can be collected by the player. Shooting accuracy may also be used to calculate bonus points.

Getting Hurt and Losing

Players will start with three lives and 100 health. Each asteroid object will do a set amount of damage based on its size, speed, and the current game level. If the ship is hit, it will go into an invincibility mode for 1 second. When a player dies a fourth time, they lose the game and are given a prompt to enter their name and score in the leaderboard.

Leaderboard

The leaderboard will contain the top 100 scores. It will show the player's name, their score, and the date they played.

Graphical Style

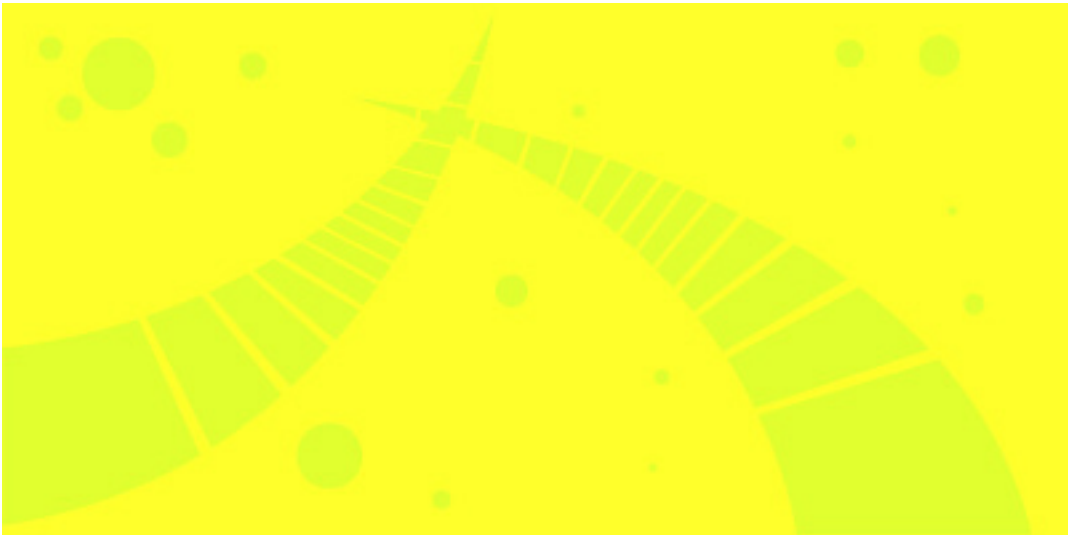
Asteroid calls for a top-down 2D view, and this game will have the same look. The actual elements in the game can go one of two directions.

The first is a completely flat, vector look. This allows for dynamic creation of level background graphics and asteroid objects by choosing layout and color completely through code. All objects would also be animated through code, which is easy to implement but also very limiting. This method also will keep the file size very very small.

The problem with this style is the graphics may seem bland at times since they are generated and have no texture.

The second style is a completely handmade, very textured look. Objects will be modeled and animated in 3D and then rendered out to frames and brought into flash. This approach would mean that every level looks exactly the same every time the game is played. It also means that load times would be pretty long for each level.

Vector Samples:



Raster Samples:

