

# Project Design Document

02/10/2025  
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## Project Concept

### 1 Player Control

You control a *Starfighter* in this *3rd person view* game where *WASD and mouse click* makes the player *Move and shoot approaching debris and enemies*

### 2 Basic Gameplay

During the game, *Asteroids and Enemy ships* appear from *The approaching view of the screen* and the goal of the game is to *Destroy as much debris and enemy ships as possible with you laser guns*

### 3 Sound & Effects

There will be sound effects *Explosive sound effects upon destruction of ships and asteroids as well as laser gun firing.* and particle effects *That burst in flame like destruction*

[optional] There will also be *Special firing animations based on obtained power ups as well as a ship roll and shake animation when taking damage.*

### 4 Gameplay Mechanics

As the game progresses, *Enemy ships and debris will obstruct the player's path and ships will shoot at the player.* making it *Difficult to stay alive*

[optional] There will also be *Powerups the player can pick up to make them more effective at staying alive*

### 5 User Interface

The *Score/Lives* will *increase/decrease* whenever *Destroying debris or ships/getting hit by ships guns or debris*

At the start of the game, the title *Rogue Squadron* will appear and the game will end when *All lives are lost.*

## 6

Other  
Features

*Restart the game and have the player select difficulty.*

## Project Timeline

Milestone	Description	Due
#1	<ul style="list-style-type: none"><li>- Create Player character and basic objects for the scene</li></ul>	02/17
#2	<ul style="list-style-type: none"><li>- Create firing animation for both player and enemy ships</li><li>- player can move about the scene without leaving play area</li></ul>	02/24
#3	<ul style="list-style-type: none"><li>- Ensure collisions of debris and enemy guns destroy player</li><li>- Ensure player guns destroy enemies and debris</li></ul>	03/03
#4	<ul style="list-style-type: none"><li>- Get asteroids and enemy ships to randomly spawn in on the screen to obstruct the player.</li><li>- Complete simulation of scrolling background</li></ul>	03/10
#5	<ul style="list-style-type: none"><li>- Construct UI elements such as score and lives</li><li>- Create Main menu and Game over screen</li></ul>	03/17
#6	<ul style="list-style-type: none"><li>- Complete Background music and animations</li><li>- Sounds and effects</li></ul>	
Backlog	<ul style="list-style-type: none"><li>- Add power up collectibles for player to get</li><li>- Create a leaderboard with highscores</li><li>- Create a boss level after obtaining a certain number of points</li><li>- Create a difficulty selection screen</li><li>- Add roll animation</li></ul>	03/31

# Project Sketch

