

CM3070 - Final project

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Introduction

The template I've chosen is: Arcade Game.

I'm going to create a game called **Fightship Arena**. This is a fast-action manic shooter game, where the player fights in a closed arena against hordes of hostile spaceships, in a time match, managing the weapon arsenal in real-time and building complex tactics against enemies.

Literature Review

Space invaders



Image 1: Space Invaders

Space invaders (Taito, 1978) was the progenitor of an entire arcade sub-genre, called Spaceship shooters, comprising a vast variety of games which, one after one, evolved the initial idea into more articulated mechanics, with a wide variety of enemies and more and more gorgeous graphics.

Space invaders' clones: Galaxian, Moon Cresta, Galaga



Figure 2: Galaxian, Moon Cresta and Galaga

The first wave of titles after Space Invaders, like Galaxian (Namco, 1979), Moon Cresta (Nichibutsu, 1980), Galaga (Namco 1981) and many more, offered a more various set of enemies, capable of moving in more complex paths, coloured graphics and new elements of game mechanics, like tractor beams, multi-part spaceships, protective shields, etc...

Horizontal and Vertical Scrolling: Scramble and Vanguard



Figure 3: Scramble, Vanguard in horizontal and vertical scrolling

From there, game designers started exploring new ways, new designs, new game mechanics, producing games with horizontal scrolling, like Scramble (Konami, 1981), or Vanguard (Tose, 1981) which starts off as a horizontal scrolling game and turns into a Vertical scrolling game as the level proceeds. Here the player can move in any direction and, like in Vanguard, also shoot in any direction. Here appear power-ups as invulnerability or energy, that the player can collect.

Towards new dimensions: Zaxxon and Gyruss



Figure 4: Zaxxon and Gyruss

Designers started also exploring new ways of rendering the game space, like in Zaxxon (Sega, 1982), the first game using an isometric perspective to emulate a 3D environment, Or Gyruss (Konami, 1983) where the spaceship moved in a circle around the centre of the screen like being rolling on the inner surface of a hollow cylinder.

1942 (Capcom, 1984)



Figure 5: 1942

In 1984, Capcom released a new game, 1942, a vertical scrolling game, which shows new distinctive characters: higher density of enemies, and an higher number of bullets on the screen. Players can collect various power-ups which improve the aircraft and its weapons.

More tactics: Gradius (Konami, 1985)



Figure 6: Gradius

Konami released Gradius in 1985. Here the concept of pick-ups is more integrated in the game mechanics, as the user can choose when to use them to their advantage. This opened for new tactics in the gameplay.

The advent of 3D games

But now, an important thing, in the evolution of these games, happened at the beginning of the 90's. The advent of 3D games.

In order to keep their games competitive with the new born FPS genre, the new Spaceship shooter games steered towards emphasizing even more the player engagement. All is moving towards Extreme: more enemies, more bullets, higher game speed, higher ability required by the player to proceed in the game. This triggered a shift in the audience, though. Many casual players found this type of game too difficult, too overwhelming, too frenetic. On the other side, this attracted more dedicated and competitive players, thrilled by the more adrenalinic experience these games had to offer.

A new genre is born: Bullet Hell, a.k.a. Manic Shooters



Figure7: Batsugun, DonPachi, Ikaruga, Radiant Silvergun

The first of this new breed, thereby named Bullet Hell, or Manic Shooters, is Batsugun (Toaplan 1993), but many more followed, like DonPachi (Cave, 1995), Radiant Silvergun (Treasure, 1998), Ikaruga (Treasure, 2001), Mushihimesama (Cave, 2005) and many more.

On Steam

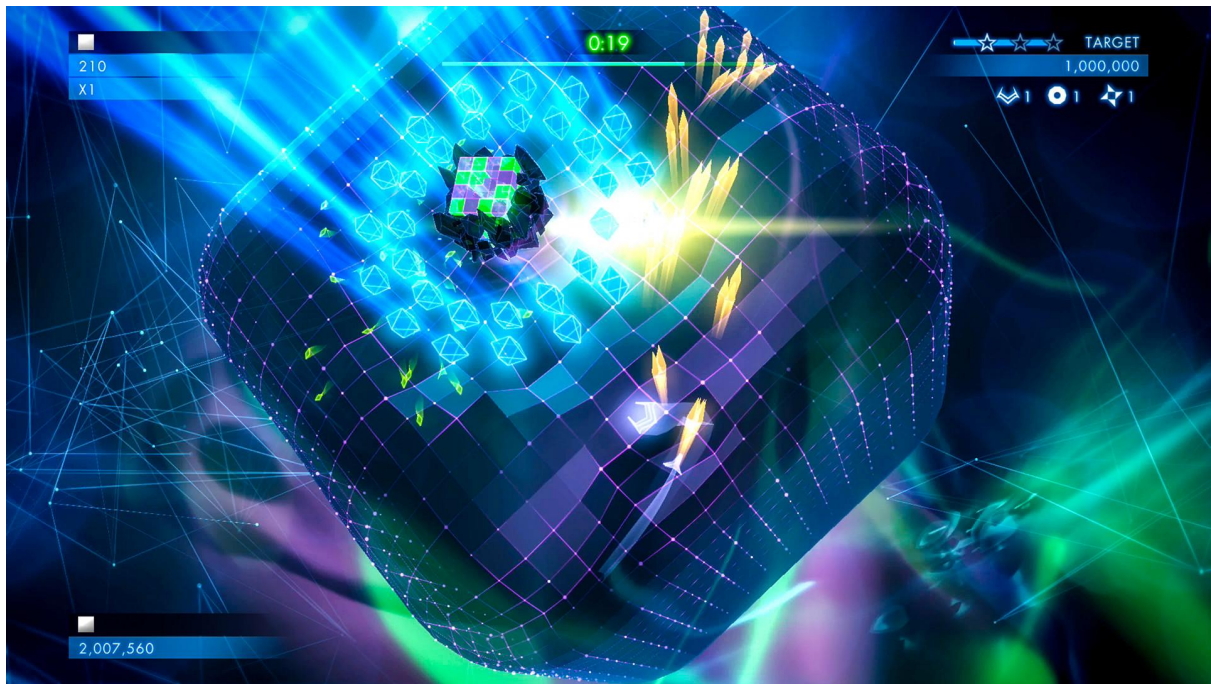


Figure 8: Geometry Wars 3

A few titles in the Bullet Hell genre are available on Steam, like

Geometry Wars (Lucid Games, 2003-2014) and its successors
Crimzon Clover (Yotsubane, 2014)
Gimel Dimension (JOZGamer, 2018),
Netherspace (Konstantinos Katsoris, 2021),
Techbeat Heart (Lost Machine Games, 2021),
Polybius Invaders (Jonni the Dodger, Peter Ward, 2021)



Figure 9: Polybius Invaders



Figure 10: Crimzon Clover

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