XNA Code Camp Report

On

Galaxy Shooter

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Submitted to:

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Introduction/Idea

Galaxy Shooter is an XNA Game developed for Microsoft (MS) XBOX 360 and personal computers (PC) with MS Windows operating system. It is a space shooting arcade game inspired from 80's popular video game 'Chicken Invaders'. Various weapon switching/selection, physics involved obstacles, game playing against the Artificial intelligence and as well between opponent players are the major feature of this game.

Main idea in bullet points:

- Space Shooting Game
- Multiplayer matches
- Death Matches and Co-operation matches
- Availability of variable weapons
- Switching Weapons when necessary
- Obstacles, physics and artificial intelligence
- Life packets/Bonuses
- and obviously loads of fun!!!!

Implemented Features with Priority Index

The Table 1 below lists various implemented features with their priority index. Priority index was used to separate/prioritize the development task due to the limited timeline. Priority index ranged from 1 to 3 where 1 refers to highest priority and 3 the lowest.

Table 1: Feature – Priority table.

Features	**Priority Index**
LOTS of FUN!!!	1
Game Graphics	1
Player Ships	1
Weapons	1
Game Obstacles	1
Game Logic	1
Multiplayer Death Match	1
Multiplayer Co-op Match	1
Counter Displays	1
Game Over Determination	1
Sound Effects	2
Alien Ships	2
Bonuses	2
Physics	2
Artificial Intelligence	2
Game Options	2
Game Music	3
Switching between multiple screens	3
Interactive Menu Screen	3

Weapons, Obstacles and Bonuses

Galaxy shooter has a wide range of weapon selection and switching. There are total of 15 different weapons. Major weapon includes heat sensitive missiles/nukes that follow and destruct the nearest obstacles / enemies/ opponents, Laser guns, machine guns, shot guns and gatling guns. Each player starts with a machine gun as primary weapon and as the game follows the obstacles when destroyed leaves the weapon/life bonuses. The player can accept those weapon bonuses and switch their weapons. Table 2 lists the different weapons available.

Table 2: Different Weapons and its types available in the game.

Weapons	Type
Machine Gun	Single, Double and Triple
Laser Gun	Single, Double and Triple
Shot Gun	Single, Auto and Round
Missile Launcher	Single, Multi and Nuke
Gatling Gun	Single and double

Obstacles are other essential part of the game. Obstacles appear on the game screen and they create destruction to the player ships when hit. Player ships try to avoid those obstacles and try to destroy them by shooting. There are two different obstacles included in this game. They are asteroids and black holes.

a. Asteroids

Asteroids are powerful obstacles that reduce the life points of the player ships when collided with. Physics is involved here in asteroids movement, collision detection and bouncing the player ships from away the asteroids. They appear randomly from any end of the game screen and traverse towards the other end. If this asteroid is destroyed within its traversal period, it leaves the weapon/life bonuses.

b. Black Holes

Black holes are obstacles of a different kind than asteroids. They also involve physics and create the gravitational pull around them. Black holes pulls the player ship towards them and player ship needs to get away from the black hole. If player ship gets into the black hole, they gets their life reduced and finally player ship is destroyed.

Game Logic

Two different game modes are available, Death match and Co-op. Both the games are multiplayer mode. Difficulty level depends upon the number of hit counts, number of lives, asteroid frequency, black hole frequency and the weapon storage for next rounds. Users hold the free selection of all these difficulty settings. The game logic in different modes is as follows:

1. Multiplayer Death Match:

   Here two players play against each other. Each has the possibility to hit each other, hit the obstacles and receive the bonuses, both weapon and life bonuses. The player ship who gets hit by opponent or obstacles, his hit counts gets reduced and when it is zero, that player ship's one life is over. The ship whose life gets over starts his next life if available and continues the war. The player ship that finishes all his lives first is declared the loser and the other as the winner.

2. Multiplayer Co-op Match:

   Here two players play in cooperation with each other and destroys the alien ships. The alien ships are also capable of shooting. Artificial Intelligence is involved with the alien enemy ships. These enemy ships appear and gets stack on the space and starts shooting the player ships. They also have definite hit counts after which they die. If the players shoots and destroys all the alien ship before any of the player ship being killed, then players wins the game else the aliens wins.

The controller setting for the game is shown in the figure 1 below.

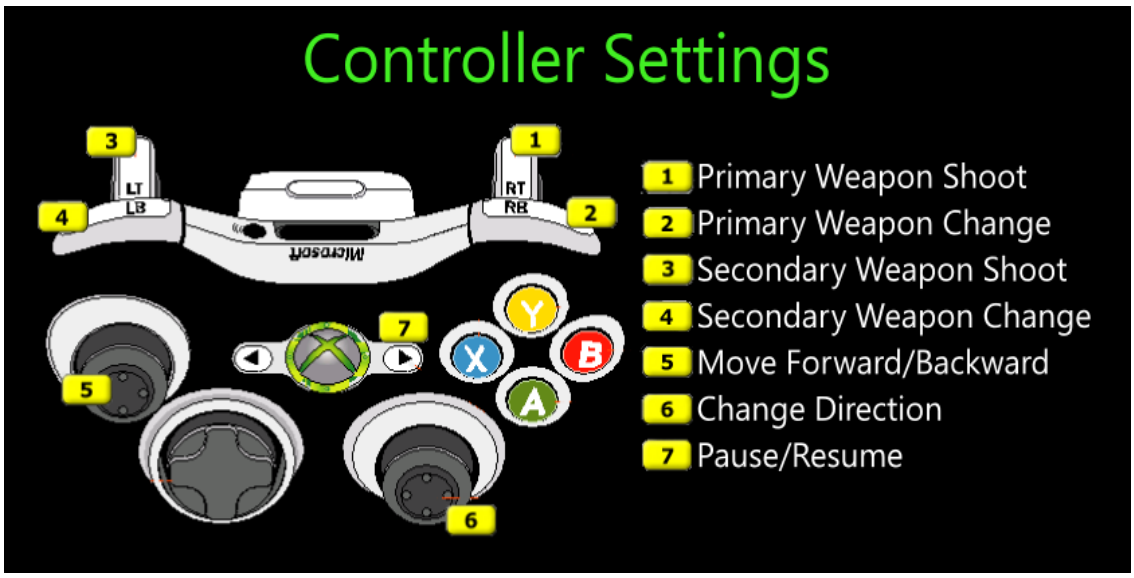
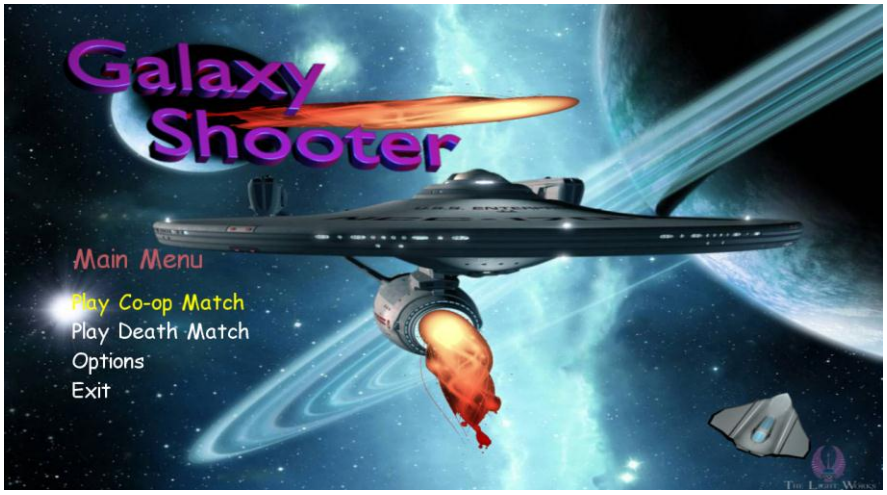


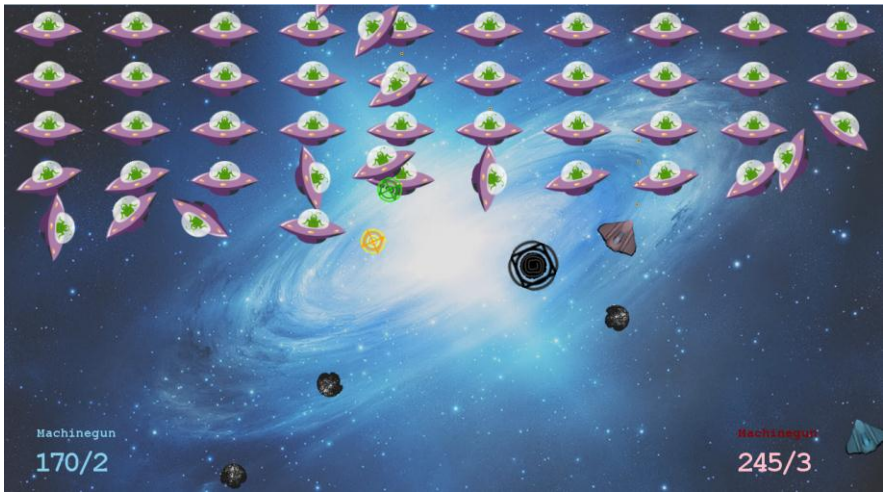
Figure 1: Controller Setting

Game Screen Shots



Screenshot 1: Main Menu Screen

Screenshot 2: On-going Death Match



Screenshot 3: On-going Co-op Match