

Game Design Document

1. Background and Objectives

Since the game will be like bumper car game, the game is named as “Bumper”. The game is a race game genre but with the objective of capturing the opponent’s car (can be the computer or the second player). In this game, Bumper is the name of the chaser car.

2. Storyline

The patrol radio reports that a lawbreaker has been escaped to the race track. It is now the job for the player which is the nearest patrol car to capture the lawbreaker. The player will drive the Bumper to do this task. However, the criminal’s car is made with a special armour make it hard to block its way or punctured its tyres. The only hope is on Bumper made with special material make it hard as steel. The player has to drive Bumper to bump the car to wreck its armour so it can be captured. But, it must be done quickly before the car cross the country’s border. Otherwise, the pursuit will end.

3. Game Play, Logic and Rules

In this game, player 1 will controls (drives) the Bumper to knock down the other car. The game is presented in third person view, which means that the player can see the model of the Bumper from the back and side view and has the wider view.

A special material made from steel is attached on the front of Bumper to make it immortal to the collision. Therefore, bumper can hit the car as many as it can as long the car not cross the border or in other word, the end of the track.

When bumper hit the car, the collision will be presented in sound and particle emission. The armour indicator will be reduced depends on how hard is the collision.

If the opponent car is controlled by the computer, it basically controlled with some AI features that enables the car to follow the track with several of speeds and controls.

4. Game Play I/O Controls and GUI Interfaces

Controls option will display the controls in this game. The picture explanation is easier for the player to study and understand about the controls. The controls GUI will be like in the figure 2 below:

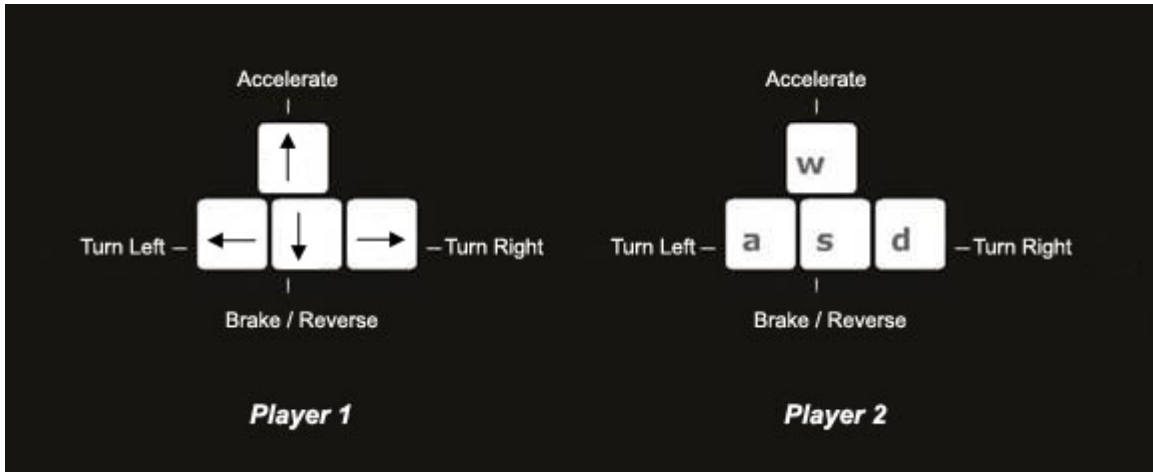


Figure 2: Controls GUI

The I/O control is very simple. It just uses some keys on keyboard. The keyboard control is the movement control; accelerate, turn right, turn left and brake or reverse.

5. Game Elements

5.1 Characters

Bumper – the main car controlled by player 1 to pursuit the criminal car. The car is attached with special black steel in front of it.

Criminal's car – the car that has been chased by Bumper. It will avoid itself from getting hit by Bumper until it cross the border to the end of the track.

5.2 Environment

The chase is taking place in mountainous region in hot sunny weather with the long race track that has been build for the hot pursuit.

6. Score

The score is based on the time Bumper destroy the criminal's car armour. The quicker it destroy the armour, the higher Bumper's points, the lower the criminal's (second player) points.

7. Audio and Visual Effect

7.1 Visual Effect

Particle emission will be produced shows the dust and impact of the collision whenever the Bumper hits the criminal's car.

7.2 Audio Effects

- Engine
- Tyres stretching
- Car collision
- Armour destroyed.

7.3 Sound and Music

- Main Menu
- Time critical
- Winner

8. Minimum System Requirement

- Platform: PC
- 1GHz Intel Pentium III or AMD Athlon
- DirectX9 compatible 32MB 3D graphics card with hardware transform and lighting
- 256MB RAM
- Microsoft Windows 2000/XP
- DirectX9 compatible sound card
- Mouse, keyboard
- 4x CD-ROM

9. Supporting Technology

- The core engine of Insecticide will be based upon the Microsoft DirectX 9.0 suite of technologies.
- Graphics Engine
- Direct3D

Input

- DirectInput

Audio

- DirectShow
- DirectMusic
- DirectX Media

10. Game Mode

- Single Player
- Multiplayer