

# Flip Wars

## Game Design Document

### Overview:

Flip Wars is an action tile-matching party video game. This is a multiplayer game (up to 4 players). The object of the game is to flip panels on a hip Drop and the player who dominates before timing will be the winner.

### Introduction:

This project mainly deals with the development of a 3D game application with the Unity 4 game engine for Windows OS. Recently, the video game market appears to be at an unprecedented stage, which means the springing up of more platforms leads to more competition. The video game market is not just serviced for PC, PS3 and Xbox. The mobile platforms based on iOS, Android and Windows Phone rise sharply. As a result, "cross-platform" comes into people's eyes.

### Drawbacks and Future Development

Currently the game is achieved completely as a First-Person Shooter game on the Windows 7 platform. The player can enjoy the fun when he or she shoots the enemies.

Because of the damage system, the player would be killed by the enemies. He or she would play the game seriously.

The disadvantages are obvious also. The game only support one shooting mode which is the sniper rifle mode, which means the player cannot choose the weapon that he or

she likes to play the game with. The new play mode means more weapon models and damage systems required. The design of 3D model requires the professional talent who is good at art design, or the models can be found and downloaded from the Unity App Shop with a charge.

The current version has no more drawbacks of its own, but it could benefit greatly from

implementation of more features. These features are discussed below.

New models support: A new weapon model will be added and the suited damage system will be updated also. It is a large challenge to change the model of enemies. In the game, the 3rd character model was imported from the Character Controller which is the default package in Unity, thus the model is rough, and There are only four types of animation. If the time is adequate, the character model will be changed also.

### **Updating system AI:**

Currently the AIs of enemies are hatred activated and patrol. The damage way depending on the distance between the player and the enemy is considered, which means the enemies make the higher damage if the distance is shorter. The way of the patrol which the enemies make is monotonous. The larger area which the enemies patrol could be implemented with waypoints, which means there would be fixed waypoints to make the enemies patrolling with the regular way.

### **Mission Controller:**

The current way of healing the HP of the player is only healboxes. The heal-boxes are limited. If the player cannot slay all enemies before all heal-boxes are using up, the player is quite dangerous. Thus a new way of increasing the HP is that a new game object called NPC is created, and the player can activate the mission from the NPC, when the player finishes the mission, he or she would get 100 HP. Also the mission is easy to finish. More platforms could be

supported: As we know, Unity supports the crossplatform, thus the game could be made on more game platforms. iOS and Android are the best choice. Because mobile games are the most popular nowadays.

### **Specification:**

In order to run the project, you must have installed Unity3d on your system.

### **Graphics:**

Gaming controls are not difficult; everything is under the screen tap. Talking about the gaming environment, different images, 3d models, and animations are placed which provides an exact image of the virtual spot. In this 3D gaming application, Graphics Elements and Audio Fragments of works were used.

### **Conclusion:**

The main purpose is to make a 3D game which was the First-Person Shooter game with the Unity game Engine. This is necessary because I had principal information about the Unity game Engine and programming. A game engine is the center of making a game. The incorporation of model plan, level plan and content plan is the game engine, which is intricate and strong. The Unity game engine backings pictured plan, consequently there are serious areas of strength for an engine which is appropriate for a fledgling. Be that as it may, it isn't exceptionally simple to become familiar with the well. There are different capacities to be understood.

To make the game an incorporated game, two scenes were planned. One was the game beginning scene and the other one was the game scene. Thus, the The game 's beginning scene was accomplished with 15 surfaces and pictures. Albeit only a couple of surfaces were utilized for the game scene, three contents were made for it. The quantity of codes dwarfed 550 lines.

Each of the game highlights were accomplished as the First-Person Shooter game. More game highlights were anticipating what's to come. The objective of the report was to illustrate

instructions to make a 3D game with the Unity game Engine and talk about the execution

of the contents. The harm framework was one of the exceptional plans. Two sorts of normal harm ways were made sense of. The uses of the Skyboxes and the landscape plan were the attributes in the game.

The main part of the game plan is figuring how to make all the more new play abilities. This game is a result of a fledgling who favors making a virtual world. There may be more opportunities for the game from now on. This report illustrated the entire course of making a FPS game with unity.