Rhythm Ship

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Concept Document

Description: A rhythm game in a space setting. The player must fight off spaceships, navigate through asteroids, and repair the ship to the beat of the music.

Genre: Rhythm, 2D, Sci-fi, Action

Target Audience: Everyone

Compelling Features: Space, Rhythmic Music, Mobile Device Controller, Multiplayer and single player

Market Information: People like space and action.

Time/Costs for Development: 10 weeks for demo development. Costs are none.

Game Plot: No real narrative plot. You play as a spaceship adventuring through space. At various stages in a level, you must defend the ship, navigate through asteroids, or repair the ship from damage as you journey to your destination.

Gameplay: The only player interaction with the game is through rhythm. There will also be a mobile device controller that will take inputs to interact with the computer display. At different stages within a level, there will be small mini-games where the player follow the rhythm of the music. If the player matches the rhythm, there will be a positive effect on the score; else there will be no or a negative impact on the score. There are three different stages where the player must follow the music and each will provide a different rhythm/beatmap. At the end of the level, there is a score on how well the player did. There would be a multiplayer component that assigns different roles to each player that reflect the different stages.

Technical Development: The game will be developed in Unity and utilize some of its assets. It would also use the Android development kit to create stages for controller interaction.

Risk Analysis: There is very little risk involved. Game development will be a period of 10-11 weeks. Only potential loss is the developer's time.

Design Document

Executive Summary: This game is a rhythm game in a space sci-fi setting. The player journeys through space and along the way various obstacles will appear: fighting enemies, dodging asteroids, and repairing the ship. A song will play throughout the game and the player must match the rhythm and beat to the song.

Production Team:

Royce Chang - Design, Art

Jaye Laguardia - Programming, Sound

Target Audience: Everyone while mainly designed as a party game (for multiple people in a room).

Gameplay: The game demo would be about 5-10 minutes long, but replaying would increase the amount of time played.

Target Platform: Computer PC and Android OS

Production Tools: Unity

Schedule: We broke up the project development stages into sprints, where each sprint would be about 2-3 weeks. After each sprint, there would be a prototype of our game which can be a physical prototype or digital. There were 3 sprints in total each spanning about 3 weeks. The first sprint focused on the research behind the game: what we wanted in the game, were there tutorials, if it was possible, and how can we do it. The second sprint was creating the game itself: applying what we understood from the tutorials and creating our prototype. The third and final sprint was to finalize the game: making sure it ran well and bug-free and creating our presentation.

Game Specifications

Summary of the Story Line: You play as a simple ship traveling through space. As you fly through space you encounter various events that must be dealt with in a rhythmic fashion. You may encounter enemy ships that want to destroy you, asteroid fields that are difficult to navigate through, and certain points in time when the ship must be repaired. It all comes with the territory of being on a space adventure. The major goal is to beat the level. The smaller goals are to get the rhythm of each part correct.

Flow of the Level: The flow of the level would be different between the computer and the mobile controller since they should portray different things. The host (computer) will portray the overall level design, while the controllers will each portray their own roles and how those levels look. Each level will have a different song, but all the controllers will have the same song and different rhythms/beatmaps. There is a picture of a flow chart which portrays how the level is intended to be.

Host Computer Level: The host computer will go to a connection screen that would connect at most four players to play the game. It then goes to a song selection screen that has various space-like songs and plays them as the scroll through. When a song is selected, it goes to the game view where the ship would be traveling through space. Events will happen on this screen that reflect what is happening on the controllers' screens. After the song is over, a "Mission Completed" screen would play telling the players what the total score is and who had the most points for that level. Then a "Play Again" screen would play that prompts the players to choose either the "Play again," "Choose another song," or "End the game."

Mobile Controller Level: The controller will go to a connection screen searching for the host computer's connection. It would then ask the player to choose a role: Shooter, Driver, or Engineer. Each role has a different beatmap but all players will play the same song chosen. The Driver's beatmap would relate to visual/verbal cues given by the game to navigate through an asteroid field. The Shooter's beatmap would have enemy ships appear on the player's screen and after a certain number of beats they player must match the beats in order of appearance. The Engineer's beatmap uses a rhythm that has holds or rests to fix problems that occur throughout the ship. After the song is over the screen will change to a "Mission Completed" screen that shows everyone's score separately and prompts the use of the host computer.

Character Profiles: The player has three roles to choose from Shooter, Driver, and Engineer.

Shooter: This beatmap is based on a quarter note rhythm. After four counts of the rhythm, the player must play to the rhythm. The enemies will appear in a random order that the player must copy to get the most amount of points.

Driver: This beatmap is based on a different but similar rhythm than the Shooter. Verbal and visual cues will be given to the player in the form of a speech bubble and an asteroid so the player must input the button within the rhythm.

Engineer: This beatmap is based on a quarter note rhythm with rests or holds in between. Depending on the cues, the player must hold the note until a certain amount of time when they can release the button. An animation will play during the holds where a group of engineers will be working until the player releases the button.

Art Specifications

The design for all the characters and the Heads-Up-Display (HUD) were designed as shown in another image. The actual assets in game are credited from various tutorials and texture packs from other Unity tutorials. There are various pictures designed to show what each role and scene would look like.