



Game Design Document

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3D Endless Runner

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SUMMARY



This will be a 3D Endless Runner game, similar to Temple Run. The object of the game is to get as high a score as possible. You get points by destroying enemies and passing obstacles.

Weak enemies can be destroyed with one hit, bigger enemies like bosses require multiple hits. Bosses move slower but do more damage than basic enemies. The player goes to the next level when they destroy the boss of that level. Levels get progressively harder as the player progresses by increasing enemy spawn frequency and shot frequency. The speed of the game could also be increased as the game progresses so that the player's skill is always being tested.



Sonic featured boss fights where the boss took multiple hits before the player could move onto the next level, I'd like to use a similar mechanic in an endless runner.

Jetpack joyride is an endless runner where the player can choose their character and buy cosmetic upgrades and modifiers. I'd like to incorporate some of the customisation aspects in my game.

Jetpack Joyride also uses vehicles as a pickup that can drastically change the way the game is played.



User Interface

When the player launches the game they're taken to a main menu scene where they can choose to start the game or read the how to play section. The "How to Play" page explains the controls and gameplay of the game. There will be a brief overview of the controls as well as the enemies and obstacles.



Something like this menu is what I'm aiming for. Clean design with bright colours and a simple interface.

Gameplay

The player can move horizontally around the screen as the background scrolls vertically. I will probably have the players movement locked to three separate paths where at least one path will always be available and safe to the player.



The game will display the players current level, their score and the amount of lives remaining. Player moves with arrows and wasd and shoots with the left mouse button or using touch controls.



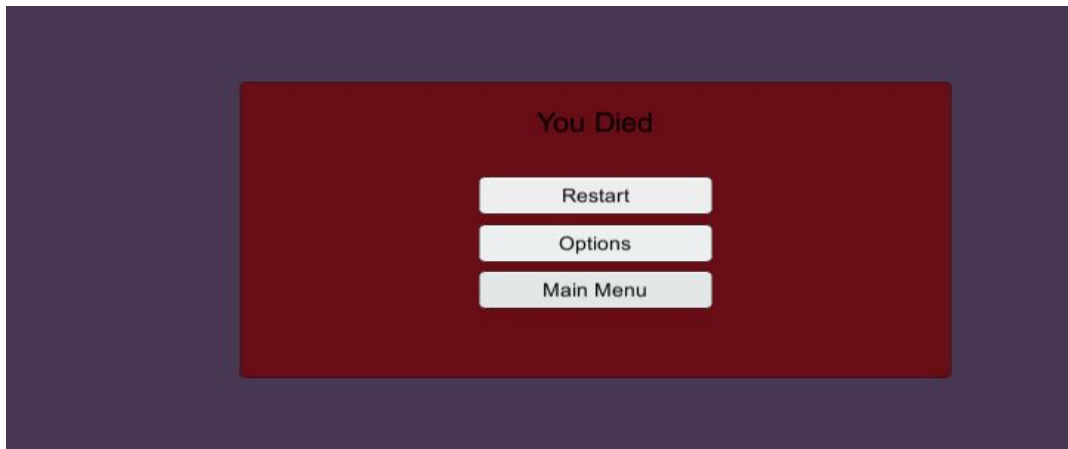
An example of onscreen touch controls with a score tracker.

Ideally the player will use some form of physical input as there will be less lag and more responsiveness than using onscreen touch buttons.

If they collide with enemies they will lose health. If no lives are remaining they'll see a death scene where they'll be told they've died then given the option to play on or quit.



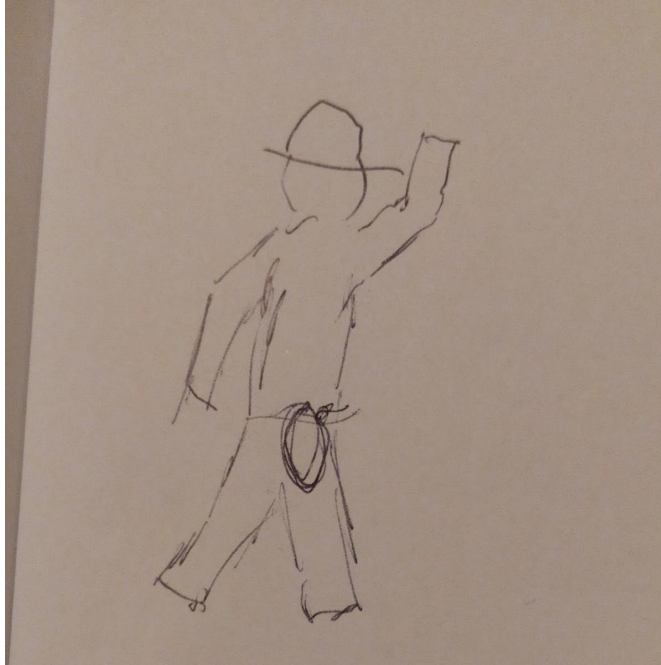
The player can press the esc key to access the pause menu where they can choose to resume or go back to the main menu.



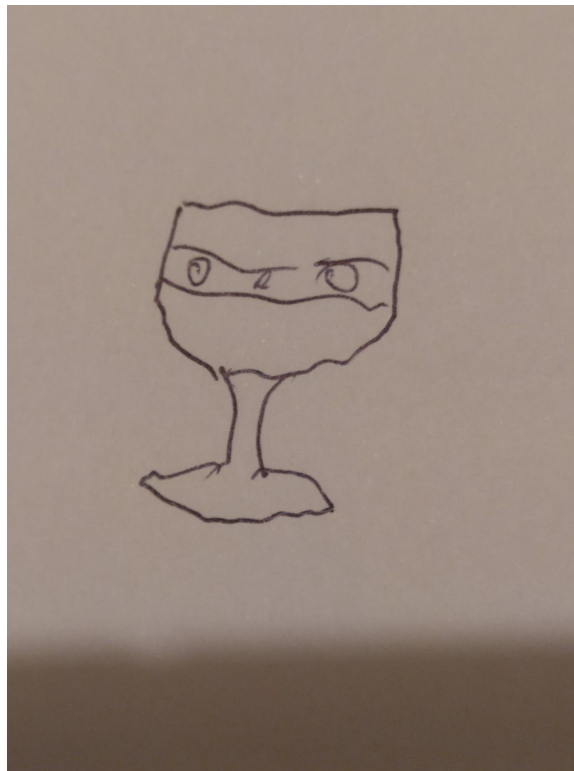
An example of a simple death menu

Project Aims

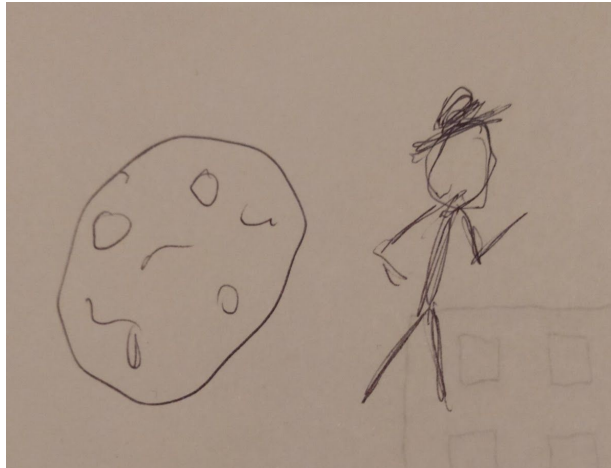
I want to make a game in the style of Sonic but as a 3d Runner with more variety in gameplay. Aesthetically I like the imagery of jungles and abandoned temples, my game will take a lot of inspiration from Indiana Jones.



The character will have a similar look to Indy. Jacket, hat and whip. I'd like to implement these aspects into the gameplay, ie. use the whip to cross traps and obstacles, hat could be used to shield eyes from dust or smoke.



Chalice could act as a pickup item that gives the player health.



I'd like to make an homage to the boulder scene from Raiders of the Lost Ark as a game level.

Expected Issues

I expect it will be difficult to keep the player's movement rigidly restricted to one of the projected three paths, it may be necessary to allow the player full control of movement. This will be easier to implement but could cause issues with gameplay experience and make the game less enjoyable and polished.

May be difficult to implement some kind of shooting or combat mechanic as it isn't usually present in these types of games.



Jetpack Joyride gets around these gameplay issues by having the player character shoot below them as a byproduct of their movement. It also uses the boss pickups to navigate around this issue.



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Endless Runner analysis

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