# Game Design Document Outline

A game design document is the blueprint from which a game is to be built. As such, every single detail necessary to build the game should be addressed. The larger the team and the longer the design and development cycle, the more critical is the need. For your purpose, the intent is to capture as much as possible of your design. I want you to think big…bigger than what you are able to develop. I also want you to be clear about what the software delivers and what the design entails. My recommendation is that you define the ultimate game and then clarify what it is that you have developed. If you are finding it too difficult to do that, you may produce too documents.

1. Title Page
   1. Game Name – Perhaps also add a subtitle or high concept sentence.

Falsetto

1. Game Overview
   1. Game Concept

A 2D side scrolling runner game that uses sound to interact with obstacles in the environment

* 1. Genre

Side Scroller

* 1. Target Audience

Casual Players

* 1. Game Flow Summary – How does the player move through the game. Both through framing interface and the game itself.

Once it is loaded, the main menu will show with two buttons: start and settings.

When the start button is clicked, the menu components disappear, and it plays the animation and a sound cue that the game is started.

When the settings button is clicked, it will show two sliders to adjust the BGM and SFX.

When the player dies, the death screen prompts and shows them their score and a button to restart the game.

* 1. Look and Feel – What is the basic look and feel of the game? What is the visual style?

The game uses a 16-bit-esque aesthetic with animated sprites. Its designed to feel slightly retro, reminiscent of old arcade games.

1. Gameplay and Mechanics
   1. Gameplay
      1. Game Progression

The game is progressed by the score which is calculated by the time in the game (Time.deltaTime) which is stored in a player pref. The highest scores can be found in the leaderboard.

* + 1. Mission/challenge Structure

To last as long as you can, and get the highest score possible.

* + 1. Puzzle Structure

There are solid objects that the player must avoid or they will fall behind, the player also has to avoid enemy objects or destroy them to progress.

* + 1. Objectives – What are the objectives of the game?

To last as long as you can, and get the highest score possible.

* + 1. Play Flow – How does the game flow for the game player

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* 1. Mechanics – What are the rules to the game, both implicit and explicit. This is the model of the universe that the game works under. Think of it as a simulation of a world, how do all the pieces interact? This actually can be a very large section.
     1. Physics – How does the physical universe work?
     2. Movement in the game

The player can jump up and drop down to different levels of the stage

* + 1. Objects – how to pick them up and move them

Glass obstacles - The player uses the different pitches to break different thickness of glasses

Mines – These detonate at a certain frequency to stop players from spamming the pitch switch

Sound barrier powerup – Allows you to take 1 hit

Security doors – Unbreakable walls the player has to dodge

* + 1. Actions, including whatever switches and buttons are used, interacting with objects, and what means of communication are used

Jumping – To go up 1 level of the map

Dropping – To go down 1 level of the map

Pitch Switch – To adjust the pitch to break different objects

* + 1. Combat – If there is combat or even conflict, how is this specifically modeled?

The player is able to press 1,2, or 3 to summon different tones to break the glass, different tones will take longer to charge and different thickness of glass will require different tones to break it

* + 1. Economy – What is the economy of the game? How does it work?

There is no economy system in this game

* + 1. Screen Flow -- A graphical description of how each screen is related to every other and a description of the purpose of each screen.

There will be a few transitional screens while the game loads in the background

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* 1. Game Options – What are the options and how do they affect game play and mechanics?

There will be music and sound effects volume adjusters,

* 1. Replaying and Saving

The game will save your score above death if it’s a highscore .

* 1. Cheats and Easter Eggs

Nada

1. Story, Setting and Character
   1. Story and Narrative – Includes back story, plot elements, game progression, and cut scenes. Cut scenes descriptions include the actors, the setting, and the storyboard or script.

The protagonist is a bat creature turned weapon that has broken out of a science lab and yearns to escape to the outside world. However, this is impossible as the game is designed to be an endless scroller.

The protagonist can produce high frequency sounds at various pitches, and there are various objects in the game that interact with the frequency of the sound

* 1. Game World
     1. General look and feel of world

The stage is made to resemble a high-tech science lab to push the whole sci fi theme

* + 1. Areas, including the general description and physical characteristics as well as how it relates to the rest of the world (what levels use it, how it connects to other areas)
  1. Characters. Each character should include the back story, personality, appearance, animations, abilities, relevance to the story and relationship to other characters

The protagonist Desmodus Rotundus that has been experimented on and turned into a weapon by the scientists in the lab that he is held captive in.

He has broken free and is escaping, and the lab has to keep him contained and prevent him from wreaking havoc.

1. Levels
   1. Levels. Each level should include a synopsis, the required introductory material (and how it is provided), the objectives, and the details of what happens in the level. Depending on the game, this may include the physical description of the map, the critical path that the player needs to take, and what encounters are important or incidental.

There’s essentially only one stage, the lab map itself. It has 3 lanes that the player can take. There will be obstacles and powerups that appear on each lane. In some cases, a single lane will be blocked off for a period of time before it is opened again.

* 1. Training Level

Nada

1. Interface
   1. Visual System. If you have a HUD, what is on it? What menus are you displaying? What is the camera model?

There is up and down buttons on the bottom left of the screen to allow the player to change lanes and a slider to indicate and allow the player to switch their pitch.

There is a score counter on the top right that increments as the player progresses through the game and stops when they “die”.

* 1. Control System – How does the game player control the game? What are the specific commands?

The player can move upwards and downwards by pressing the specified buttons toward different lanes, as well as within the lanes themselves.

The player can switch pitches using the pitch slider on the screen.

Our initial prototype is going to use the scroll wheel.

* 1. Help System

The game is going to demonstrate the use of the controls upon the first launch of the play session.

1. **Audio, music, sound effects** **–**

7.1 The background music for our game is 16-bit arcade style we chose this type of music to help set the mood for the player.

7.2 There will also be special sound cues on specific prefabs found in the game to help indicate to the player what are power ups and what are hazards.

7.3 We feel that by adding as many sounds as we can where they would be appropriate will enhanced the player experience.s

1. Artificial Intelligence
   1. Opponent and Enemy AI – The active opponent that plays against the game player and therefore requires strategic decision making

Nada

* 1. Non-combat and Friendly Characters

Nada

* 1. Support AI -- Player and Collision Detection, Pathfinding

Nada

1. Technical
   1. Target Hardware

We plan to put this on mobile if we have time, but we are mostly focusing on finishing the core game on pc before we do it

* 1. Development hardware and software, including Game Engine

We are using the unity engine for this game

* 1. Network requirements

There is no multiplayer mode for this game, therefore networking is not needed.

1. Game Art – Key assets, how they are being developed. Intended style.

Art assets are a product of Frank’s blood, sweat, and tears.

We’re getting sound assets from Robert’s cousin who is a professional audio engineer.