289106 Introduction to Game Development

Game Design Document- Red Ball Run

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Feedback from first playtest consisted of mainly the same elements across all the different playtesters:

* More colour diversity required.
* Some pitfalls were narrow enough that with the right speed the player could run over them without falling.
* Directional indicator to guide the player.
* Enemy diversity.
* Everyone liked the secrets.

Though I did leave the colour diversity plain intentionally to focus on other elements primarily, the visuals were bland, and many objects didn’t stand out as they should. To fix this I gave the floor a blue-grey colour to allow the white gun-barrels on the player and enemies to stick out, as well as a dark grey on the walls (except secret and breakable walls for now) to better differentiate between wall and floor. Down the line I’ll revisit adding more colour. In order to sort out the narrow pitfalls I’ve redesigned the ones in which the area revolves heavily around immediate pitfall, in order to avoid these potential ‘jumps’. In order to avoid the player getting lost I’ll be looking into adding arrows or some other directional marker on the ground to guide the player through the level, and then revisit towards the end of development and decide whether or not a minimap will be necessary.

The enemy diversity will arrive with the following maps once completed. I’ve also added a super secret invisible wall that will allow the player to shortcut from near the beginning of the level, to near the end, in case a player dies say within the last room and reeeeally doesn’t want to go through the whole level again (though that **is** the price they pay for falling.)

# Game Concept

## Tagline/Mantra

Top-down, Bullet-Hell, From A to B

## Inspirations

Binding of Isaac – originally planned to create room by room in the same manner as Binding. Also a big inspiration on the bullet hell effect and turret patterns I attempted to create.

Portal – Was hoping to include puzzles / problem solving scenrios / rooms. Will potentially add in future.

Geometry Wars / Enter the Gungeon – other bullet hell inspirations.

Hades – Inspiration for the differing rooms and giving the player choice of path.

## Gameplay Pillars

|  |  |  |  |
| --- | --- | --- | --- |
| **Choice of Path** | **Fill your bag** | **Die all you want. You probably will** | **Flight over fight** |
| **Though the first level is mostly linear, the second level (and ideally any following) gives the player choice as to how they want to proceed.** | **Hp is not capped. With many hp pickups scattered around the maps the player could attain a substantial hp bar, and may potentially need it in order to progress the later stages.** | **With loads of enemy bullets flying around at different speeds and accuracy, as well pitfalls everywhere, the game aims to be difficult. Likely there’s no life system, you die you start the level again.** | **With few enemies that can actually be killed, the player is encouraged to focus on spacing and dodging in order to progress.** |

# Core Mechanics

- WASD Movement to navigate the mazes, dodging enemy projectiles and avoiding pitfalls. **/// Unchanged.**

- // May be interesting to check out a dash mechanic, but so far not necessary. **/// Have yet to look into this, though I don’t think it will suit the game.**

- Mouse1 – standard periodical fire. Mouse2 – torrent fire (either to be unlocked, or only lasts a short period of time after grabbing a pickup.)

**/// To be unlocked midway through level 2.**

- // Wish to look into creating an inventory / gun reel, allowing the player to switch to different forms of attack (e.g. pistol, machine gun, grenade launcher etc.) **/// Have yet to look into this.**

- Pitfalls send player back to the **beginning** of a level, forcing the player to prioritise avoiding falls. **/// \*Depending on level size. Ideally still send the player back fair enough for them to be extra cautious about falling.**

- // Soon to introduce a health system (e.g. 100hp, every hit taking via enemy projectiles reduces 25hp. Medkits to be introduced as well.)

**/// A little buggy currently back has been introduced to the game.**

- Collectable pickups. A certain amount every level. Collect them all to unlock a new gun / restore hp / gain achievement (not sure yet.)

**/// Currently only hp pickups. There is a vague scoring system too but will likely be removed.**

- Numerous secrets scattered around the maps. Breakable walls and fake walls, as well as challenge / puzzle rooms. **/// This is a primary focus that I believe I’ve implemented adequately.**

- Static turret enemies lvl 1. Moving and aiming enemies lvl 2. Lvl 3 either a combination of the two, or a boss fight. **/// Pretty much the same as how to turned out.**

- // Depending on how the map layouts come out, may introduce a minimap to prevent the player getting lost. **/// Have yet to look into this, but the item does interest me. Will check it out soon.**

# Core Narrative

A simplistic narrative. You play as a red ball. Dodge or destroy the cubes before they destroy you. Watch turret setups and time your movements to get past unscathed. Consciously avoid pitfalls or run the risk of being reset to the beginning of the level. Explore as you go to uncover secrets such as shortcuts through the levels, or pickups to increase your arsenal, recover hp, or simply achievement collectables. Defeat the evil cube lord and be reunited with your beloved: a red ball with a bowtie.

Primary focus on gameplay design.

**Much of this has remained true, which is great. Currently the game lacks diversity in pickups and weapon types (as well as many other things that could / will be implemented in the future, like a mini-map, more weapons, collectibles etc.)**

**The Final Boss Fight is still on the table to give the game a conclusive end.**

# Aesthetics

Visually a very simplistic design. Rough edges. Jagged shapes. Very geometrical. Don’t want to spend more time than necessary on complicated visuals or materials. Focus on strong colour to differentiate objects and guide the player.

Strong focus on audio design. Retro or Electro style BGM and SFX if possible. Sounds for everything possible:

- Weapon fire

- Falling

- Destroying destructible

- Gathering pickups

- Idle character noises

- Victory condition achieved

Finale cutscene would be cool if doable.

**Aesthetics remain simple. My main goal visual-wise is to create a working ‘camera-follow-player’ script utilising raycasting, so that I can change the camera projection from orthographic to perspective; this gives the game a *much* nicer look in terms of shading and shapes, and makes pitfalls actually identifiable as opposed to just black. Tore my hair out for weeks trying to get something working, but currently raycasting is a little above my skill level.**

**Also experimenting with making a cutscene would be interesting as well.**