GRAVITY FIGHTER

Game Design Pitch
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OVERVIEW

Gravity Fighter is a casual, run & gun video game for mobile. Combined with a single input, gravity swap mechanic and straightforward combat, a modern-retro art style will produce a fun, fast-paced and addictive player experience.

PLATFORM

Gravity Fighter will serve as a live, Free-to-Play title on iOS and Android.

GENRE

Run & Gun, Casual, Platform

GAMEPLAY

OBJECTIVE

The objective of Gravity Fighter is to progress through 5 different regions by defeating their respective final bosses. In order to complete a boss fight for a particular region, the player must first complete 3 run & gun levels, which can be done by reaching their respective finish lines and defeating any enemies that the player may come across. A small story ties these regions together and provides for an efficient way to keep the content treadmill running.
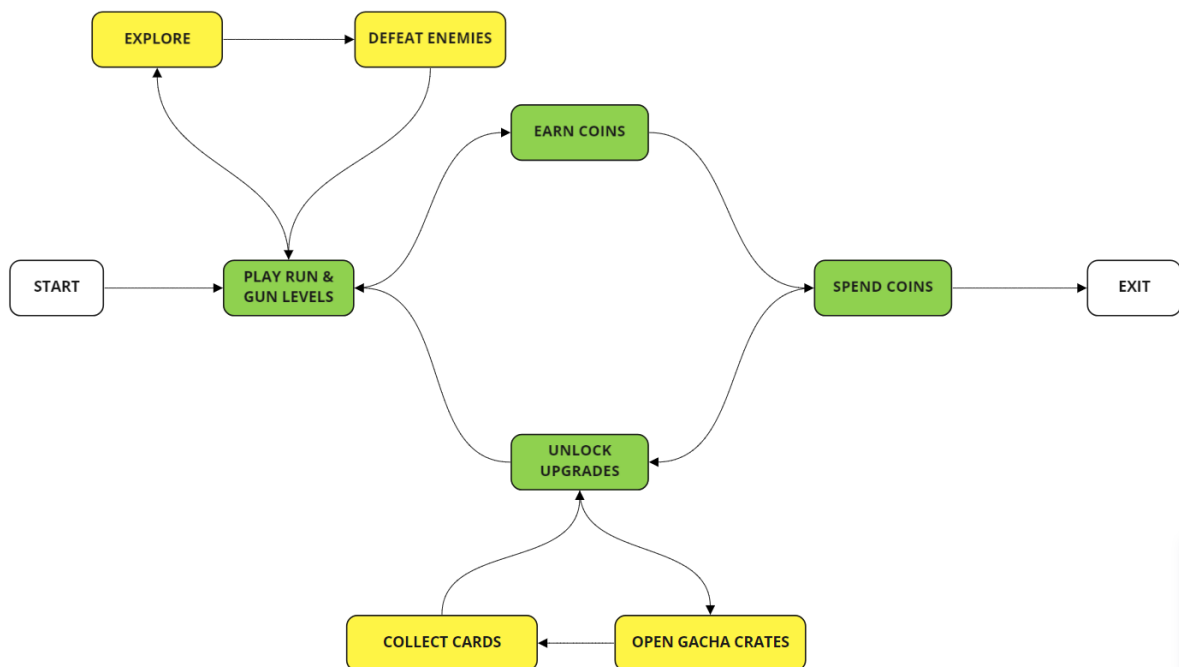
*Gravity Fighter Game Loop. See [4] for the Miro board link.*

MOVEMENT / INPUT

The game will progress towards the right of the viewport. Player movement will be automatic. Player speed can be altered through different game elements (pick-ups, enemies stunning them etc.) as discussed in detail below. **Players can tap on the screen to instantly invert the player character's force, or gravity, towards the two planes.** This will cause the player to move towards the corresponding plane. Tapping will be very crisp and smooth, allowing players to strategically maneuver by simulating "flying" or "jumping" through a level by tapping in rapid succession. This will allow for more diverse gameplay throughout a level.
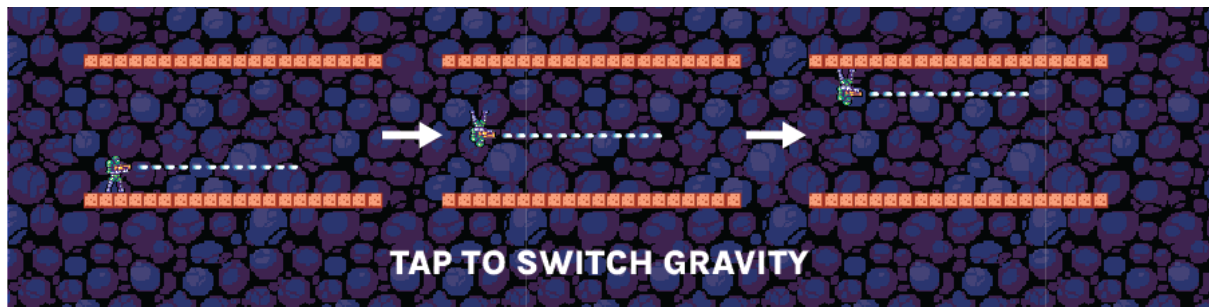
CAMERA / VIEWPORT

The camera will be positioned in **landscape mode** and the camera distance from the player character will stay the same throughout the game. The player character will be positioned to the left of the viewport in order to maximize information conveyed to the player. The level will progress towards the right of the screen and the camera will move with the player character, keeping the character at a **fixed horizontal position**.
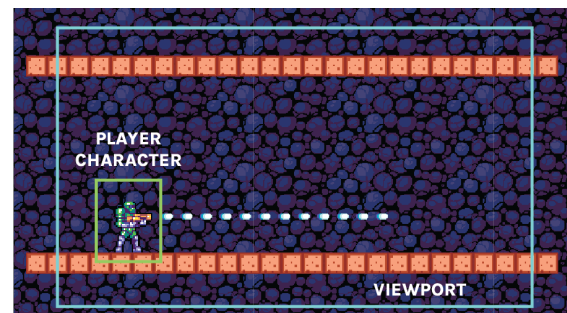
LEVEL DESIGN

Level Design is an important part of Gravity Fighter. Each run & gun level will, fundamentally, be situated on two opposable planes, and will be carefully designed to incorporate **multiple enemy spawn locations**, which will **randomize** through each playthrough, and **branching pathways**, creating **multiple routes and endpoints** and allowing for significant **replayability**.

Each level will have a lot of **obstacles** and challenges of various sizes (Empty gaps in the path, spike traps etc.) which will leverage the different strategic maneuvers in the game.

There will be a lot of **pick-ups** scattered throughout the level. These pick-ups can be of various types, including, but not limited to, currency, weapons, power-ups (extra hit-point, defensive shield etc.) and collectibles.

Each **unique pathway** in a level will be unique in the number of enemies, the types of enemies and the challenges and obstacles found there. Some paths, designed to be harder to reach (e.g. they might need strategic input timing), will be a little easier on the challenges as compared to other paths.

Boss fights will be similar to the run & gun levels, but the player and the boss will consistently move at a fixed distance from each other, maintaining the illusion of fighting along a running level. The focus for these fights will be on **strategically defeating the bosses through careful maneuvers and good use of player weapons.**
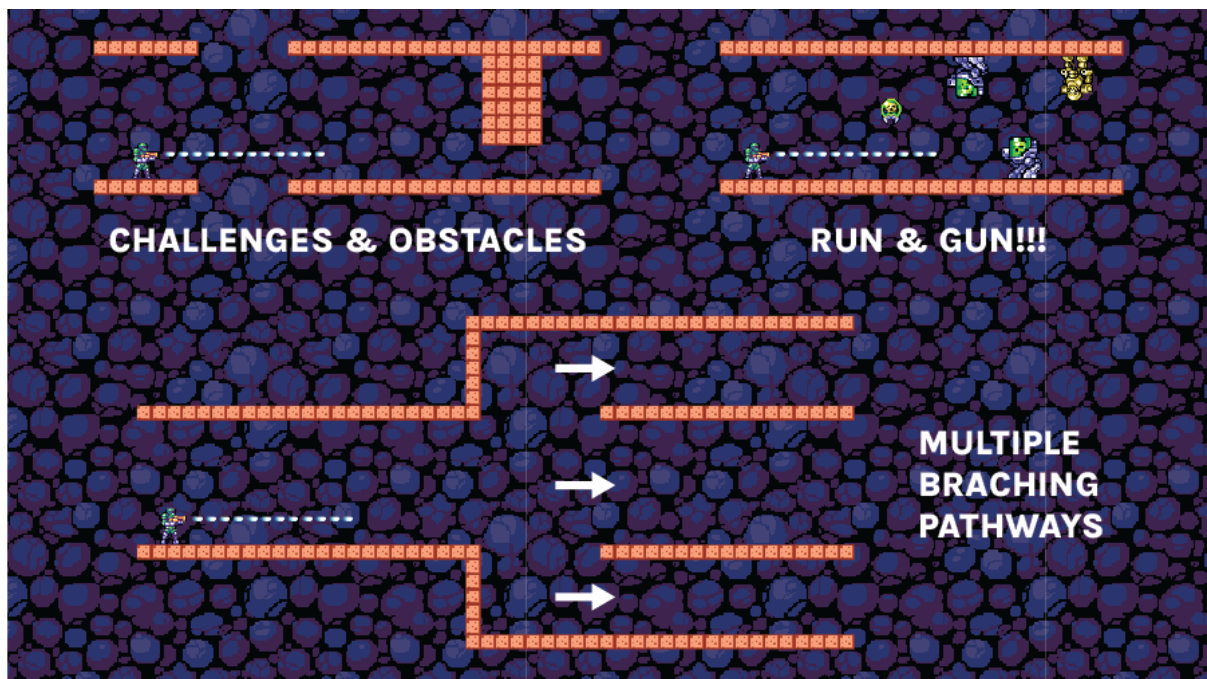
COMBAT

As with run & gun games, combat is where this game shines. Players can fight a plethora of different enemies, each fitting one of these general descriptions -

- **Regular Enemies** - Take one hit anywhere on their model to kill
- **Large Enemies** - Take 3 hits anywhere on their model to kill
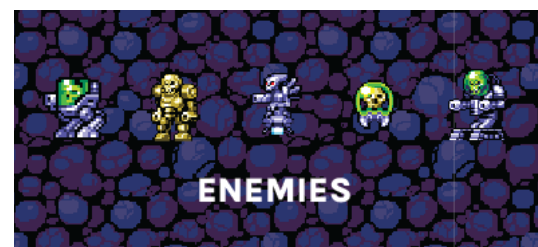
Each enemy will have a **pre-defined, but unique movement pattern**, and will either be moving towards the player to attack them, or be at a constant position in a level. Players can either defeat enemies, or dodge their path (except for bosses) to progress through a level.

Combined with a lot of different art assets, this will provide a lot of **diversity** in the player experience.

BOSSES

Bosses are powerful enemies that require a lot of hits (anywhere on their models) to kill. Each boss will be equipped with a number of **unique weapons** that will periodically rotate in attacking a player. Every boss fight will include dealing with boss attacks, while throwing

your own. A consistent spawn of a variety of regular enemies will further increase the challenge.

WEAPONS

There will be a variety of weapons for the player to use throughout the game. The player will start with a **basic weapon**, which will automatically, and consistently, shoot straight ahead in the direction of the enemy. A variety of other weapons, with different statistics, will be provided as pick-ups and will be either **persistent** (permanently swaps weapons) or **timed** (expire after a while and switch back to basic weapon).
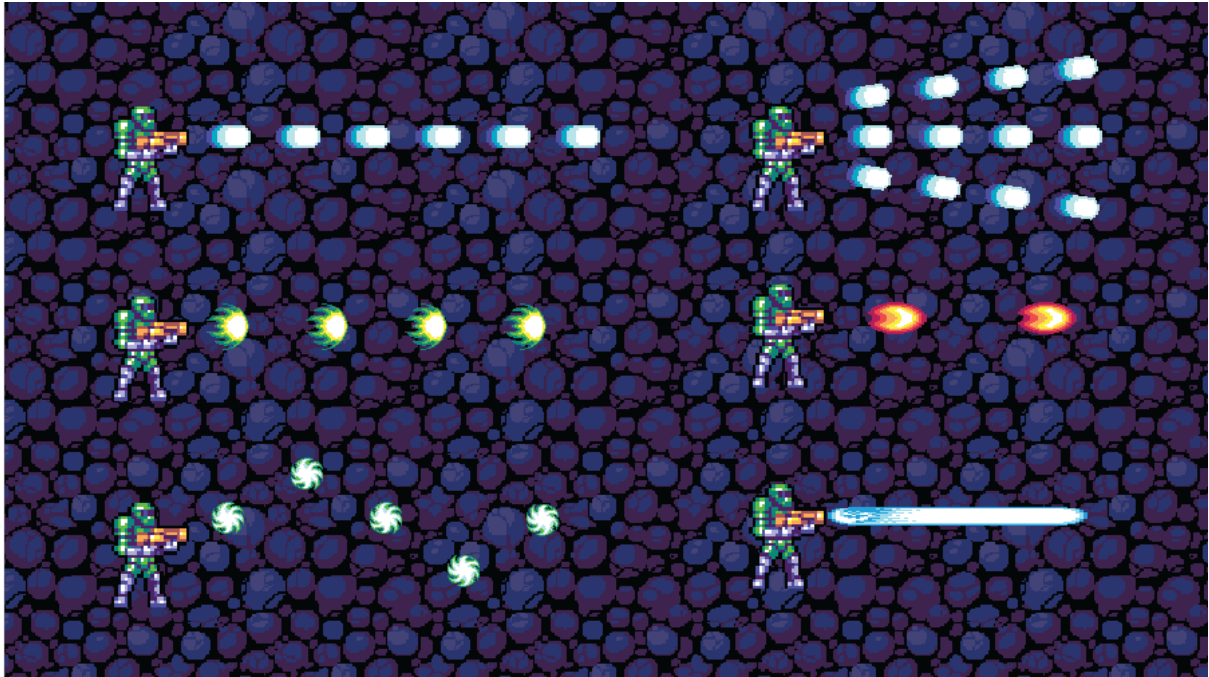
HEALTH

The player character will be equipped with **5 hit points**. Any hit received by the player will instantly make them lose one hit point. On losing all points, the player will die and will need to restart the level.

PROGRESSION / METAGAME

- The game will initially ship with **5 regions**. Each region will have **3 levels** to complete. These levels can be completed in any order, and once all of them are complete, that region's boss fight will become available. Once the boss is defeated, the next region in order will unlock. This simple, yet effective, structure can provide an avenue for extending the game very easily.
- Each level will contain some **collectibles**, placed across the different pathways in a level, and, along with dynamic enemy spawns, this will keep combat fresh and provide an incentive for **replaying levels**.
- A simple **card based upgrade mechanic** (e.g. Collecting 10 cards of the same type to level up) will allow the players to level up, thereby increasing their character statistics, like health, move speed, damage dealt etc. A **crate system** will complement this mechanic well, where you can purchase crates to acquire random cards. A simple **player leveling system** will also give players a sense of overall progression.

- A **cosmetic upgrade system** (character skins), with the addition of two in-game **currencies** (Regular and Premium) will also provide an avenue for monetization, along with periodic, but not intrusive, **advertisements**. These currencies will also be used for the crate system described above.
- An **achievements** system will be a great time sink, and will tie the metagame together by incentivizing players to reach goals and unlock special rewards, like currency, skins, upgrade cards and more.

STORY / NARRATIVE

Guy, the main protagonist, is the chief of the Space Alien Forces division, and is tasked with protecting Earth from extraterrestrial forces. Equipped with the ability to alter his local gravity as he pleases, he must stop all alien invasions or his planet will be consumed by these creatures.

ART STYLE

This game will be highly inspired from the **modern-retro art style**, employed by many games today, like Stardew Valley and Celeste. The main character will be human, inspired by the likes of Gravity Guy, with enemies (mostly extra-terrestrial) drawing inspiration from games like Cuphead and Enter the Gungeon. Below are some visuals for more clarity.

Gravity Guy

Stardew Valley (Source: [3])   *Enter the Gungeon (Source: [3])*

SUCCESS FACTORS

- Gravity Fighter employs the **simplicity** and **straightforwardness** of a single input system, inspired by similar hits like Flappy Bird (50 million downloads till it's removal [1]) and Geometry Dash (3 million active users, 7 years after its release date [2]). The **challenge and addictiveness of a single input**, combined with **smart level design** creates an atmosphere for people wanting to come back for more.
- Cuphead is known for its simple yet challenging run & gun combat and art style. This game borrows the **chaos and strategy** of Cuphead and gives it a unique twist with the gravity swap mechanic. As a casual mobile game, Gravity Fighter also tries to reduce the difficulty that was shown in Cuphead by reducing exposure to combat and shifting some focus to exploration in a level.
- Recent titles like Celeste, Stardew Valley and Enter the Gungeon have shown that nostalgia is powerful, and **there is still a huge fan-base for the retro art style**[3], which Gravity Fighter will be inspired by.
- The different elements of Gravity Fighter's **metagame**, like the card based upgrade system, have a **proven track record**, as seen in many successful, casual mobile titles, like Golf Clash.

- The **gravity swap** mechanic is very apt for a casual game, since it does not require too much knowledge before-hand and is easy to pick up. Combined with the run & gun mechanic, akin to Cuphead, Gravity Fighter adds a lot of potential for **display of skill**, while maintaining the **fun** and **simplicity** of the single input mechanic. The success of games like Gravity Guy (Estimated 10 million installs [5]) supports this argument.

EXTENDED DEVELOPMENT

The following are some ideas for extended development of this game.

- **Consumables** - Items that can be collected by a player and can be activated for a level playthrough. Can provide different types of boosts, e.g. more health, more damage, double coins etc. They can also be found at unique locations in levels.
- **Events** - Limited time events (special regions, lesser number of run & gun levels etc.) that can provide limited, unique rewards on completion.
- **Regions** - This game has been carefully designed with the ability to easily add more regions, levels and boss fights in the future.
- **Characters** - Can introduce more playable characters to the game, each with their own backstory.
- **More Platforms** - Can add ports for PC / Console, with minor updates to monetization and the metagame.
- **Portrait Mode!**

REFERENCES

[1] https://www.businessofapps.com/data/flappy-bird-revenue/
[2] https://playtracker.net/insight/game/2355
[3] https://www.thegamer.com/best-modern-retro-video-games/
[4] https://miro.com/app/board/o9J_lh3Ik-M=/?invite_link_id=153499726613
[5] https://www.androidrank.org/application/gravity_guy_free/com.miniclip.gravityguy

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- Cuphead - https://store.steampowered.com/app/268910/Cuphead/
- Enter the Gungeon - https://store.steampowered.com/app/311690/Enter_the_Gungeon/
- Flappy Bird - https://www.dotgears.com/apps/app_flappy.html
- Geometry Dash - https://store.steampowered.com/app/322170/Geometry_Dash/
- Gravity Guy - https://www.miniclip.com/games/gravity-guy/en/#privacy-settings
- Stardew Valley - https://store.steampowered.com/app/413150/Stardew_Valley/
- Celeste - https://store.steampowered.com/app/504230/Celeste/
- Golf Clash - https://play.google.com/store/apps/details?id=com.playdemic.golf.android

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