

# <Hoppin & Droppin>

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## Theme:

The main theme of our game is momentum. We implemented a manner of shooting that affects the velocity and position of the player because every child who has ever played GTA has shot the tank backwards to make it go faster! In our game a similar thought pattern will be required to traverse each level and jump to new heights. A mastery of the system will result in a higher leveled experience. Like how flappy bird was usually a 10 second stint the first time for most player's first playthrough and once you got good it became addictive!

Our secondary theme is rectangles! Sprites are cool and all but we felt like the rectangle was underappreciated. It's used a lot in games and then hidden away behind a sprite. We took some inspiration from "Thomas was Alone" and decided to make a game completely out of rectangles.

## Core Gameplay Mechanics Brief

- Camera movement
- Jumping
- Velocity altering shooting

## Elevator Pitch

The game is simple but challenging. The unique momentum physics add an interesting gimmick that players will have to master to be successful.

## Gameplay

The game will feature five levels of increasing difficulty. The player may start at whichever level they choose and once a level has been cleared the next one will load from a yaml file. We will utilize a 360 controller to cater to non-pc gamers who would be more comfortable with a controller. The camera controls will also be more streamlined with thumbsticks. The aim of the game is to beat the unique bosses in each level. Players can choose to either ignore the secondary enemies or kill them but ignoring them could be fatal. The player's health will be represented by another rectangle drawn in the same position but a slightly different shade. Taking damage will reduce the size of this rectangle. This may happen up to ten times, essentially allowing the player to be hit ten times before dying and starting again. When the player dies all the enemies on the current level will be restored to full health and the player will be returned to the beginning of the level.

## Level Design

Each level will feature a unique boss with a unique design and behaviour. Some ideas we had so far were a spider, who'll be a very small rectangle who moves horizontally, proving difficult to hit. A Giant wall who will be much bigger than the player, A kangaroo who will continuously jump up and down trying to squash the player, a bird who will flap its wings(rectangles of course!) and fly around the screen and some kind of teleporting boss who teleports to random places trying to knock the player to the bottom of the tower.

Each level will feature platforms that the player can jump onto like old-school platformers are famous for. To maintain our theme all rooms will also be rectangular in shape.

## Sounds

To add more depth to the game we will be including several sound effect elements. These will be mostly for shooting, enemies dying, hitting enemies, getting hit by enemies and some background music.

## UI Elements

The menus will also be made using rectangles. The main menu will feature several options like level selection, controls and additional information. The rectangles will change colours when the player moves through them so they can tell which option they are on. For example if the player is on level selection then the level selection rectangle will be red and all other rectangles on the main menu will be blue. There will be text drawn over the rectangles so they look like buttons most people are used to.

The level selection menu will reflect the main menu. There will be five rectangles with text on top reflecting each level and they will also change colour to reflect where the player is in the menu.

## Shooting

Coinciding with our theme, the player will shoot rectangles. When the player presses "RT" on the controller a square will be drawn and travel in the direction the player is pointing in with the camera. We will add a shoot delay to make the game a little challenging.

When a bullet collides with a secondary enemy they will immediately die and rotate. Falling to the ground like a corpse. These corpses can be interacted with and the player can even shoot them on top of each other and use them to reach higher places.