# ****Game Design Document: Maze Jumper****

## ****1. Game Title: Maze Jumper****

## ****2. Backstory****

Maze Jumper is a puzzle-platformer adventure featuring a quirky yellow alien named Geeb. After a malfunction, Geeb’s spaceship crash-lands on a mysterious floating land. The spaceship’s fuel canisters scatter across various maze-like levels. Geeb must navigate through these perilous terrains filled with moving hazards, hidden paths, and platforms to collect his missing fuel canisters and escape. Each maze is suspended high in the sky, surrounded by clouds and unpredictable weather patterns. Geeb’s ultimate goal is to reassemble the fuel, power up his spaceship, and continue his space journey.

## ****3. Characters****

### ****Main Character****

Geeb is a small, yellow alien with large, curious eyes and a springy posture. His light physique allows him to jump higher than most creatures, making him perfect for navigating tight spaces. With his determined attitude, Geeb won’t rest until he retrieves his spaceship’s fuel and escapes the alien world.

Geeb’s abilities include jumping higher than other creatures due to the planet's lower gravity, precise movement adjustments mid-air to land accurately on small platforms, and collecting scattered coins throughout the level, which may unlock hidden rewards. Geeb can also pick up hidden “Extra Life” items to extend his survival.

### ****Enemies****

The mazes are filled with various moving hazards, each presenting a different challenge. These include rotating spiked balls, buzzing drones, and sinister floating creatures. These obstacles have different movement patterns—sine waves, circular paths, and even more complex waveforms—making each one a unique challenge to avoid.

The **Wave Hazard** is a hazard that moves in a wave pattern, making it hard to predict its path. The **Sine Moving Hazard** moves back and forth in a smooth, wave-like motion, making it challenging to time jumps. The **Circular Hazard** rotates around a fixed point, often guarding critical paths or collectibles.

## ****4. Gameplay****

### ****4.1. Controls****

The game is controlled using the keyboard. The A key moves Geeb left, and the D key moves Geeb right. Pressing the Spacebar will make Geeb jump. Players can select a level using 1, 2, or 3 to start the corresponding level. The level can be restarted by refreshing the browser tab.

Geeb’s movements need to be precise to navigate the platforms and avoid hazards, and players should practice using small, controlled jumps to master each level.

### ****4.2. Gameplay Mechanics****

Geeb’s gameplay revolves around gravity and jumping. Geeb can jump with variable strength. Holding down the jump button will make him jump higher, but only when he has enough jump strength left. The game uses a physics-based collision detection system to handle interactions between Geeb, platforms, and hazards.

The game also incorporates checkpoints. Reaching a checkpoint saves Geeb’s progress in the current level, allowing him to respawn here if he falls or hits a hazard. Coins scattered throughout the levels can be collected for additional points or unlocks. Collecting Extra Lives restores one of Geeb’s lives, up to a maximum of 3.

### ****4.3. Game Flow****

The game begins on the Start Screen, where players can select a level to play. Once the level begins, Geeb starts at the beginning of the level or at a previously activated checkpoint. The player navigates Geeb through the maze, avoiding hazards, collecting coins, and finding the fuel canister. Finding the fuel canister in the level unlocks the next level. If Geeb collides with a hazard, he loses a life and respawns at the last checkpoint. If Geeb loses all lives, the level restarts.

### ****4.4. Rules and Victory Conditions****

The primary rule is that Geeb must avoid all hazards. Hazards include Spiked Balls, Drones, and Wave Hazards. Geeb cannot pass through solid walls or ceilings. Geeb must collect the hidden fuel canister to unlock the next level. To achieve victory, Geeb must reach the last checkpoint and collect the hidden fuel canister for each level. Completing all levels returns Geeb to his spaceship, allowing him to fuel up and fly away, completing his journey.

## ****5. Game World****

### ****5.1. Overview****

The game world is divided into three distinct levels, each set on different floating land masses surrounded by drifting clouds and sky backgrounds. Each level has unique challenges, requiring Geeb to navigate using his jumping and dodging abilities.

### ****5.2. Level Design****

The first level is known as "The Starting Plateau." It is a simple platform layout with basic hazards and coins to collect, introducing the player to movement and jumping mechanics. The second level is named "The Twisted Labyrinth," featuring a maze-like structure with multiple layers and moving hazards, requiring the player to use timing and spatial awareness. The third level, "The Perilous Cavern," is a complex structure with hidden paths, rotating hazards, and high jumps. This level challenges the player to master all of Geeb’s movements.

### ****5.3. Level Connections****

Each level is accessed linearly. Upon completing a level, Geeb is transported to the next. Players can replay completed levels to find all coins or perfect their performance.

## ****6. Bonus Materials****

### ****6.1. Achievements****

The game includes various achievements to encourage replayability. The first achievement is the "Coin Collector," earned by collecting all coins in a single level. The reward is unlocking the Shiny Geeb skin, making Geeb sparkle with a gold hue. The second achievement is "Speed Runner," achieved by completing a level in under a specified time, which unlocks the Turbo Geeb skin, giving Geeb a sleek, streamlined appearance. The third achievement is "Hazard Dodger," earned by completing a level without colliding with a single hazard, unlocking the Shadow Geeb skin, making Geeb appear semi-transparent and dark, like a shadow. The "Master Jumper" achievement is for completing the game without falling into a pit or restarting from a checkpoint, unlocking the Ethereal Geeb skin, giving Geeb a glowing, celestial look.

The "Fuel Hunter" achievement is for collecting all hidden fuel canisters in every level, which unlocks a secret ending where Geeb successfully refuels his spaceship and gains access to a bonus challenge. The ultimate achievement is the "Completionist," which is unlocked by earning all achievements in the game. The reward is Developer Commentary Mode, which provides behind-the-scenes insights and fun facts about each level and character.

### ****6.2. Unlockable Content****

The game includes secret levels that are unlocked by completing all levels under a specified time. One such hidden bonus level is "The Alien’s Final Test," which combines elements from all other levels and introduces new, more difficult hazards. Players can also unlock character skins, such as Red Geeb (for collecting 50 coins in total), Blue Geeb (for collecting all coins in all levels), and Cosmic Geeb (for completing the game without losing any lives). Cosmetic upgrades allow players to change Geeb’s color, add a trail effect, or equip a small accessory like a hat or a jetpack.

### ****6.3. Replay Incentives****

To encourage replayability, the game features a Time Trials mode for each level, where players can race against the clock to set new record times. Hidden collectibles, secret areas that can only be accessed with precise jumps and timing, and Speedrunning Leaderboards provide additional challenges and incentives for players to return to the game.