

## Game Design Concept and Pitch

Note: The final game may vary slightly from the design document as we start working on the game.

### Title: Rusty Hope

*Your game's title should communicate the gameplay and the style of the game*

**Team Members:** Carter Phung, Spencer Deng, Shawn Arlantico, Henry Tat

### High-Level Concept/Design

**Concept statement:** This game is a fun modern take on a retro 2D platformer with interesting characters and a captivating story. The level design and boss fights keep players returning for more.

*The game in a tweet: one or two sentences at most that say what the game is and why it's fun.*

### Genre(s): 2D Platformer

*Single genre is clearer but often less interesting. Genre combinations can be risky. Beware of 'tired' genres.*

**Target audience:** This game is a game for anyone. The desired ESRB is Rated E for everyone.

*Motivations and relevant interests; potentially age, gender, etc.; and the desired ESRB rating for the game.*

**Unique Selling Points:** This game stands out because of its gameplay mechanics and story, which are more in-depth than typical games lacking a story.

*Critically important. What makes your game stand out? How is it different from all other games?*

**Player Experience and Game POV:** The player is named Rexel, and they are the protagonist. The story revolves around sci-fi robot/alien elements on the planet Novatron. Our "fantasy" is based on holding on to hope that there will be a better tomorrow. We want our players to feel that even when things are bleak and seem meaningless, if they keep getting back up, they'll eventually reach the light at the end of the tunnel. Rexel is our center point; we want our players to focus on him and his progress. He will get stronger as the game progresses through power-ups. At first, he is alone but meets a companion(s) named Luma, giving him hope that he can succeed on his journey despite the ongoing alien invasion controlled by the evil mastermind Gravitron and his loyal second-in-command named Obsidian Rex. Players are engaged during their play to discover how the story ends and the fun gameplay.

*Who is the player? What is the setting? What is the fantasy the game grants the player? What emotions do you want the player to feel? What keeps the player engaged for the duration of their play?*

**Visual and Audio Style:** The game's look and feel are stylized pixel art, and the audio is retro game music.

*What is the "look and feel" of the game? How does this support the desired player's experience? What Product Design concept art or reference art can you show to give the feel of the game?*

**Game World Fiction:** Our story has four robot characters who are integral to our story. We have the chibi robot Rexel as our main protagonist. He meets a companion friend named Luma along the way to help him on his journey to stop the once peaceful aliens. The

companion friend is a fellow robot that has taken refuge in the destroyed ruins of their homeland. Through this journey, he encounters a rival robot character, Obsidian Rex, who works with the main antagonist. Obsidian Rex is a clone or an evil twin brother of Rexel, and he works with the main villain, the mech boss king, Gravitron. They are controlling the aliens on the planet Novatron and are using them as their henchmen for their evil plans of world domination, which is why the ruins were destroyed. The goal of the player is to beat the levels and to stop the rival character miniboss (which will be at level 2 or 3) and the main antagonist boss (level 5) by defeating them and restoring the minds of the aliens. So they can be free again and bring peace and hope back to the world of Novatron.

*Briefly describe the game world and any narrative in player-relevant terms (as presented to the player).*

**Monetization:** This game is free to play, so there is no monetization. We want people to experience our game for free.

*How will the game make money? Premium purchase? F2P? How do you justify this within the design?*

**Platform(s), Technology, and Scope (brief):** This game is for PC; it is 2D, and we are using the Unity Game Engine. Building this game with a team of 4 will take the semester. Since we are starting with the 2D microgame template, we can begin developing since we have a foundation to work on. The 2D microgame only has 1 level, but we can use it as a starting point to build multiple levels. To complete the game, we need the rest of the semester. One primary risk is finishing on time.

*PC or mobile? Table or phone? 2D or 3D? Game Engine? How long to make, and how big a team? How long to first playable? How long to complete the game? Major risks?*

**Core Loops:** The core gameplay loop is beating levels and the boss and seeing the story unfold as you play that game. This is engaging because the level design will be fun but challenging, and the same with the bosses. There will be checkpoints within the platforming levels and a checkpoint right before the boss. This encourages players to keep trying until they beat the level or the boss. As they play more of the game, more of the story unfolds, and you have to keep playing to see the story's twists and turns, climax, and resolution. For the players who've played the game, a fair bit can do challenge runs: No hit or no upgrade runs. You will become attached to the characters as you play and want the character to accomplish their goals. This game is entirely F2P so no monetization points will be needed.

*How do game objects and the player's actions form loops? Why is this engaging? How does this support player goals? What emergent results do you expect/hope to see? If F2P, where are the monetization points?*

## **Detailed & Game Systems Design (This should include your wireframes and storyboard)**

**Objectives and Progression:** The player will be moving using standard 2D controls. Since the game is 2D, the player will move in the two-dimensional space. They will collect coins or cogs in levels that can be used to purchase upgrades to make their character stronger. Their short-term goal is to get to the next level. We are currently thinking of 5 total levels, including the tutorial. The tutorial is there to help players get used to the controls and combat of the game. The long-term goal is defeating the final boss to bring peace to the

world of Novatron. Once the player has beaten all levels, mini-boss, and final boss, they reach the end of the game and the story.

*How does the player move through the game, literally and figuratively, from tutorial to end? What are their short-term and long-term goals (explicit or implicit)? How do these support the game concept, style, and player-fantasy?*

*Create a demo on figma, Blender, or create a video on premier pro for your storyboard and through your wireframes demonstrate the potential game you plan to make.*

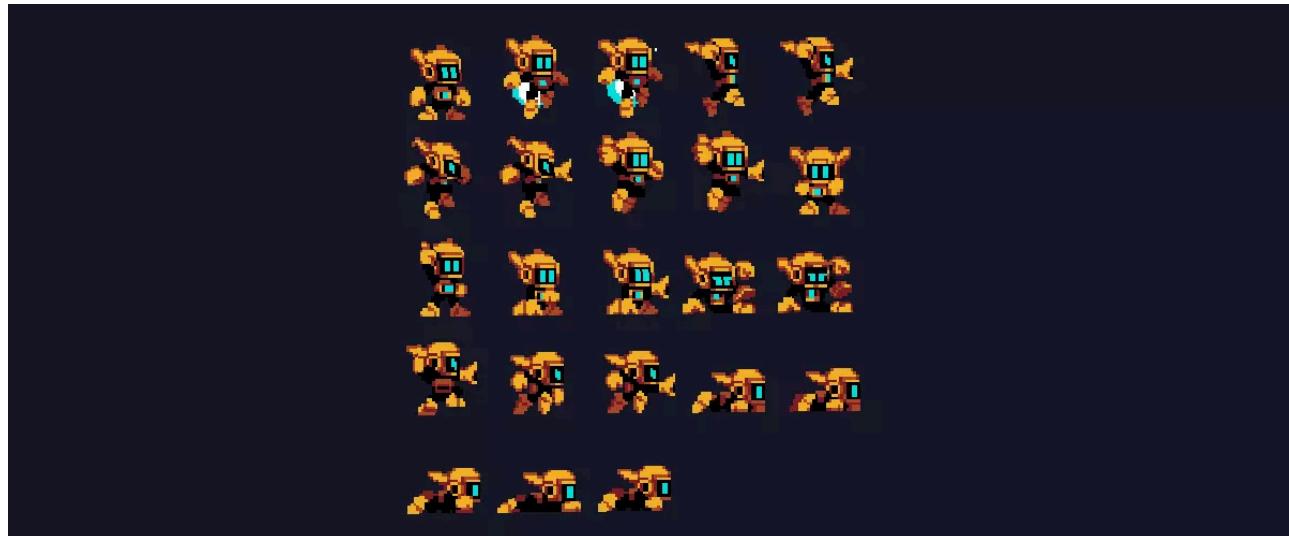
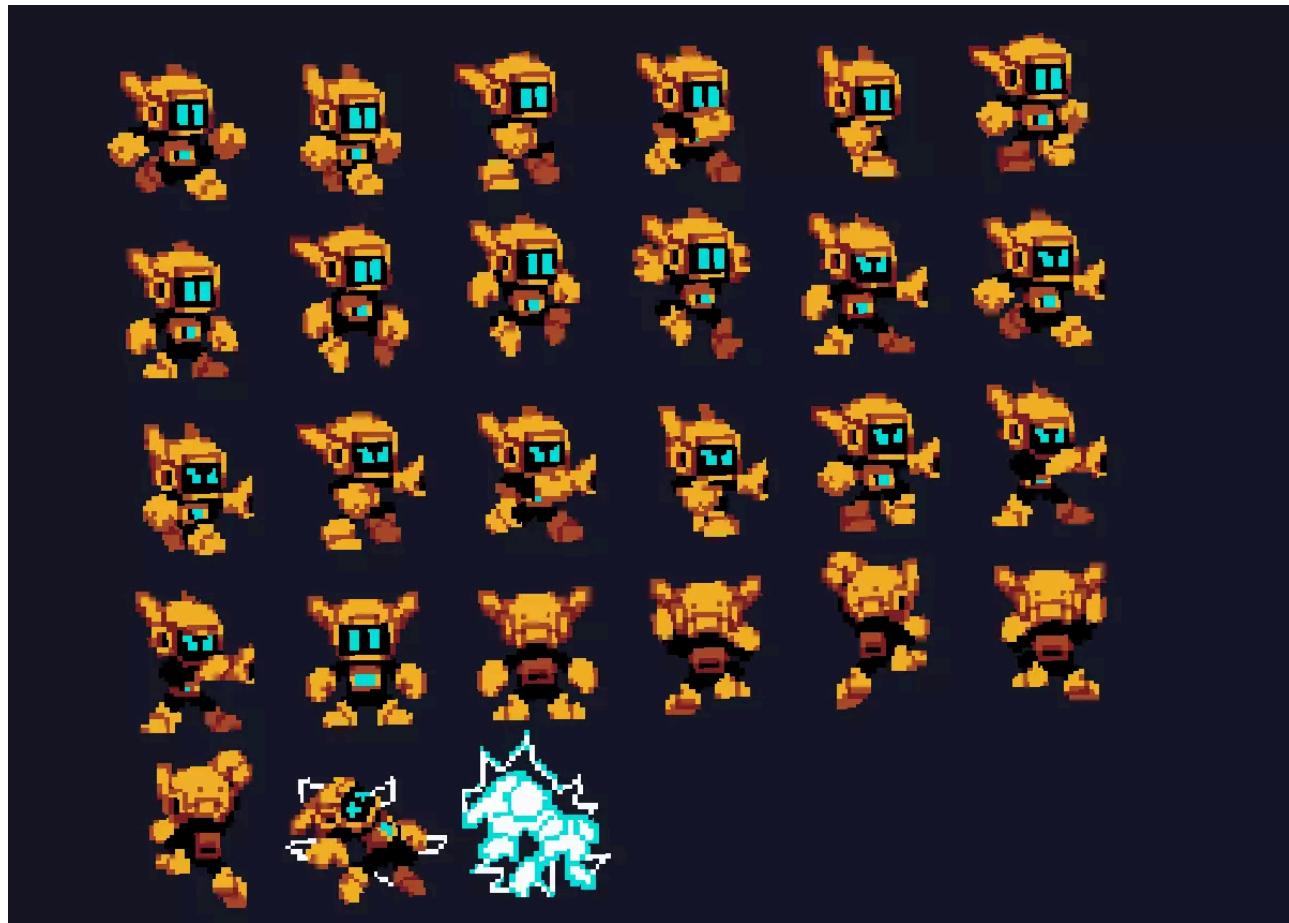
**Game Systems:** We need the player controller, camera, and enemy movement systems. We will also need a health system, a checkpoint system for respawning, an in-game shop using in-game currency (tbd) collected through gameplay to buy new power upgrades (alternatively, we collect the power upgrade through the levels), and a level select screen to go to the next level. Still, you can also go back and replay previous levels once beaten one time already, if you want. We will also need a system for our boss's movements.

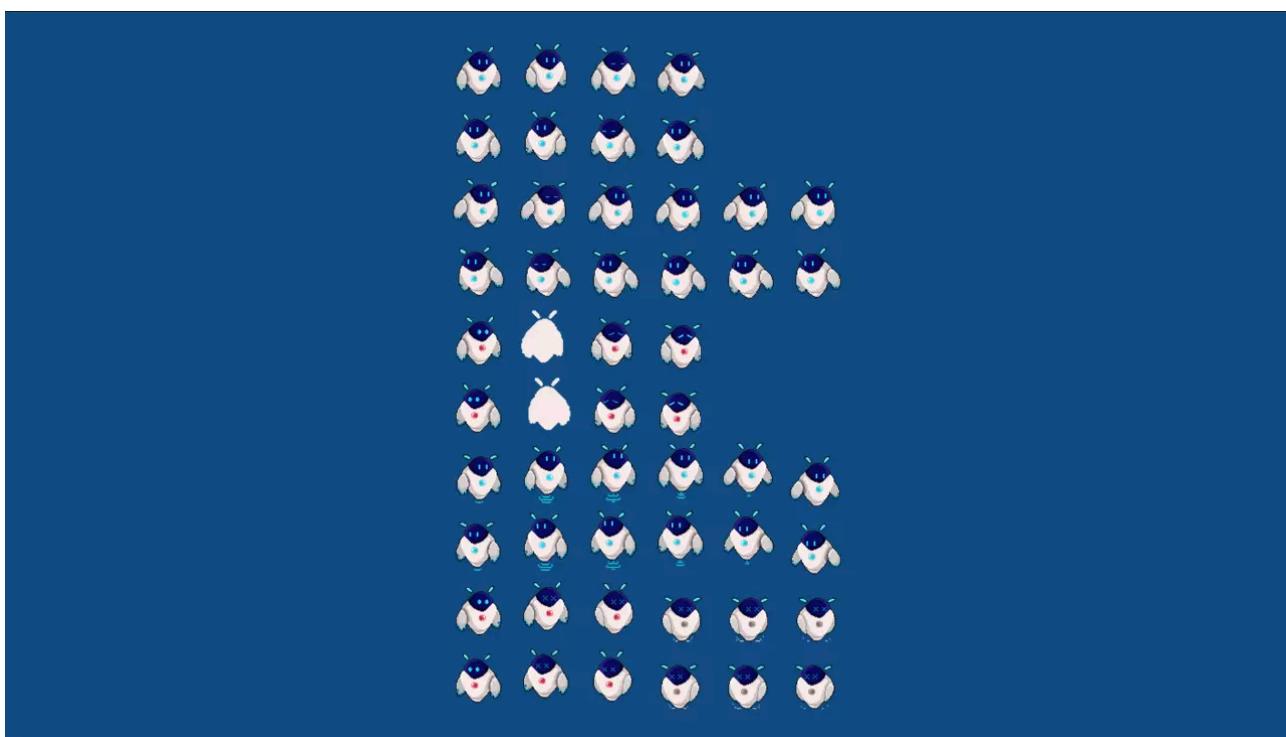
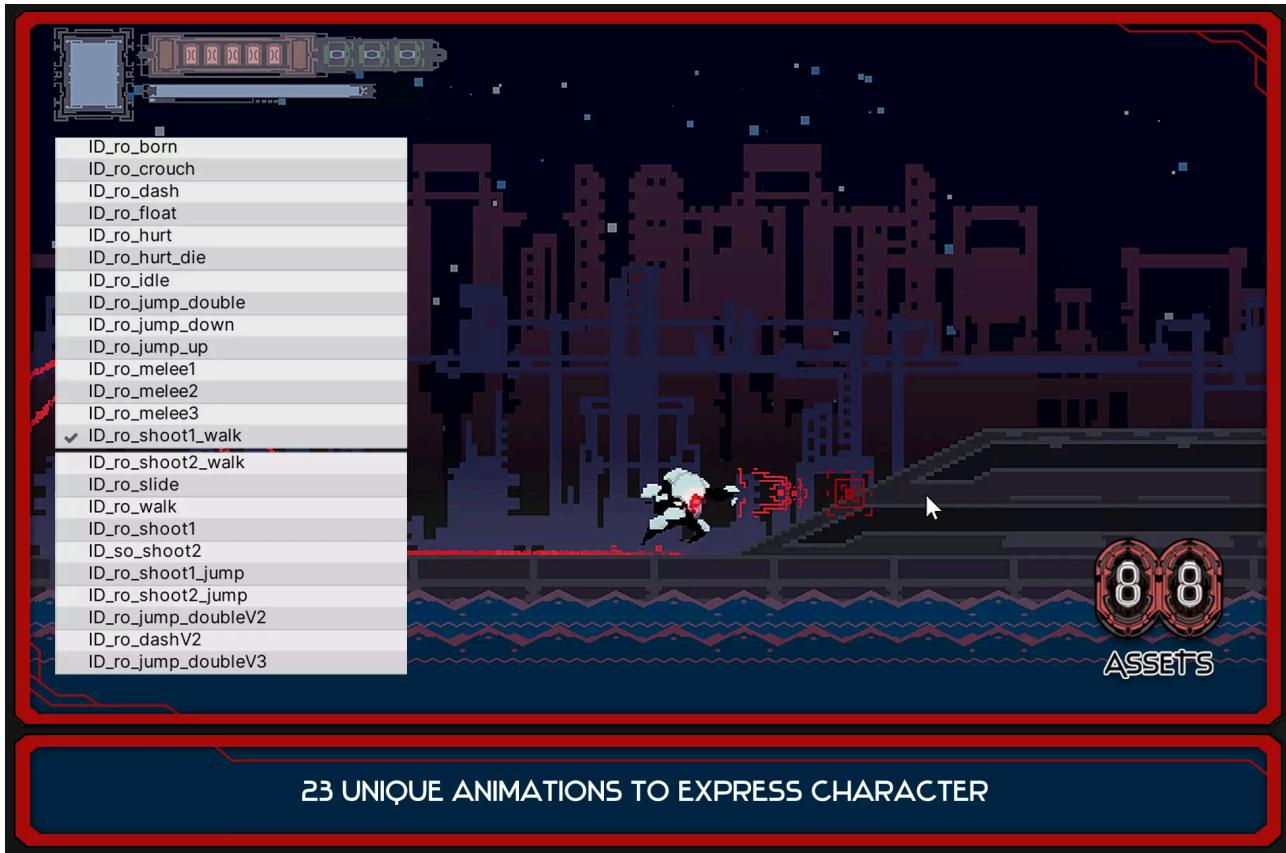
*What systems are needed to make this game? Which ones are internal (simulation, etc.) and which does the player interact with?*

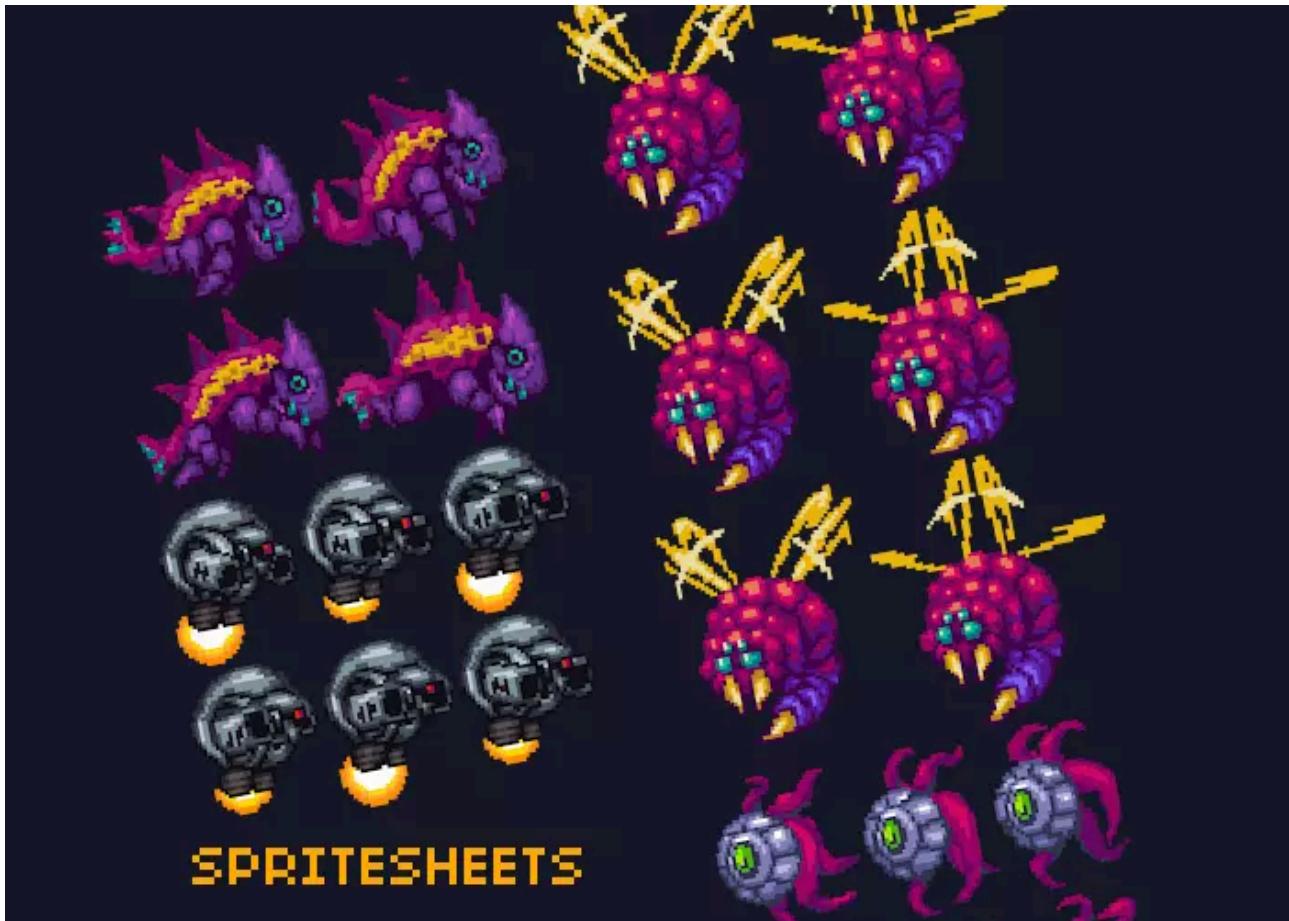
**Interactivity:** The player moves through the world in 2D game space. Moment by moment, the player explores the level and tries to reach the end of the level. The game is meant to be played on a laptop or computer with a keyboard, so movement and combat will be done using the keyboard. WASD for movement. Combat will also be on the keyboard, and the mouse will only be needed to interact with the menus.

*How are different kinds of interactivity used? (Action/Feedback, ST Cog, LT Cog, Emotional, Social, Cultural)  
What is the player doing moment-by-moment? How does the player move through the world? How does physics/combat/etc. work? A clear, professional-looking sketch of the primary game UX is helpful.*

Wireframe (post assets here)







SPRITESHEETS

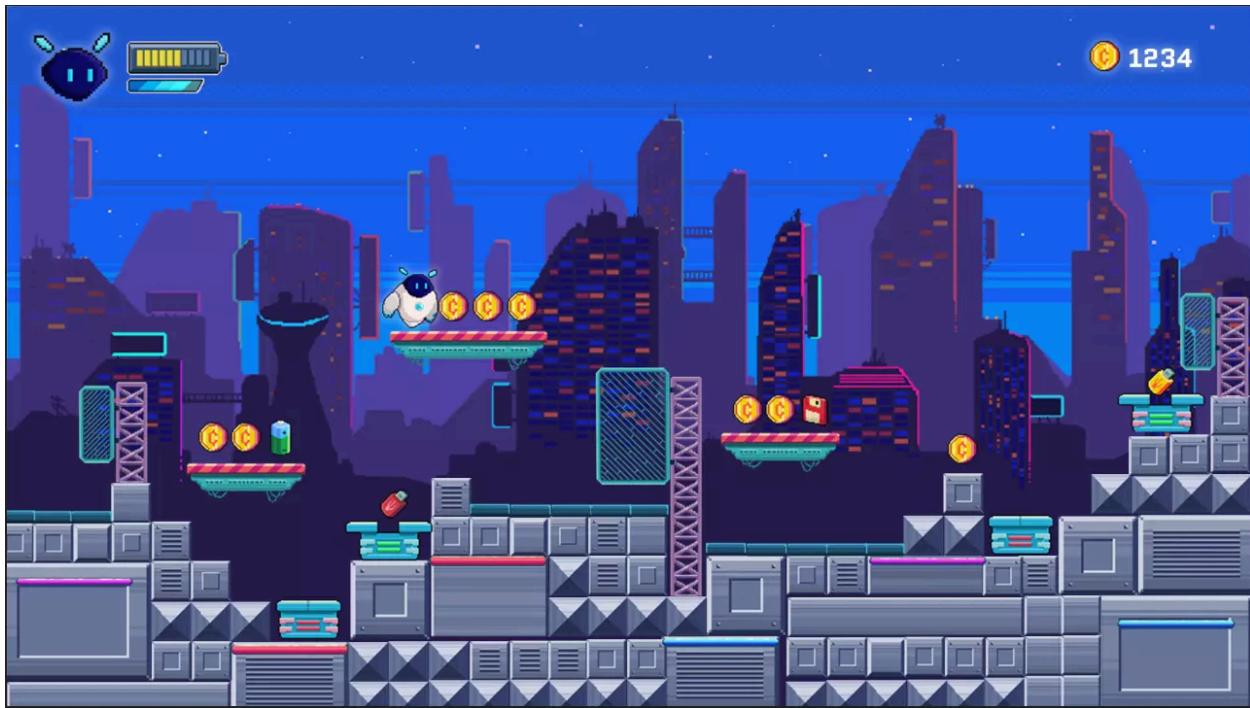


**SPRITES**

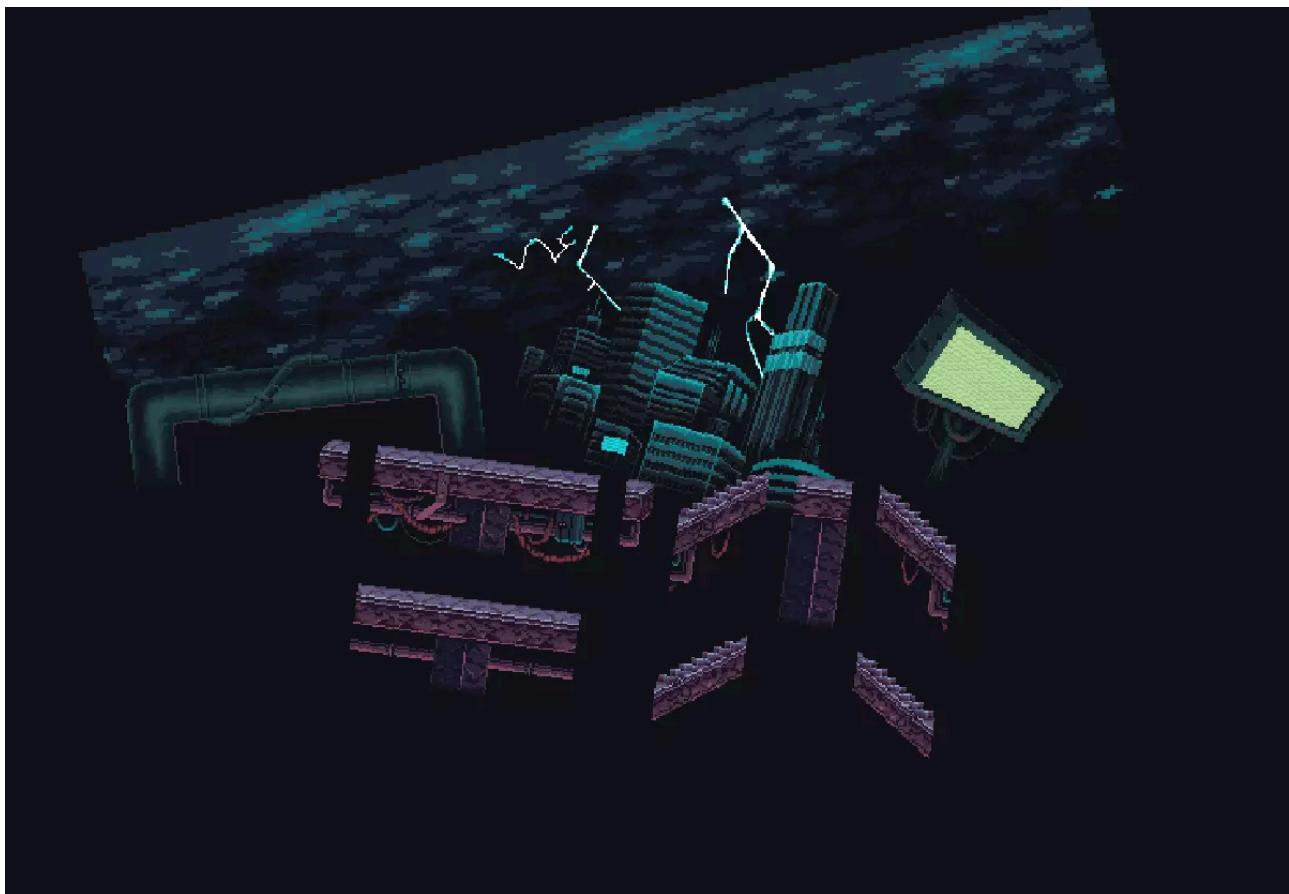


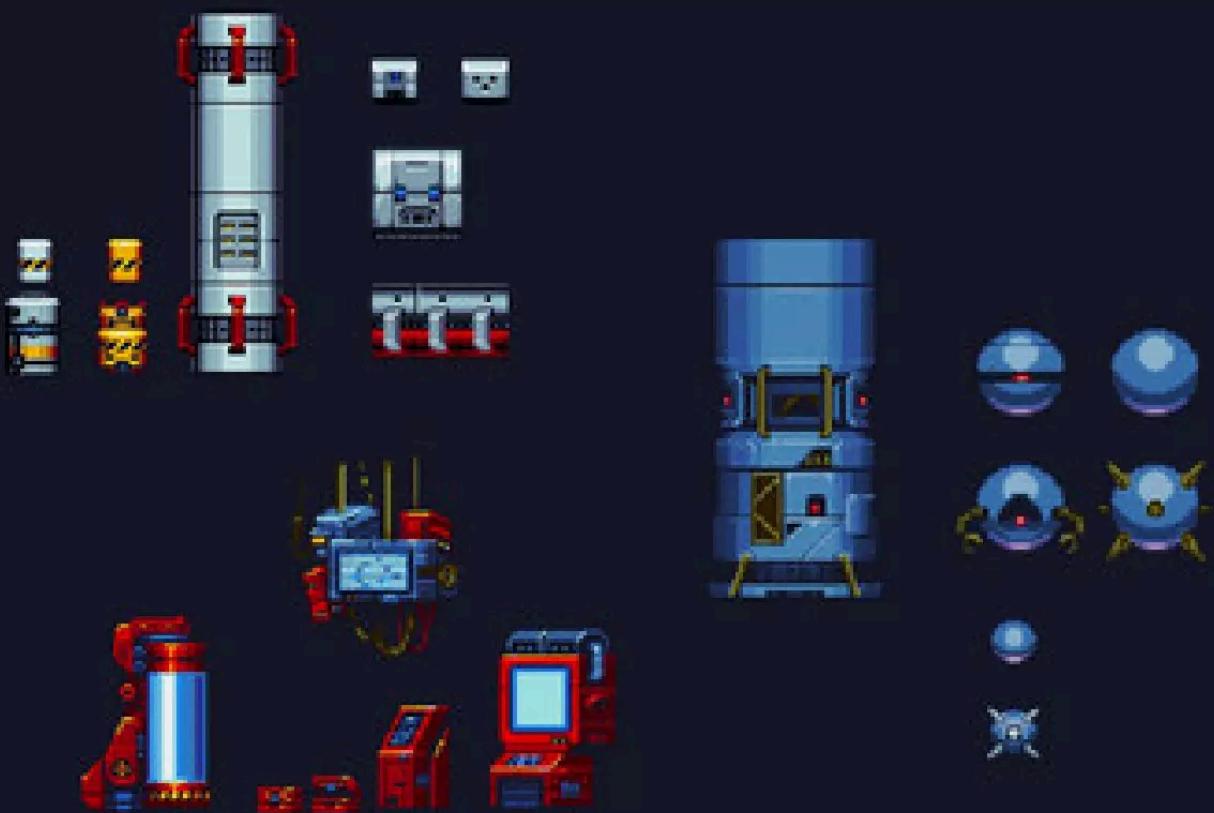
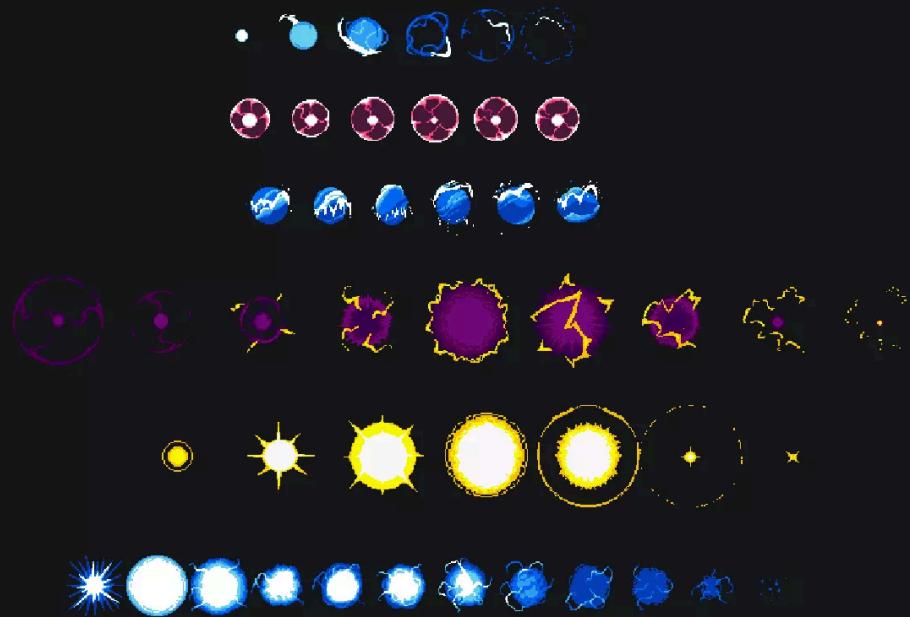
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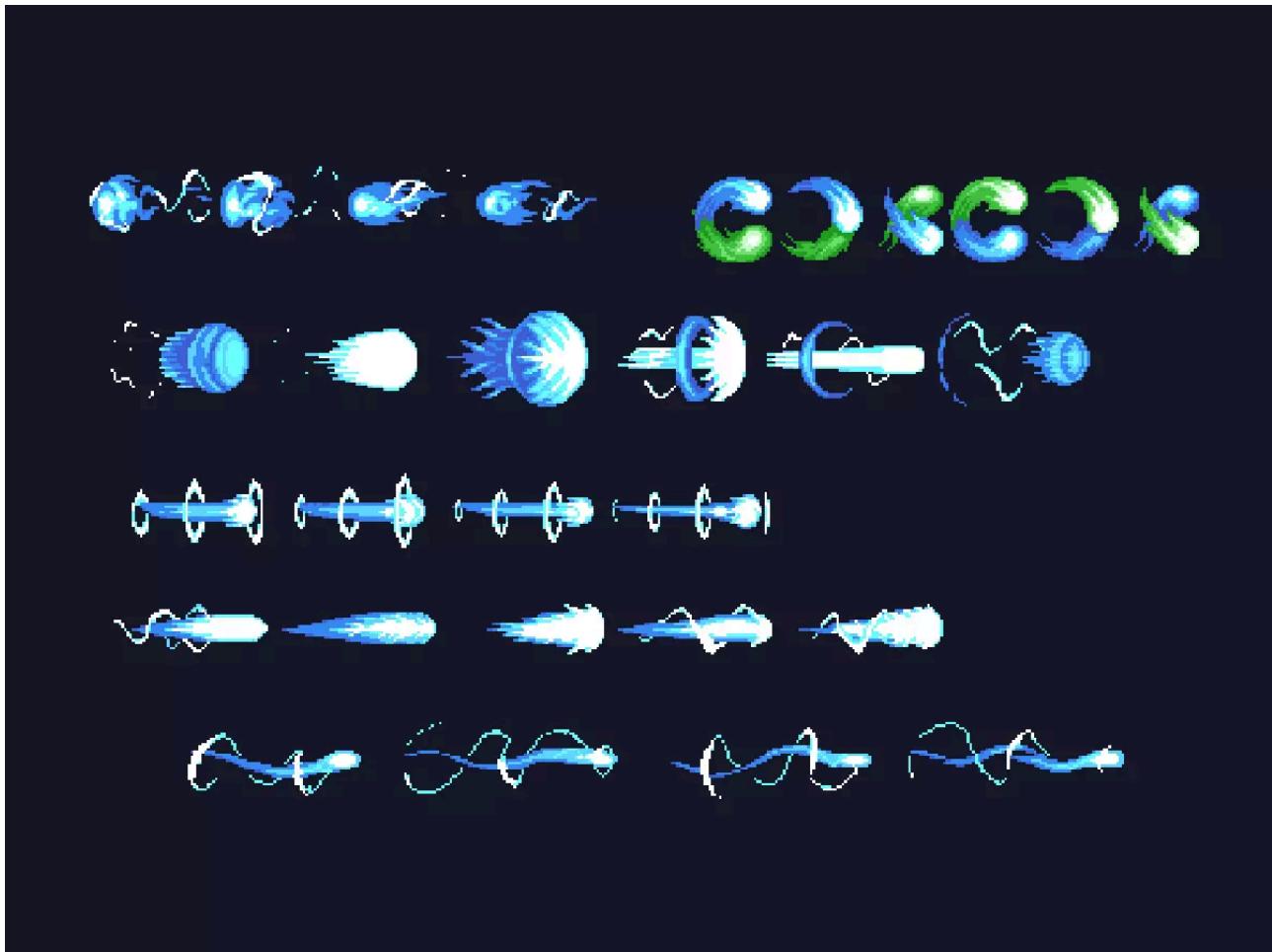


(background and tiles for level)



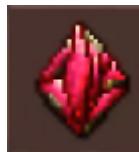








Some of these may be used as the pickups that give you new movement or attack abilities.



This will be used as the pickup item to permanently increase health by 1.

### Storyboard

**Note: the power balancing, damage, speed, cool downs, number of enemies, etc may be changed in the final version to make the game fair but challenging.**

**Tutorial:** This is where our player wakes up or falls into the level's frame. They start with one heart out of three hearts, and the damage they take is reduced by half for every hit, so at the beginning, our player only gets two hits before they die.

**Level 1:** The city of a once utopian society of robots is now in ruins. The player will go through the level to figure out what's happened, with Luma giving the player lore as they move throughout the level. Halfway through the 1st level, our player will reach a checkpoint. Returning to how the player receives lore, objects will be scattered around the level with which the player can interact, and Luma will explain them. A possible way of dialog is having Luma pop up and have the dialog text box at the bottom of the screen similar to jrpg games or like Animal Crossing. This level will have 7-8 enemies and a

permanent item pickup that slowly and passively regenerates health over time; this item will also heal the player back to the total health of three hearts. The player will continue to go through the level until they reach the end, which is a tube that will transport the player to level 2.

**Level 2:** The player will arrive in the dark city, where Luma will tell the player that this world desperately needs your help saving. As the player navigates the dark town, they'll encounter 9-10 enemies and, along the way, will pick up an extra heart for more health and a new projectile that does more damage and is faster but has a countdown of 5 seconds. If the player is more experienced and this isn't their first playthrough, then they have a choice to pick it up or not to make it more challenging this time. This level will also have a checkpoint before the final area of level 2. This is where our first boss, Obsidian Rex, will test our player. He works under Gravitorn and is meant to destroy Rexel before he reaches the final level. He should pose quite a challenge to the player, but when he's defeated, the player can get on the tube and go to level 3. There is a checkpoint right before the Obsidian Rex fight, so if you die, you can challenge him again right away once you respawn.

**Level 3:** The Road to the Heart is our third area. In this area, Luma will tell the player they're close to the inner city, where the central heart of Novatron is contained. The player will find more interactives in which Luma can tell more lore about this area. This may change, but the player will fight around 11-12 enemies and contain two checkpoints around the  $\frac{1}{3}$  and  $\frac{2}{3}$  mark. The player will also be able to pick up another projectile type but won't be able to spam it, after using it, there will be a countdown of 10 seconds until it can be used again. The player will also find another health upgrade for five hearts now. At the end of the level, there will be a tube that the player will use to reach the final level.

**Level 4:** After level 3, our player will finally reach the final level of our game: The Heart of Novatron. This area will contain the most enemies compared to prior levels. Luma will give lore about this place and that it is the heart of what once was a utopian world, Novatron. Lightning and darkness encapsulate this place. This place has the final three pickups, the last heart pickup, a big projectile attack that does the most damage from previous pickups but has a longer cooldown of 15 seconds in order to use again, and a super jump. This area will also have two checkpoints, the first located a third of the level and the second before the final boss fight. The final boss will test our players' skills, having them use all the abilities they've picked up (or not) to fight Gravitron. After the player has destroyed the final boss, with the help of Luma, he restores Novatran back to a peaceful world—the end.