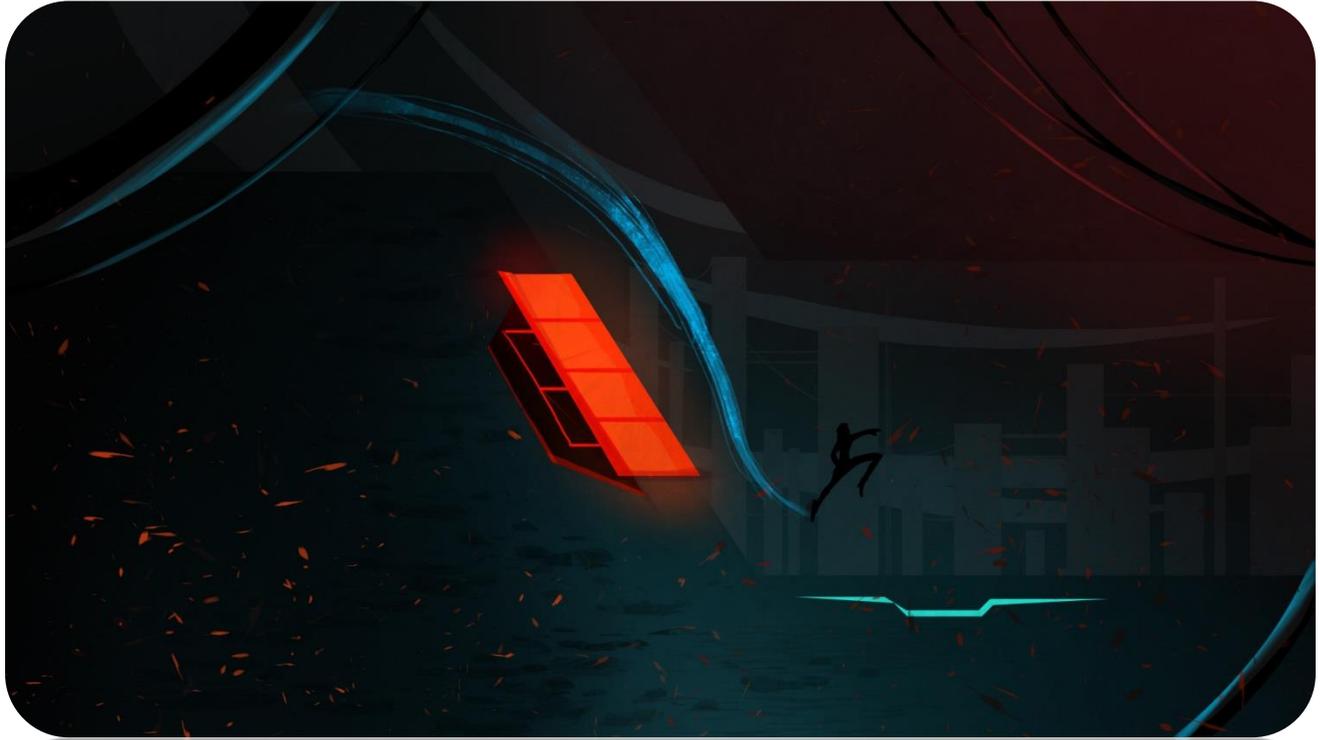


Aeon

Game Design Document



Written and monitored by:

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Version 0.6

Date	Version	Changes
20.10.14.	0.1	Created basic table of contents, added game overview, gameplay mechanics descriptions and character info.
27.10.14.	0.2	Added control layout and additional main story bits plus first level design.
03.11.14.	0.3	Added mechanics image examples, some art vision information/images and audio overview. Updated control scheme image. Added basic enemy information (information debatable and temporary).
30.11.14.	0.4	Added explanations of first minutes of gameplay, game flow, victory conditions and character specific attributes. Included new level design for a swapping challenge section. Updated the original introductory level with a redone version. Added art and sound asset lists.
10.12.14.	0.4.1	Separated UI information into a separate section with some added information.
30.10.15.	0.4.2	Added more enemy information for all different types.
15.02.15	0.5	Edited main game information to reflect the design changes that the team has agreed upon – this game is no longer a metroidvania-styled game, instead focusing on progressive separate levels. All changes have been reflected in various paragraphs.
30.03.15	0.6	Added a disclaimer on all features and assets that will not be present in the final prototype. These are shown by specific paragraphs/headers being labeled with big red letters.

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1. Game Overview and Vision

1.1 High Concept

Aeon is a fast-paced platformer mixing puzzle elements with fast and tactile action, featuring a metroidvania-esque world set in a gritty futuristic city.

1.2. Key features

- Set in the world of Velocity 2x, the game is a fast-paced platformer focusing on twitch reactions and fluid mechanics.
- The game features progressively unlockable levels with timed rewards.
- It's set before the events of Velocity 2x when teleportation is only partially working, in a crime infested city powered by coloured crystals that players can utilize to their advantage.
- The city is split into areas that use different sets of mechanics, represented visually with scummy depths, middle class areas high-class restricted zones.
- The player assumes the role of Riko, a bounty hunter that is in this city looking for her targets. She is an anti-hero with only one goal – rediscover her former self.

1.3 Player experience goals

The game should feel very responsive and addictive to play. The main goal is to achieve tactile and satisfying controls while traversing intricate levels with multiple pathways. Backtracking should never feel boring or repetitive, instead giving players the opportunity to perform new challenges or visit unexplored parts of the city thanks to a system of progressive character upgrades. Shooting, movement and teleportation should be fluid and on-point. With a beautiful and decaying neon futuristic city to explore, the game should give players plenty to play with, turning a not so big world into a place full of engaging hunting of high-value targets and traversing complex levels.

1.4 Themes

The main themes of the game include rivalry, regret, struggle between good and evil, fear and grittiness, all of which are essential aspects of the life of the game's main character, Riko.

1.5 Setting

The game is set in a futuristic city on Mars around the 2200s. The world is influenced by traditional sci-fi, incorporating a lot of neon environments mixed with gritty, industrial parts. It's a highly vibrant and deceptive place full of robotic guards, suspicious humanoids and extensive surveillance.

1.6 Influences

- *Velocity 2x*
- *The Swapper*
- *Metroid series*
- *Macross (manga)*
- *Teslagrad*
- *Blade Runner*

2. Gameplay

Fast, tactile and responsive. Levels should be fun even with only one mechanic, while combining all should result in a clever and highly enjoyable experience.

2.1 First Minutes

After starting the game, players arrive in the game's main menu. Clicking **PLAY** brings players to choosing either to **CONTINUE** their previous progress, to start a **NEW GAME** or to **select a location** they've already explored. **New game** initiates a short, one minute intro sequence introducing the main character, Riko, showcasing her backstory and ending with her arrival on (**insert planet**). Players are now put in the first area of the game, with the only option being to go right (**see level 1**).

EDIT: As of now players simply start up the game, where they are presented with an intro screen prompting them to click "X" to initiate the game.

2.2 Victory Conditions

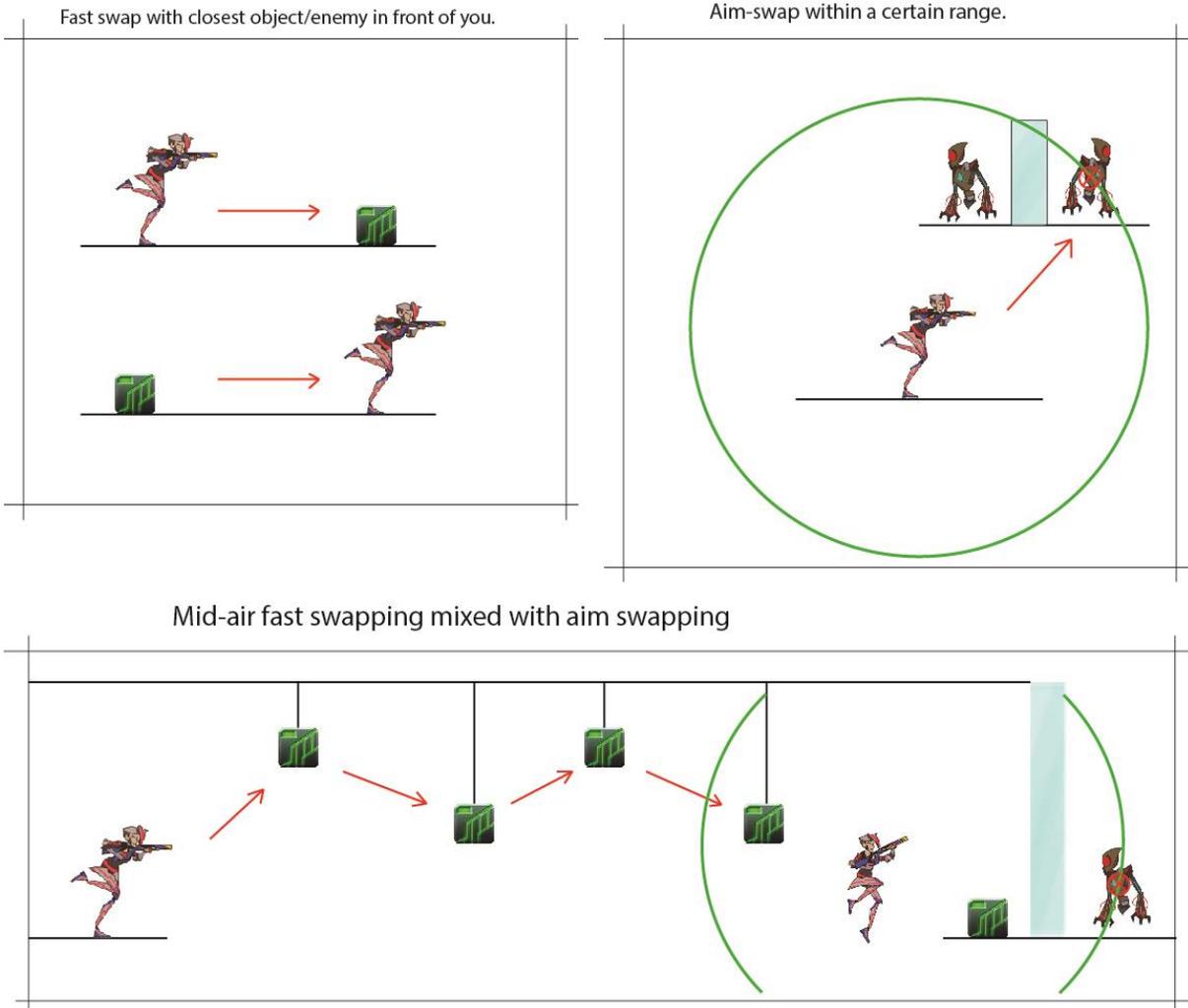
Apart from traversing challenging platforming sections, the main way of advancing through the game would be presented in two ways:

- Finishing a level by reaching its endpoint.
- Finishing a level by defeating its boss. (**NOT TO BE IMPLEMENTED**)

Some special optional levels will only be unlocked after defeating certain bosses. These are supposed to act as challenges focusing on the moveset/mechanic specifics of each boss players have went through. They are not mandatory for the game's main set of levels and storyline. (**NOT TO BE IMPLEMENTED**)

2.3 Combat and Platforming Mechanics

2.3.1 Teleportation

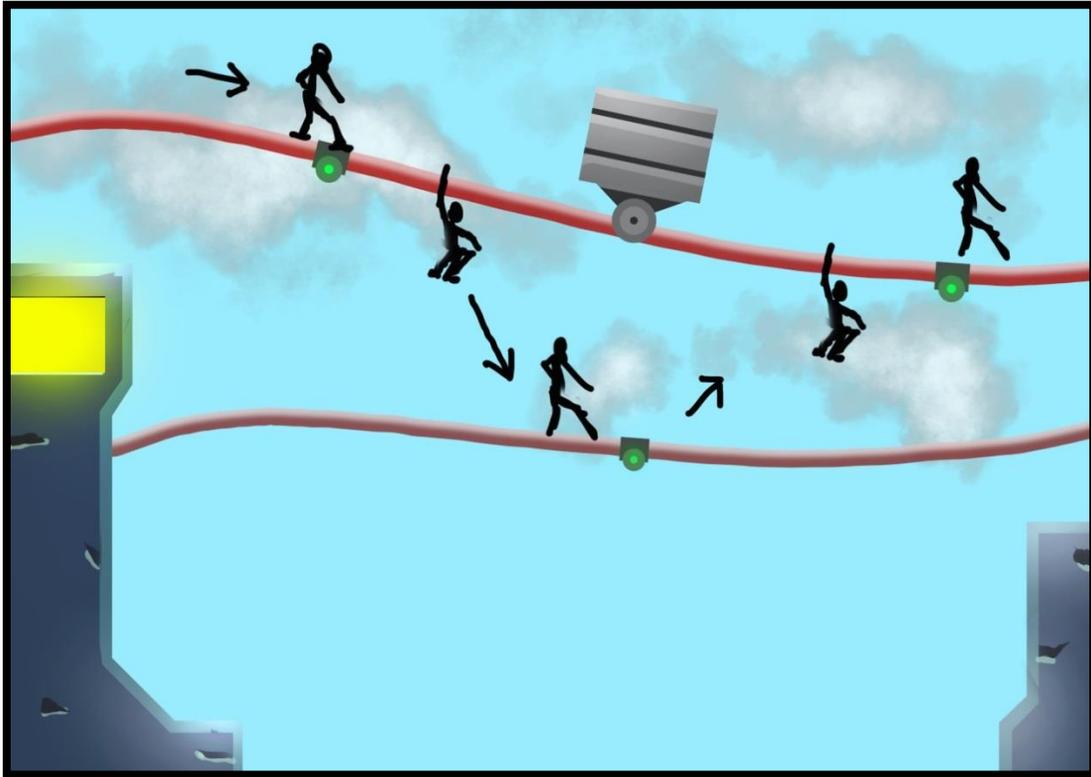


There will be two types of teleporting:

- Swapping - this consists of the character swapping positions with an enemy or object powered by a colored crystal or matter. There are two types of swapping:
 - By quickly tapping  ;
 - By holding  and aiming the cursor at a nearby object restricted by a bounding circle around the main character. Aiming is performed by flicking the left stick;
- Teleport to a point (**NOT TO BE IMPLEMENTED**) - this consists of flashing quickly to a nearby teleportation panel. Those will be placed throughout the environment, mostly aiding in traversing difficult jumps or hinting towards/opening up hidden areas.

- Executed by pressing  while holding the right stick in the given direction;

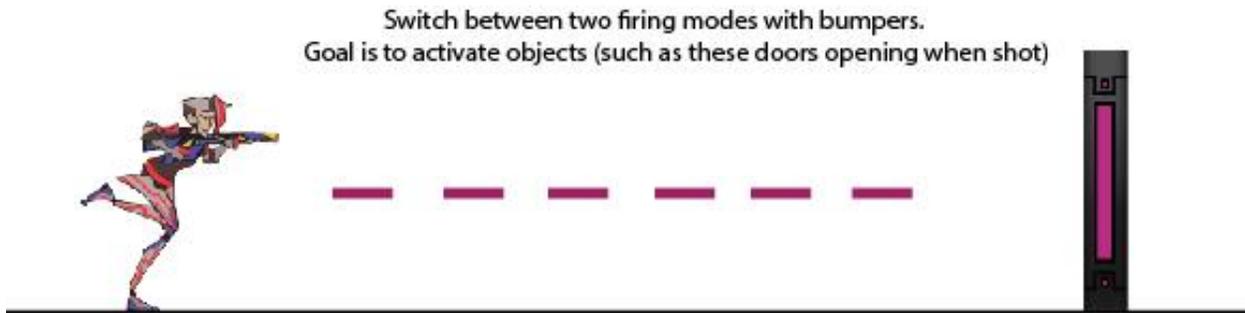
2.3.2 Grinding (NOT TO BE IMPLEMENTED)



Grinding consists of fast-paced sections that put players in a continuously swinging motion depending on the direction the rails are going. To enter those sections players need to press  when prompted in the beginning of a rail location. Those sections will feature:

- Splitting rails that force players to decide fast which route to jump to mid-air (some lead to avoidable death traps);
- Incoming cargo or deadly electricity that players need to dodge by teleporting to points in key positions;
- There will be moments when the player will need to shoot down objects or enemies while grinding;

2.3.3 Shooting via different firing modes (NOT TO BE IMPLEMENTED)



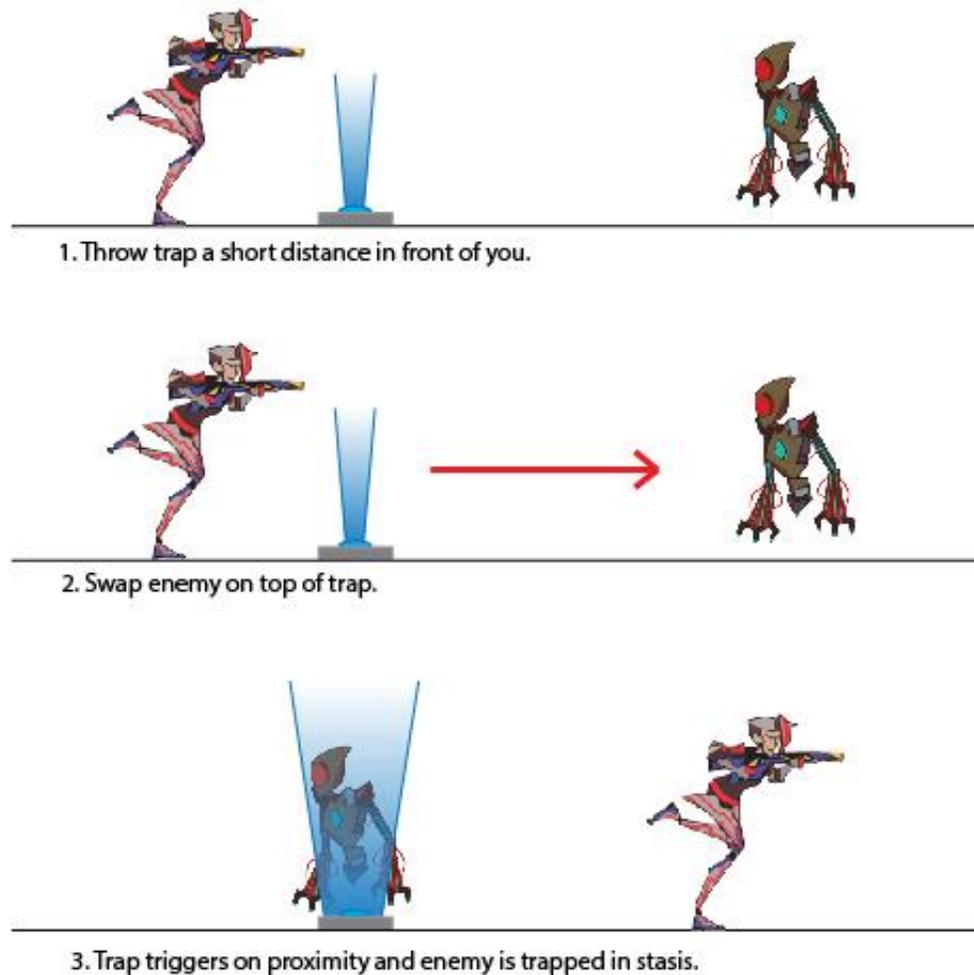
Each firing mode corresponds with the colour of different objects.
Using the wrong firing mode will have no effect.

Shooting will feature two different firing modes, with both utilizing either **yellow** or **purple** bullets (colour may be subject to change). Their uses will vary depending on:

- Enemies – those that are powered by a certain coloured crystal need to be shot using the appropriate firing mode;
- Objects - various terminals, locks and mechanisms powered by yellow or purple crystals will also be operable;

Shooting will be performed by aiming  in a 360 degree area around the character . Swapping between both firing modes will be performed by tapping  or  .

2.3.4 Traps and gadgets (NOT TO BE IMPLEMENTED)



These tools will be thrown in the direction the character is facing by tapping , with range being very short. Gadgets can be selectable at select key terminals in the world, with only **two** being available to be put on the ground simultaneously any point in time. There are several types:

- **Stasis traps** that trap enemies (primarily work on this one for now);
- Traps spawning a **plasma wall** that blocks movement briefly; (NOT TO BE IMPLEMENTED)
- **Pads** that **boost** whoever goes past them; (NOT TO BE IMPLEMENTED)
- **Mines** that render you **invisible** for a brief period when you go past them; (NOT TO BE IMPLEMENTED)

2.5 Main Character Attributes

2.2.1 Movement and mobility

- **Jumping** should accelerate the main character briefly in the beginning of the jump, followed by a brief slowdown in the air and then a gradual acceleration downwards.

- **Movement mid-air** should be fully supported and as fast and responsive as possible;
- **Jump Height** should be controllable depending on how long the player holds down . The added height should not be huge, but significant enough to challenge the gameplay and encourage careful evaluation of jump distances.

2.2.2 Health System

- Riko's health will be represented by a automatically regenerating shield instead of a health bar. After the shield is being depleted, one shot will usually result in instant death followed by a revive at the nearest respawn point. **The shield must consist of three stages.**
- The amount of damage Riko can receive depends on the strength of her enemies.
- Dying from fall damage will simply respawn players at the last checkpoint with no penalties;

2.6 Respawn System (Not to be implemented)

Throughout the world reviving points will be placed via the use of checkpoints. Upon death, players will get automatically teleported to the nearest one, resetting all progress you've had up until that point.

3. World

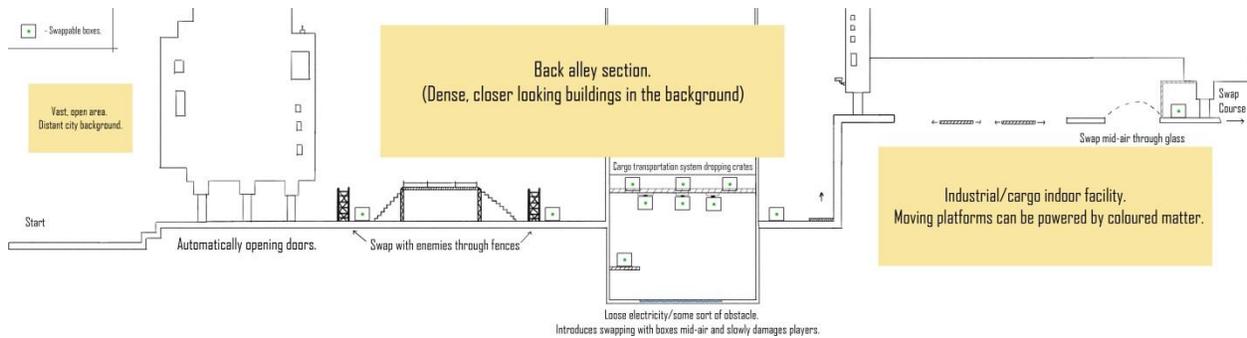
3.1 World Layout and Progression

The game will feature closed system of multiple levels, each unlocked after either completing the previous one. For this prototype, the world that will be split into three sections, with all of these introducing the four main mechanics gradually. The final section will mix all introduced mechanics together, offering a challenging, branching level utilizing swapping, firing mode changes and stasis mines.

3.1.1 Section 1

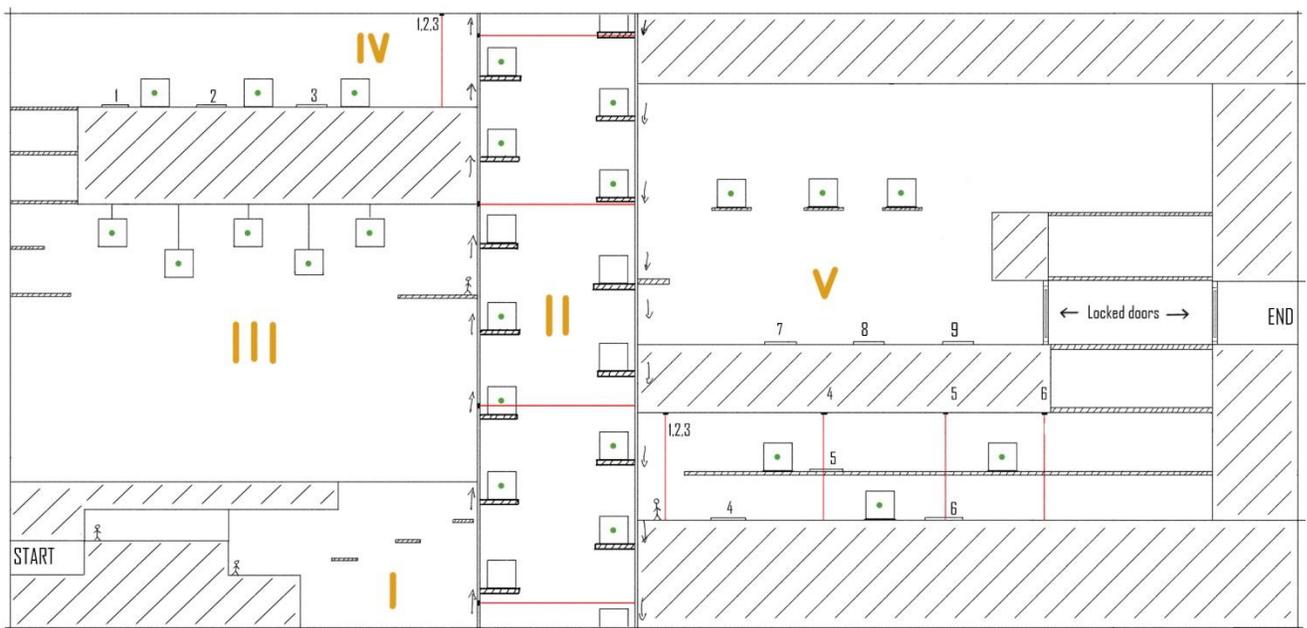
3.1.1.1 Level 1 - The Basic Tutorial

- This zone is supposed to serve as an introduction to the game's mechanics, featuring solely the swapping mechanic.
- It leads into the next section which presents a more challenging implementation of the mechanic.
- Area specifics in terms of environment are presented in the image.



LINK FOR BIGGER IMAGE: <https://app.box.com/s/iaqw6n050ckdtbljgwtw>

3.1.1.2 Level 2 – Swapping Challenge



NOTE: Platforms (marked with diagonal lines) allow players to jump up through them or descend down .

	- Swappable crates.
	- Non-swappable crates.
	- Lasers. Instant death.
	- Swappable enemies.
	- Pressure plates -> lasers

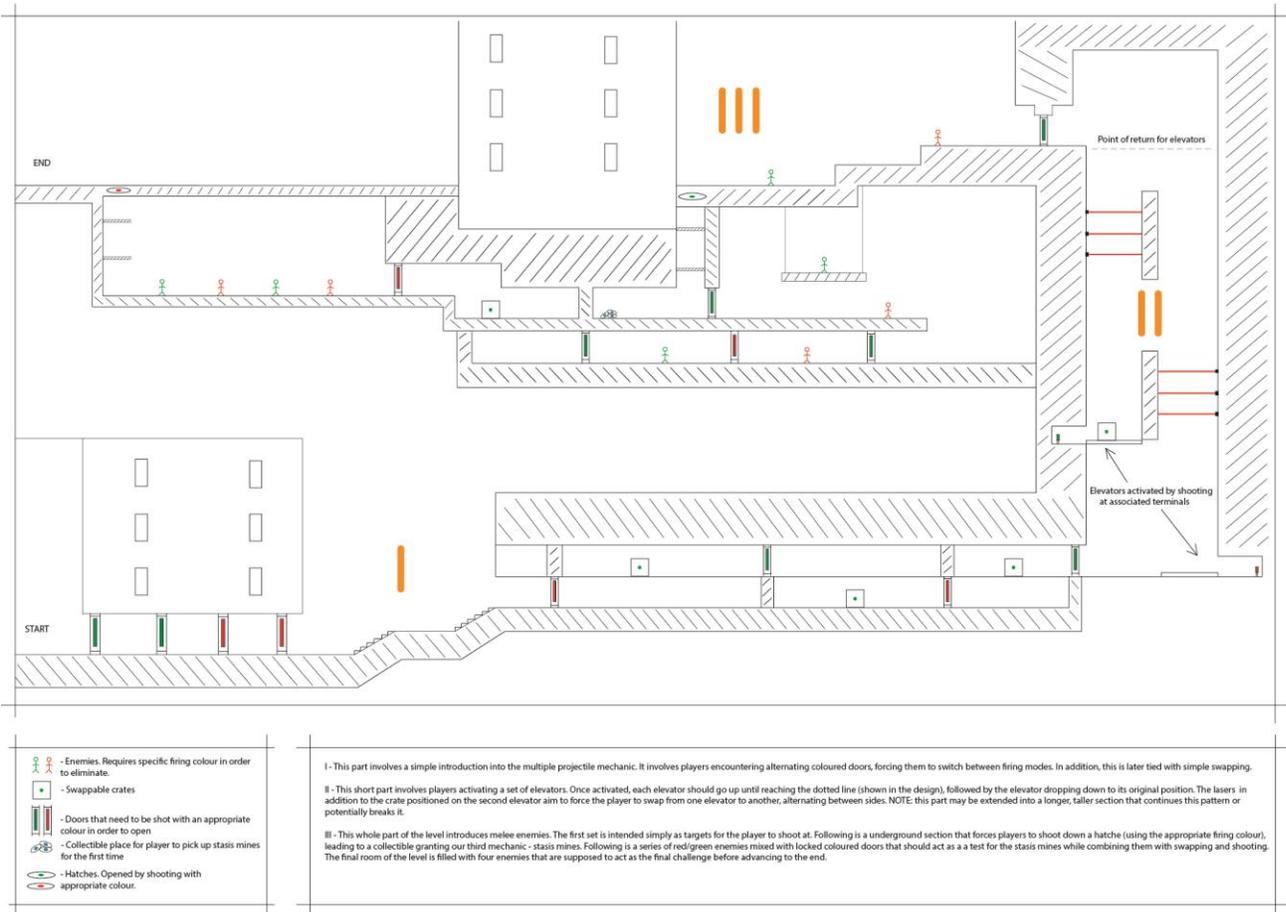
I. The player starts swapping with enemies to traverse the elevated/unaccessible parts and proceeding to jump on the floating platforms.
 II. This bit is the main way to traverse the whole area. It consists of two sides of crates being moving in different directions (up or down), with some being swappable and some not.
 III. The aim is to swap quickly with the crates. Falling down means sudden death leading to a respawn back to the ledge at the start of the level.
 IV. All four pressure plates need to be activated by swapping crates on top of them in order to disable the lasers labeled as 1,2,3. This also triggers the lasers in the middle section (II).
 V. Again, the player must swap with the crates and position them on top of the pressure plates in order to deactivate the corresponding lasers, with the movement being slightly different this time around. Afterwards the player proceeds to jump up, passing by a set of two locked doors leading to three crates on platforms in the air. The goal is to swap with those mid-air in order to drop them on the lower level, followed by the player swapping them on top of pressure plates 7,8 and 9. This should then open the doors, revealing the end of the level.

LINK FOR BIGGER IMAGE: <https://app.box.com/s/ts9jzn04wwdeb1hnzvgu>

- This area serves more as a challenge for players to get further introduced to the swapping mechanic.
- The main idea of this level is to create a more challenging take on swapping mixed with new elements such as lasers and pressure plates.

- Backtracking is encouraged by not giving an initially pre-defined path to the players, instead creating a potential opportunity to skip ahead straight to the right which would ultimately lead to three lasers that can't be disabled unless players go back and traverse the rest of the sections.
- The aesthetics of this section should be similar to the last part of the previous section, namely one of an indoor industrial area riddled with crates being transported around the city. *Note:* area V should act as a glass dome of sorts that reveals a look at the city in the background.

3.1.1.3 Level 3 -Shooting ground **(NOT TO BE IMPLEMENTED)**



LINK FOR BIGGER IMAGE: <https://app.box.com/s/vs18nwjk5jgatzj5kqy2cst99lim99tk>

- This area is meant to act as an introduction to the game's multiple firing modes, in addition to giving players a first try at the mines.
- Swapping is still an integral part of the level since it's the core behind the game.
- The core functionality of this level should be almost identical to the previous ones, with the only additions being objects activatable by coloured terminals and enemies.

4. Enemies

4.1 Regular enemies

Regular enemies will be split into ranged and melee, with different variations for each.

4.1.1 Melee

Robotic thugs

- *Appearance*: heavily mechanized robots that move around via hovering above the ground. There should be visible traits revealing them as mercenaries or bandits. Armor should be scarred and imperfect, revealing their raw and scrappy nature. There should be at least three variations of these enemies with different types of battle marks and armor designs. Their arms should be excessively long, with a lack of any legs since they are hovering. These enemies should also be powered by unstable electricity which should be represented by their appearance.
- *Behaviour (AI)*: normally patrolling places in a constant left-right pattern. When engaged, they rush down towards the players for a melee attack. Targetable for swapping if powered by colored crystals.

Small mechanical spiders (NOT TO BE IMPLEMENTED) - small, fast and deadly, but die very fast. Swapping is possible, but targeting them to do so should be hard, therefore generally a bad idea.

- *Appearance*: these small, but fast mechanical spiders are made purely out of bright polished metal. Eyes should be glowing red. Their legs are being much bigger than their bodies, bending upwards instead of extending sideways (acting more like pincers).
- *Behaviour (AI)*: these spiders usually spawn from vents or from hatches scattered around the world. Upon spawning they should rush straight to the character, striking with a plunging attack on close proximity.

4.1.2 Ranged

Stationary turrets (NOT TO BE IMPLEMENTED) - apart from taking a direct approach they can be powered off if a control unit is shot and disabled somewhere in the surrounding area. Turrets deal heavy amounts of damage.

- *Appearance*: size should be bigger than your regular surveillance cameras. Their default state should have them with a green pinging light which turns to red while in alert mode.
- *Behaviour (AI)*: turrets rotate in their stationary place to scan the area (4-5 seconds in total to span a 180 degree angle). Upon contact with the player they begin shooting immediately.

5. User Interface

Note: for visual representations of the UI go to [Visual Style](#)

5.1 Heads Up Display

The in-game UI should be as clean and non-intrusive as possible due to the nature of the game's platforming. Elements in each corners should also be transparent to a degree, allowing for easier detection of incoming platforms and objects in the environment.

Elements that need to be visualized include:

- Representation of the two firing modes in colour and a highlight on which one is being used in the moment;
- A blue shield bar;
- Number of gadgets available, showing how many are currently being in use;
- A number showing the amount of energy currently collected;

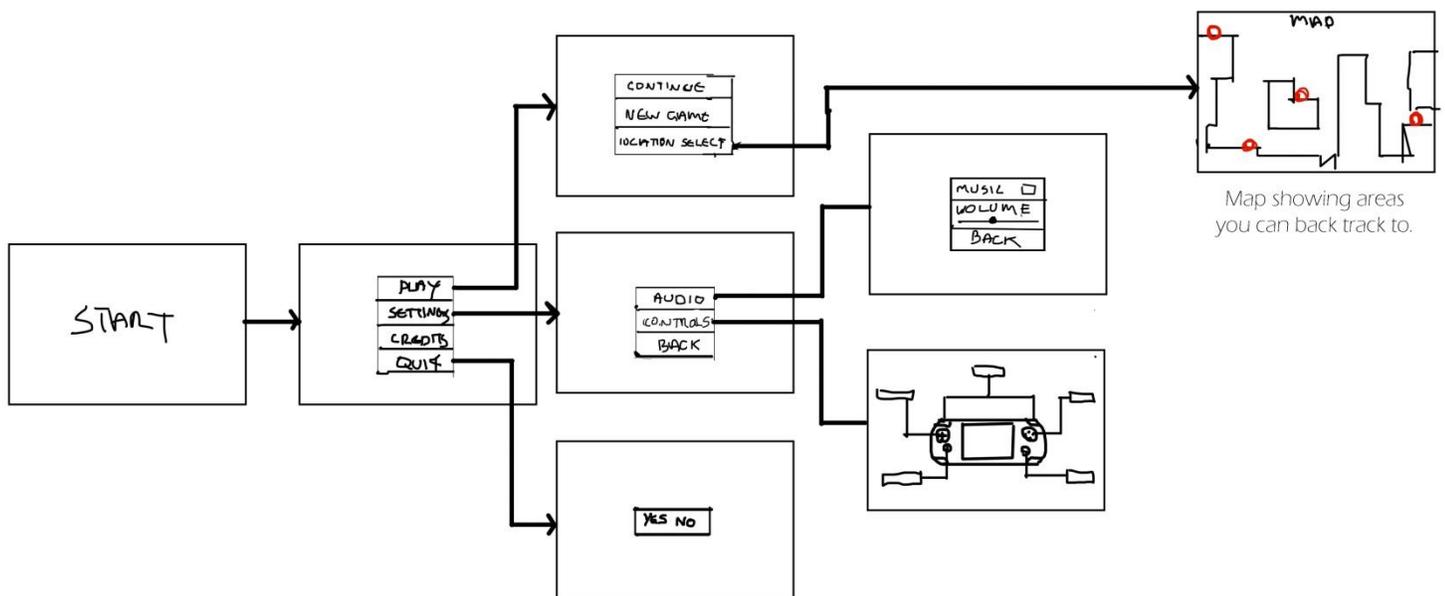
5.2 Screens

5.2.1 Game start-up screen

This screen should be consisting of a single background image of an area of the game with "Start" written on top. This should lead to the menu system once the game has been booted.

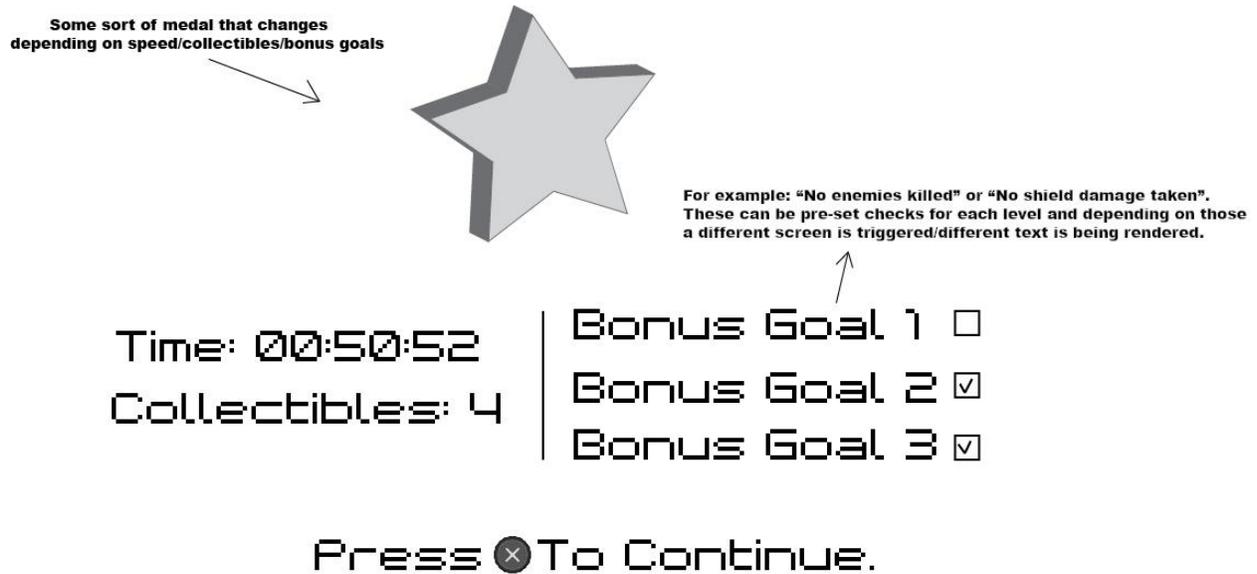
5.2.2 Menus (NOT TO BE IMPLEMENTED)

Aeon's menus should be as clear to navigate through as possible. Since the game is developed for the Vita, settings should feature detailed audio options (including master volume, music and sound effects sliders) and a visual representation of the game's controls.



5.2.3 Score screen

This screen should represent how well players have done in each level. Below is a representation of what this should look like with outlines for each statistic that needs to be shown:



Functionality:

- Each level has three medals players can achieve – Bronze, Silver and Gold
- What medal you get depends on speed of level completion and amount of collectibles gathered.
- Collectables are multiplied by a time bonus depending on seed (none for bronze, 2x for silver and 3x for gold)

6. Story

6.1 Overview

Riko was a former test pilot for Powerlev. She wanted to prove herself in the Quarp Jet program, but due to a crash she had to get removed from the trial, losing her left leg and being forced to replace it with a cybernetic one. Due to being removed from the program, she is very bitter against Kai, her rival and the successful pilot. Having to live with the skills she'd developed during her training Riko decided to use them and take on the life of a bounty hunter. Seeking high value targets and criminals, she is guided by professor Whitwell who is accepting, but doesn't approve too much of her rogue methods.

6.2 Characters

6.2.1 Riko

The game's main playable protagonist – a female bounty hunter seeking to re-shape her lost ways.

Origins: Former lead test pilot for Powerlev

Born: Jikart, Mars

Traits: Righteous, ruthless, driven by honour, strong, high will

Motives: Proving herself, driven by her past rivalry

6.2.2 Velch

Riko's bounty handler. Apart from being a repulsive and shady character, he pays well and finds the right bounties.

Origins: Has always been lurking in the shadows of his home town

Born: Saturn

Traits: Stubborn, greedy, deceptive

Motives: Money, fame, recognition

6.2.3 Professor Whitwell

Riko's long-time mentor, the person she owes most of her success. While not particularly accepting on his apprentice's current life style, he tries to offer as much support as possible.

Origins: Born in a militaristic family heavily involved with the origins of Powerlev

Born: Earth

Traits: Smart, caring, obsessed with his work

Motives: Scientific advancement, working towards a better life for humanity

7. Art

7.1 Visual Style

The game will feature a similar art style to Velocity 2X, incorporating clean and highly detailed assets while maintaining a somewhat minimalistic look.

- Characters and environments should be drawn in a clean and geometrical way, using lots of sharp edges and intricate detailing.
- Given the game puts players in the shoes of a bounty hunter in a crime infested city, vibrant and colourful environments won't be the only ones present. Some parts of the world should have a grittier outlook in order to represent a contrast of different types of city landscapes, e.g. high-class area versus slums area.
- It is very important to represent a clean differentiation between colours as one of our mechanics relies on yellow and purple objects. There shouldn't be anything that could restrict players from differentiating intractable objects in the environment from the background layers.

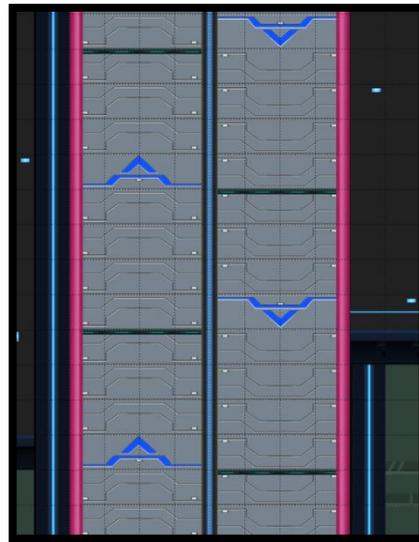
7.1.1 Environment

There should be 3-4 layers of parallax scrolling present. Detailed information for each area will be put under the level design part of the World section.

Examples of the visual style:



In-game screenshots (will be updated as time goes on):



7.1.2 Characters

7.1.2.1 Riko

- **Physical attributes:** main focus should be on her bionic legs, arms and other modified parts. In addition, in-game she should be holding a small-medium sized gun in her hands.
- **Colour palette:** overall color palette should be dark red and grey with black outlines, mixing grittier clothes with bionic/futuristic features.
- **Animations:** should be fast and fluid. Riko's body needs to be heavily tilted forward, putting the character in a forward-pointing angle that simulates fast movement. In addition, movement should be exaggerated and bouncy, again in order to simulate high motion and fast movement.

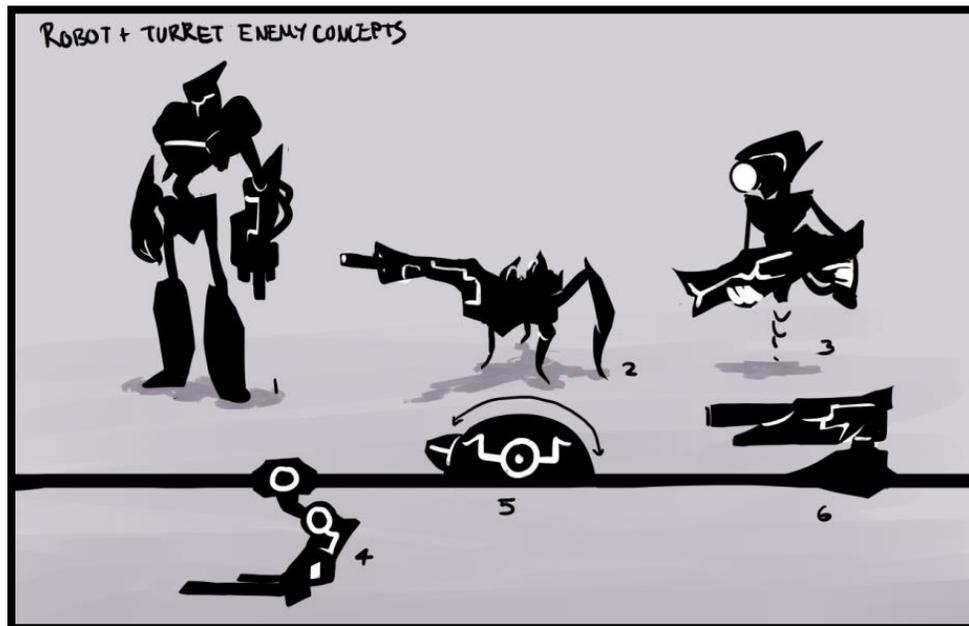
Below is the current concept of the character next to a the most up-to-date in-game image:



7.1.2.1 Enemies

All enemies should be mechanized and robotized in some way. Their appearance should visually represent whether they are coming from the deeper, scummy parts of the city or the upper sections. Detailed information on how they work and their roles can be found under the enemies section.

Below is a sketch representing various types that are being considered as options:



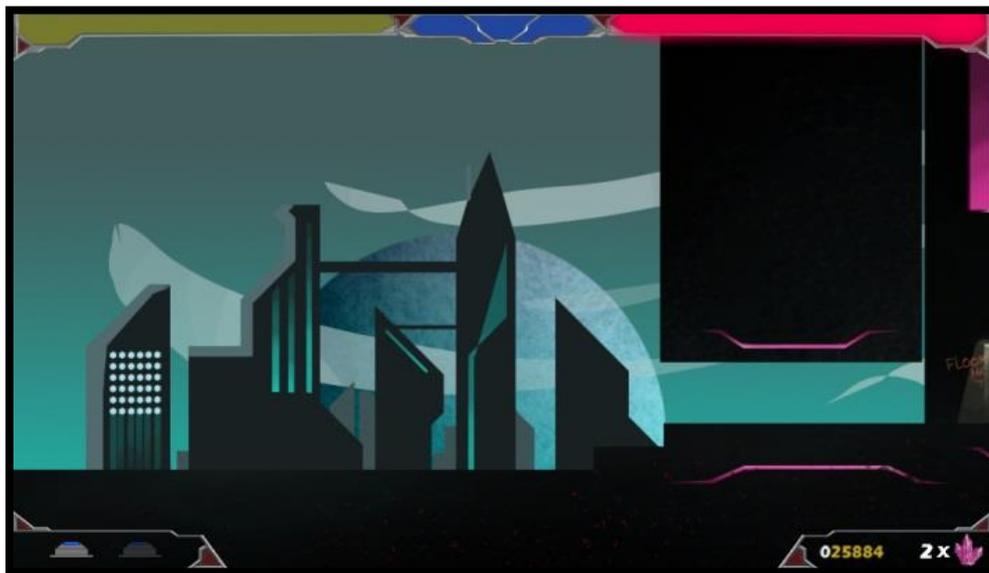
Robothic thug:



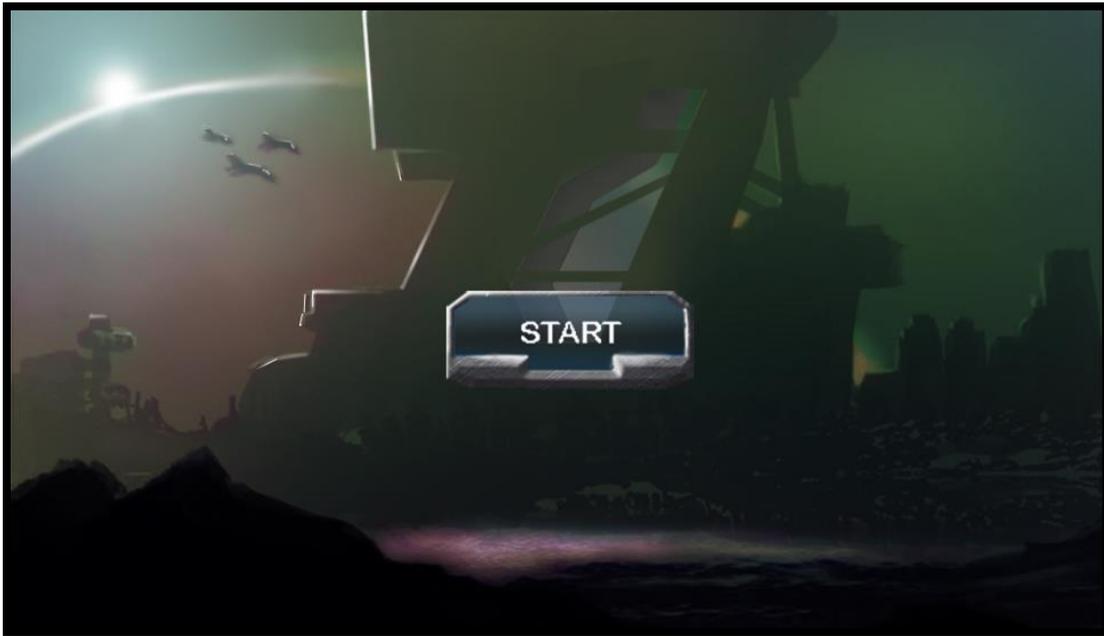
7.1.3 User Interface

The UI should be predominantly clean and futuristic looking, incorporating metal, plasma and neon materials. In addition, due to the game's grittier approach elements such as borders for sections of the screen should be presented with more rough, worn out materials. Essential elements that need to be shown are included in the [Assets List](#) and the [User Interface](#) section.

Example of the in-game UI:



Sample starting screen:



7.2 Required Assets

7.2.1 Environment

Note: Ground and Platform assets should be tiled by the power of two and divisible by 64. Filler objects for the background layers can be bigger sizes with varying proportions.

IMPORTANT! For a more up-to-date version on all of these please refer to our [Box.com folder/Tiled discussion](#) and any updates that have been uploaded there.

- **Ground/walls/ceiling pieces:**
 - Concrete outdoor tiled block;
 - Metal indoor tiled block;
 - Glass indoor tiled block;
 - Generic blackened tiled block;
- **Ground/walls/ceiling details:**
 - Horizontal and vertical neon lights (supposed to act as small accents);
 - Coloured neon energy pipes;
- **Platforms (64x64 sized PNGs that each have a platform placed on the top):**
 - Floating platform mid piece(x2);
 - Floating platform left piece(x2);
 - Floating platform right piece(x2);
- **Objects:**

- Crates;
- Blast doors;
- Coloured terminals(x2);
- Fast travel terminal;
- Boost pad;
- Pressure plate;
- Laser;
- Rails;
- Street lights;
- **Background:**
 - Cables;
 - Graffiti;
 - Distant city landscape(s);
 - Dimmed close by buildings background(s);
 - Scattered trash variations;
 - Construction platform;
 - Sky;
 -

7.2.2 Characters

- **Riko animations:**
 - Idle;
 - Run;
 - Fall;
 - Jump;
 - Shoot idle;
 - Shoot running;
 - Teleport;
 - Swap;
 - Throw trap;
 - Death;
- **Robotic thug animations:**
 - Run (moderately fast, appearing slightly malfunctioning while bouncing up and down);
 - Heavy melee attack;
 - Death;
- **Mechanical spider animations:**
 - Crawl (fast, more bouncy compared to being lower to the ground);
 - Melee dashing attack (almost acting as a plunging strike);
 - Death;
- **Stationary turret animations:**
 - Rotate left-right (safe mode);
 - Initiate alert mode;

- Shoot;
- Destruction;

7.2.3 User Interface

- **Menu:**
 - Title screen;
 - Menu text (see [User Interface](#) for each section);
 - Menu select animation;
 - Menu click animation;
 - Loading screen with rotating icon/logo;
 - Pause screen;
- **Dialogue boxes (different colours);**
 - Riko dialogue box;
 - Enemy dialogue box;
 - NPC dialogue box;
- **Heads Up Display (In-Game UI):**
 - See [User Interface](#) for each elements and how the UI should look like;

8. Audio

8.1 Music

The music of Aeon will be primarily electronic. It should be upbeat and moderately fast in order to stay in sync with the flow of the gameplay. The main idea is to represent a grittier place that's set in the far future, so the main goal of the soundtrack should be to present a modern take on 80s sci-fi anime and movie electronic music.

Examples: [Power Glove](#), [Lazerhawk](#), [Flashworx](#)

8.1.1 Music Required:

- Menu music;
- Main theme;

8.2 Sound Effects

All sound effects should be realistic while staying futuristic. In addition, effects should change depending on the current surrounding. For example, sounds outdoors should be more resonating and “wet” compared to more dry sounding effects indoor. Apart from individual sound effects for the main character and the enemies, there should be a constant background noise coming from the city.

8.2.2 Sound Effects Required:

- **Ambient:**
 - Flying cars and jets afar from the current action (either slow and distant or abrupt and closer sounding);
 - Electric noises from cables, generators and general machinery in the environment;
 - Occasional distant sirens;
- **Player:**
 - Footsteps concrete;
 - Footsteps metal;
 - Jump;
 - Land;
 - Moan when hurt (3x);
 - Moan when badly hurt (3x)
 - Death by falling (very silent scream fading out);
 - Death by enemy (sudden silent moan);
- **Environment:**
 - Collect crystal;
 - Moving platforms;
 - Moving rails;
 - Doors open/close;
- **Combat:**
 - Teleport;
 - Swap;
 - Drop mine;
 - Activate mine;
 - Rail grinding;
 - Fire weapon (laser blaster);
 - Character Speed boost;
- **Enemies:**
 - Footsteps heavy (concrete);
 - Footsteps heavy (metal);
 - Spider metal pincers walk;
 - Melee attack (heavy);
 - Fast hissing attack;
 - Fast slashing attack;
 - Death (robotic thug);
 - Death (mechanical spider);
 - Turret shoot;
 - Turret explode;

9. Technical

9.1 Engine and Tools

- Engine - PhyreEngine
- Physics - Box2D
- Audio - FMOD
- Level Editor - Tiled

9.2 Controls



9.3 Platform

- Aeon's prototype is planned to be developed for **PlayStation Vita**.
- The Vita touch screen will be used for navigating menus and dialogue.
- For the time being, the handheld's touch back plate will **not** be used for any features in-game or inside menus.
- The Vita gyroscope and accelerometer will **not** be implemented in the game.