



Trash Planet

Game Design Document

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1. MVP – Minimum Viable Product

In some sections of this document, you'll see **(MVP)** written in red. This is to indicate which parts of the building blocks of this game that's completely vital to make it an acceptable product.

Values and Changes

This is a living document, meaning that all aspects could be changed later or altered. Creating the best version of this game will mean a lot of iteration. Therefore, none of the values within this document should be set and instead considered as **guidelines**.

2. Description

Trash Planet is a **3D, Third-person Runner** game. You play as a robotic humanoid that is using a hoverboard to move through a city that has been taken over by toxic, industrial forces. You as a player, must get to the end of the level by absorbing **Speed boosters** from the sun, that are placed around the level and eventually save the city from industrial destruction.

Unique Features

Smooth movement in a fast-paced gameplay **(MVP)**

Build up momentum and at the same time, avoid obstacles. **(MVP)**

Minimum controller input for more accessibility. **(MVP)**

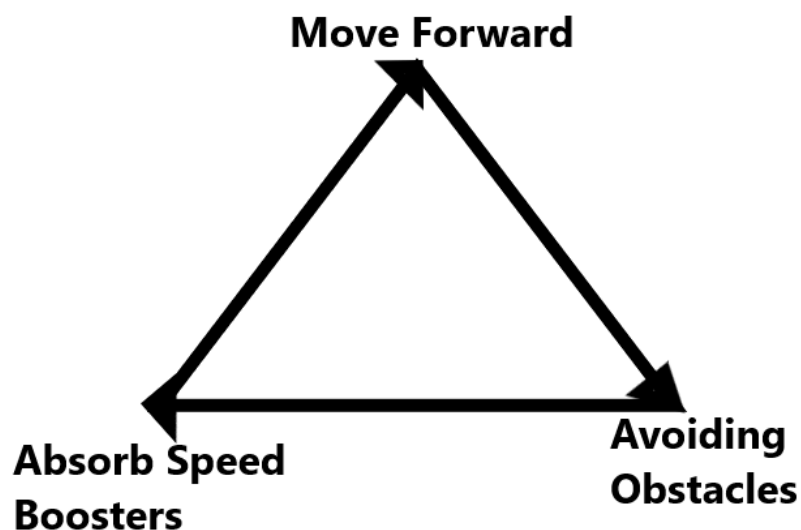
3. Reference Games

- **Haven / Flower**
Colours
Game feel & camera system
- **Subway Surfers / Temple Run**
Game Mechanics, High-score system,
- **Dishonoured**
Stylized visuals & graphics.
Environmental models / character

4. Gameplay

Core Loop (MVP)

The core gameplay loop of the game is - trying to build momentum through movement and absorbing (colliding) with **speed boosters** to gain speed. The player can reach **3 stages** of speed, and to do that, the player will have to **absorb 3 speed boosters**. The speed will **increase** with every speed boost so that the player can build up momentum. While the player is doing this, he/she must be avoiding obstacles that are placed on the level.



Core Mechanics (MVP)

Movement

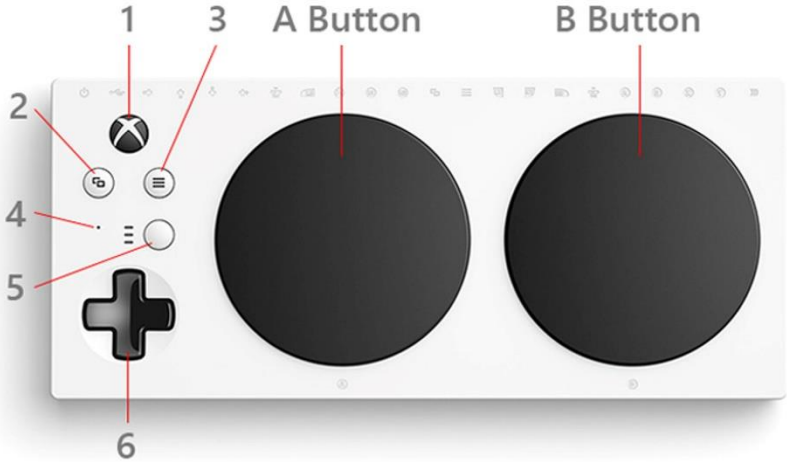
FORWARD: For the movement, the **environment** will **automatically be going backward** with a **default speed, to get the impression of the player moving forward**. The player can play without having to think about the forward input. The **forward speed is increased** when the **character** collides with a **speed booster**.

RIGHT: The **player** will be able to move the **character** to the **right** by **holding down** the **Right Pad**.

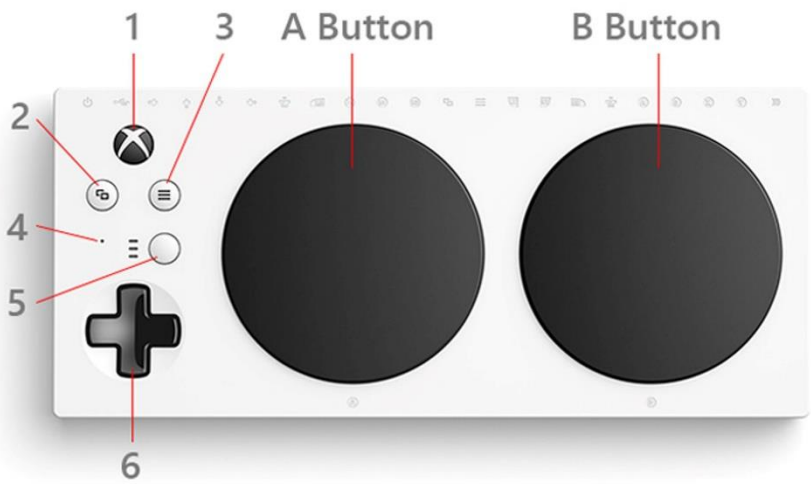
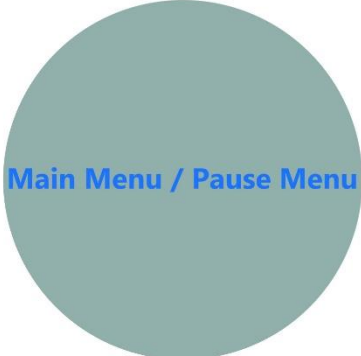
LEFT: The **player** will be able to move the **character** to the **left** by **holding down** the **Left Pad**.

5. Controls (MVP)

- 1. Nothing
 - 2. Pause Menu
 - 3. Pause Menu
 - 4. Nothing
 - 5. Nothing
 - 6. Navigate Pause Menu
- A Button: GO LEFT
B Button: GO RIGHT



- 1. Nothing
 - 2. Resume Game
 - 3. Resume Game
 - 4. Nothing
 - 5. Nothing
 - 6. Navigate Pause Menu
- A Button: Go Back
B Button: Confirm



6. Dynamics

The dynamics of this game are based around **combining the mechanics** into something that'll make the player feel **flexible and fast**. We'll make the player understand how he/she can use the resources that are presented to create a smooth and action-filled game session. During a session, the player will be free to move around from side to side of the screen while automatically going forward. The **obstacles** and **speed boosters** should be placed out so that the player will have **a chance to plan how he/she will be handling the situation**.

8. Story

Setting

Postapocalyptic future where the world has been overrun with the use of fossil fuels. Burst gas pipes scatter the roads, leaving dangerous obstacles to avoid. There are solar panels scattered about the world to give a clean energy boost to the player.

Narrative

Solar Sam (Playable character) is a solar powered robot who is trying to clean up the polluted town. Their main mission is to collect solar panel boosts to provide the town with a clean source of energy. They need to avoid toxic gas clouds that come up from burst gas pipes, that fog up the solar panel hoverboard, slowing them down.

9. Art

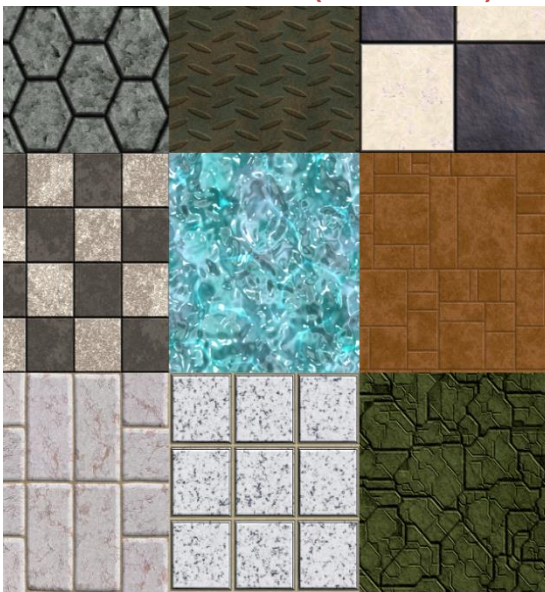
Summary

The visual style of the game is inspired by games like **Dishonoured**, **Haven**, but also smaller titles like **Front Runner** and **Subway Surfers**. The game combines elements from stylized visual styles from these games, especially when it comes to textures, models, character models and VFXs. The game should give a feel that inspires playfulness and freedom, but at the same time, mediate some sort of depth when it comes to the meaning behind the story concept.

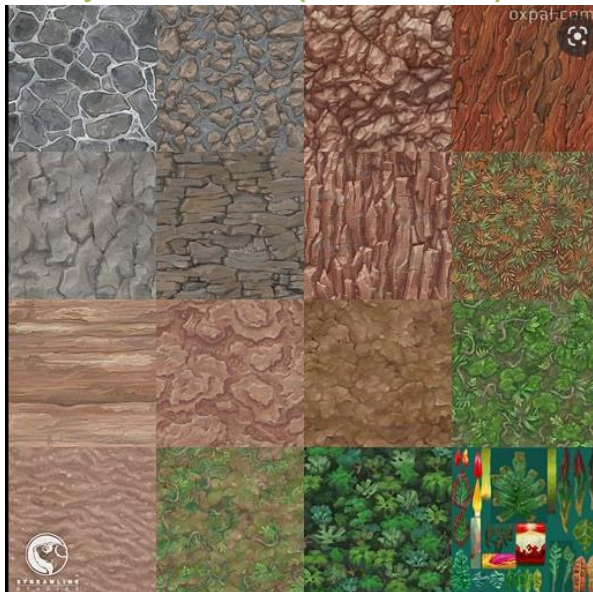
The **visuals** should **work together with the narrative**. The player should be able to figure out the story of what's going on in the world, just by looking at the environment. Since the world is being absorbed by toxic fossil fuels, and is slowly being destroyed, the world should look dirty, decayed and forgotten in time.

Textures

Realistic textures (not like this)



Stylized textures (more like this)



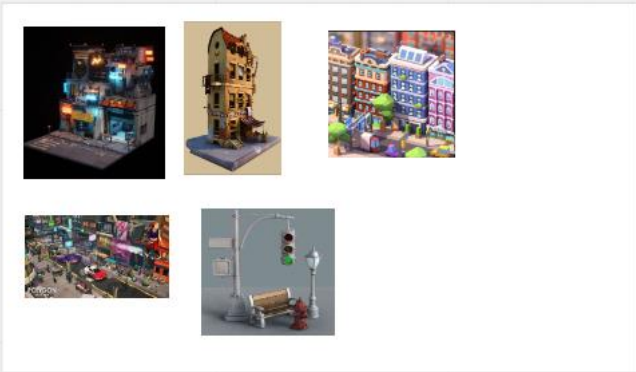
When texturing: Don't think too much about the detailing. The player will hardly notice details about the visual look when it comes to the **ground, buildings, and obstacles**. And we don't want the player to get too distracted either. Therefore, it should be vital to stick to very simplistic texturing.

Models (MVP)

The stylized models though, are a bit more important for the **Gold Version**. We should play on simplicity. The shapes and objects should be larger, and they should be properly stylized to give a feel of playfulness to the player. When it comes to smaller props and objects. The silhouettes do not matter that much when we talk about **smaller props and objects**.

Miro

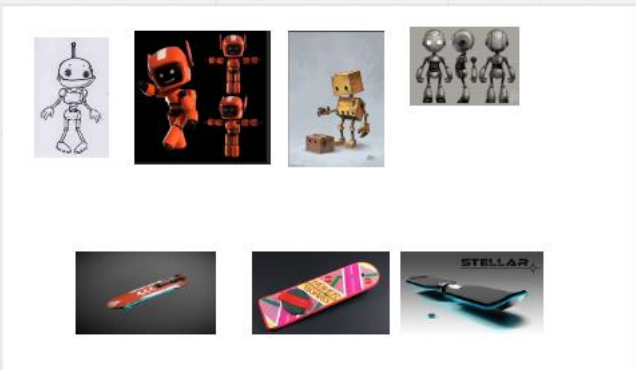
Environment Reference



Vehicles References



Character reference

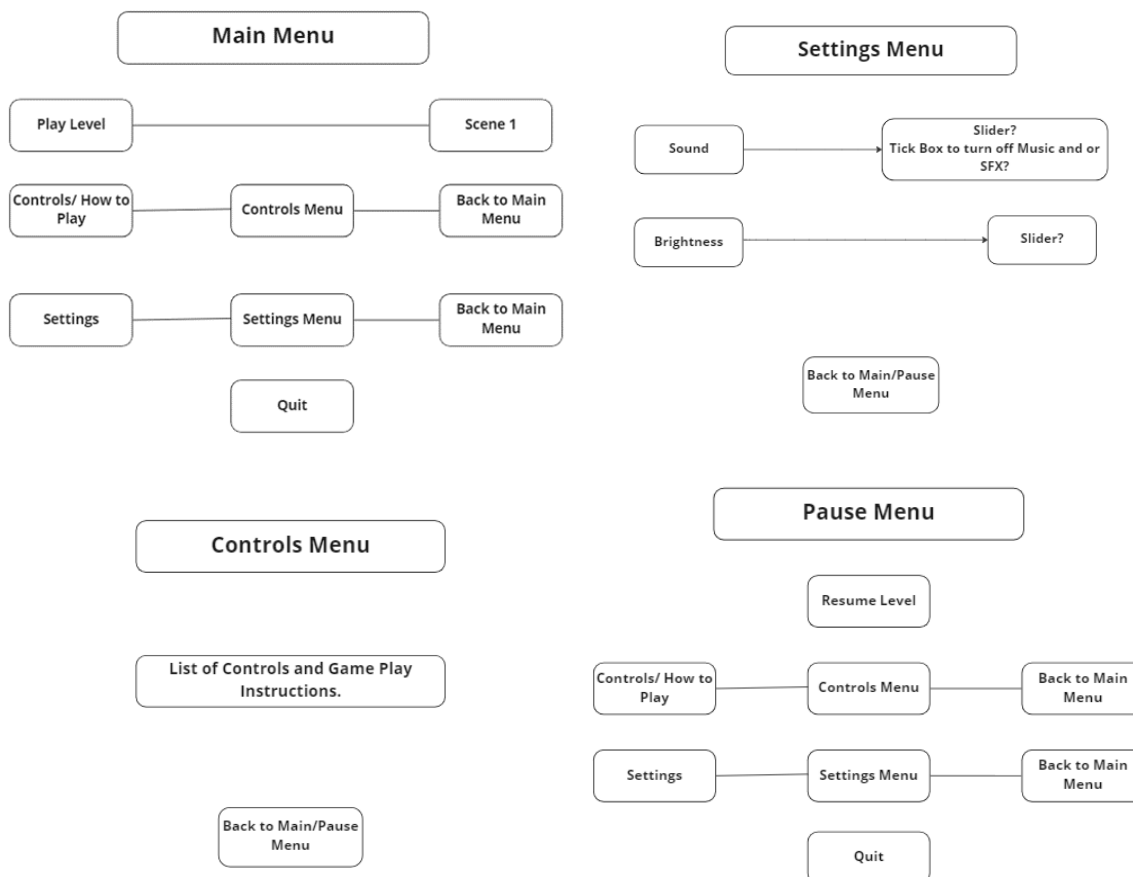


10. UI, Systems & Options

User Interface

- High Score/Time at top of the screen.
- Prompt before Speed Boost appears – Level/Player movement slows down before first interaction.
- Highlighted outline around Speed Boost to make it more obvious.
- Visual feedback of speed boost with Hoverboard glow.
- Audio feedback of Hoverboard boost sound.
- Visual character flashing with obstacle collision.
- Audio feedback with obstacle collision.
- Obvious finish line.
- End screen displaying Score & High Scores.

Flowchart – Menu/Settings/Controls/Pause



Options & Controls

In Settings Menu from Main menu and Pause menu:

- Brightness slider to change the screen brightness.
- Sound slider to change sound levels.

11. Audio

Summary

Futuristic, fun, fast paced Background Music.

Speed boosts pick up SFX, gradually going up in pitch with stacking pickups.

12. Target

Target Audience

Kids between 10 – 12 years old.

13. Development

Link to Miro: https://miro.com/app/board/uXjVPUgOSmk=?share_link_id=843190761773

