“People get overly preoccupied with what superintelligent AI is. What form will it take? Should we worry about a single AI taking over, or an army of them?”
(Jaan Tallinn, Skype cofounder)

Synopsis

Sick and tired of getting job refusals because of his “non-compliant” status, he wears a rabbit mask and goes against the tyrannical government that is controlled by Artificial Intelligence. The Upper Crust, people responsible for the A.I., is puppeteering the population and experimenting on them and many animals. They say it’s for progress and science’s sake. It’s been a long time since actual people administered the city of Amara, now only sophisticated robots with a very high level of AI can apply for a position in the government. It’s been like that since 2040. Humans thought it could end corruption, but they didn’t think through it, they never imagined that the AI system could corrupted nor evolve to a point where humans are outsmarted by machines. How will the rabbit-masked accomplish this deed, then?

This is an adventure and platformer where the enemies’ AI gets better overtime. You may also hack some control machines in order to give orders to certain enemies. That will create several possible puzzles. Your main objective is to dismantle M.A., the core of the current government AI, while you free all animals from the cages. That will allow the Grounders, a humanist movement, take over the power once again.

Genre: Puzzle / Platformer 2D

Target audience: 7 +

Plateforme : PC et mobile

Mode: Single Player

Engine: Unity 3D

I. Overview

3Cs

Camera

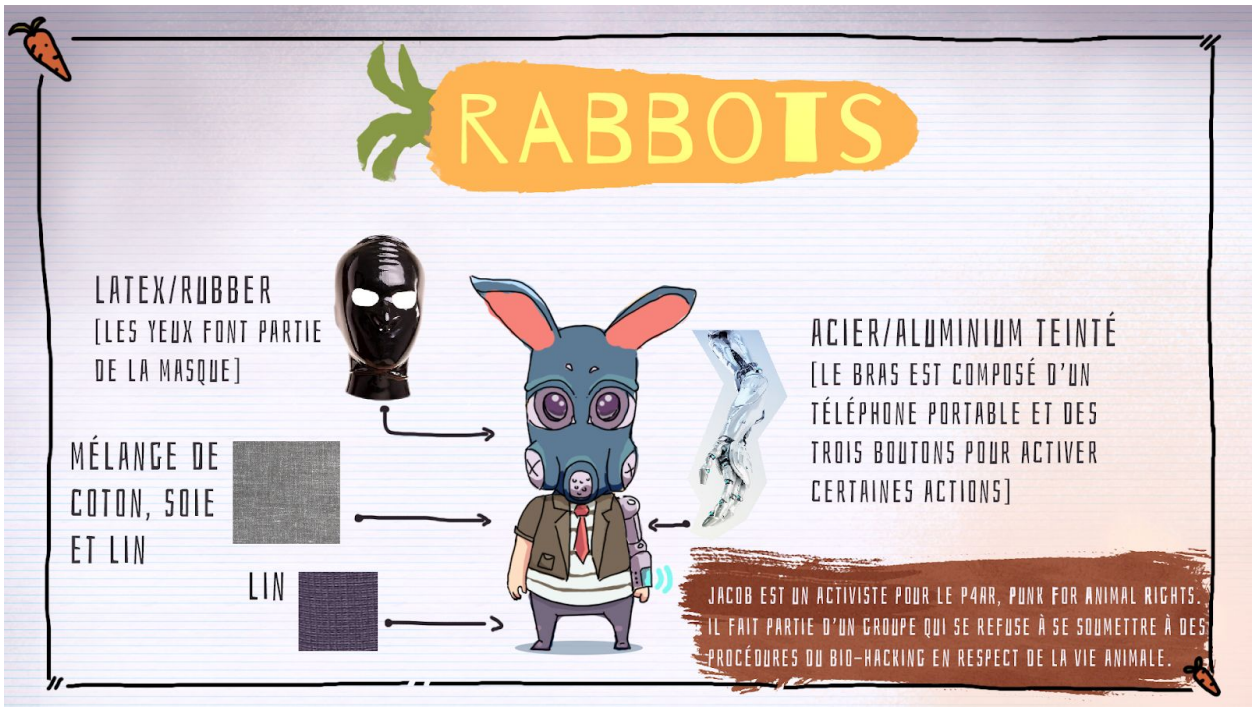
- 2D side scrolling view;
- Camera follows character with a smoothing delay;

Controller

PC Keyboard	
Arrow Keys	Directional movement
Space	Jump
W	Dash (not available in the prototype)
V	Shoot
C	Control drone
F	Hack Control Panel

*You can then control the drone with the arrow keys. The character will not move while you are using your companion.

Character



When Nio lost his left arm, he was practically forced to get a prosthetic arm in order to get a job and lose the “non-compliant” status. In this dystopique world, you are either proficient or you are just disposable. When Nio finds out that the company that made his new arm also tests on animals, he was really disgusted and horrified with all the pain that the animals had to go through. Thus, Nio became a humanist activist from P4AR (Punk for Animal Rights). He fights mainly against fascism and animal testing. His rabbit mask helps hiding his true identity from the government, and it also makes reference to the Cruelty-Free icon which is usually used on beauty products.

Skills and abilities of the character

Besides the directional movements, like jumping and moving right and left, here are the special abilities that the character may have:

- Dash;
- Shoot at different angles.
- Hack machines and enemies to get out of a delicate situation or to simply deactivate cameras;
- Flying drone. As an extension of the player, the drone can hack panels.
- Slow down time like in Matrix. This would allow the character to hack into an enemy without risking to get damage. This skill could work like in Transistor.

Game Concept and USP

Unique Selling Points

- The enemies' AI will get smarter accordingly to the player's actions;
- Replayability:
    - The map pieces are randomly generated, so you may have to take different routes in order to get to M.A.'s location.
- Voice recognition:
    - The voice recognition will help the player to hack into some specific machines.
- Alternate endings:
    - Ending #1: The player presses the red button, and all AI are deactivated, which kills all the caged animals.
    - Ending #2: The player decides not to press the red button, and he gets arrested.
    - Ending #3: The player presses the red button, and all AI are deactivated. No casualties, since s/he had freed all animals.

Context

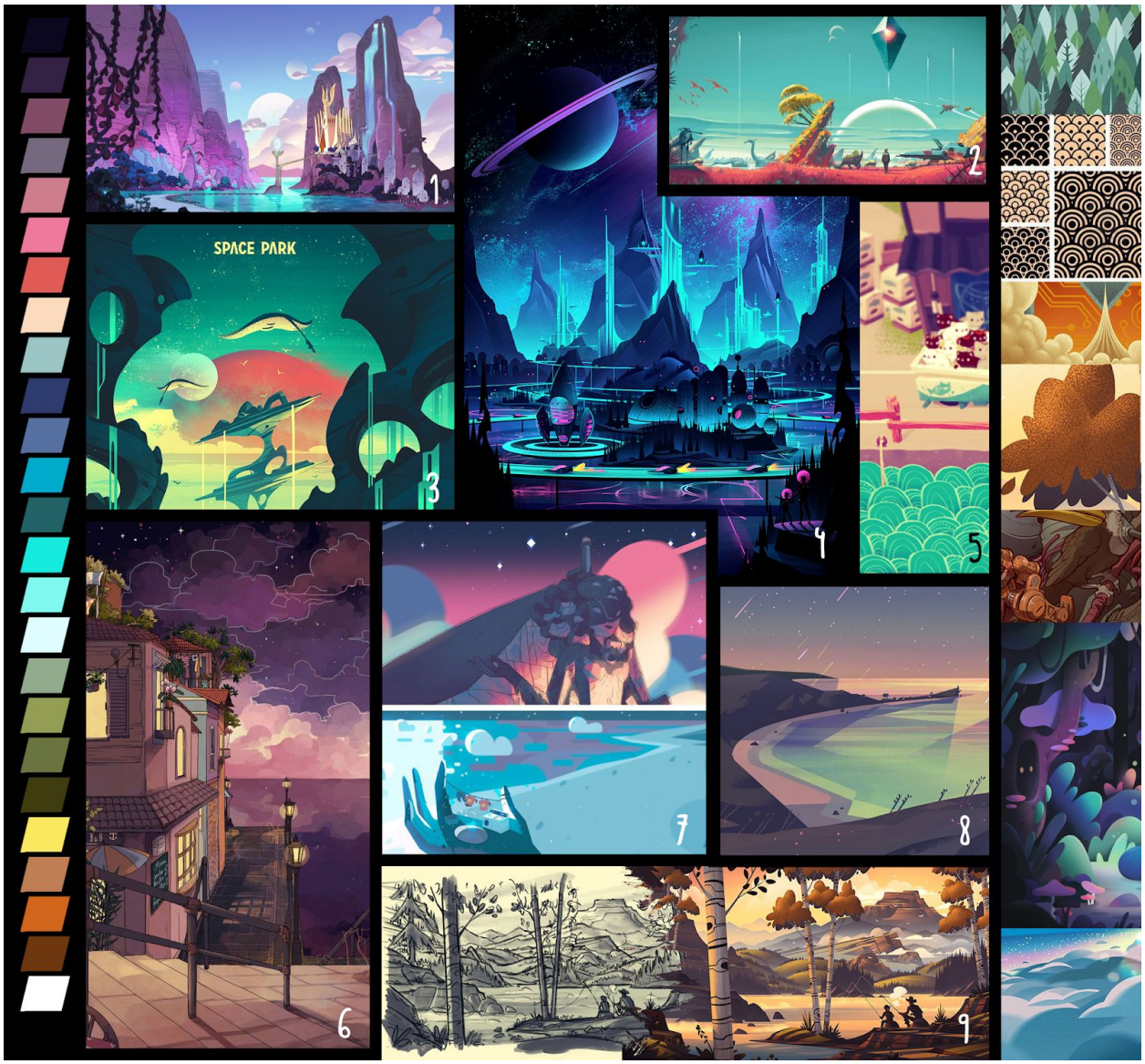
Living in a dystopian city called Amara, Nio decides to quit his job to fight with a group called P4AR (Punk for Animal Rights), which is a movement that fights against animal cruelty and the current goverment. Nio wears a rabbit mask every day to remind himself who he is fighting for. P4AR has a great plan for a *coup d'état,* which involves Nio and him alone. He and his drone have to go through the governmental facilities in order to achieve the main server room and deactivate the most important A.I. server. That will completely remove the fascists out of picture while the humanist movement can take over.

Type de Gameplay

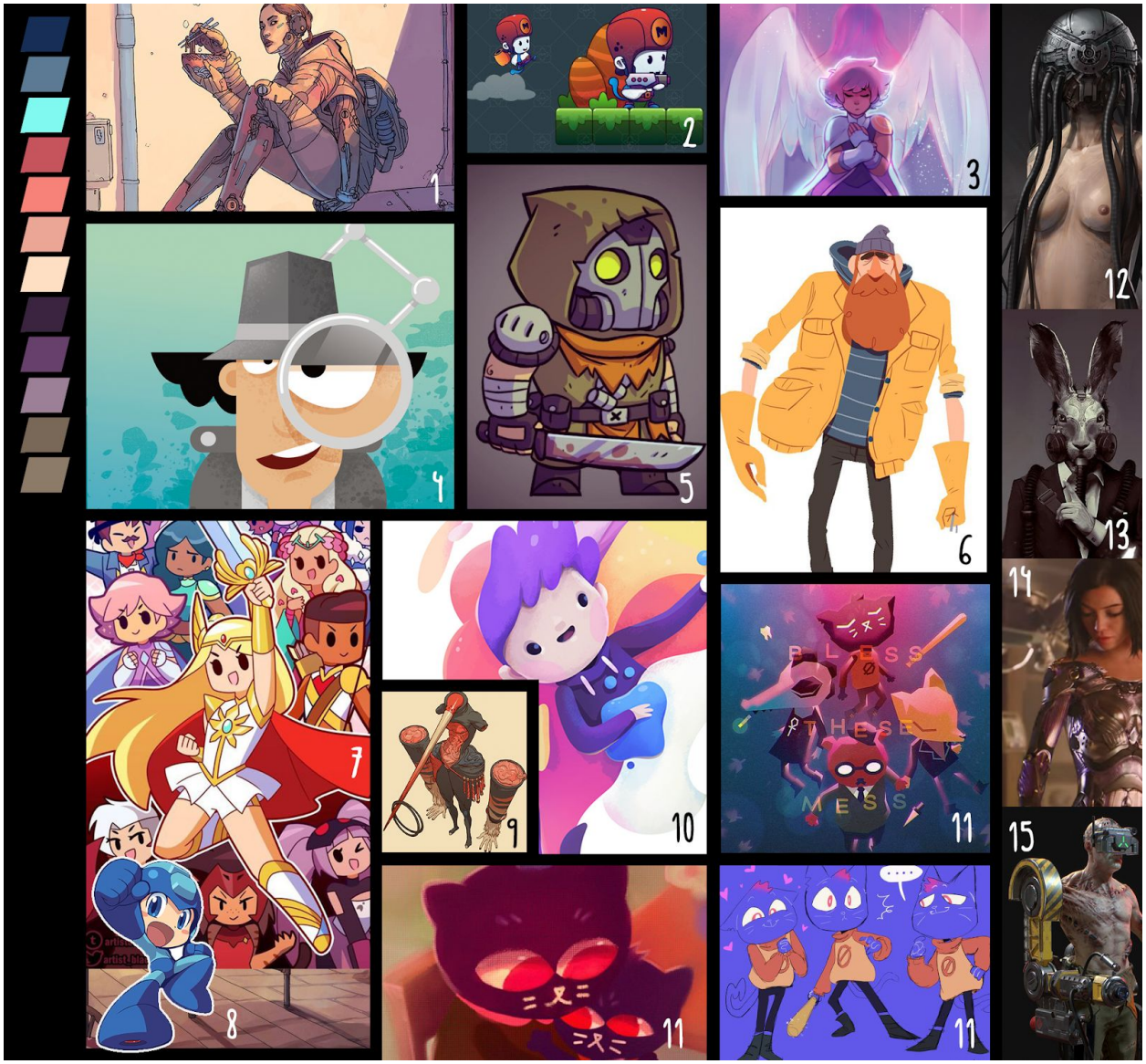
Rabbots is a puzzle platformer with some stealth and shoot 'em up elements. It can be played in three different difficulties, so the player can enjoy better the environment and all the hidden rooms at their own pace or play in a more fast-paced version of the game.

Look and Feel

Moodboard : environment



Moodboard : character design



I. Mechanics and Gameplay

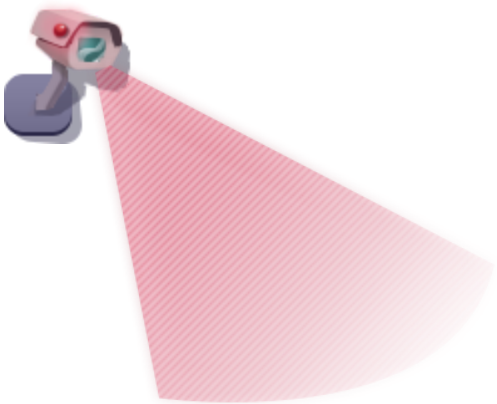
Objectives

Micro	Medium	Macro
Get passed enemies, solve puzzles and collect enough map pieces	Reach the end of each level towards M.A., freeing the animals on the way (reference: Metal Slug and Hollow Knight)	Reach M.A. and press the “big red off button” to destroy the main AI server of Amara.

Core of the game : 2D Platformer focused on AI control.

Victory condition : The player has to reach the M.A. location;

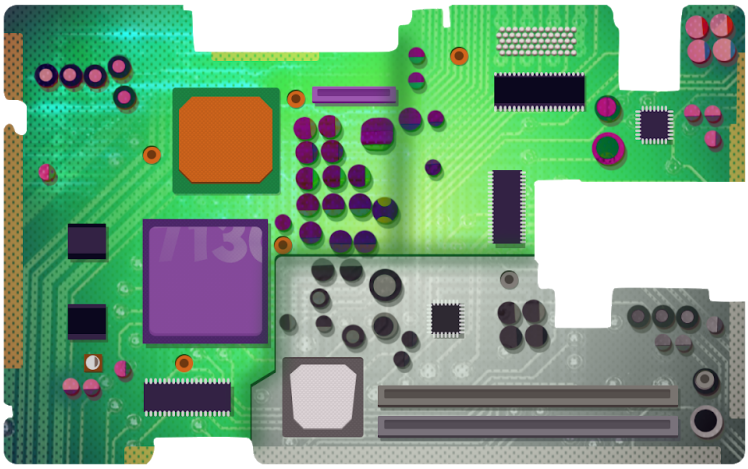
Defeat condition : The player is defeated by the enemies.



Signs and Feedback

Feedback sounds will be very important to the gameplay, because that’s going to reassure that the hack has gone through or that you hit the enemy, for example. The interactable elements will stand out to make themselves more visible. There will be unique sounds for the hacking abilities and the reactions to those actions. Unlocking a door will have a very positive and triumphant sound.

Map System



Map pieces are circuit boards and chips/wires, you must collect and rearrange them together in order to find the main server room. The electric energy has to flow through the right conducts. The map pieces will be in the player's inventory, and it can be accessed at any time during gameplay. The idea is to transform a motherboard into a map and each part of the motherboard map can be unlocked if you find the pickable motherboard pieces in-game.

This is the pickable motherboard piece.

Behavioral Mechanics (tactics)

The player will have to think strategically so he can collect the map pieces (e.g. Braid), and assemble them. Once the map is completed, the character will be able to reach M.A.'s location.

In order to access certain areas, you may have to manipulate the enemies. It is possible to hack them and some machines.

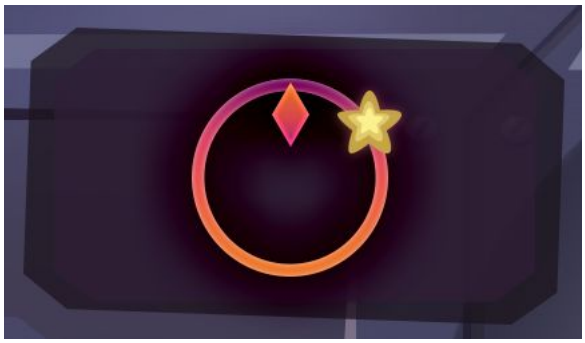
Coreplay and mechanics

- Hacking. Possibility to hack into a control panel in order to:
    - change the behavior of certain enemies (patrol, guarding);
    - open certain doors;
    - deactivate cameras or alarms.
- Control drone to hack panels at a greater distance.

- Dash. This allows the player to escape from enemies and avoid damage;
- Laser beam. This is the main attack of the player.

Hacking system and control panel

A control panel is a machine that allows its user to control any enemy within the range. In order to successfully hack a control panel, the character or its drone has to pass through an unlocking system where you have to press a button at the right time (when the star touches the diamond shape, as you may see below) to access the functionalities of the panel. You must stay within the range of the control panel to continue to use it. The camera will zoom in when you unlock it.



The time is running normally throughout the whole time, so the player may be vulnerable to attacks. In case the player misses the diamond shape, s/he loses a life point and the camera shakes. Once the panel is unlocked, the player can manipulate the enemies/cameras/other machines in the range of that specific panel. These are the possible actions:

- Deactivate cameras or alarms. These can activate and attract enemies, especially enemy type 3;
- Change the main behavior of an enemy:
    - Guard: enemy stays put right away if this option is chosen;
    - Patrol: enemy walks continually from point A to B and vice versa.
- Open/Close certain doors or some bridges to avoid falling into holes or spikes, for example.

Enemies

There are three types of enemies. They can be controlled by a **control panel** within their ranges. If the enemy is not in the range, it cannot be controlled.

Enemy #1 may:

- Shoot;
- Guard or patrol;
- Have low HP → More frequent.

Enemy #2 may:

- Shoot;
- Guard or patrol;
- Use a shield;
- Be Tanky→ Less frequent.

Enemy #3 may:

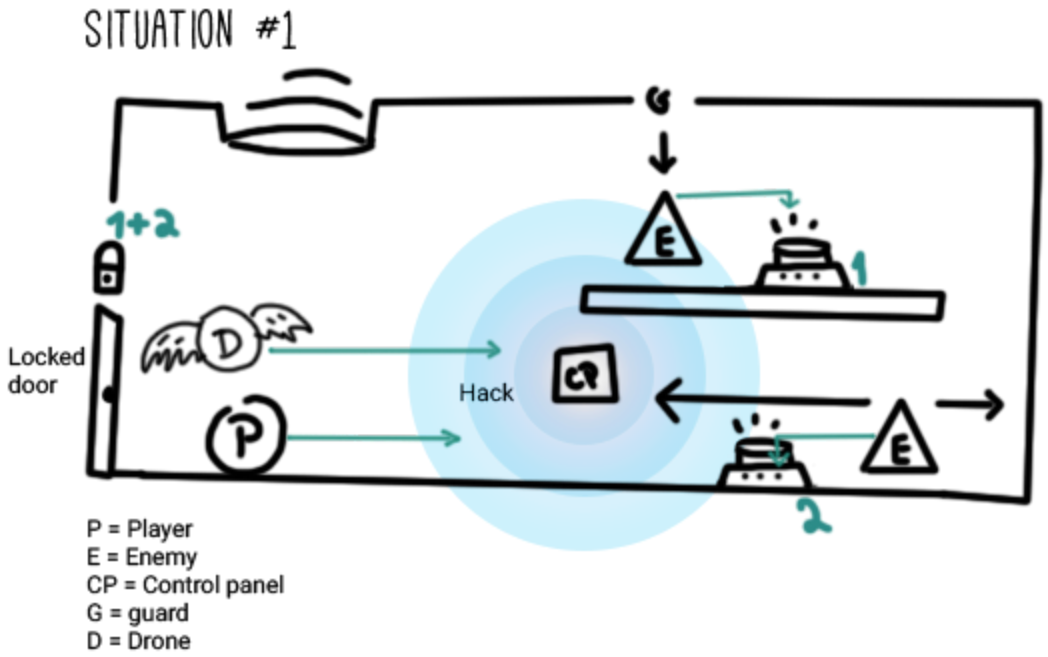
- Fly;
- Shoot;
- Guard or patrol;
- Use cameras to detect the player's presence. This enemy will track down the character as long as there are cameras around the player;
- Not have a lot of HP → Usually appears in open areas.

Enemy	Type 1	Type 2	Type 3
Speed	Minimum Difficulty	Minimum Difficulty	Medium Difficulty
Endurance	Minimum Difficulty	Medium Difficulty	Minimum Difficulty
Predictability	Minimum Difficulty	Minimum Difficulty	Maximum Difficulty
Reactivity	Medium Difficulty	Minimum Difficulty	Maximum Difficulty

Drone (companion)

Nio's companion can also get damage. He will help the player by hacking the panels from a greater distance or by being a decoy, since the enemies will chase the drone down (if it's within the enemy's range). In order to successfully hack a control panel, the drone has to be in the control panel's range. The drone has 50% of the player's Health Points (HP), so the player has to be very diligent with his/her drone. If your drone is killed, you may acquire a new one from a box later on.

Level Design



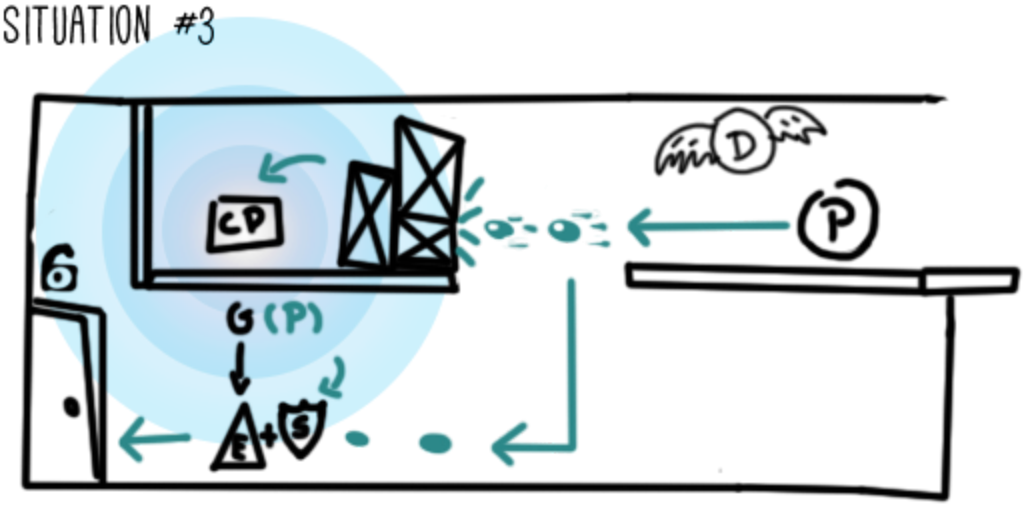
In this situation, the player has to manipulate the enemies to step on both buttons at the same time to open the door. In order to do that, you have to hack the CP (better with the drone to be safe) and change the behavior of each enemy. The enemy on the higher platform, for example, is standing still just next to the button, so we would have to make him patrol and when he steps on the button, we change it to “guard mode”. That way, he will keep pressing the button. The same idea has to be applied to the second enemy. Both buttons have to be pressed at the same time in order to open the door.

SITUATION #2

P = Player
E = Enemy
CP = Control panel
G = guard
D = Drone

In this level design situation, you have to kill the enemies first, then access the Control Panel (CP) with the drone to cover the spikes. In this case, the Player cannot just jump over it, because of its width.

SITUATION #3



P = Player
E = Enemy
E + S = Enemy + shield
CP = Control panel
G = guard
D = Drone

Situation #3 is a bit trickier. The idea is that you can't just pass through that enemy because of its shield. If you shoot him, he will not get damage. The only way to kill him is to change its behavior (guard to patrol), so you may shoot him when he shows you his back. In order to access the CP, you have to break the boxes that are blocking the way. The door is already unlocked.

Gameplay Description

Throughout the whole game, the player will encounter many different situations like the ones mentioned above. The player will have to combine the different techniques to solve the puzzle and keep going towards the main server room. In order to do that, the player has to put together the collected map pieces to unlock some doors. Our hero has the ability of shooting unlimitedly, so he can defeat the enemies. However, some of them will not make it easy, since some can have a shield. The player will have to find a way out of that by solving the puzzle.

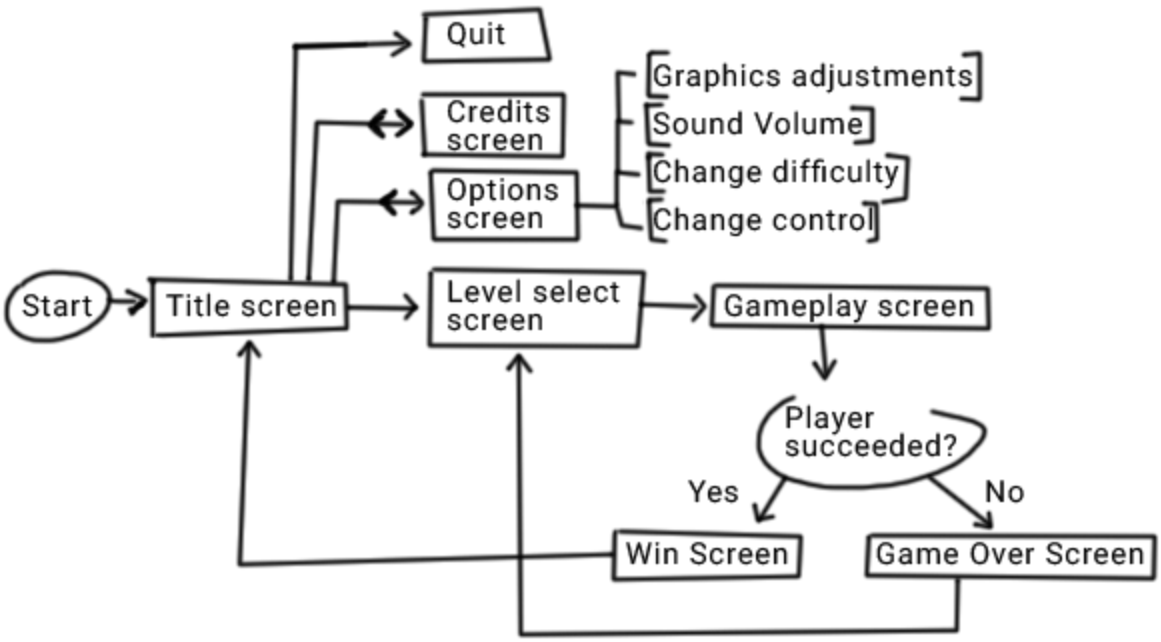
Gameplay Loops

Macro		
Objective	**Challenge(s)**	**Reward(s)**
Destroy M.A.'s servers	Pass through the enemies and find the right way to reach the central server	Reach one of the endings of the game.

Medium		
Objective	**Challenge(s)**	**Reward(s)**
Reach a new area towards the main server room	Avoid traps and defeat enemies, and find map pieces	Get closer to the end of the game

Micro		
Objective	**Challenge(s)**	**Reward(s)**
Hack an enemy	Unlock the panel without getting caught by the enemies	Open a doors, make the enemy more vulnerable
Arrange the map pieces in the right order	Rotate and place the pieces in the right places	Gain access to new areas

Game flow



Rhythm and Accessibility

A level of difficulty could be implemented to offer an experience that varies from a slow-paced and relaxing platformer to a fast-paced game. All the text displayed in the game will be inclusive. That means that we will prevent stereotypes and welcome any person from any background. The text will have a simple and clear formatting, and the bubble talk will be highly contrasted from the background. Also, the player will have to manually progress through the bubble talks at their leisure. Regarding the graphics, all the puzzles will not require color distinction, and the puzzle-related props will have enough contrast to better their visibility. Ideally, the game would have to be in compliance with all the “basic” suggestions from the Game Accessibility Guidelines (http://gameaccessibilityguidelines.com/basic/).

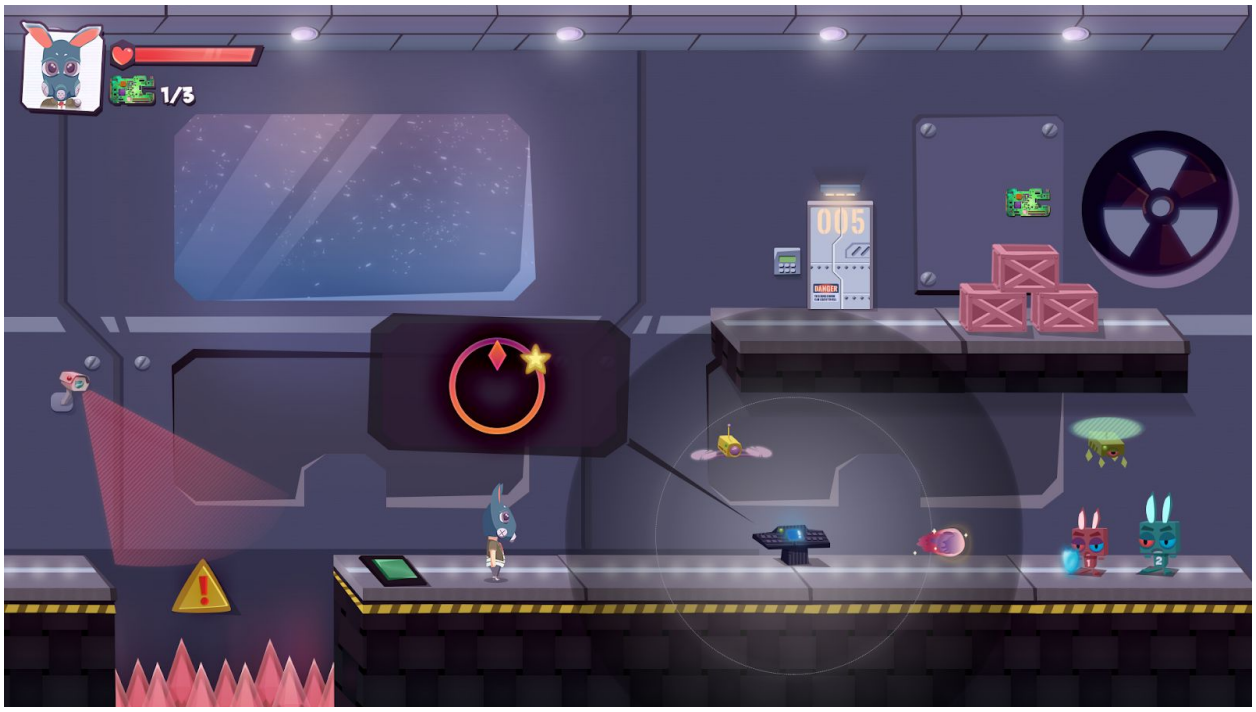
Narration

Just like in Transistor, the narration will be mostly handled by the companion, a flying drone, which will “talk” to the player through bubble talks. The environment and the cinematographic compositions will also convey a narration, even if it’s a more subtle level.

Player’s Progression

It is possible to notice the progression throughout the gameplay, since the puzzles get more complex overtime. Also, the map will get filled in every time the player finds a map piece. When the map is fully finished, the way to the main server room will be revealed and accessible.

World, Map & Sound Design

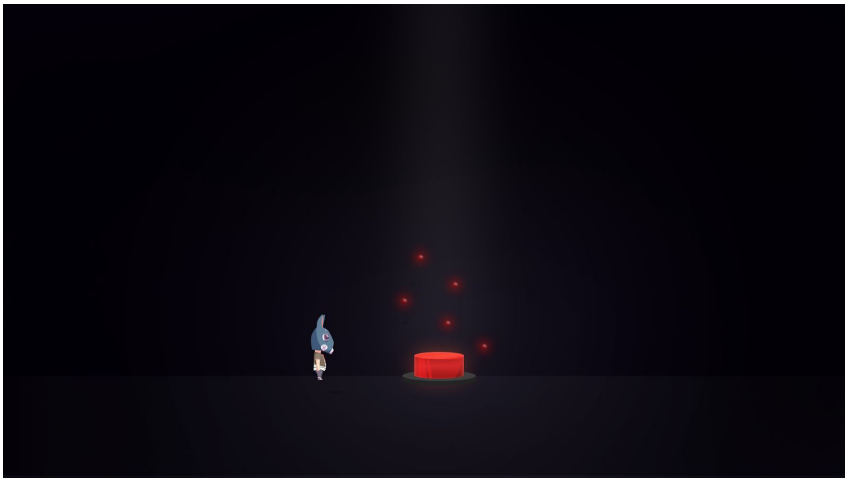


The universe is set in a colossal high-tech laboratory and warehouse, which is a governmental property. The map covers the whole facility where its center is where M.A. is located. The ambiance will be somewhat silent and mysterious inspired by the indie game Inside (2016) de l’équipe Playhead. The ambiance will be rather quiet and mysterious inspired by the indie game Inside (2016) de l’équipe Playhead, and some ominous music in a more intense moment or in between level design situations.

Physics and movements

The entire game will have force-based movements. Instead of using velocity based movement or position, **forces** are going to be used to move the character and his drone. This project will be developed on Unity, and this software does not recommend updating a Rigidbody’s velocity directly, but many people make that mistake. Force-based movement will give more freedom to control the character when dealing with other forces, such as a wind gust passing by or a knock-back from explosions.

Screens



This is the last scene where the player decides if s/he will press the button.

Video Gaming References

Transistor has been my main source of inspiration, specially for its narration.

Dead Cells. Technically, this game represents what Rabbots could look like or be like as the final project.

IA Driver, a game created in 2019 by M2 students. In IA Driver, the car learns with the actions of the user in order to provide a better (or worse) future experience. The image is merely illustrative.

Bibliography

Ellis, Barrie, et al. “Game Accessibility Guidelines.” *Game Accessibility Guidelines*, 2016, https://gameaccessibilityguidelines.com/basic/.

Tual, Morgane. “Intelligence Artificielle, « Machine Learning » Et « Deep Learning »: De Nouvelles Notions Bientôt Incontournables En Pneumologie ?” *Le Monde*, 24 July 2015, pp. 59–62., doi:10.1016/s1877-1203(19)30031-x.

Cadic, Jean-Maximilien. “Imaginaires Et Intelligence Artificielle ; Travers Une Approche Transverse.” Sociétés, vol. 131, no. 1, 4 Oct. 2016, p. 77., doi:10.3917/soc.131.0077.

Hamladji, Samir. “Intelligence Artificielle Et Transhumanisme : Nick Bostrom Face Au ‘Futur De L’Humanité.’” Forbes, 30 May 2017, www.forbes.fr/technologie/intelligence-artificielle-transhumanisme-nick-bostrom-futur-de-lhumanite/?cn-reloaded=1&cn-reloaded=1.

Hvistendahl, Mara. “Can We Stop AI Outsmarting Humanity? .” The Guardian, 18 Mar. 2019, www.theguardian.com/technology/2019/mar/28/can-we-stop-robots-outsmarting-humanity-artificial-intelligence-singularity.

Yudkowsky, Eliezer S. “ Staring into the Singularity 1.2.5.” Research Fellow - Machine Intelligence Research Institute, 18 Nov. 1996, yudkowsky.net/obsolete/singularity.html.

Kalogridis, Laeta, and Skydance Media. Altered Carbon . Altered Carbon, 2 Feb. 2018, www.netflix.com/title/80097140.