

Game Design & Technical Art

PORTFOLIO

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PROJECT LIST

Project 1 - Boardgame

Hide and Seek

Project 2 - PC Game

Watch Your Back

Thesis Proposal - Concept

Fear Trigger

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Hide & Seek

A cyberpunk horror Game about Human and Android

Designed by Zhuyu Huang

Project 1 - Boardgame

HIDE and SEEK

Summary

Hide And Seek is a strategic horror game with cyberpunk style.

Design Goal

Exploring new game mechanics.

In game industry, both of 3A games and indie games are getting homogeneous. Therefore, I really want to create something that is different from others'. So, Hide & Seek can be thought as an attempt about that.

Methods

My original idea for this game is to create kinds of elements from childhood to make players feel resonate. For example, Merry-go-round, Rubber band skipping, etc. So, my original game idea is to recreate Hide And Seek with boardgame.

After then, horror game is always one of my favourite game genre among bunch of games. Fear in real life aims to protect organisms from perceived threats and maintain their integrity, which always can be used to enhance game's degree of excitements.

The style of this boardgame was not determined at that time. After several days research, finally, I selected the most popular style, called cyberpunk.

If the narrative of this game happened in the future, because of AI, how it will look like?

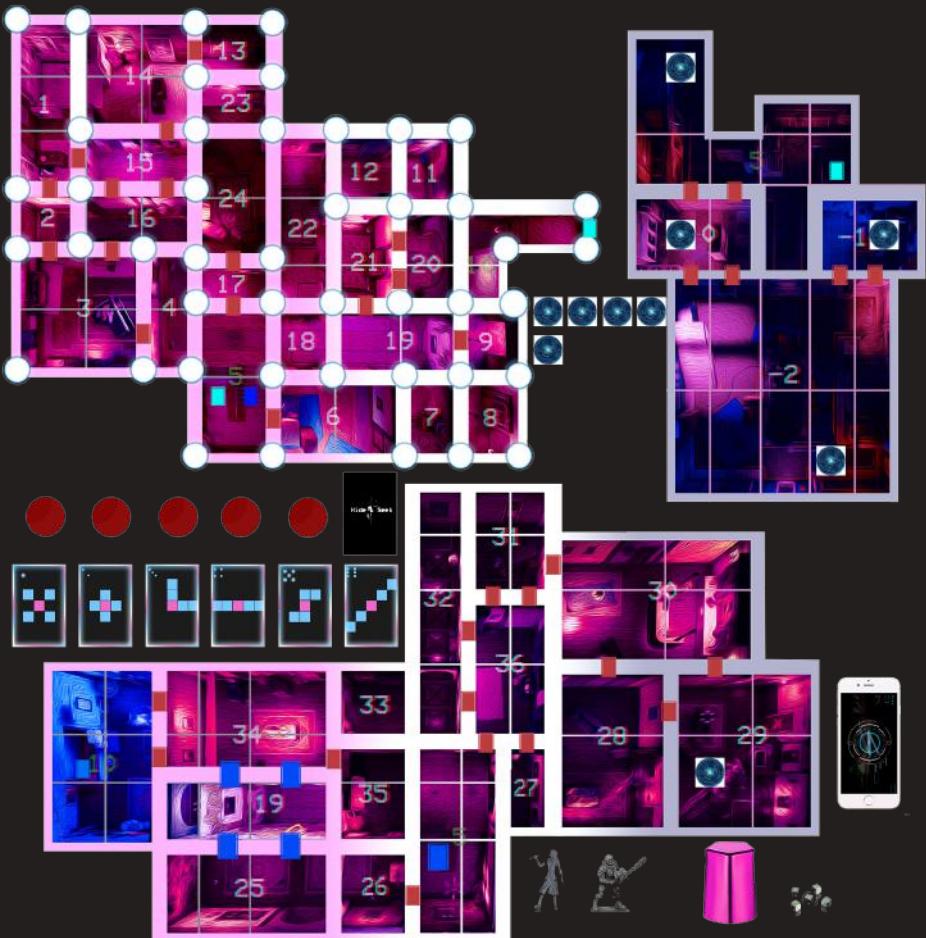
About the software, I mainly use are Photoshop, Indesign and Zbrush.



Contents

Maps x 3
Sound tokens x 10
Human model x 1
Android model x 1
EMP tokens x 10
Sound cards x 6
Dice cup x 1
Skill cards x 10
Dices x 5

What's in the box?



Set-up

GAME RULES

Action Game phase 1: Hiding

Step 1.

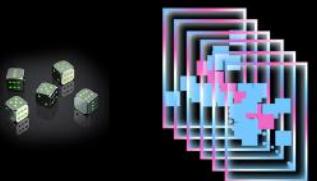
Human go first, moving 0-2 grids in a round. In that phase, the movement of human is invisible. What human needs to do is recording the her location with App.



Note: Picture only shows one direction of movement, Human can also move to the other directions, except diagonal movement.

Step 2.

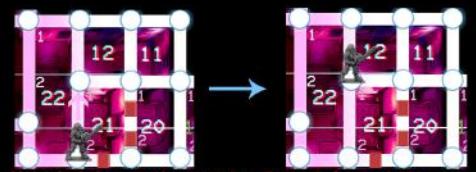
Human rolls 1 or 2 sound dices, picking and using the sound card according to dice's number.



Note: Usage of sound cards will be explained on the page 6.

Step 3.

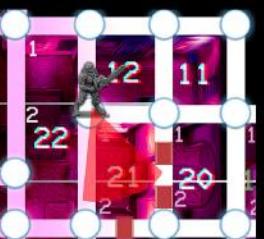
Android moving 0-3 points in a round.



Note: Android can only move along the route from point to point

Step 4

Selecting a room around you to scan human's location.



Step 5.

Asking human player whether he is in the room that android scanned. If answer is yes, entering Hunting phase. If it is no, back to step 1. If android cannot detect human until the battery runs out, human win.

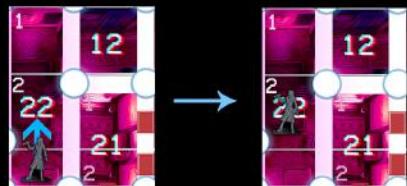


Action Game phase 2: Hunting

Step 1.

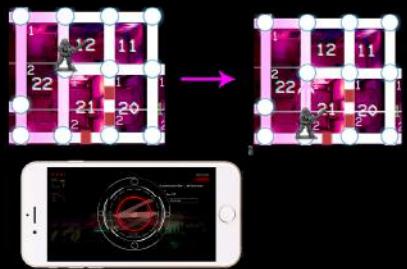
If android scans human successfully, hunting mode launched. Android can get extra battery. And human appears on the map. Starting from the grid human were scanned.

Human moves 1-2 grids first.



Step 2.

Android launches Stealth mode, which means android will be invisible on the map in phase 2. Moving 0-3 grids in each round. Recording its location with App.



Step 3.

Android rolls 1 or 2 sound dices, picking and using the sound card according to dice's number.

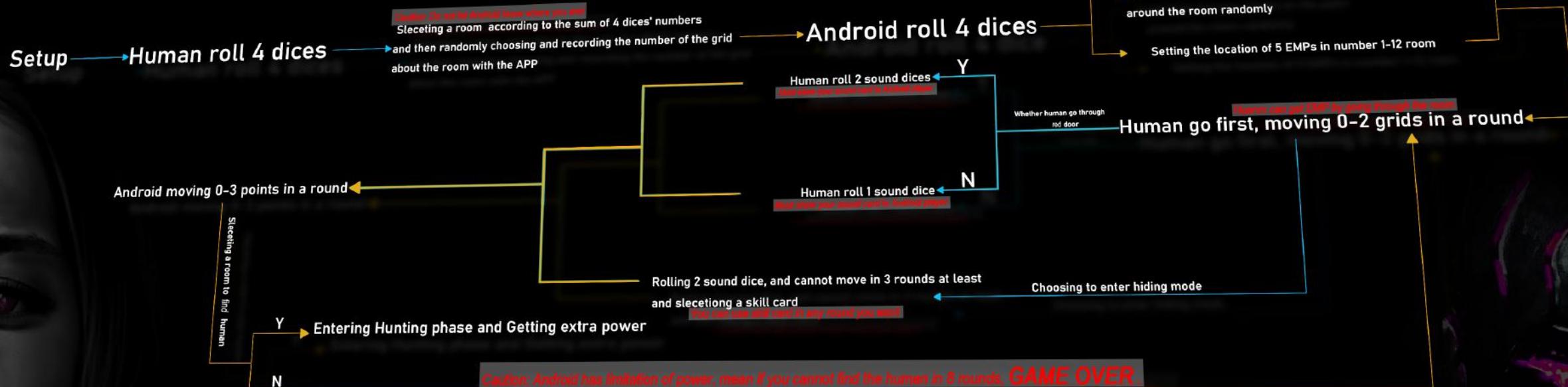


Step 4.

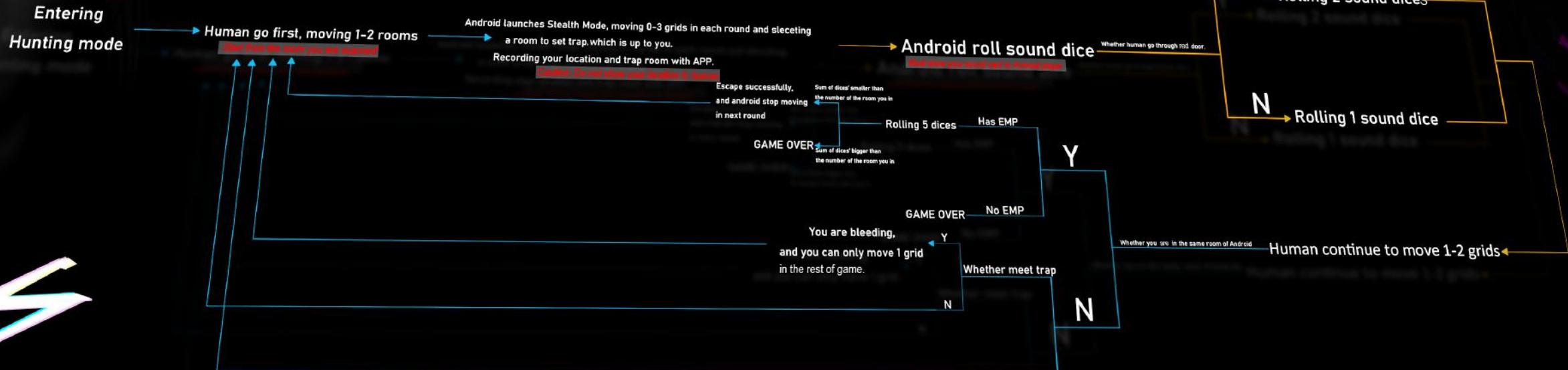
Human moves 1-2 grids. If human stops in the room which is same as android's. Then entering EMP judgement phase of win or lose, which will be detailed on EMP instruction. If human do not stay in the room that same as android's until android runs out of battery. Human win and vice versa



Hiding Phase



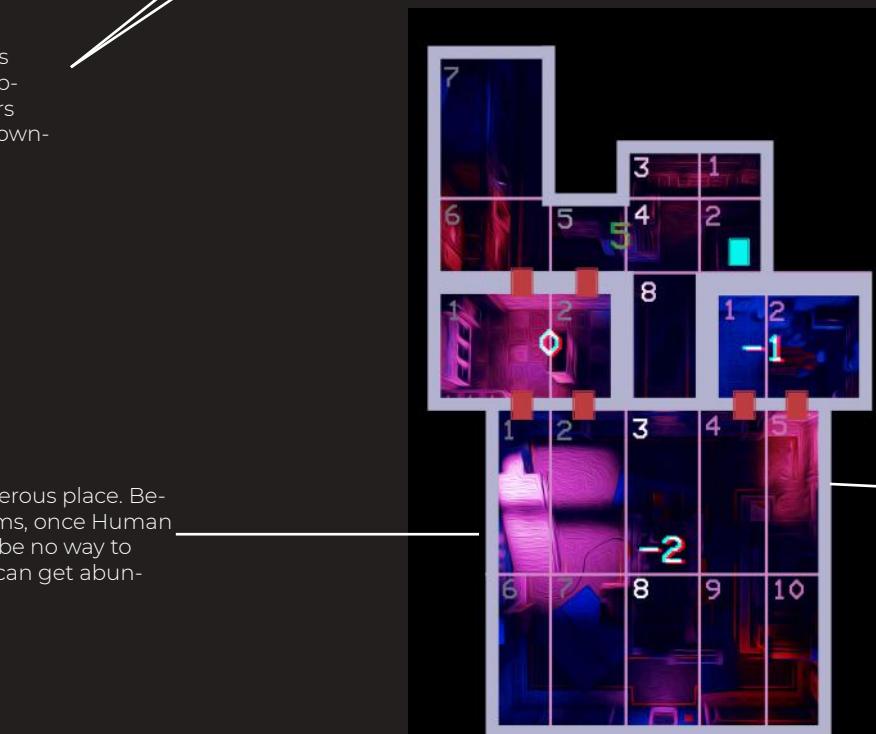
Hunting Phase



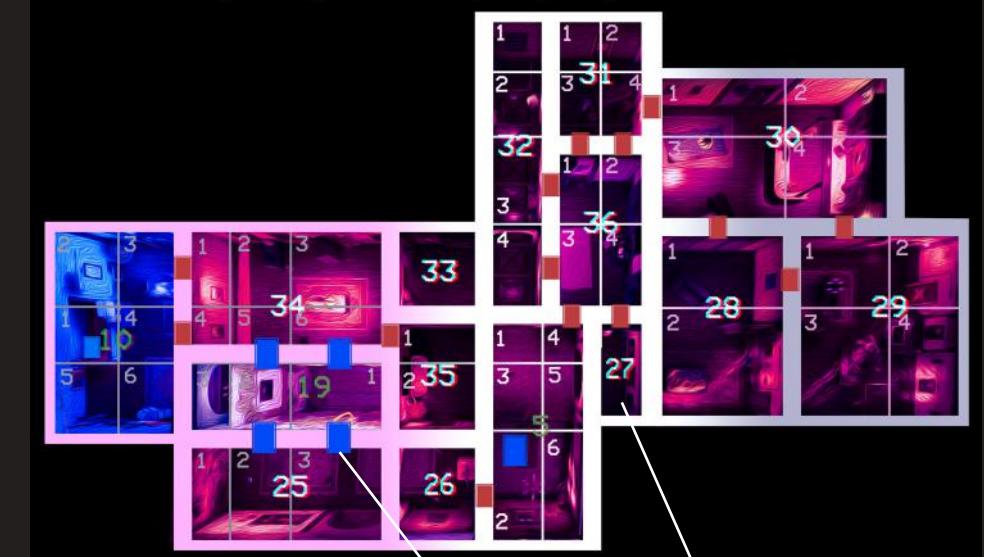
MAP DESIGN



Light blue doors means going upstairs, Blue doors means going downstairs.

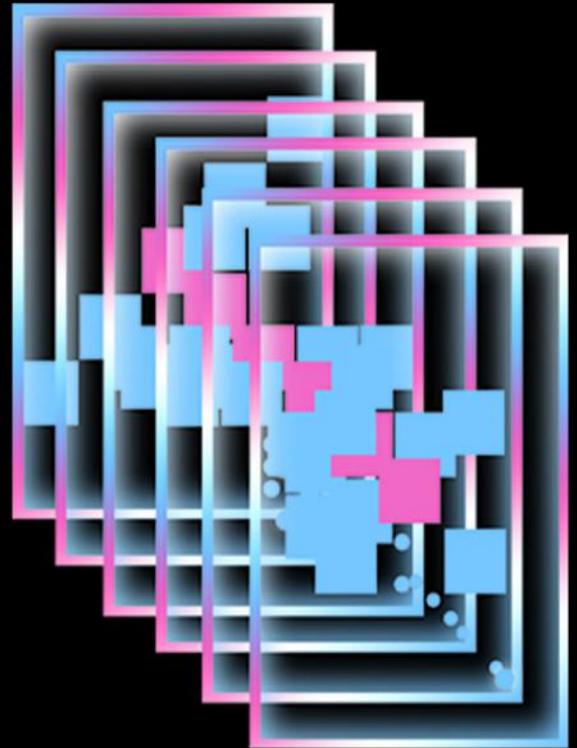


The reason why i set the numbers of rooms like this is that once player get EMPs, they can get higher surviving rate in the center of the house. But if you move in the edge rooms of the house, it will give you more EMP rewards. As you can see, the most safe place is third floor and the most dangerous floor is basement..



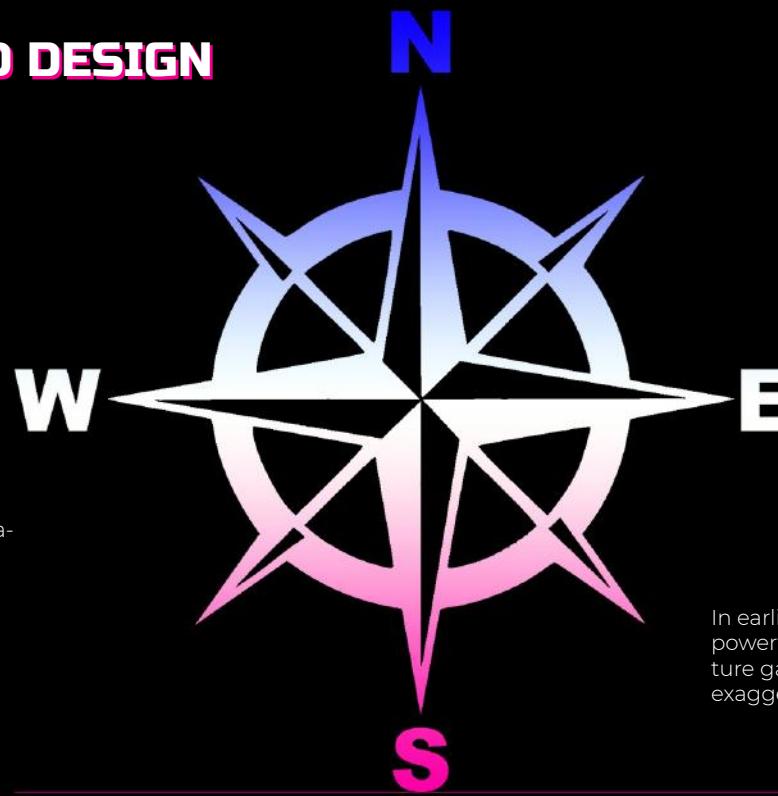
Here you can jump from second floor to first floor.

About the reason why the hiding phase is only played on the first floor? Bigger map always not mean more interesting gameplay. How to make the game easy to learn is the biggest issue i want to solve. Small map always make the game easier to get started. After that, expanding game map can make game have more tactics to develop, which will extremely increase interest of gameplay.



SOUND DESIGN

Greatly improve the game's uncertainty , making game more interesting.



When the invisible player told you the direction directly, what the other player should do is just move and follow the direction. That is extremely boring.

The game mechanic that rolling 2 dices make game become more strategic than original one.

Hide

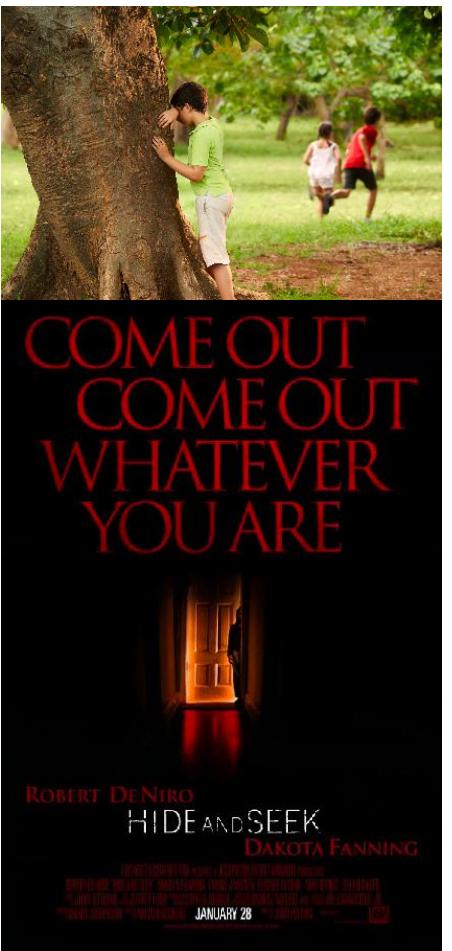


Hunt



LOCATION RECORDING APP

DESIGN PROCESS



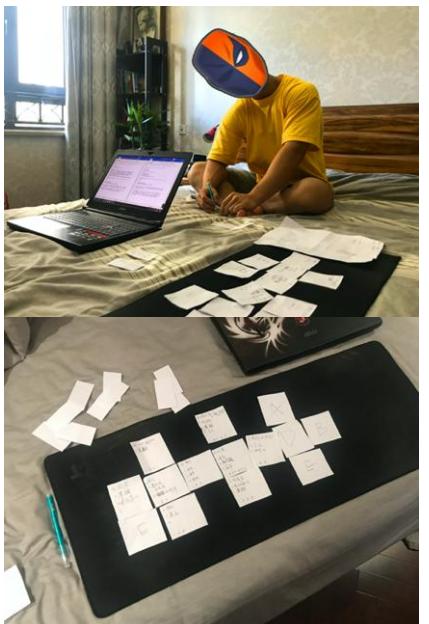
Inspiration

I want to transform the game we played as child into a horror experience.



First Prototype (v0.1)

The concept of Hide & Seek was born. Making a gameplay by real-life one.

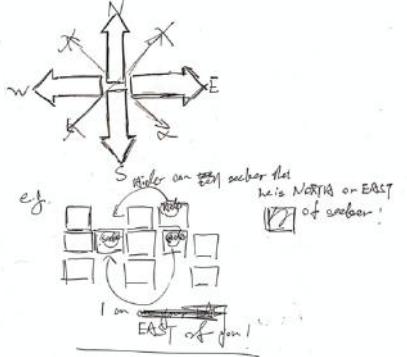


v0.2-0.3

Adjusting 2 game elements, which are adding 6 rooms, increasing 2 action points for seeking totally.

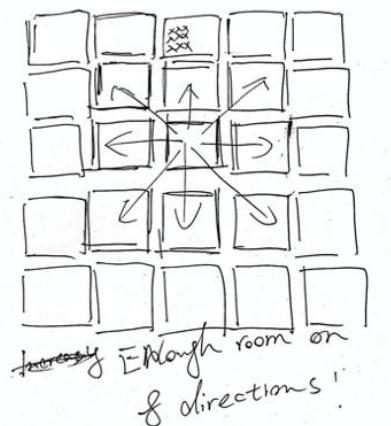
About adding 6 rooms, because I found that the hider is too easy to be found.

About increasing 2 action points, because I found that it is boring for seeker's gameplay experience, so I want to try whether it can increase interest for seeker.



v0.4

I think that the percentage of uncertainty about game is bigger than the one of certainty. So I create a game mechanic about sound. It will give seeker a direction to find hider.

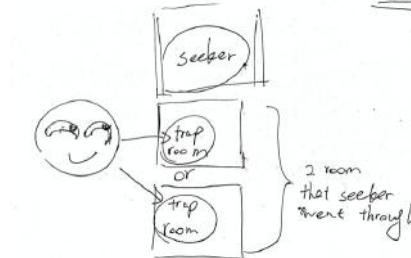
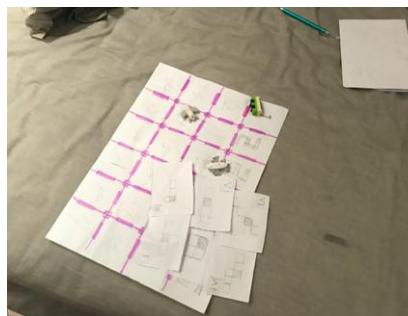


v0.5

Designing the map again and making every direction has enough rooms to explore. But the mechanic direction make the game lack uncertainty. Because seeker has 12 action point, and there aren't enough room for hider to hide. It is not fair for hider.

v0.6

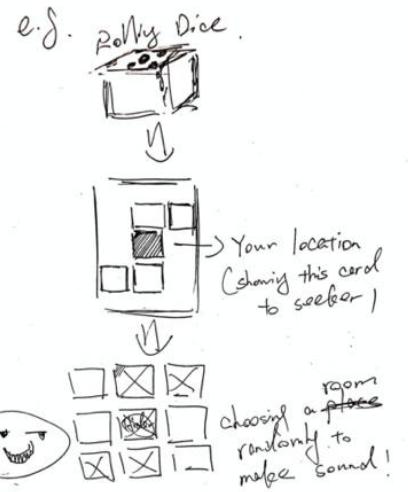
Designing a brand new mechanic about sound. Because original one is still too powerful for seeker.

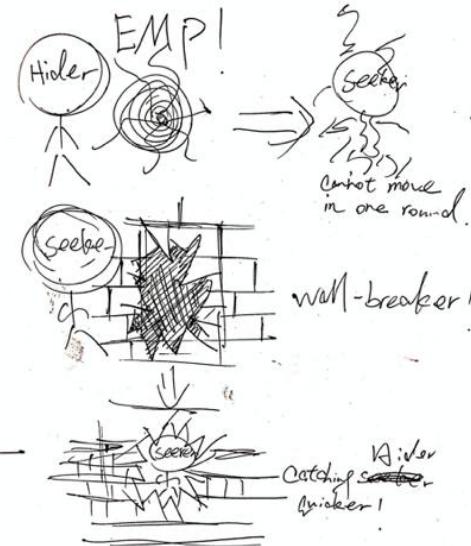


v0.7

Here is a big update for the game, because after several days' test, I still thought that it is impossible for me to only imitate the mode about hide & seek of real-life. So I design the gameplay again, but I keep the version 0.6's mechanic about sound.

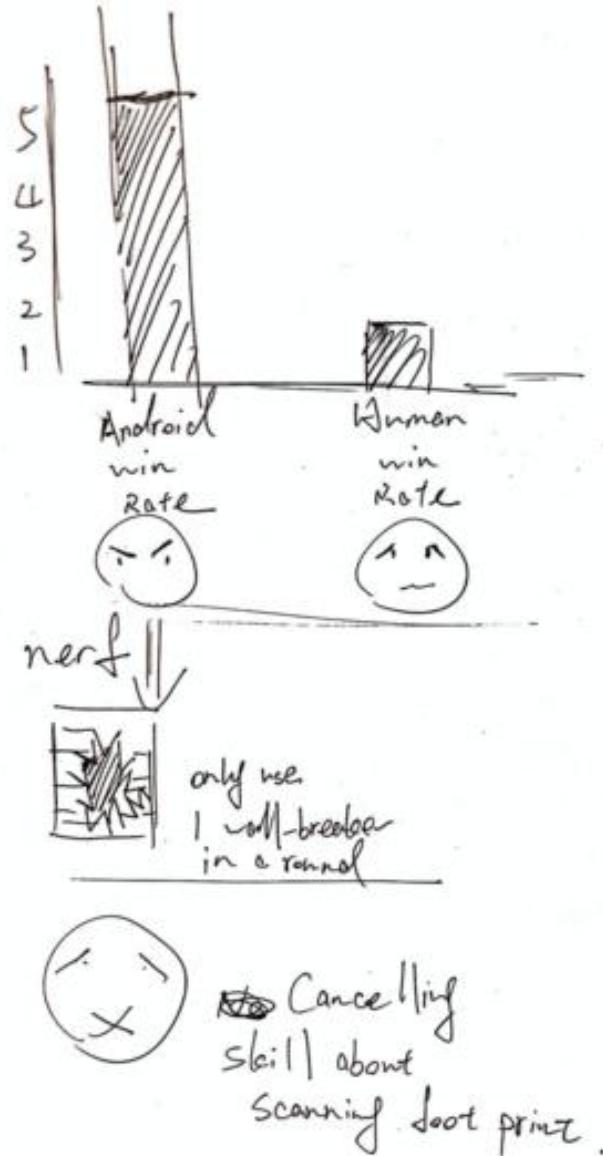
1. Drawing a new map, which is more suitable for game.
2. Creating a new mechanic about finding to make game more strategic.
3. Giving hider and seeker 2 different routes to match the new finding mechanic.
4. Let one of roles become invisible in turn in 2 phases of game, which will make the game more horrible and strategic.
5. Every round, Seeker can ask clue of hider to find hider.
6. In chasing phase, seeker can set trap in the room that he goes through in a round.





v 0.8

Core gameplay is almost done. For increasing interest, I design two skills for both side and create a plot for the game. Hider is human being, who want to survive from the android murder. Android gets a skill called wall breaker, which means it can move through the wall. Human's skill is EMP, meaning she can use it to escape from danger.



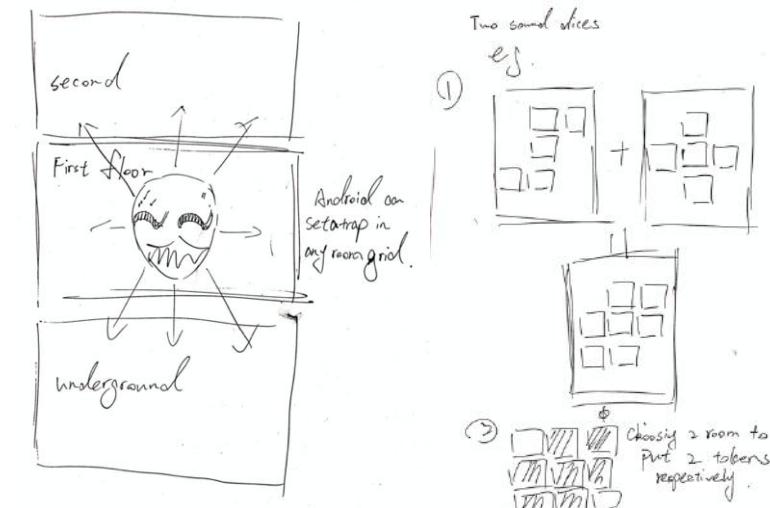
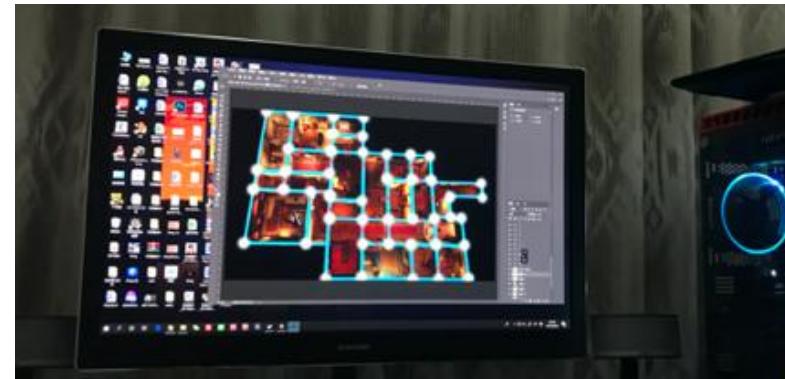
v 0.9

After several times of gameplay test, I found that human lose more times than android's. For balance, I decide to make a nerf to android's skill of asking for clues, and simultaneously stipulate android can only use 1 wall breaker card in a round.



v 1.0

For immersion and realism of the game, I design a new map which has real house's layout.



v 1.1-1.3

New map created some bugs of sound mechanism. I divided one room into 2-6 grids to solve this problem. Creating a mechanism of sound, when you cross a red door, you should roll 2 sound dices. And put 2 tokens on the grids you choose. Cancelling the skill of wall breaker, because I want to simplify the rule for skill cards. Designing trap mechanic again, so that android can set a trap in every room he want to, making the game more strategic.



v 1.4-1.5

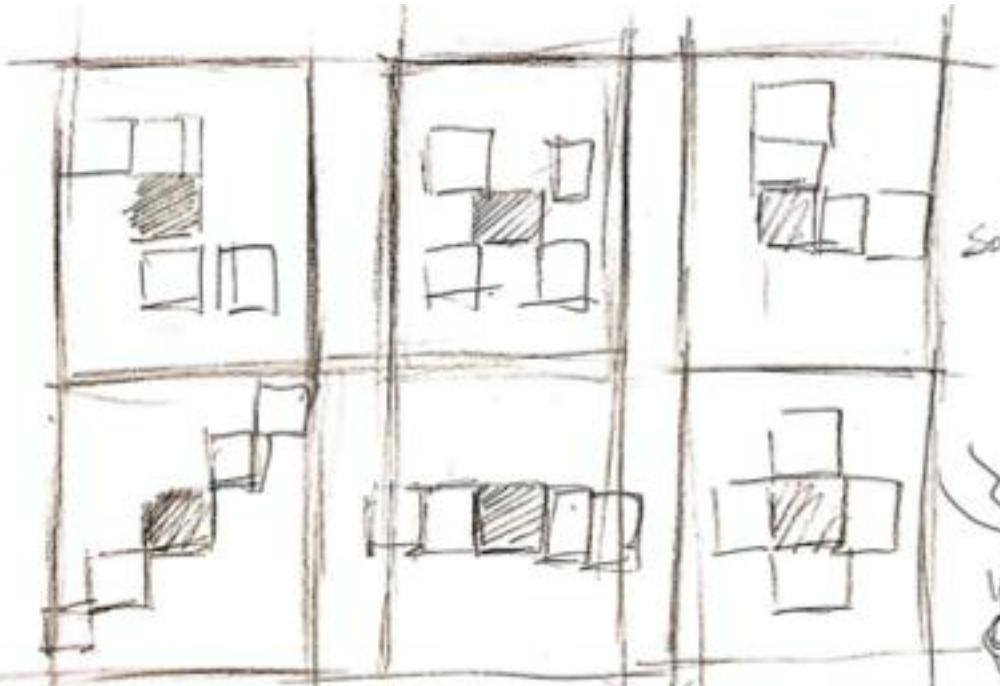
Adding hiding mode for hiding phase, which will make the gameplay more cater the theme.

Adding skill card mechanic, to improve game's uncertainty and making it more interesting.

Adding the 2 maps of other floors, which makes game more difficult.

Finalize the final game art in the game map, tokens, skill and sound cards, etc..

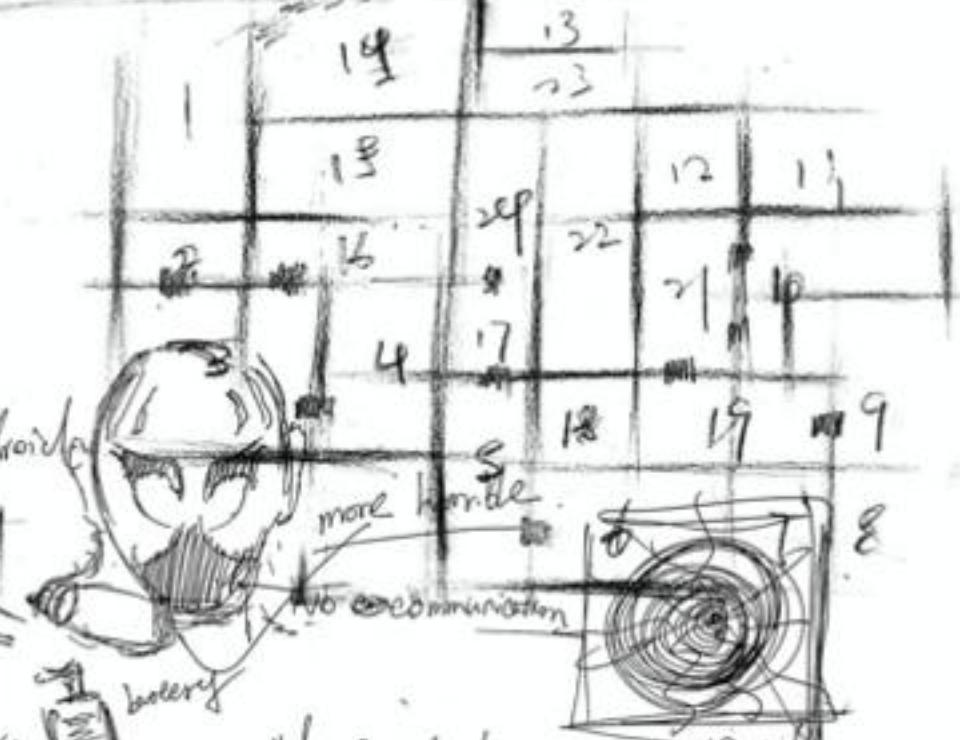
SKETCH



sound card

40.005 = 24 rooms

old doors



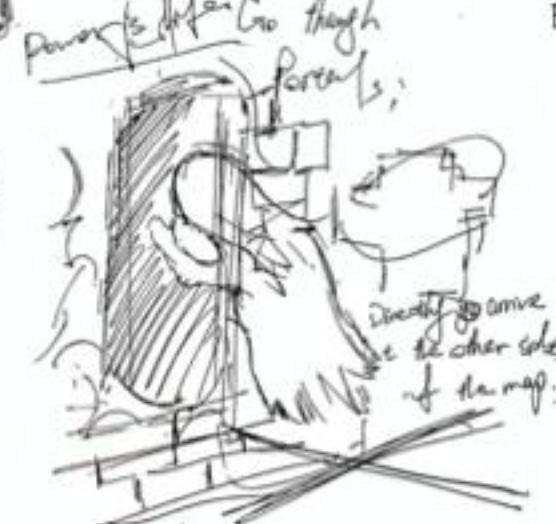
Hide & Seek

700 Party!

FFGAGD
GFFAGF
GGDDGF
FFXXFF
PDGGFG
PDGCFP

Hide & seek

Glitch op



Project 2 - PC Game

WATCH YOUR BACK

Summary

Watch Your Back is a cyberpunk horror PC game. It features a protagonist on a mission to reclaim his city from androids that annihilated half of the city by activating an EMP device hidden in a basement underneath the city.

By keeping the androids in your field of view, they will not be able to attack you. If they are not, they can chase and damage the player.

The twist is, the protagonist does not find the EMP but figures out the truth about the androids. Scientists have been experimenting on humans turning them into cyborgs.

The game then ends, making the player question if they actually won the game."

Methods

At beginning, after i got this game pitch, I create prototype of this game concept, like a board-game maybe. I took it to my friend's dormitory, and played with him. With this way of gameplay test, i started to design level, fix bugs of game map, attempt several spawn points and so many stuff necessary for a game. After that, i got a relatively completed game design concept. Then I thought that maybe I should let it work on PC to enhance its immersive experience. Sure, why not? Then i spent 3 months to develop this game from models to code. Finally, I made it. It's really exciting to see the finished game for me.

About softwares i use, Unreal4 should be the primary one. What's next are maya and adobe softwares, like Photoshop, After Effect,etc.

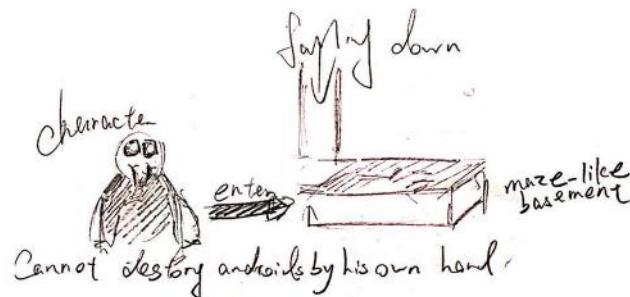
Design Goal

Keeping exploring brand new game mechanic is always my motivation to design and develop a game. In game industry, 3A games are gradually getting homogeneous, which means every kind of games get pretty similar game mode. For example, FPS games are all about shooting enemies, RPG games are all about the level of character or attributes of gear. It's going to be really hard to find a game with innovation.

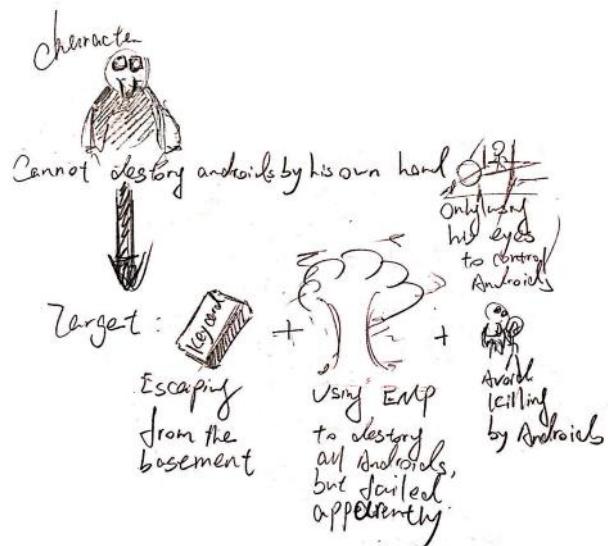
My idea is to make a game about my childhood. This childhood game seems like that when you turn around and look at someone, this guy should keep still. Meanwhile, when you do not look at him, he will move toward to you. The rule basically sounds like that and I do not remember how to get win. Then I want to combine this game rule with cyberpunk style, because of Cyberpunk 2077, which is the most popular style in contemporary society. But it is not enough, I should put some other elements different from others. So, I decide to make it become a cyberpunk horror game, which seems nobody tried to do this game genre. Except an indie game called Observer.

Watch Your Back is my first attempt to create a PC game genre that nobody attempted to do, which means i cannot find an open source code related to this game mechanic . So, it really took me a lot of time to create the AI of androids and many game elements .

CORE GAMEPLAY



1. Players: Hero, Main protagonist.



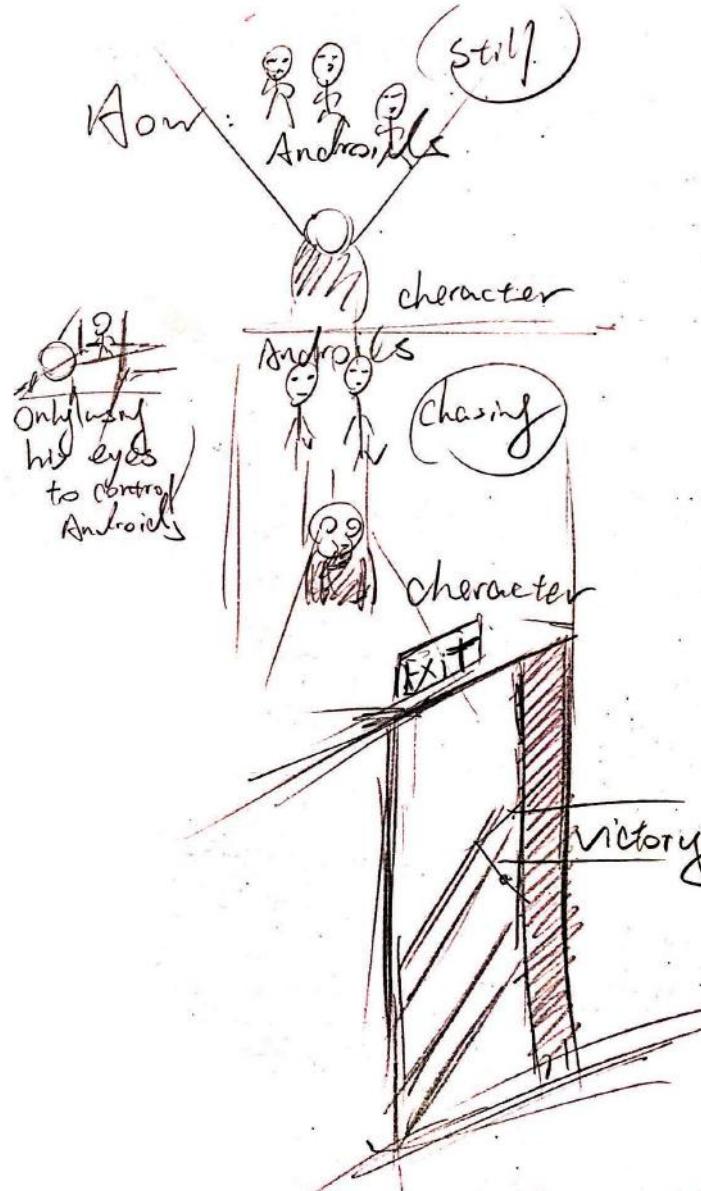
2. Objectives: Acquire keycard to open the door, Activate the EMP jammer machine to stop the androids and take back the city.

KeyCard

This was a feature I added to make the game more challenging. I started off with a simple cube with a cut at the end, similar to a SIM card and learnt how to make doors work and the mechanics behind it.

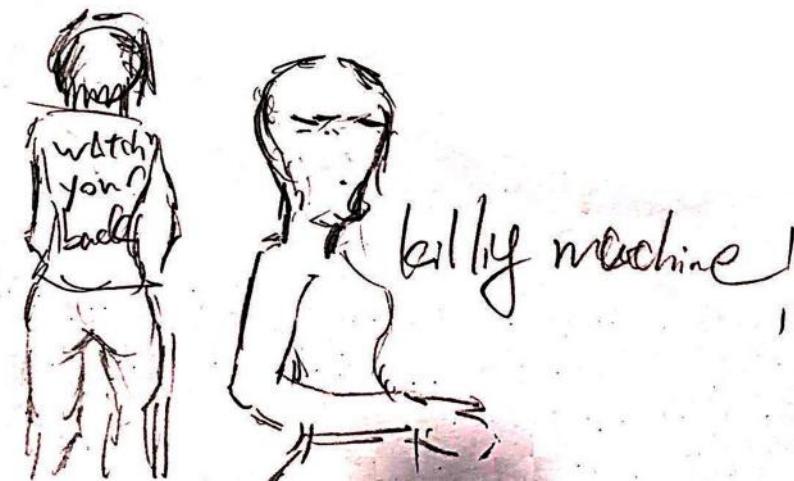
I didn't want to just place it somewhere in the map, so I made it spawn "randomly" every time the game begins. So the player would walk around the basement more, interacting with the androids.

Without the keycard, player cannot escape the basement, he needs it to open all doors since it is a "master card"



3. Mechanics (Procedures): Keep androids in view field to prevent them from attacking player.

4. Rules: The player cannot attack or defend his enemies but can only make sure they are in his view field.



5. Conflict: Player must avoid androids to complete level.



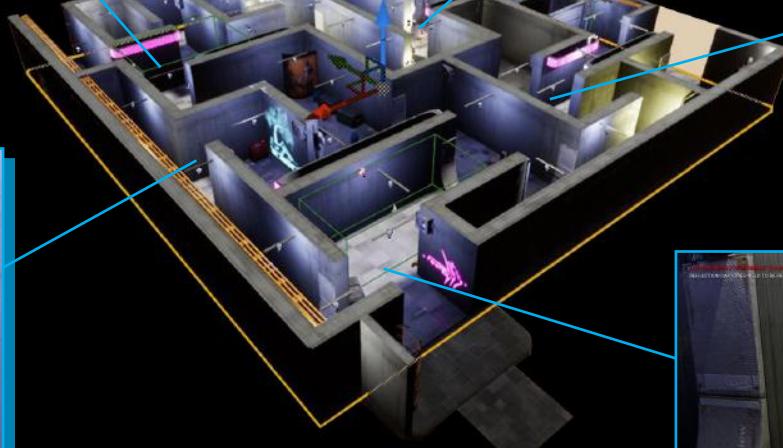
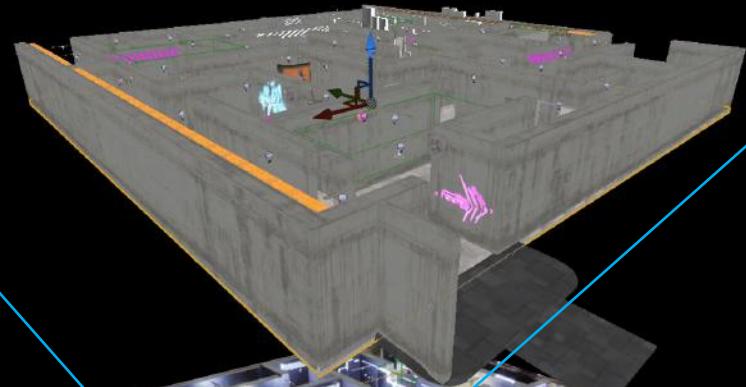
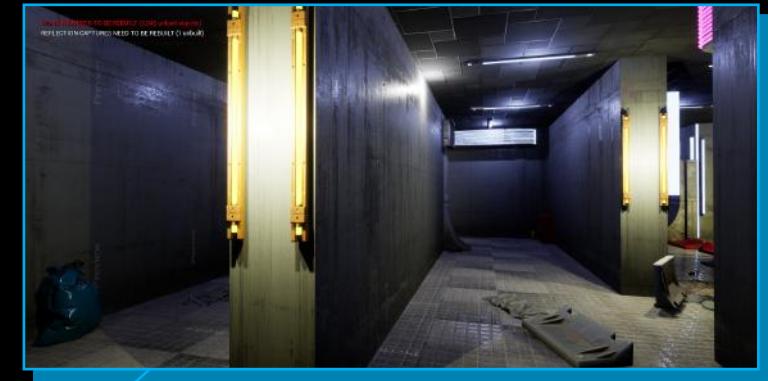
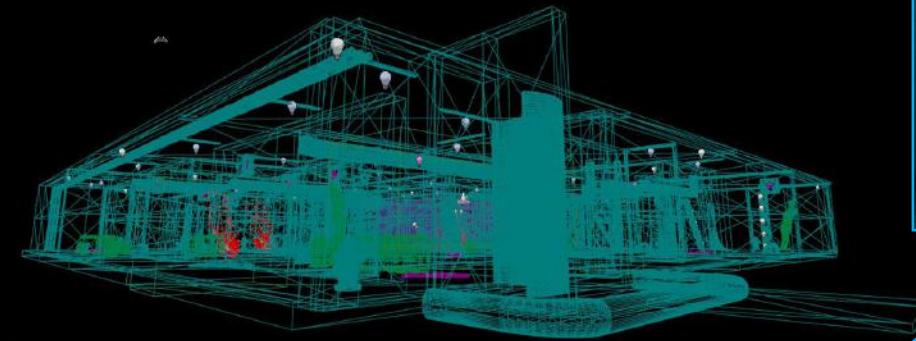
6. Outcome: The Player learns the truth and the user is left to think if they won or not.

MAZE LAYOUT and DETAILS

These pictures are the finished game scene build. As you can see, I put so many cyberpunk elements in the scene.

Cyberpunk style has a strong anti-Utopia and pessimism. So my idea of scene build is to merge hi-tech stuff with a dirty environment to recreate a feeling of doom in the future.

About game level design in the scene, I tried to make every corner and every part look different, so that player won't feel dizzy and confused about whether they have went through here already. I set several Sensor lights in the game scene. If android is near you, the sensor light will be red. If not, it will be yellow. Watching the light color change will be one of ways to keep you safe.



> GAME FLOW

Spawning in the city

Walking to the door
to trigger the level switch

Entering the basement

Trying to find the
key card of exits and
dodging androids

Y → Keeping still
N → Chasing and
killing huamn

Other Androids hear
you and come to your

Whether Android
in Human's view
N → Chasing and
killing huamn
Y → Keeping still

Human try to aviod being chased by Android by
keeping Android in his horizon and finding the exit of
the basement

Start again

You die

You win

You die

Entering the real
exit with keycard

Entering the fake
exit

finding the real
exit and no
keycard

GAME FLOW

PLAY INSTRUCTION



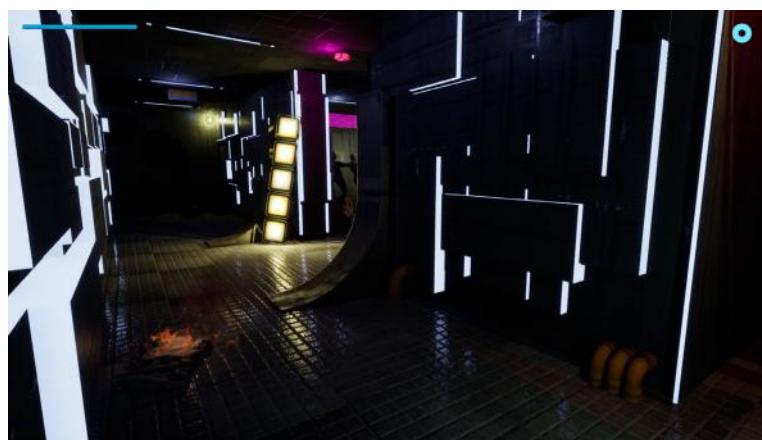
Pressing P and following the instruction of control demonstrated on pause menu to learn how to move



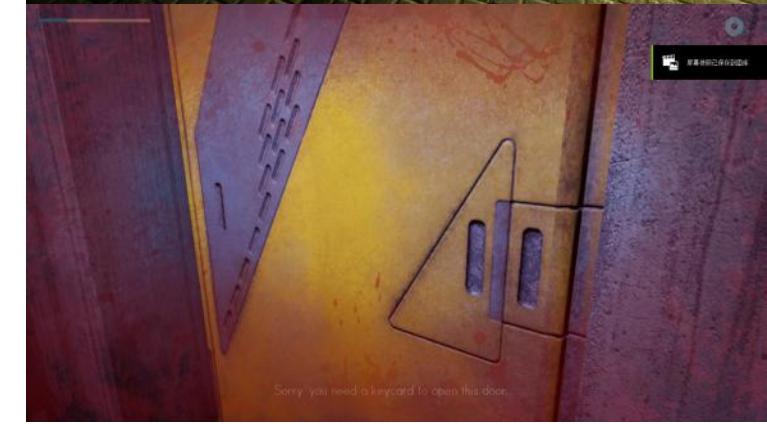
Walking to the auto door to fall into the basement



Walking into the basement



Trying to keep all androids in your view to avoid damage from them

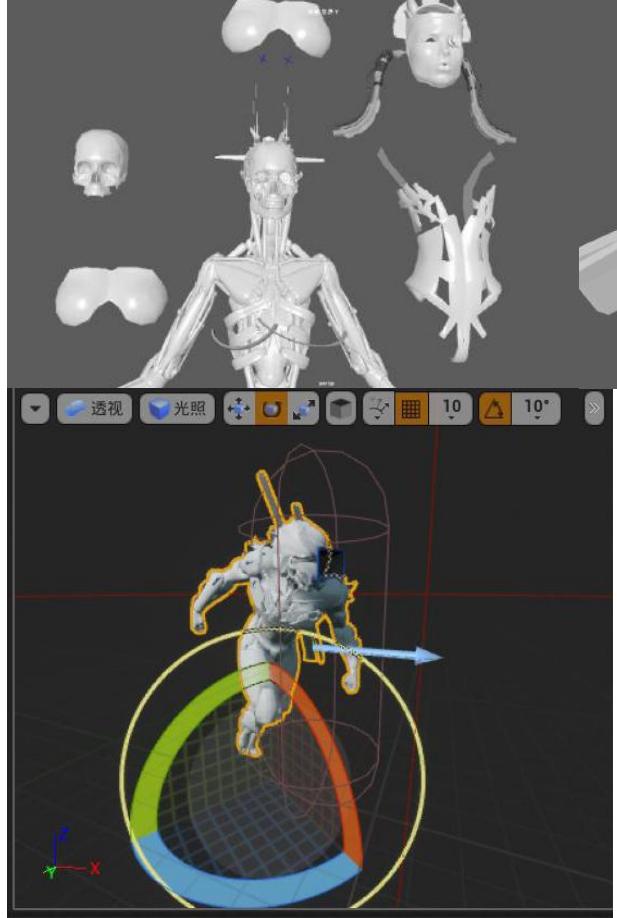


Finding the keycard and the real exit to escape from the basement

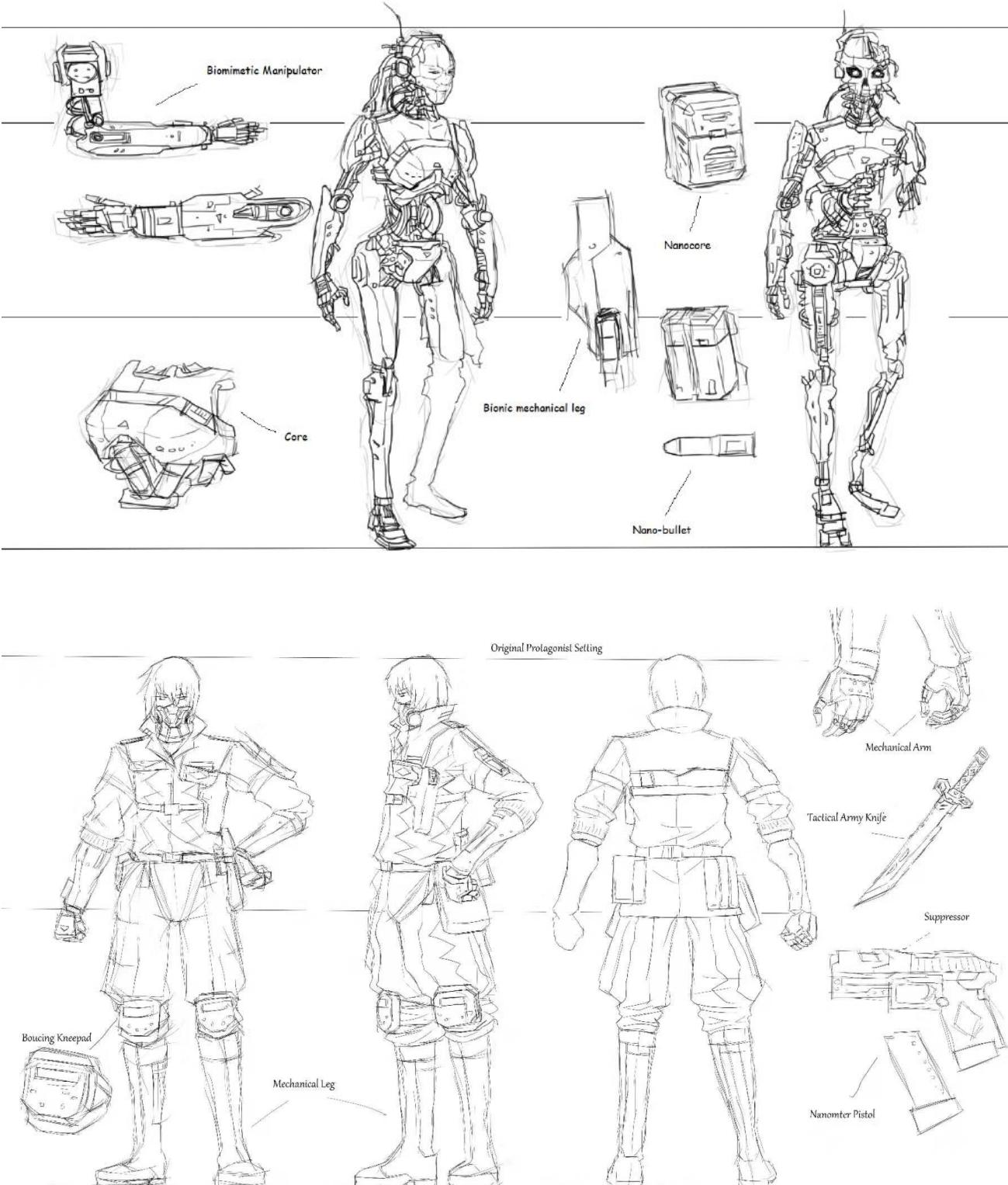
CHARACTER DESIGN



Making Android model is a really a excited part for me, because of its complex mechanical structure. Meanwhile, I need to make animation for him to make it scary enough. What I thought first is the nurses of Silent Hill. So, it will look like a zombie in the game. What's difference is that they do not want your brain, but kill you for avoiding being destroyed. And I plan to design many glow colours on its body, making it looks like they are waiting for your commands when your watch them. But when you turn around, they will become your nightmare.

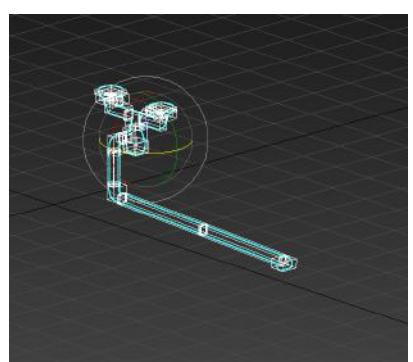


In character modeling, I consider using bionics as the basis for design. The design inspiration is derived from the Terminator and Ghost In The Shell. The character design manuscript refer to these 2 films' advantage. Our protagonist is half-human and half-mechanical, but he still retains the most basic reason of human beings. In order to protect himself from attacking from Androids, he wears a heavy protective clothing and a gas mask to prevent his mechanic part from being infected.

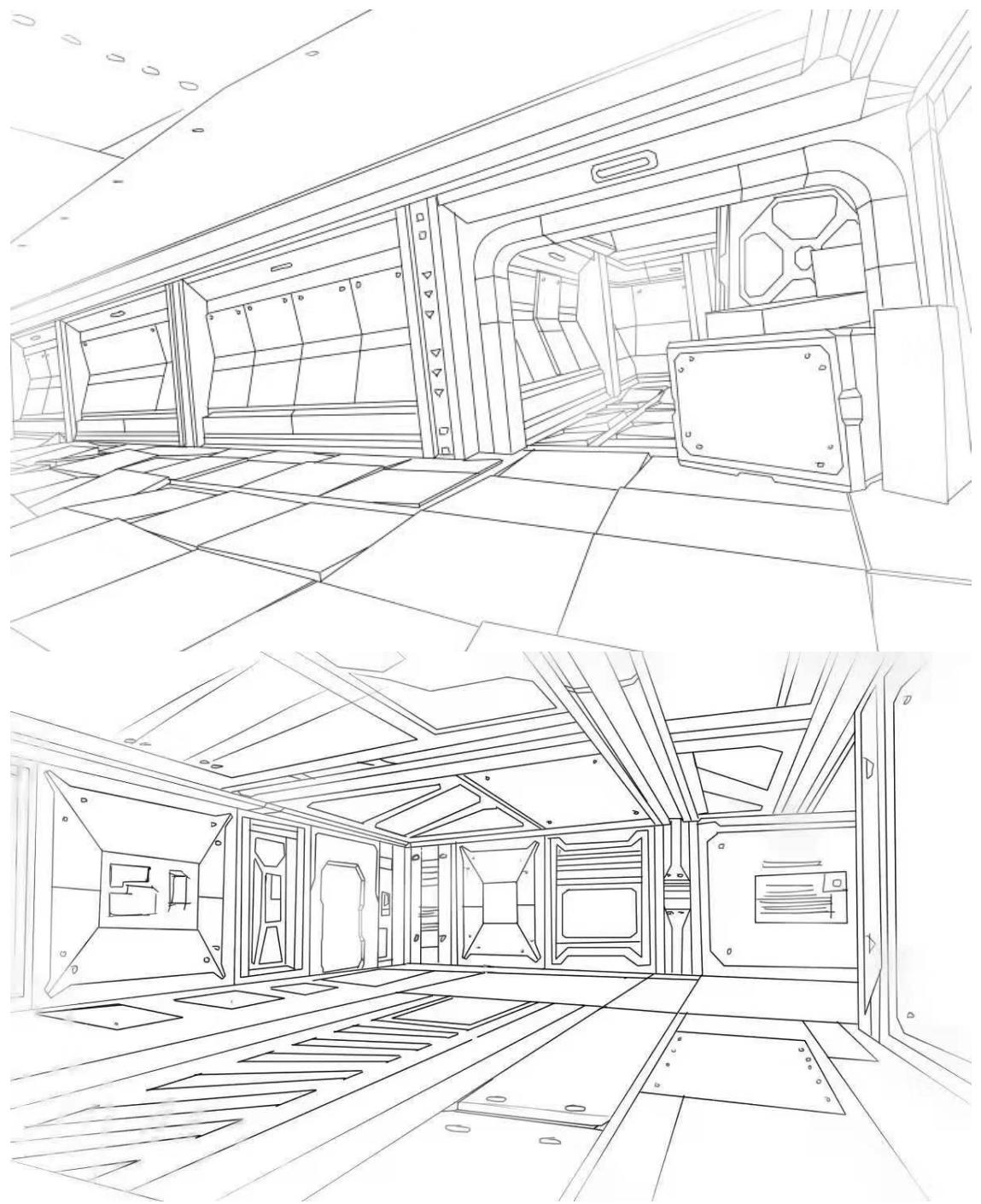


SCENE DESIGN

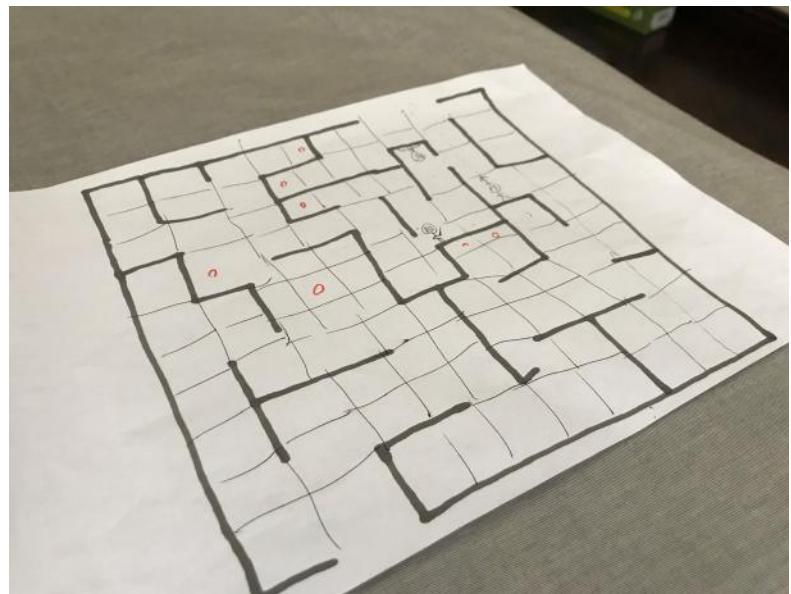
In order to create a horror atmosphere. I designed the scene to be a narrow and dark maze, so that the player can feel horror from the basement directly. At the same time, I make many changes to the scene manuscript. Because original one is pretty futuristic, not cyberpunk.



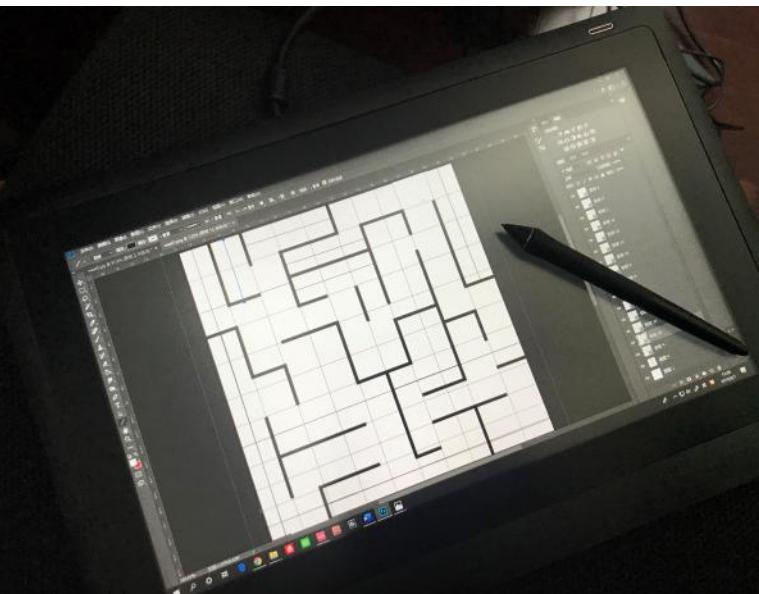
I make many models for some scene clutter. The clutter in the cyberpunk cities always make a key role for the style control.



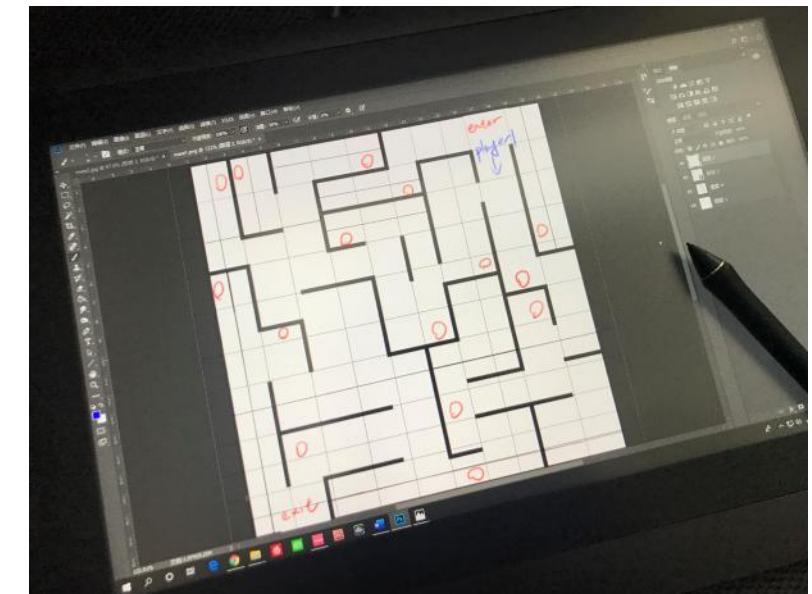
LEVEL DESIGN



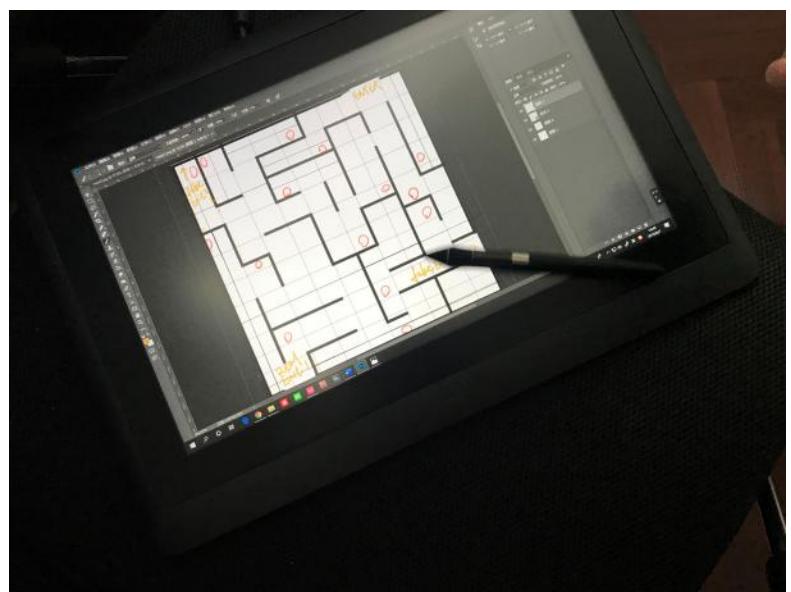
I make a draft of our game map and a red mark to represent the android's spawn point. Then I play with my friend using this paper and some pen caps, like a boardgame



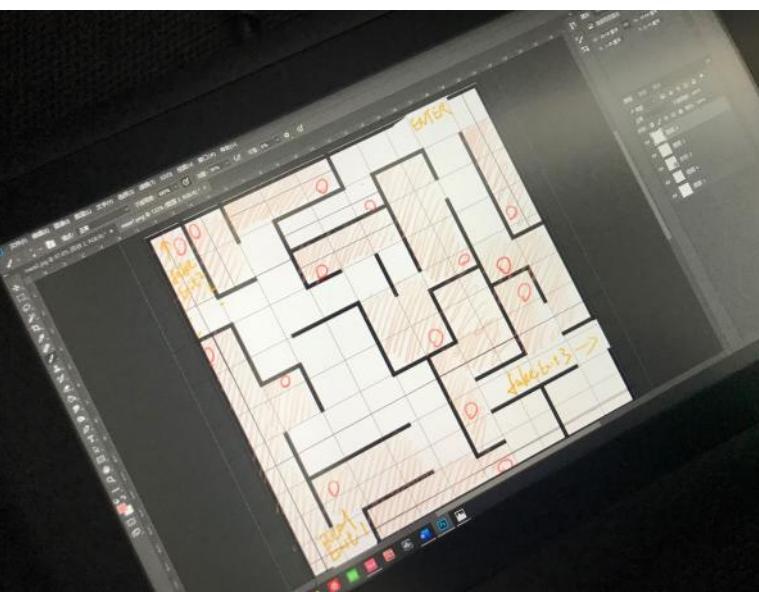
Trying to draw it on my graphic tablet



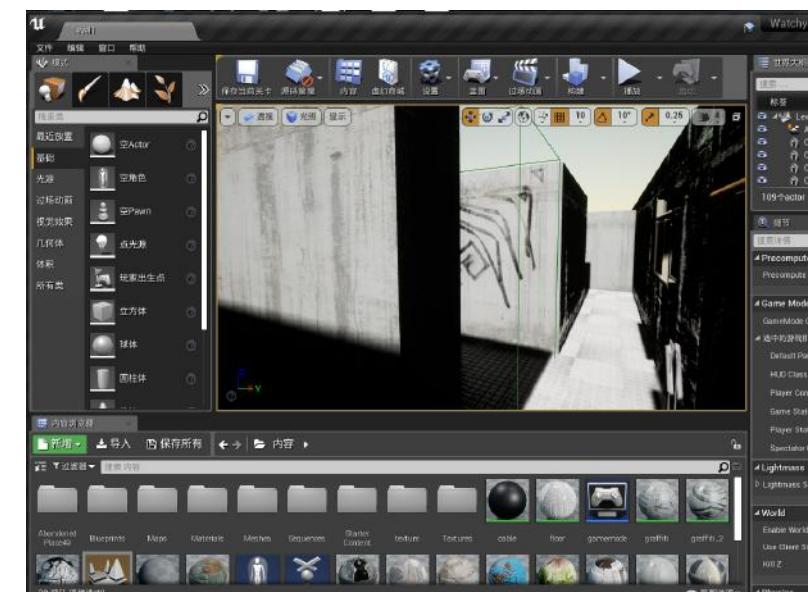
Doing a lot of test to make sure when android randomly spawn in these points, our character can be able to escape the maze successfully



Setting a 2 fake exits in the game map to enhance the difficulty level



Stipulating every androids' movement range, which is not realize in my finished game.



Starting to build the game in Unreal4.

SOUND DESIGN



Background music always make big effect on horror atmosphere. The game needed background music for both levels. Music for the start menu of the game is not calm but rather gloomy. I played this music by classical guitar for last year and I found it on my personal cloud. Then I make a loop and put it in the game, which works very well and enhance the whole game's immersive experience. By the way, the music is called Constellations.

For game audio, I have used the Zoom H4 sound recorded to capture the audio needed for this game. The sounds that I needed to record for the game were mostly footsteps, voices, and machine sounds. The footsteps sounds for protagonist were simple footsteps on the concrete. While the footsteps for the AI robots in the game had to be slightly different, because our protagonist is a human and wears normal boots, while the robots are made of steel. Therefore, the recording for the protagonist had to be of someone walking in boots, and those of robots had to be of steel hitting the ground. The method of recording robot footsteps is similar to Foley method as I am using a piece of metal and concrete to create robot footsteps.

The voices were also recorded with this device, these consisted of a creepy Android voices performed by my friend. As well as gasping sounds for the protagonist.

Another sound that was recorded was the wardrobe sliding door opening, which is used in the game when the auto door opens.



The audio recorded needed to be edited - which has been done using Audacity. Firstly I have used a noise removal effect on footsteps and voices to make the audio more clear.

The footstep sounds didn't need much editing, there was already some echo in the sounds, but it wasn't really an issue as the environment in our game seems empty and echo somewhat fits in. To implement the footsteps sounds in the game, I had to cut out each footprint part and export it as a file, this has been done eight times – which means that the protagonist has 8 different footprint sounds.

Android's voice was edited to sound robotic and slightly demonic as well. I have used a variety of effects to do this such as duplicating the audio to add echo, but also changing the pitch to lower and higher on each audio – which adds a demonic sound to it. The gasping sound sounded clear and only needed to be cut short.

The machine sounds were edited with a variety of effects such as phaser and echo, as well as playing with other effects such as tempo, bass and treble. This can be similar to Foley method since I'm using random machine sounds (mostly cooling fans) and changing their audio to create another sound.

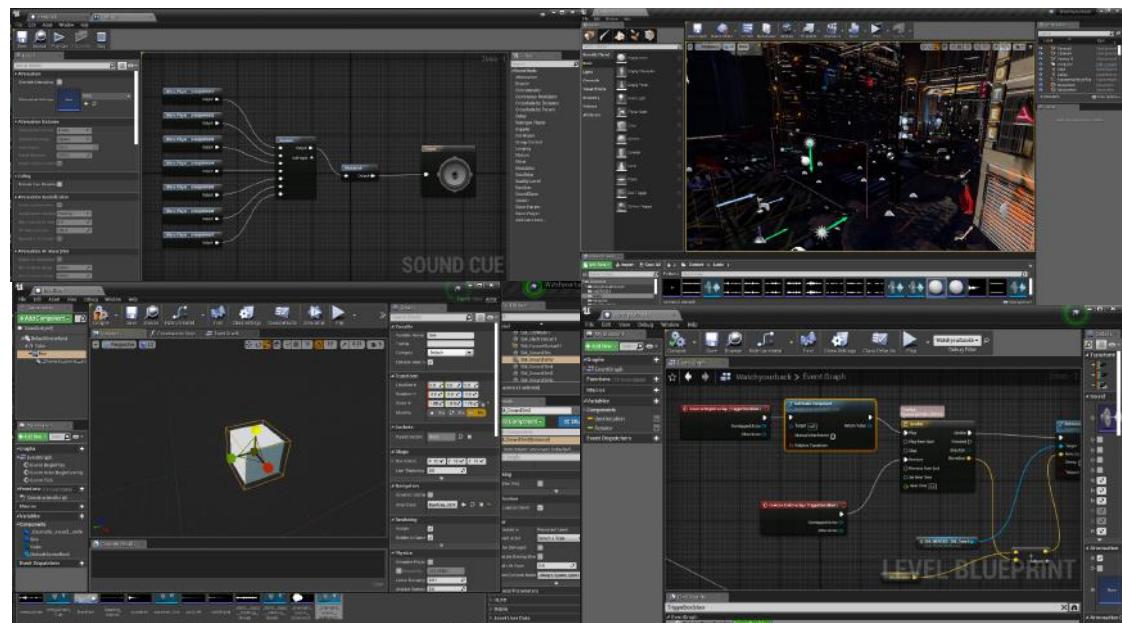
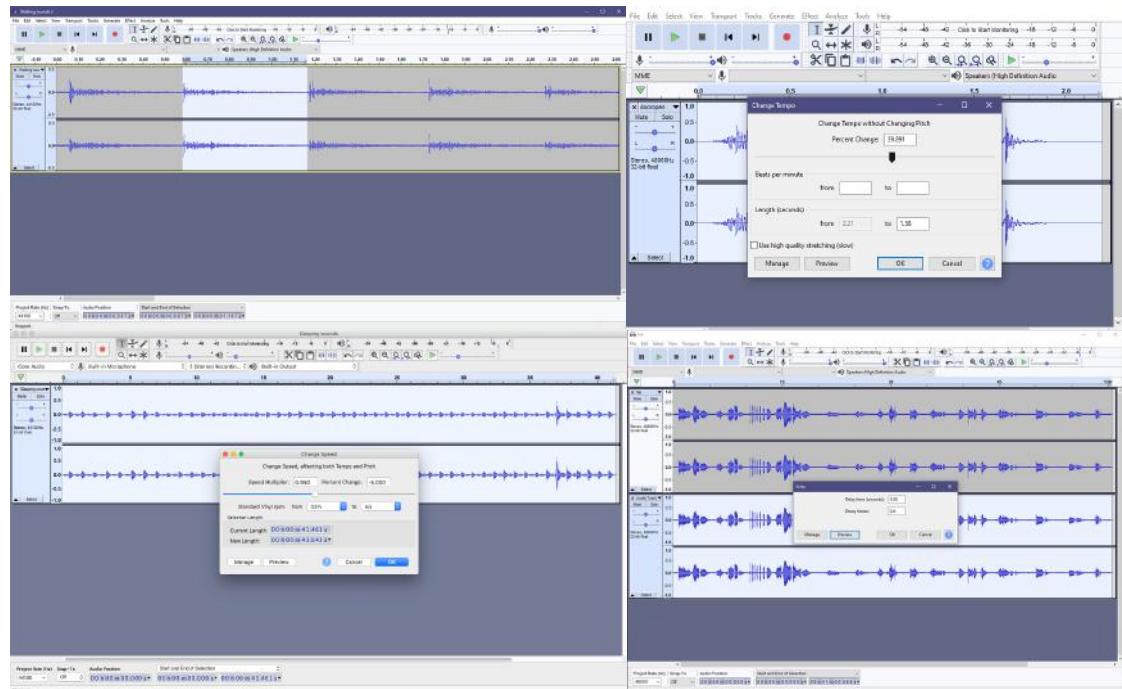
I have used a variety of methods to place the audio in my game. For audio that has to play at certain places I have used a trigger box method – this was done for dead-end sound effect and the creepy AI voice. This is because it is part of the narrative I made and the player can experience it or not depending on the choices they make in the game.

The footstep sounds have been added to the animations of the characters, so they play only when the character moves.

Audio such as door opening, punching sound, fail/success sound have been attached to the blueprints where they play along with the action

Because of limited resources, unfortunately some of the sounds had to be downloaded from the internet, freesound.org in particular. This includes the punching sound and the melting song, which have been slightly modified to fit their purpose in the game.

The background music have been placed directly in the map to play as soon as the player enters the basement in the game.



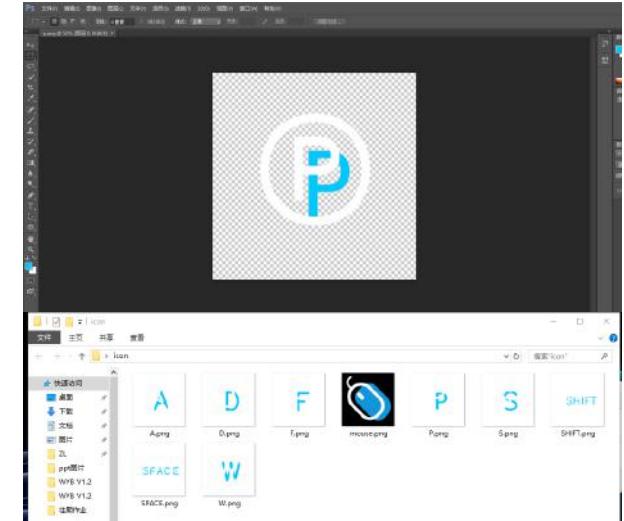
UI DESIGN

When it comes to UI, menus are the biggest part about a game. I use Photoshop and Unreal Widget Blueprints to accomplish this function.



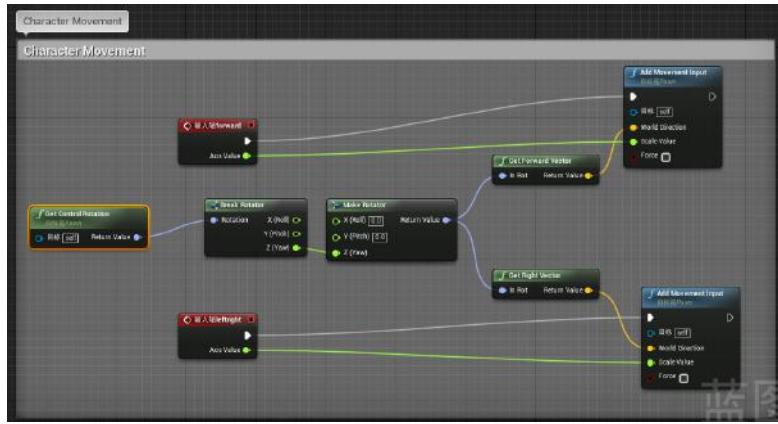
I make main menu and pause menu by Widget Blueprint editor. And I used borders and vertical boxes to make the menu more organized. The design refers to the minimalism style of the game Visage, which is always be used in horror games to make player focus on the graphic to enhance game experience . What's more, translucent black and white text are the most classical color match in horror game, feeling clear and definite.

I set an UI camera to make initial level become a background of the start menu. And I adjusted the camera's angle to give players a feeling that our protagonist feebly fell down the ground. If you Click Start , the camera will switch to the main character's perspective to start the game, seeming like our character wake up, to make game fit the game narrative.

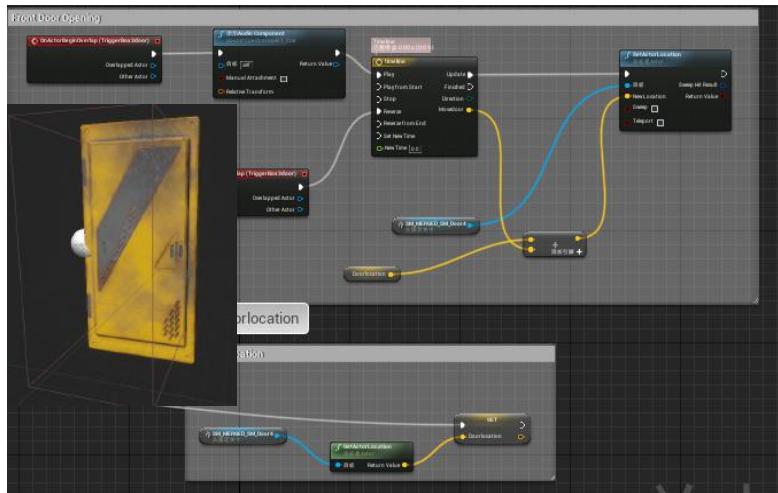


The pause menu continues the style of the main menu. Adding the instruction of game control. About the icons, I use Photoshop to make these icons and make a blue shadow to make it looks futuristic .

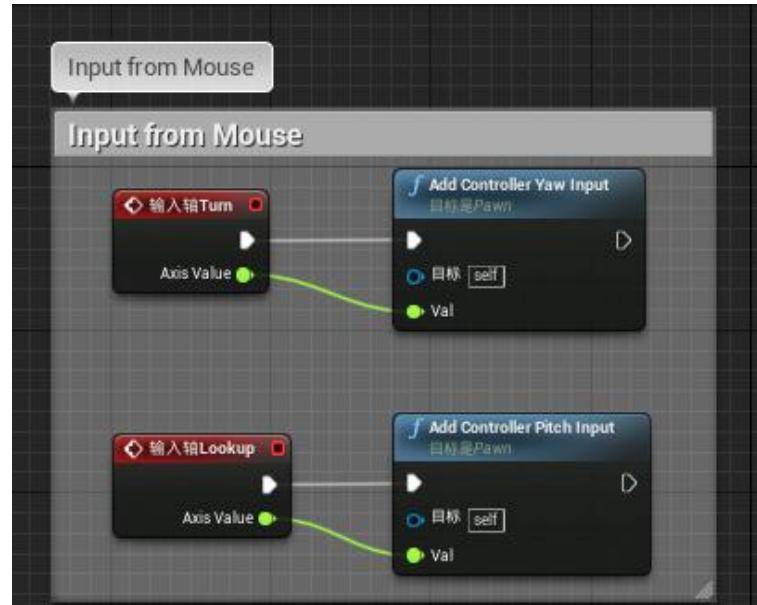
BLUEPRINTS SAMPLE



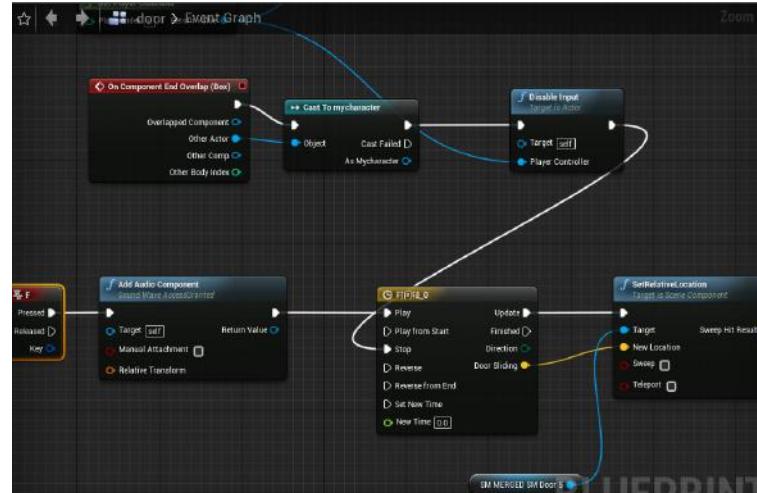
Pressing 'W' 'A' 'S' 'D' to control character movement.



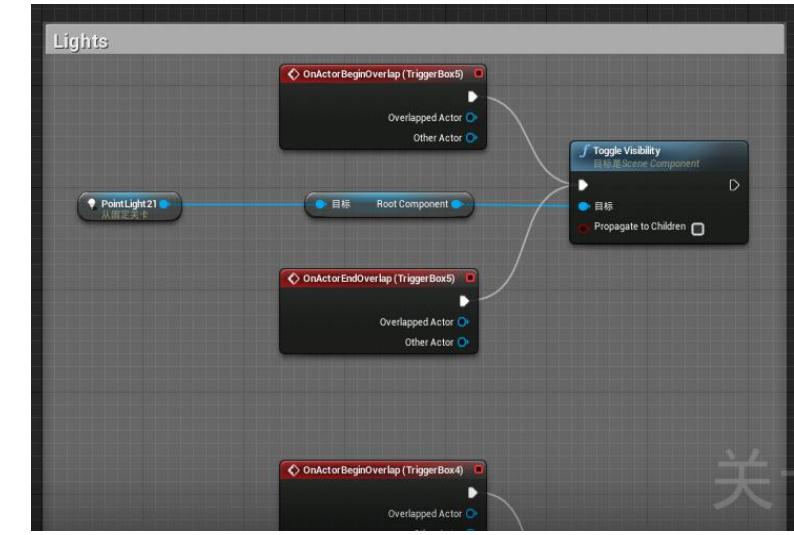
Automatic door blueprints are more complicated than light blueprints. I added more vectors and a timeline to control the movement of the door. Then by getting the position of the door and the change in the position of the door on the X axis, you can make it work.



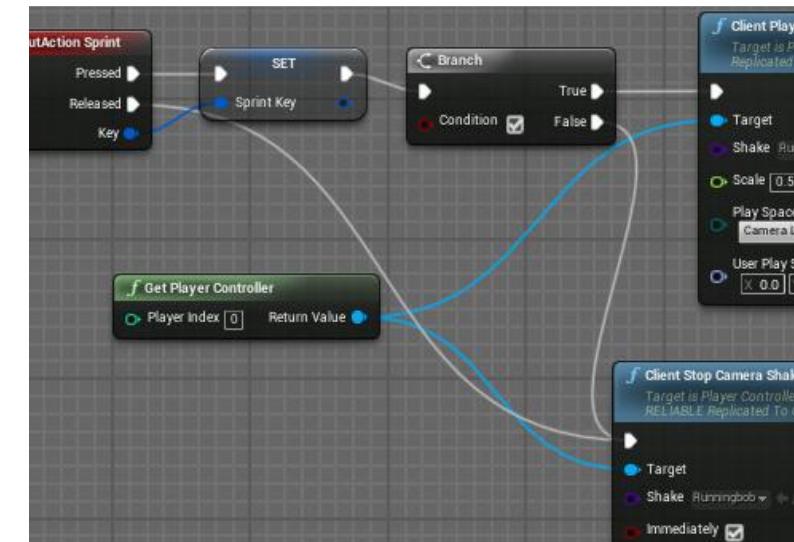
Moving mouse to control the perspective of view



I developed a blueprint for opening automatic doors with a button. Then I modified it with the function of finding a keycard to open the door.



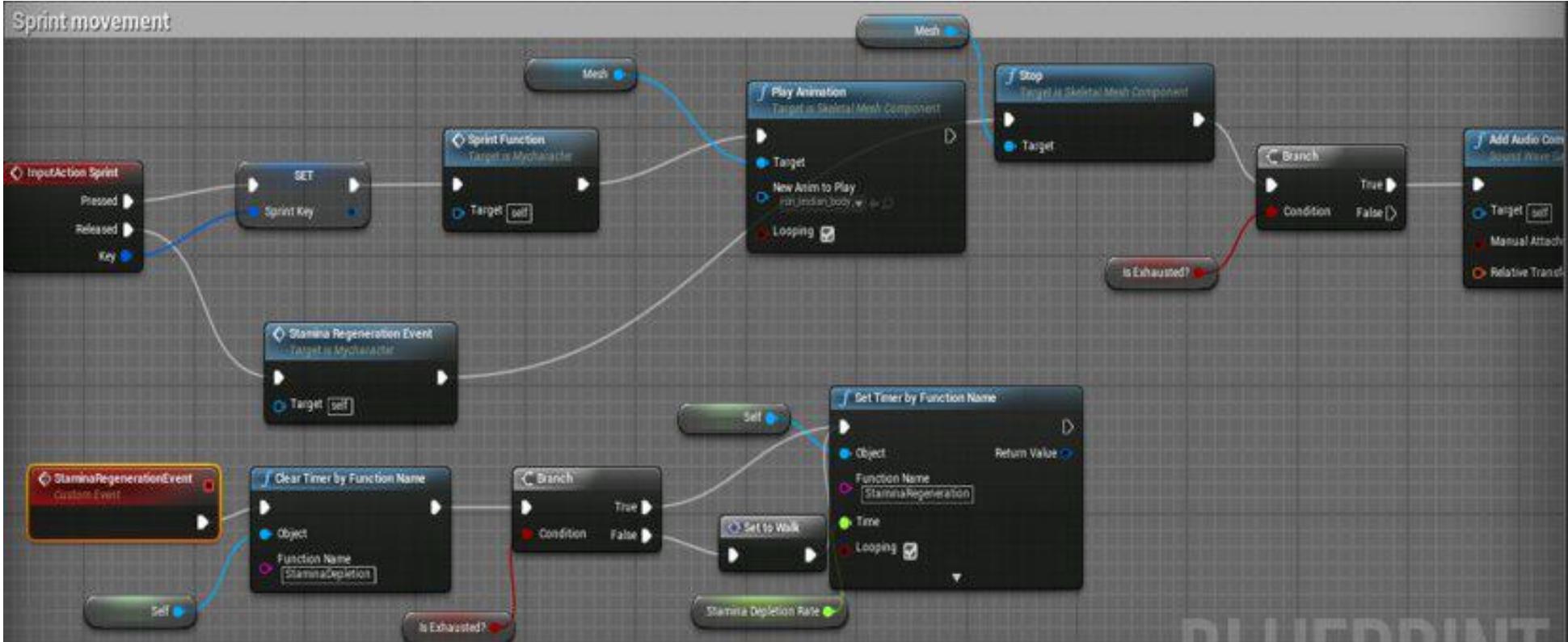
The light blueprint is a part of scene blueprint with a kind of automatic function triggered by the trigger box.



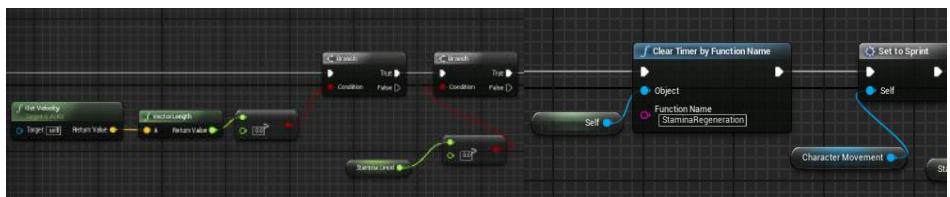
I added a camera shake when the sprint key is pressed. But after playing test, I decided to make it very subtle to prevent motion sickness and for a smoother gameplay.

STAMINA

Sprint movement



Since the player cannot attack the androids, I believed the best action to take is to give the player the ability to sprint/run. However, the player can only run for a certain amount of time before they become exhausted before his stamina regenerates.



Sprint Function checks if user can sprint, if that's true it checks If user is moving on the ground so he does not lose stamina if he jumps. Then it checks if player is moving forward, if that is true then it checks if stamina is greater than 0 and if true It will clear the Stamina Regeneration function and use a macro called set to sprint which Increases walk speed and use set timer by function name which is only called when player is sprinting.

I made these macros so I could easily use them in my Sprint function, Stamina Depletion and Stamina regeneration



I started by making the input action for sprint (left Shift) which is a common sprint key in most PC games.

Then I made variables to make it work:
Stamina level: the current level of stamina

Max Stamina: The maximum amount of stamina

Stamina Depletion Rate: The time it takes for stamina Ato decrease.

Stamina Depletion Amount: The amount of stamina decreased after SDR

Stamina Regeneration Amount : The amount of stamina that is added when stamina is regenerating.

If the player Can Sprint : if the player is sprinting or not

If the player is Exhausted : when stamina is used up, player walks slow.



Sprint
SprintKey
StaminaLevel
MaxStamina
StaminaDepletionRate
StaminaDepletionAmount
StaminaRegenerationAmount
CanSprint?
isExhausted?
Sprint variables

Thesis Proposal

FEAR TRIGGER

FEAR
TRIGGER

A game concept about a combination of machine learning and horror game

Design goal

Using one same game frame to meet different audience's need of fear.

Imaging that if our world is virtual, and what you see is the developer want you to see. That's what I want to do about the game.

Most horror games has a single game mode, which means they lack uncertainty and cannot give any reason for players to play it twice.

And I believe that most people who play horror games don't know what they fear or they like being scared. That's why they love it and they want to find stimulations in them.

What I want to do is to create a brand new game mode, using a demo first to let them expose what they fear without conscious. And then using several biosensors to collect data from our audiences about when and how they fear. Finally using neural network to learn and create corresponding game mode and game scene.

Background

I got this inspiration from ASMR (Autonomous sensory meridian response). With the stimulations of light and sounds, we will feel pretty relaxing and sleepy. But when you listen your favourite ASMR video for several times, you will generate a kind of immunity to these triggers. That's very similar with the horrible games. In my opinion, every horrible game elements can be seemed as a trigger. But when most horror games use same trigger for several times, they will become homogeneous and whole gameplay will crash. Here is an example. When Outlast released, it became so many players' nightmare. Protagonist needs to use a camera with night vision to find the way to go out of the mental hospital and dodge the ghost and psychopaths. But because of its single way, jump scare, to fright its players, the late game become pretty funny gradually. And now it is parkour game.

How to avoid this situation happened again? I still got an idea from ASMR. When a person fell boring about one ASMR sound or video, they will try to find other triggers. And once he found a trigger sound he love, he will listen it again and again until he get bored with it again. Back to my game concept, Fear Trigger simplify this whole process. Using machine learning, I can let game learn and find what you fear and try to create this fear in the game. So everyone can get different game experience, But that's not mean I need to create a bunch of game scenes and modes. After research, we can classify many phobias by the things and situations they fear. According to this classification, we can only do several changes in a fixed scene to make different players fear.

IDEATION

Fear testing level

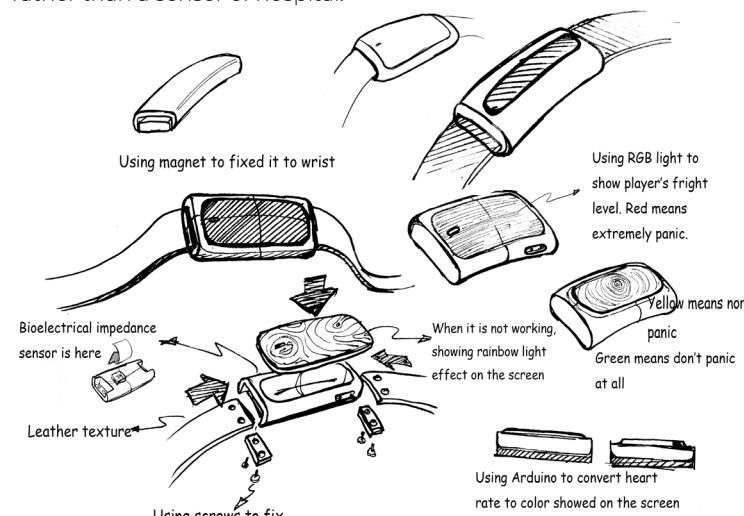
Our player should go through a dark gallery, which contains many pictures and objects. I will use eye-tracking and bioelectrical impedance sensor to monitor where the player looks at and when he feels fear.

Bioelectrical impedance sensor

I get an inspiration from fight-or-flight reactions.

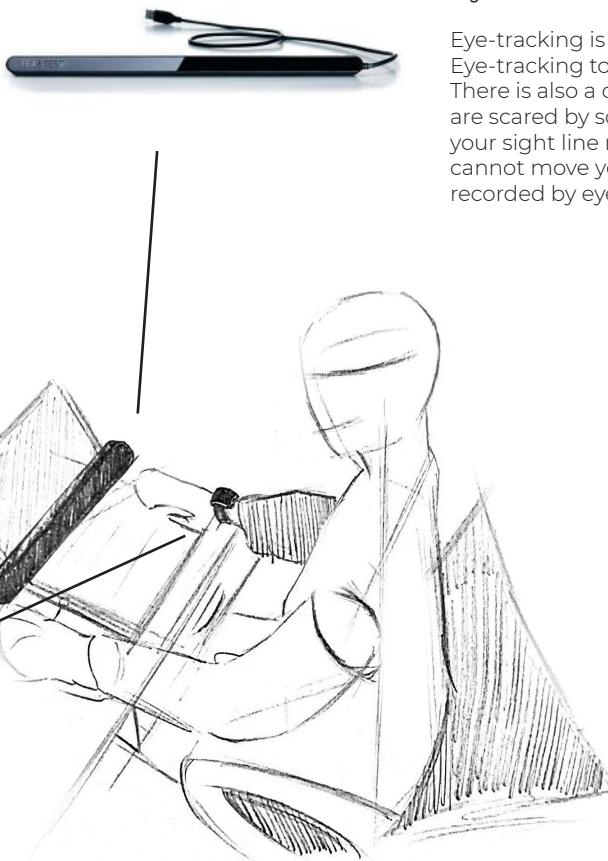
When you feel fear, the most noticeable change of your body is heart rate. Your heart rate will remarkably raise to provide extra blood to your limbs, not your brain. This change can be monitored by bioelectrical impedance sensor.

Bioelectrical impedance sensor, which can monitor blood flow through the impedance of biological body. And then it can use these data to transform into specific heart rate, respiratory rate and many indexes. Because fear can be always monitored by many biological indices. So with some kinds of algorithm, it will be easy to know when and how the player gets frightened and record them in the database for learning. And there is an design of the sensor, I will make it look like a cyberpunk wristband rather than a sensor of hospital.



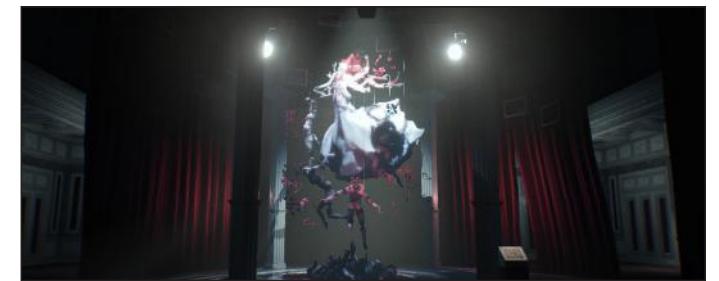
Fight-or-flight response

What happens to the human body in two seconds when faced with fear. At this stage, which is called the panic phase, the body releases a chemical called adrenalin into the blood. Adrenaline gives you a powerful force and makes many other changes in your body. These changes prepare you for rapid action. Reactions caused by adrenaline are sometimes called "fight or flight" reactions, because they're ready to let you fight or run away from fear. Scientists believe that this "fight or flight" response is very important for primitive people who are facing the attack of wild animals and other similar dangers. Today, as long as there is danger, the same reaction process will still occur, whether it is a barking dog or a horror game.



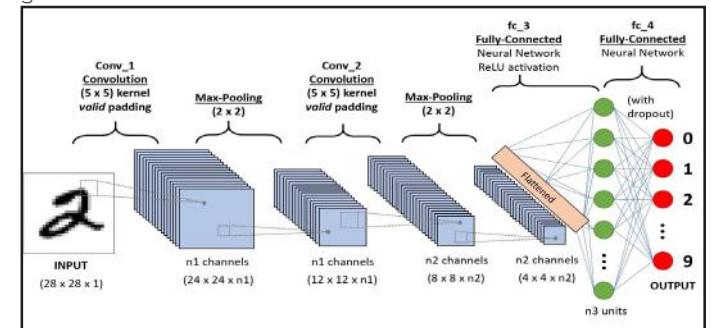
Eye-tracking

Eye-tracking is an important instrument in basic research of psychology. I want to use Eye-tracking to record where they are looking at when they feel fear in the fear testing level. There is also a common sign of human's sight when they feel petrified. For example, if you are scared by something. Your sight line will make some changes. Here are 2 situations. First, your sight line may move out of the screen, like blindfolded. Second situation is that you cannot move your sight line. You can only stare at what makes you fear. Both of them can be recorded by eye-tracking, which will help the game to analyse if you are really scared or not.



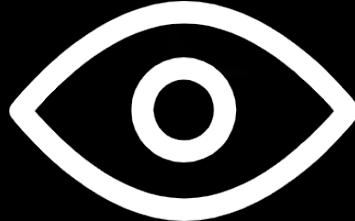
Machine learning

Here is a question, how can I use this data to make changes to the game scene. My answer is machine learning. When the player's heart rate rises markedly, the game will take a screenshot of where you are looking at. If your eye sight is not on screen, the game will take a screenshot about where you stared at the last time. All of these operations are helped by eye-tracking. Then the game will recognize these images based on convolutional neural networks and put the corresponding objects or situations in the game scene.



RESEARCH - part of phobias

common ground of these phobias
make them into the basic game structure



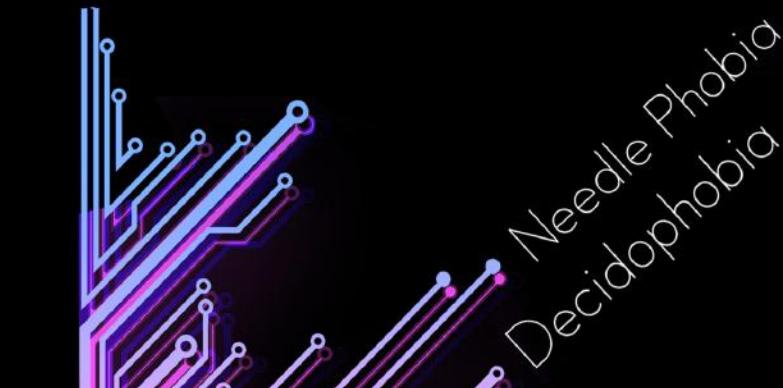
For example, when the Player is detected that he has eye phobia. Game will change the original texture of an object in the game scene by a eye ball texture. And it will stare at you until you leave its view.



If you got deep sea phobia, the game will change the scene outside the window. There will be dark and cold. And you will hear weird sound comes from unknown fish. You may hallucinate because you get hypoxia.

Simple phobia: Unreasonable fear for a specific object, or animal

Those who have phobia have strong and unnecessary fear for some specific objects or situations, accompanied by obvious anxiety and autonomic nervous symptoms. I divide these phobias into two parts - simple one and special one. Simple one is more about objects and seems not reasonable for someone who fear them, which means I can only show these in the scene to create the horror atmosphere. Special one is more about specific situations and they seems much more reasonable for someone who fear them. But why I put them into special one. Because it will be harder than simple phobias to put them in the game, which means I need to put these situations in game narrative, but scene.



If you are detected you have decophobia, game will change the original storyline to give your more choices in the game and every choice will affect whether you can finish the game mission.



Special phobia

Special phobia: Relatively reasonable fear for a special situation or object

If you have Pediophobia, game will arrange a android doll as your enemy and how to avoid killing by it is one thing you need to consider.

SUMMARY

Core mechanic

According to the data comes from wristband and eye-tracking. The game will generate the corresponding horror elements in the scene. What players need to do is to overcome their fear and finish the task.

WOW factor

Creating corresponding horror elements to cater players' flavour about horror game.

Target platform

I choose PC as this game platform. Because of PC's powerful graphic computing power and it's open source nature, I can create a very realistic scene and easily put my ideas in the game to enhance its immersive experience and core gameplay. Immersive experience largely comes from game graphic, and game control. So, PC should be the most suitable platform for this game.

Challenge

How to use machine learning to make the game create different game scenes is one of the biggest challenge of the game. How to make band-wrist and eye-tracking work together and how to let game recognize image are the hardest parts in the game.



Art direction



Cyberpunk style scene is always my favourite. Because it is not an imagination, but our future. In addition, how to make the game narrative relate to the phobias and connect to the problem about digital immortality make the horror game have deeper meaning behind its horror appearance is a question i need to think.

GAME FLOW



