

Project Personal Diary -

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Tuesday 16th January 2018

This semester I will continue with the environment creation for Project Eve. I will be also responsible for building the environment in Unreal Engine 4.

Today I created basic production plan, which includes lighting research, assets creation and building the environment. I'm also planning to spend one week to prepare the game for exhibition.

I'm going to divide the assets for primary and secondary. Firstly I will create primary assets which will be needed for game to work, such as walls, floors and assets which are part of game mechanics. The secondary assets will be additional assets which will be create to make the environment look better, however they will be not part of the gameplay. Most of the assets will be modular.

Martyna Grek - Semester 2 Production Plan

Week 1

- Environment Concepts - environment assets concepts, paper + digital.
- Lighting Research - Lighting used in lab and how to create it in UE4.
- Update assets list (final list)

Week 2

- Walls - Walls assets and textures + research on wall's height.
- Floor - Floors assets and textures.
- + spare time to finish Environment concepts if needed.

Week 3

- Creation of primary assets (concepts, models and textures)

Week 4

- Creation of primary assets (concepts, models and textures)

Week 5

- Creation of secondary assets (concepts, models and textures)

Week 6

- Creation of secondary assets (concepts, models and textures)

Week 7

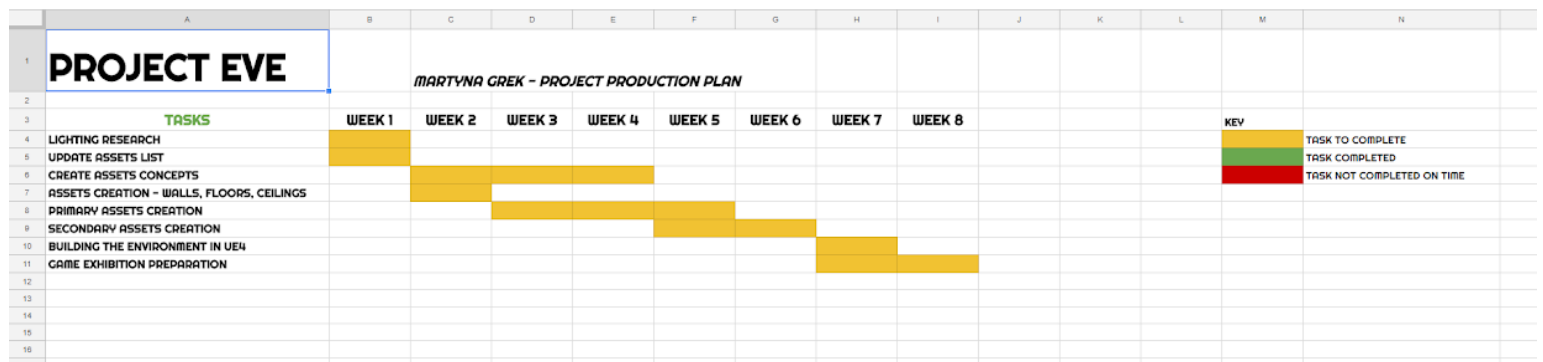
- Building the environment (uploading the assets to the final project)

Week 8

- Game presentation preparation (trailer, posters, high quality final game screenshots etc)

Friday 19th January 2018

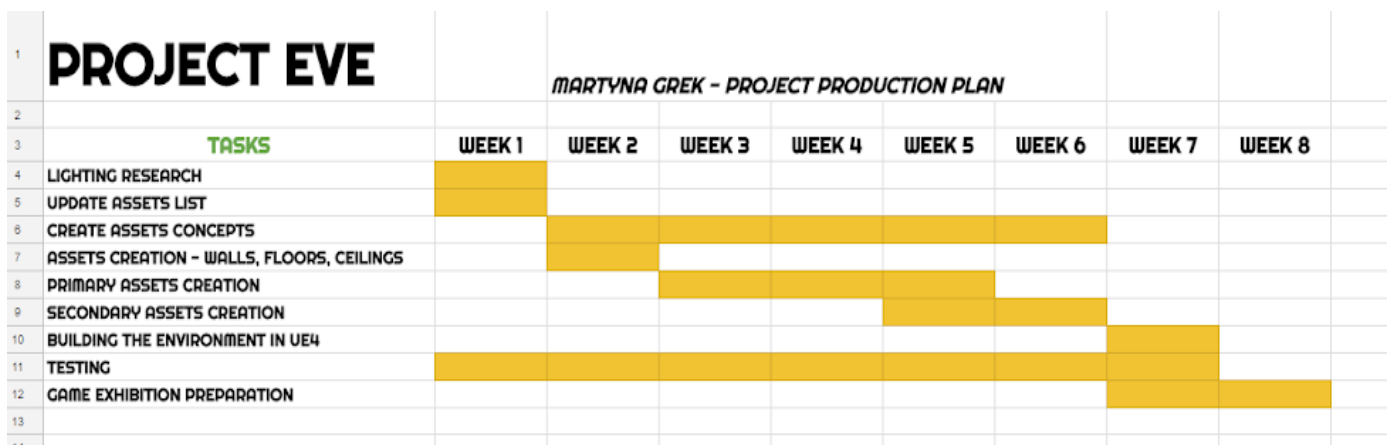
Today I updated my project plan by setting up the Gantt Chart from the planning notes I



made before.

Wednesday 31st January 2018

Today I updated my gantt chart by adding TESTING to my tasks as I'm going to test everything before adding it to the final project to make sure everything is working and



each asset will match the art style of our game.

Thursday 1st February 2018

As I finished tasks that I should do in the first week which are Lighting Research and Update assets list, I moved to the designing and making game assets so my gantt chart had to be updated. I updated the gantt chart by adding assets concepts and assets

creation (walls, floors, ceilings) to the first week. By doing this I can focus on the assets

	A	B	C	D	E	F	G	H	I	J
1	PROJECT EVE									
2		<i>MARTYNA GREK - PROJECT PRODUCTION PLAN</i>								
3	TASKS	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	
4	LIGHTING RESEARCH									
5	UPDATE ASSETS LIST									
6	CREATE ASSETS CONCEPTS									
7	ASSETS CREATION - WALLS, FLOORS, CEILINGS									
8	PRIMARY ASSETS CREATION									
9	SECONDARY ASSETS CREATION									
10	BUILDING THE ENVIRONMENT IN UE4									
11	TESTING									
12	GAME EXHIBITION PREPARATION									
13										
14										
15										

creation straight in the first week, not only on research.

Here is the final list that I divided into Primary and Secondary Assets. For the primary assets I decided on the most important environment parts needed to make the game working, including assets such as walls, floors, corridors and assets which are part of the gameplay, for example energy and health rechargers. My plan covers 32 assets to be made in total, however I'm planning to make different textures, for example for walls, but using the same asset. Also the corridors will need a couple of assets, including floors, walls, ceilings and lighting. Secondary assets are not needed to make the game working however they are needed to make the environment look better and more interesting.

1	Final Assets List									
2	Primary Assets	v01	v02	v03	v04	v05	Secondary Assets	v01	v02	v03
3	Wall Panels						Vents			
4	Window Walls						Pipes			
5	Ceilings						Cables			
6	Floor						Crates/Boxes			
7	Med Bed						Desks			
8	Lighting						Computers			
9	Door						Chair			
10	Hand Scanner						First Aid Box			
11	Stairs						Bin			
12	Teleport						Shelves			
13	Platforms						Cabinets			
14	Energy Station						Containers (Creatures)			
15	Activator						Containers (Plants)			
16	Pillars						Toxic Hologram			
17	Activation Screen						Toxic Signs/Posters			
18	Puzzle Stations						Barrels			
19	Eve's 2n Textures									
20										
21										
22	Primary Assets	v01	v02	v03						
23	Corridors									
24										
25										
26	Primary Assets	v01	v02	v03						
27	Health Recharge									
28	Energy Recharge									
29	Activation Energy									

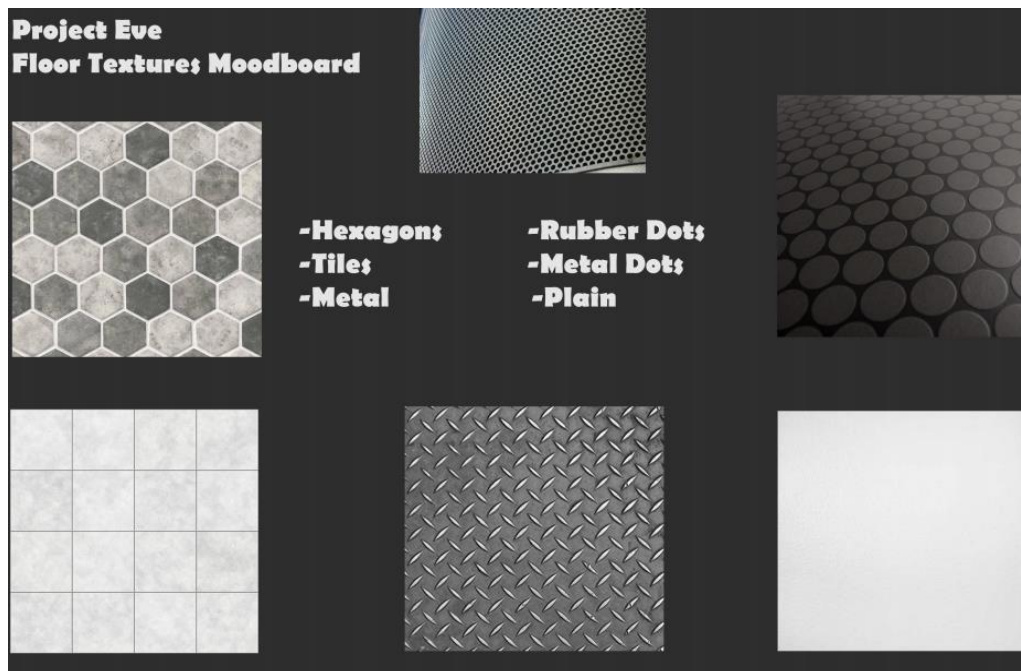
KEY
 COMPLETED
 NOT COMPLETED

32 TOTAL ASSETS
 1 CORRIDOR

2nd February 2018

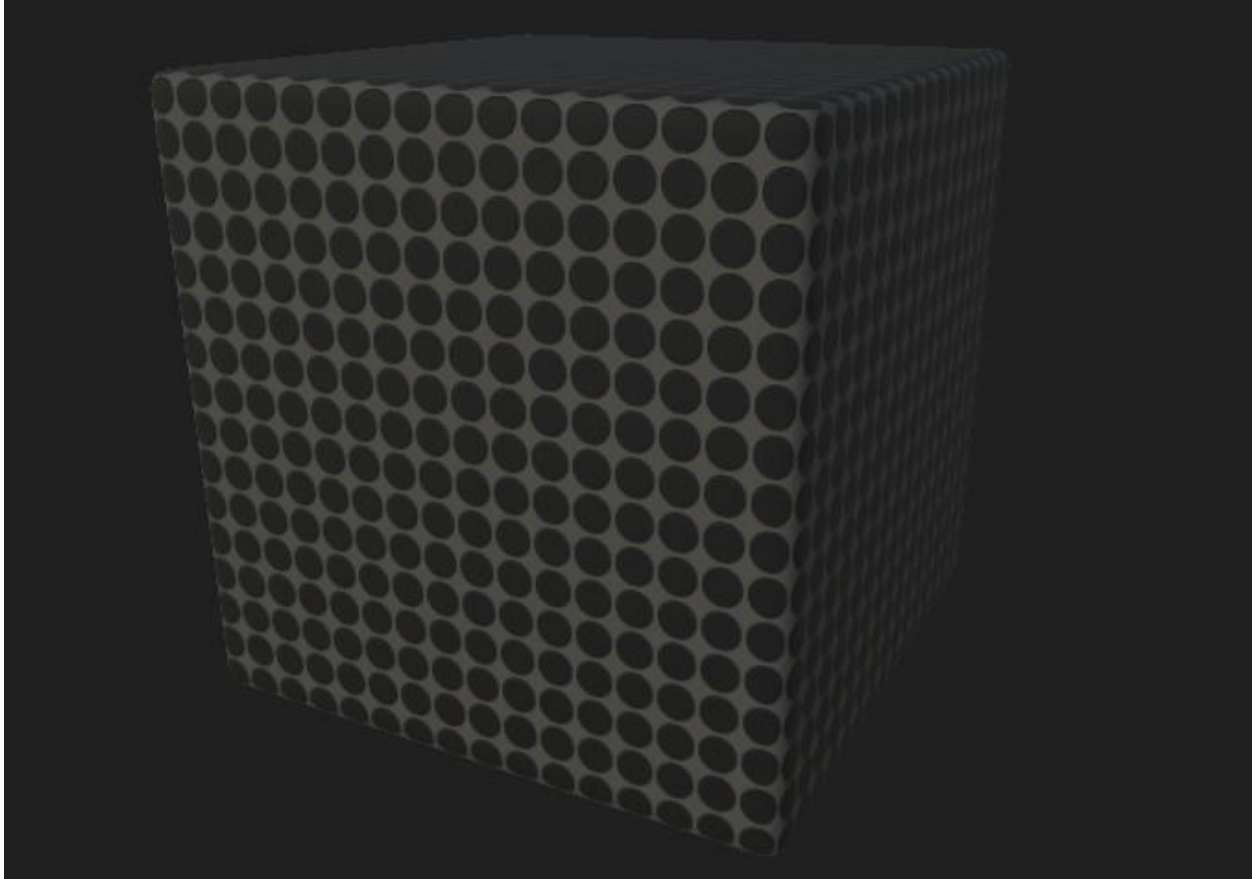
Today I made research on the lighting used in similar environments - Sci Fi theme I found a couple of pictures which will help me create environment to our game, for example what colours I should use.

I also updated my Floor Textures Moodboard by adding more textures to it. This will give me a better idea of what textures I will need to create for my assets.



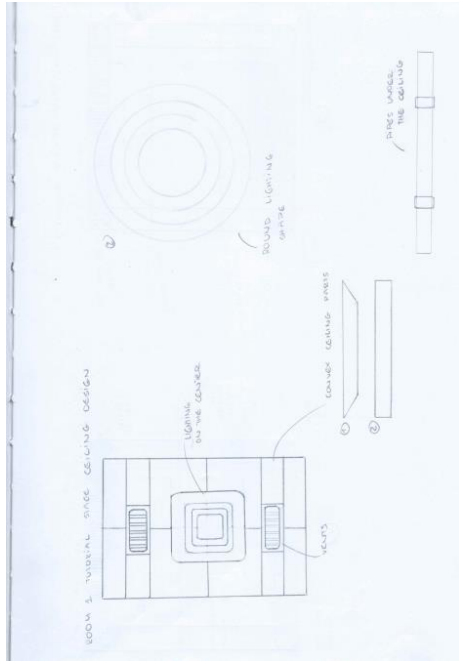
Substance Designer Graph



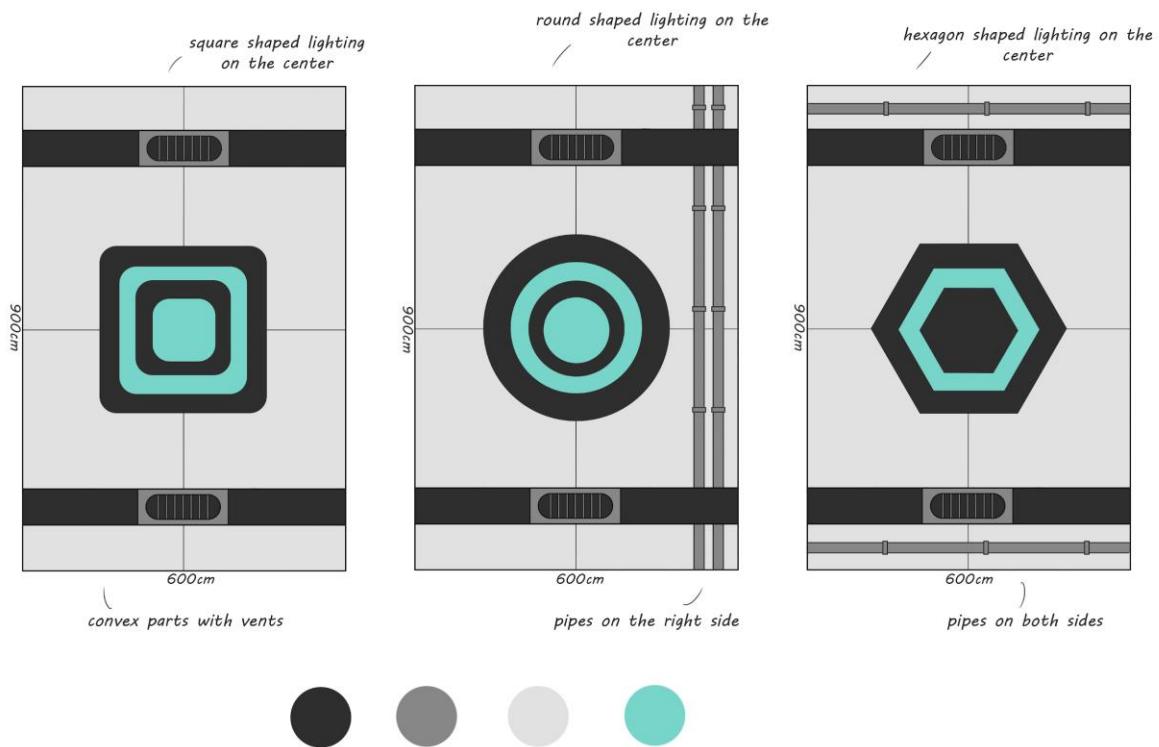


Today, I also finished ceiling concept for the first room(Tutorial Stage). As its the starting area I decided to create it as an unique asset in the game which will be not modular or used in any other area. My first ideas I sketched on paper and then I finalized it digitally and added more designs. The ceiling is designed to provide the most lighting on the center of the room.

Ceiling Sketch:



PROJECT EVE - ROOM 1 TUTORIAL STAGE CEILING DESIGN



4th February 2018

Today I started working on the 3D model for my ceiling concept designed for first room in the tutorial stage. I created the model and prepared it for the next step - textures.

5th February 2018

I found some problems as the ceiling light in the center was too thick that could be a problem for the 3rd person view so I changed its size and tested it again. After that I created textures for the ceiling.

Also, I created designs of the walls:



6th February 2018

Today I created the door. In my design the corners were a bit sharp, to fit to the environment I created so far I had to make the corners more rounded. After I created the model I tested it in UE to see how it will fit with the environment. The problem I found was that the door were too thin so I had to go back to Maya and fix it. Another problem was that there was a bit of empty space between the door frame and ceiling/walls so I had to create a part of the wall to hide that empty space.

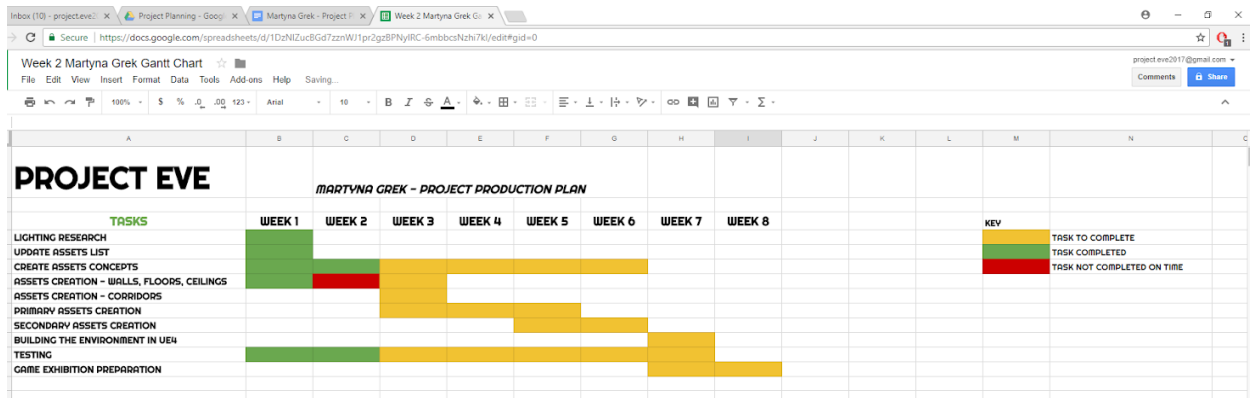
7th February 2018

Today I have created textures for the doorframe based on my design. I also tested the assets I have done so far and found a problem with the floor as the player could go through it. The problem has been discussed with a person responsible for technically work in UE4 during the group meeting and in results as my next step I need to test it by make the floor thicker.

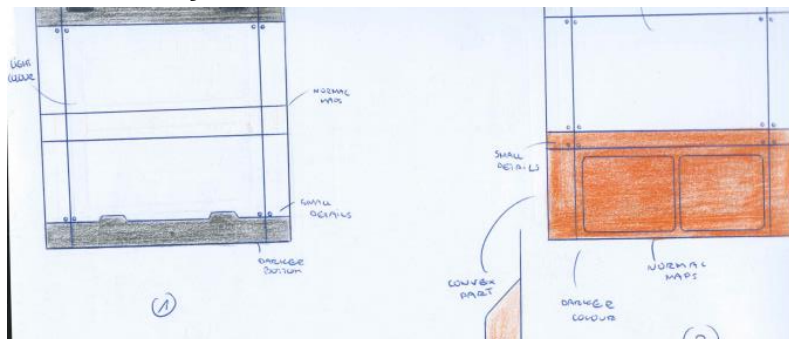
11th February

Today I had to update my gantt chart as I didn't manage to create all walls, ceilings and floors on time as I planned. At this moment I marked the task as not completed and I added 1 more week to do it.

Updated Gantt Chart:



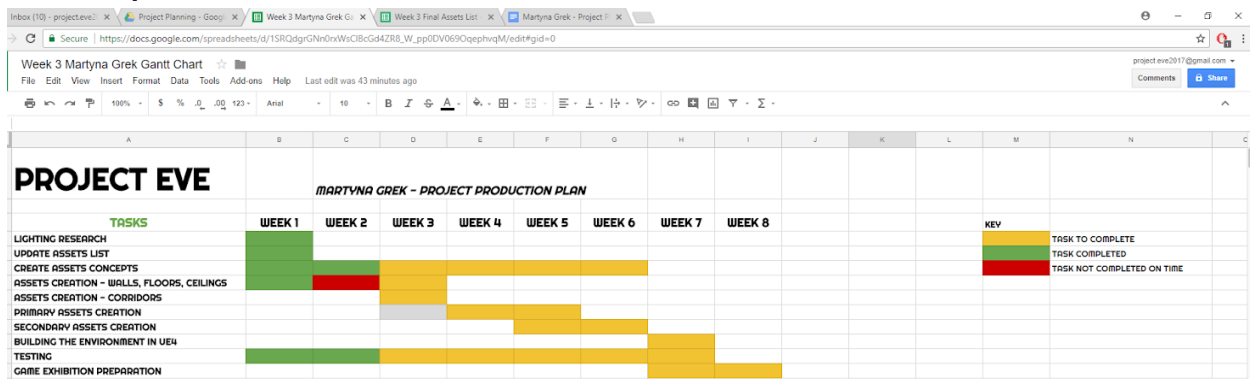
I also created third walls design:



13th February

As I had to add 1 more week to do finish ceilings, walls and floor I had too many tasks in week 3. I couldn't manage to start primary assets in the same time when I had to finish my previous tasks so I left only 2 weeks to do this task instead of 3. If I will not finish primary assets on time I might add 1 more week to do it but leave only one week for secondary assets.

Week 3 Updated Gantt Chart :



Week 3 Updated assets list:

I also created a plan for my primary assets creation which I'm going to start in the next week. I planned every day, when and which asset I'm going to create. In the first week I I'm going to create the most important assets which will be used for the gameplay such as teleports or weapon crates, in the next week I will focus on the assets such as stairs and lighting. Weekends I left empty to catch up with stuff if anything haven't been done on time.

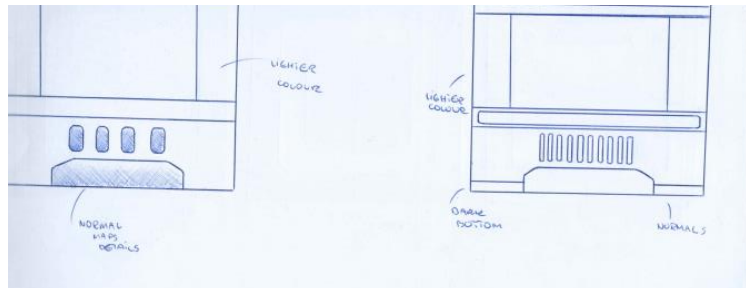
Week 1 (4th Project Week)

Week 2 (5th Project Week)

Not Completed
Completed

Later I also finished the last wall panel and uploaded it to the UE4 project to test it and also see if it fits to the game world. As I managed to finish all the planned walls I can now focus on the ceilings, finish the floor and start corridors.

Wall sketch:



Wall asset

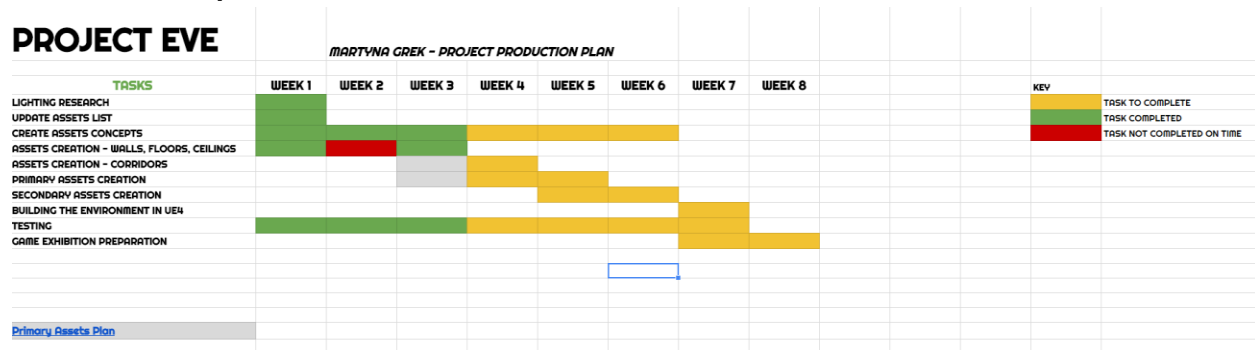


15th February

I updated my Gantt Chart by moving corridors creation together with the week when I am going to start primary assets. I also planned to start the corridors together with the primary assets before, however when I updated my Gantt Chart by moving primary assets one week later I did not move corridors. This also gave me more time to focus on the most important environment parts which were walls, ceilings and floors.

Additionally, I added a link which will move me to the document with a plan for primary assets creation. This will help me to easy move to my plan without looking for it and update it easily, and also will help my team members to see what have been done so far in details.

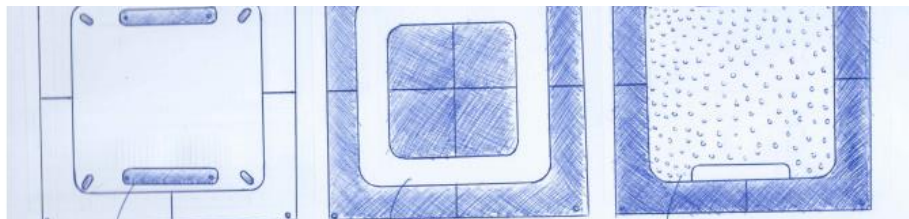
Gantt Chart (Updated):



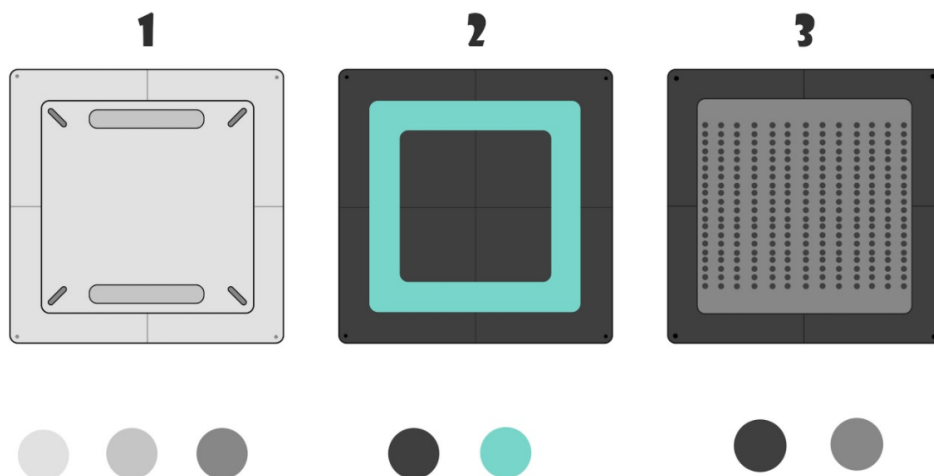
16th February 2018

Today I started design ceilings. I created three different concepts for ceilings that I can use in the game. As I planned to have some of the rooms darker and some lighter, and also I have different floors and walls I decided to design two types of ceilings - dark colour and light colour. These panels will be modular.

Ceilings Sketches:



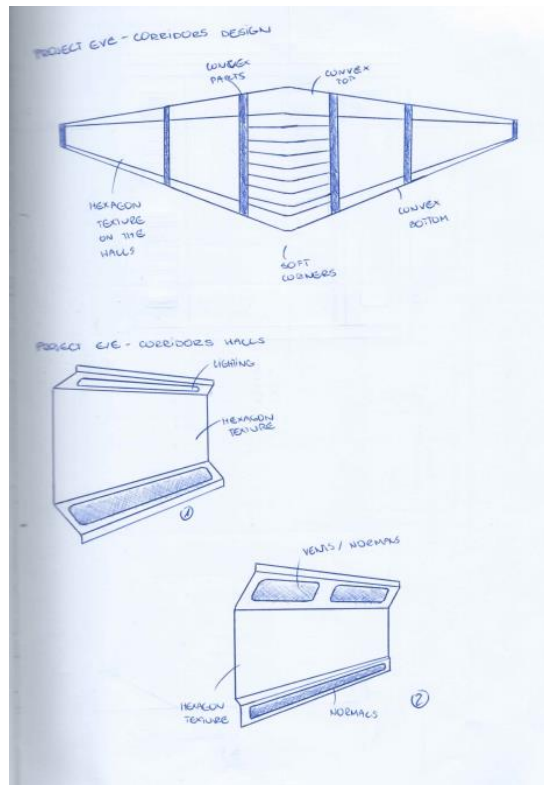
PROJECT EVE - CEILINGS CONCEPTS



19th February 2018

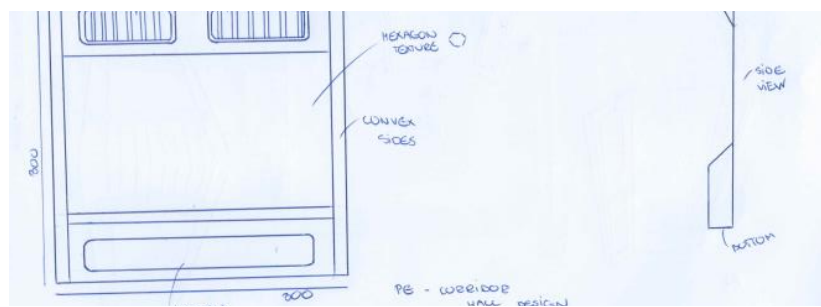
I started with some sketches to plan the corridors. I'm planning to create the corridors with soft corners, the bottom and the top parts of the corridors will be convex and I'll add hexagon texture in the middle of the walls. I am planning to make the corridors a bit darker than the rest of the environment and create a cold mood with a little bit of danger feel.

Corridors Sketches:

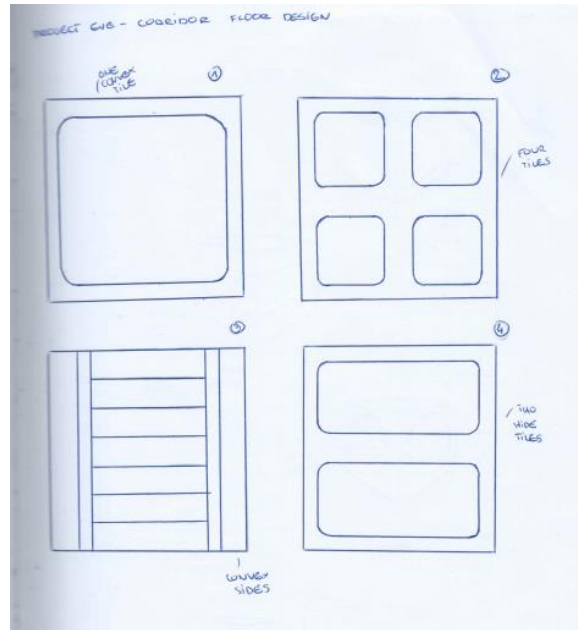


I also created corridor wall concept and floors that I'm going to use in the corridors. As I planned today to create crates for weapons and textures(new clothes) I managed to prepare some sketches, however I spent too much time planning corridors, that's why I decided to leave the corridors at the moment and catch up on weekend and focus on the planned tasks.

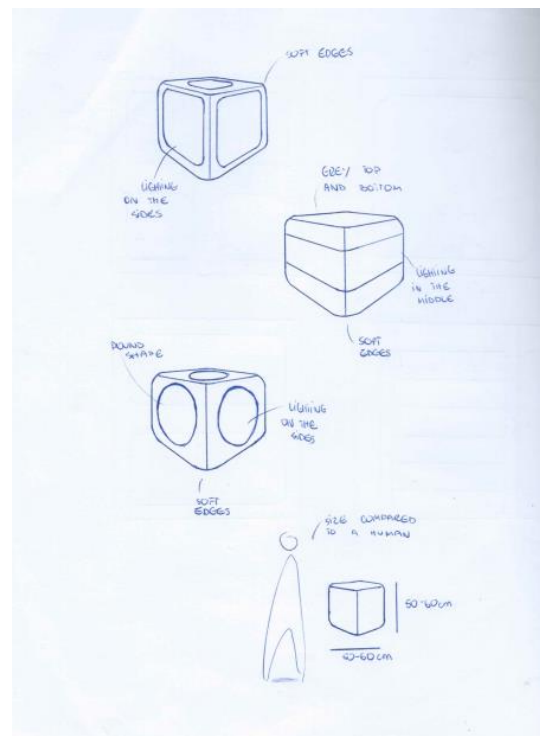
Walls Sketches:



Floor Sketches:



Weapon Crates Textures:



20th February 2018

I found out that I'm going to be a bit behind with my planned assets and I will probably need to catch up at the weekend. I also decide to not continue with digital artwork - instead of this I will focus only on the sketches as I started to see the risk that my work will be not done on time with that amount of assets to create if I will focus too much on the digital work. I think its a good decision to keep my goals.

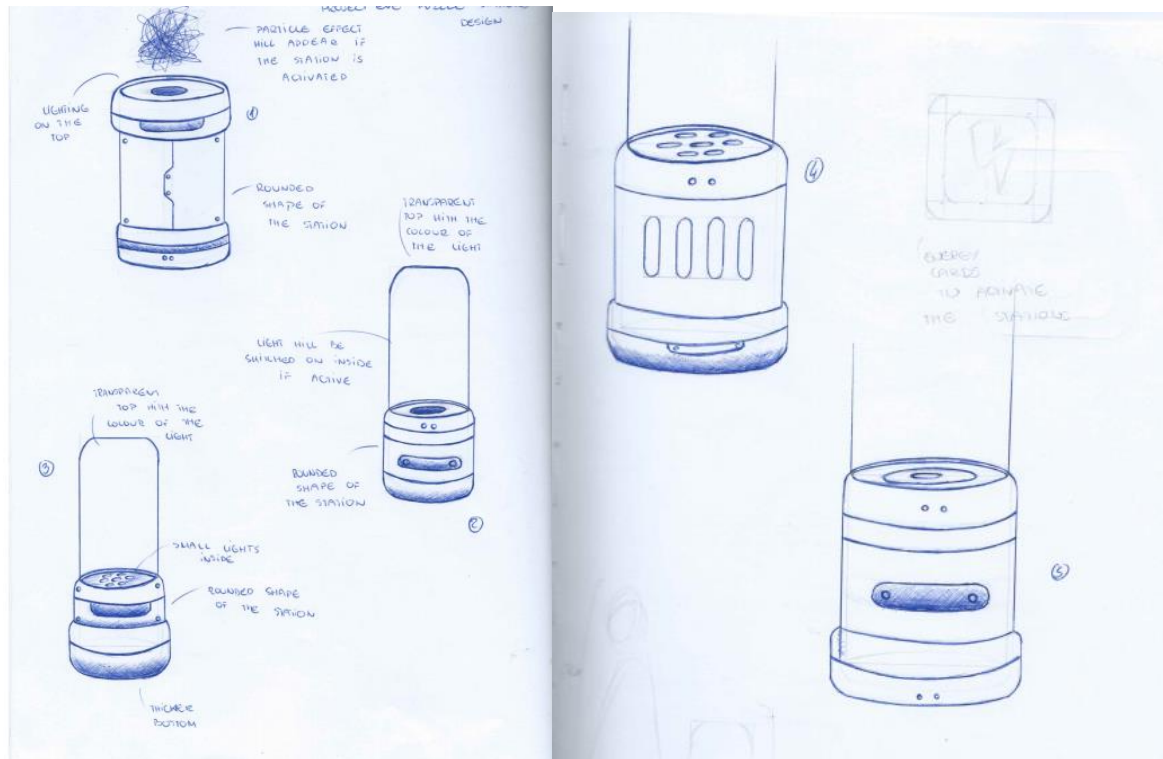


22th February

Updated Gantt Chartt



Sketches:



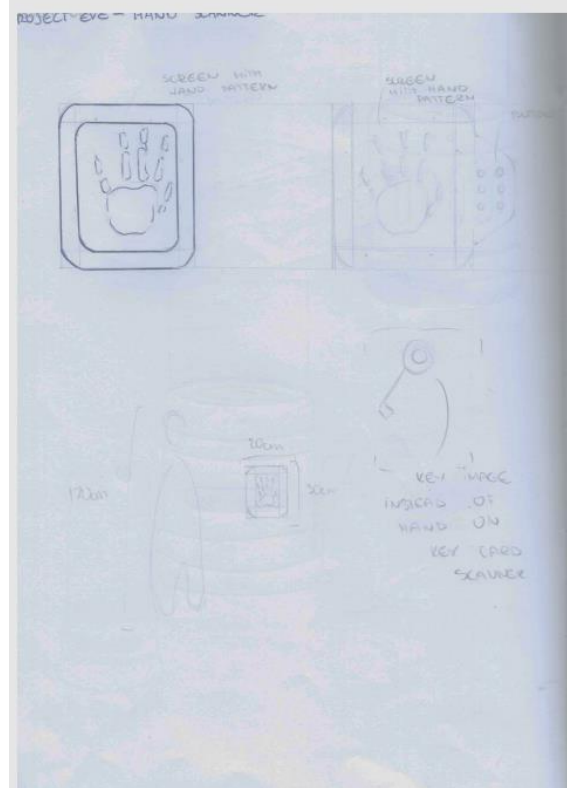
My first idea was to create four the same stations, but each with different colours/textures. However, as I have so many assets to do and I need to speed up my work to achieve my goals I decided to create only one texture for all four stations. Instead of using different textures I can later use different colours of lights, or particles - as when the station will be activated there will appear a particle effects inside it.

My plan was also to create four different energy cards, for exaple with different colours and the clours should match the stations, however I think that only one colour/texture will save me a lot of time and allw me o focus on creating other assets and should be working as good as with different clours.

I have create the assets and I'm planning further tests to see how they will work with lights or particle effects.

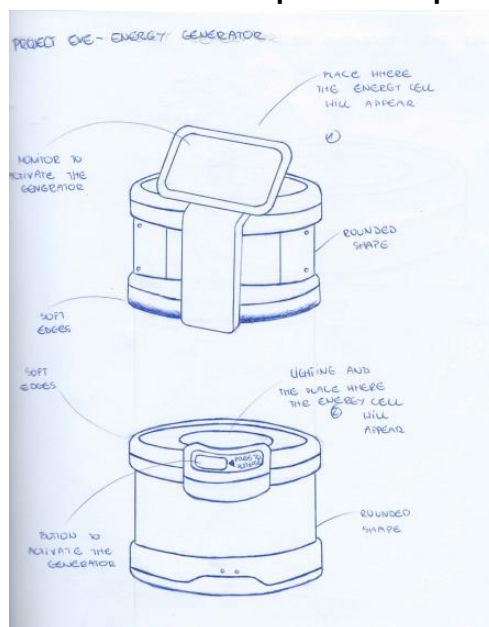
23rd February

Here is design of the Hand and Keys/Card scanners. All the hand scanners will be the same as the player can use character's energy to open some of the doors, however the key cards scanners will look different to inform the player that he is not able to hack these door and the only way to open them and go further is to find and use a key.



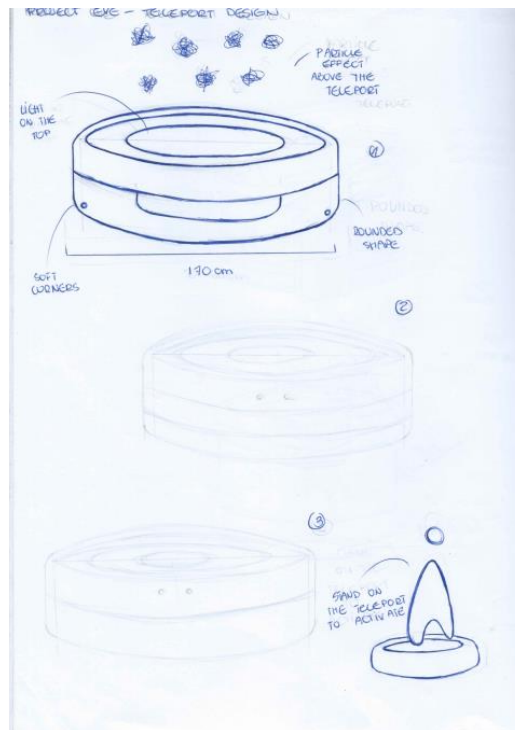
24th February

Here is design of the energy generator. My idea was to create a generator where a player can interact with it to create energy which will power up, for example platforms. I was thinking to create like a small screen on it or separate computer.



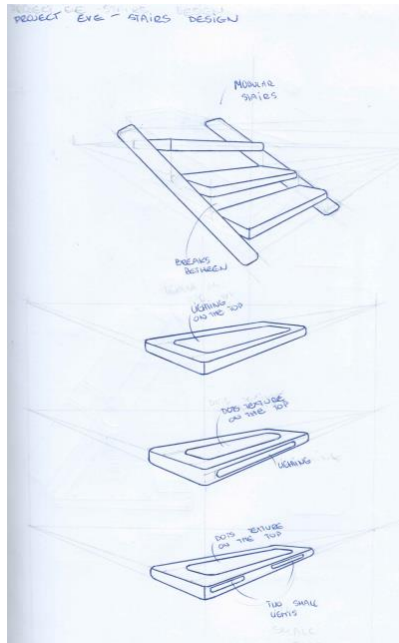
26th February

Here is design of the teleport. I wanted to do like a flat ruded asset where I will create portal particle effect above it. As the portal will be flat the character can easily stand on it without being blocked.



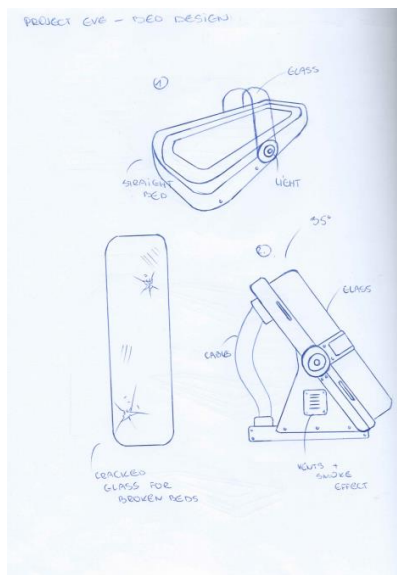
27th February

Today I designed stairs - I wanted to add little lights on the stairs to make them more visible as the environment will be quite dark and cold.



28th February

Today I have created bed design. I had an idea to create two versions of beds - some of them will be open with cracked glass on the floor and some of them will be closed/empty. I will use the broken bed in the first room where the player will spawn as it will be the room where Eve (main character) was kept and she escaped and that's also the moment where the game will start. I will use some of the broken beds in the environment in further rooms as well to show that there can be more modified humans like Eve.

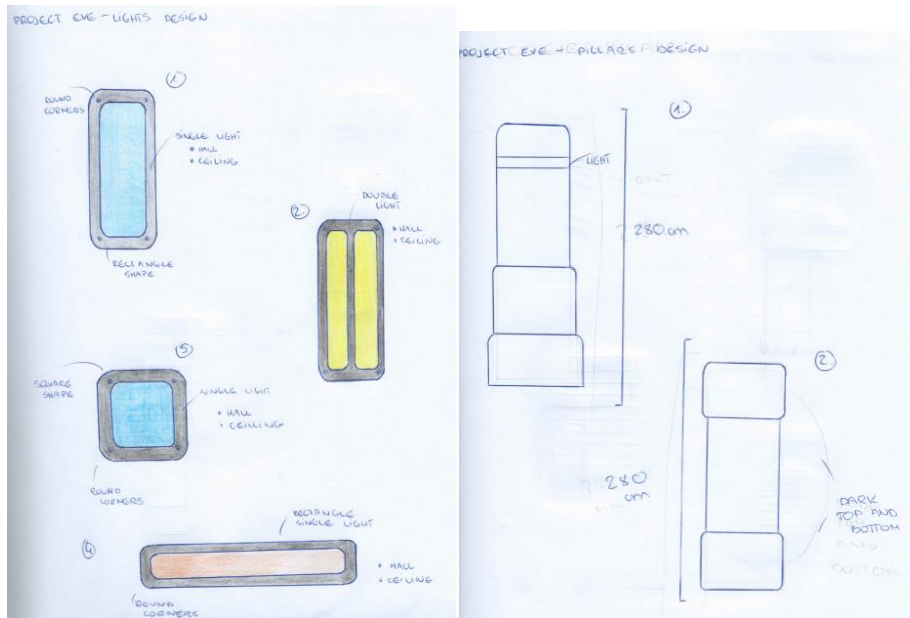


I managed to create the asset however I have found an error with transparency of the glass while I was creating the asset and I will need to come back to it later to fix it.

29th February

Today I created lights and pillars. As the lights were easy and quick to create I managed to finish all primary assets today. I have created four different types of lights - two ceilings/walls lights and two floor lamps. I am planning to add flickering effect to some of the lamps to create better mood in my environment.

Sketches:



5th March

Today I started my secondary assets designs - Vents, Pipes, Cables and First Aid Box. I started with designing vents, I have used a couple of pictures as references.

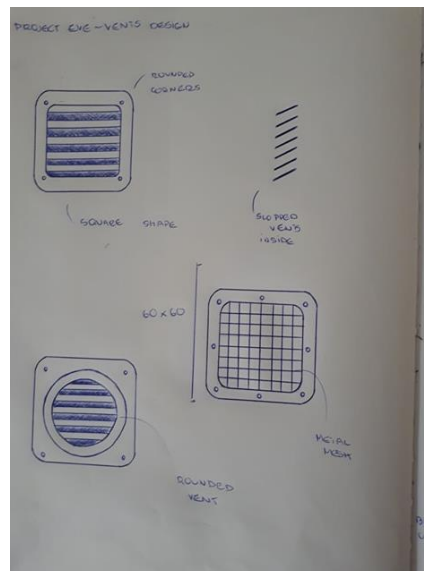


<http://old.ventilation-system.com/cat/aoe/>

<http://karenefoley.com/chimney-air-vent-cover-ideas/simple-chimney-air-vent-cover/>

<http://bugzarre.co.uk/85mm-Vivarium-Vent-with-mesh>

Vents Design



I have decided to create only one version of vents as it will be a small part of the environment, not that much visible. I also picked the first design, square shape with rounded corners.

After that I started designing different types of cables. Here are the references that I used in this design.

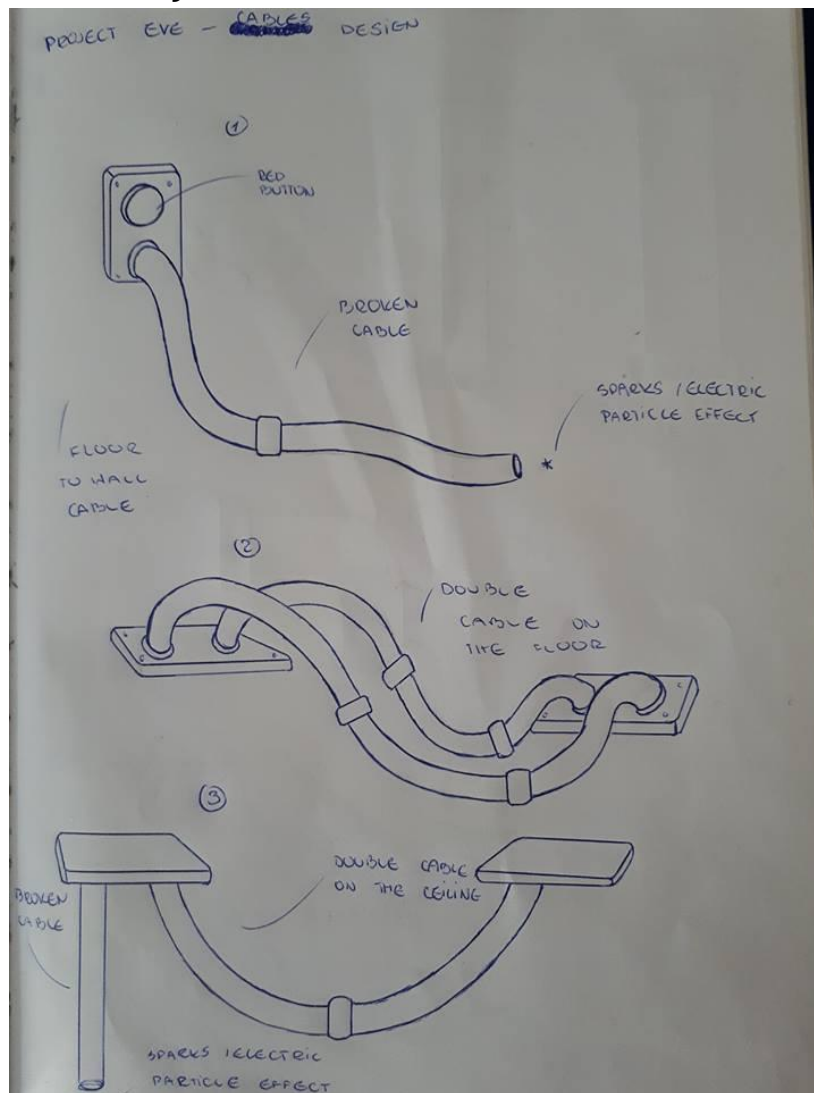


<https://www.creative-cables.it/fissaggi-a-muro/12555-decentratore-gancio-a-soffitto-nero-per-cavo-elettrico-tessile-con-fermo.html>

<https://www.colourbox.com/image/long-black-cable-with-electric-plug-isolated-on-white-background-image-2567923>

https://www.canford.co.uk/Products/30-240_CANFORD-HSS-M-CABLE-1-core-screened-Black

Cables Design



I have designed wall to floor damaged cable, floor cables and ceiling cables. As I'm going to create three different variations of this, even if its a modular asset it will add more unique look to the environment. Additionally, I want to add some sparks/electricity effects on the broken cables and this will help me to create proper mood, especially in the damaged area.

After that I created pipes designs. I didn't want to focus on too many variations of the pipes so I decided to design only straight pipes and pipes bends, however I want to do them in two different sizes and colours. Here are the pipes references that I have used:



http://www.solucoesindustriais.com.br/empresa/instalacoes_e Equipamento Industrial/metallum-caldeiraria-e-manutencao-industrial/produtos/conexoes/instalacao-e-montagem-de-tubulacao-industrial

<https://www.indiamart.com/proddetail/plumbing-pipes-12839519330.html>

http://www.freeimages.co.uk/galleries/workplace/energy/slides/water_pipes.htm

I also made some designs of the first aid box. References:

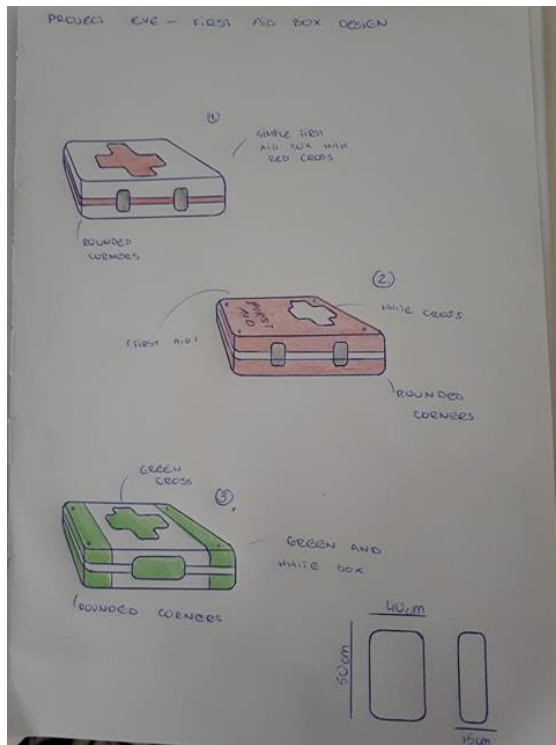


<https://firstcare101.com/product/first-aid-kit-workplace-vehicle/>

<http://www.johnuttleyfirstaid.com/212-Milano-Empty-First-Aid-Box/333.htm>

<https://www.amazon.co.uk/Crest-Medical-Person-Workplace-First/dp/B0076PGVPU>

First Aid Box Design

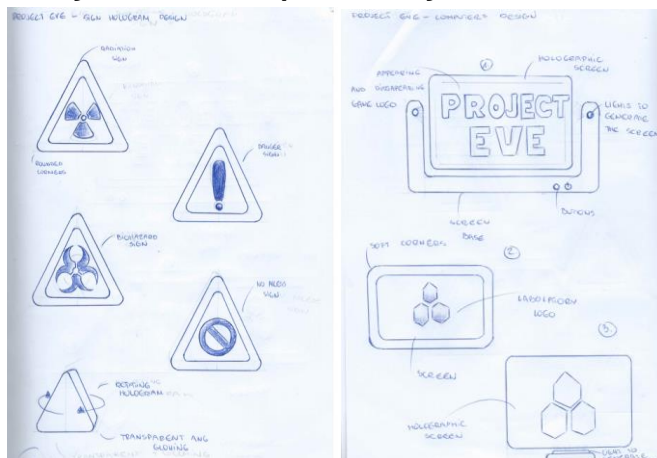


I have decided on the second design as I think whole red colour can add some contrast on the walls.

6th March

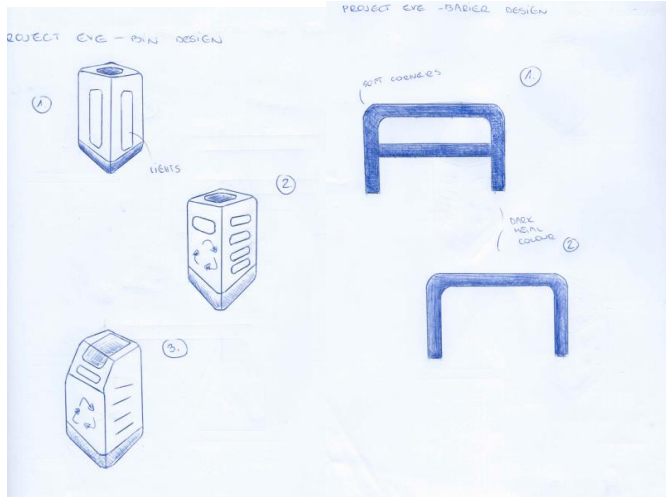
Today I created holograms and computers designs. I am planning to create small glowing holograms which will be rotating and glowing. These I can use in some of the desks or cabinets and they can add good colour (lights) contrast to the environment. The computers that I am going to create will be computers attached to the walls with moving material(facility logo) on the screen. I think that a bit moving assets like that will make the environment more interesting and fun to walk through it.

Holograms and Computer Designs



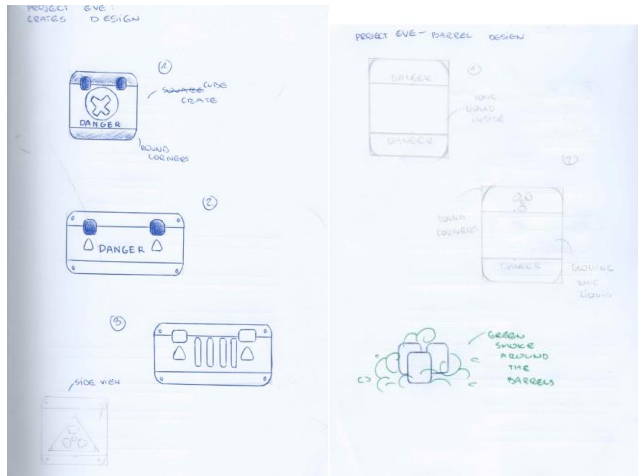
7th March

Today I created Bin, Barriers and Cabinets designs.



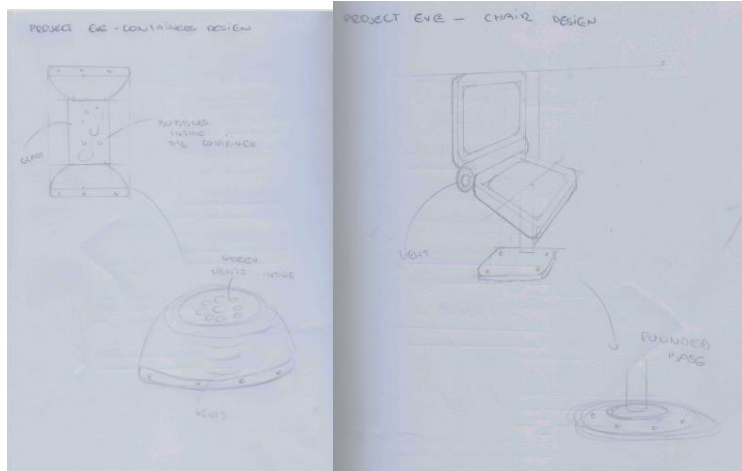
8th March

Today I created crates and barrels designs. I want the barrels to glowing and later add green smoke effect around them to make them look more dangerous.



9th March

Today I created chair, dek and containers design. I wanted to create simply desks and chairs and the containers I wanted to glow with bubbles inside.



10th March

Today I came back to bed and fixed it. The problem was that I used the wrong material shader on my textures that's why the glass wasn't transparent. Also, I created window walls as this should be part of the primary assets - walls.

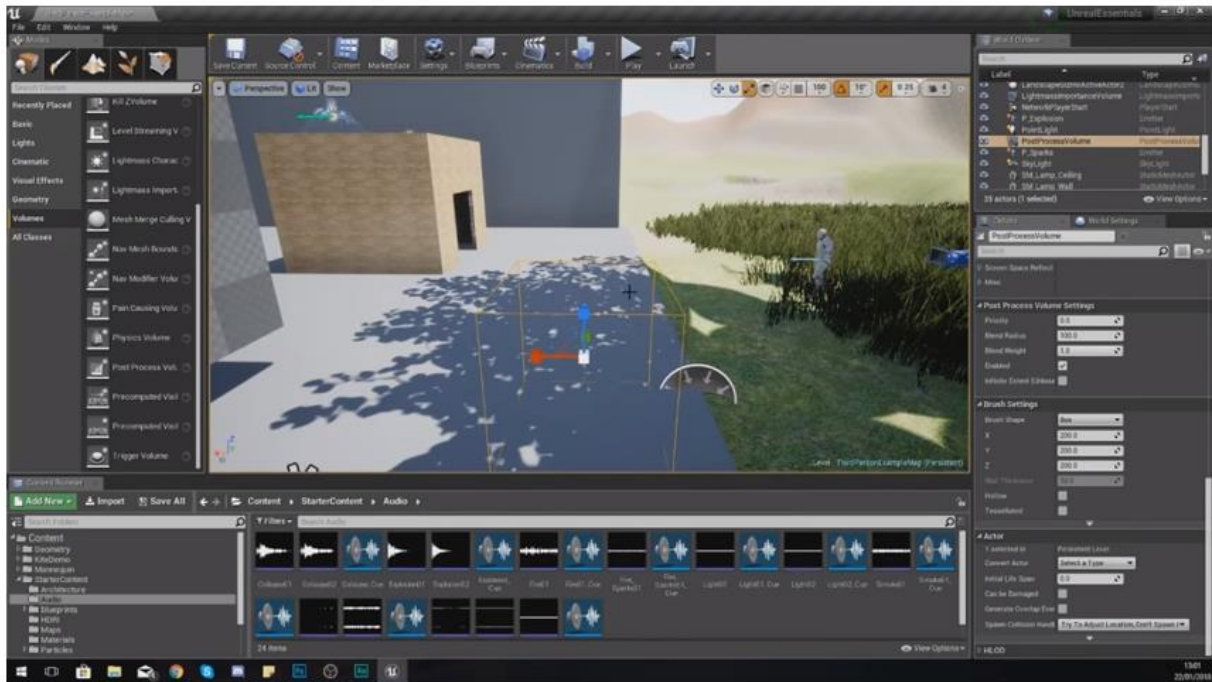
12th March

Today I started working on the lighting. Here are the videos that I have used for research about how to create lighting in the environment.



How To Use Lights - #18 Unreal Engine 4 Level Design Tutorial Series

<https://www.youtube.com/watch?v=C0RiTilQv68>



Using Post Processing - #20 Unreal Engine 4 Level Design Tutorial Series

<https://www.youtube.com/watch?v=ggowJhNw7SY>

I also used some references to help me with lighting.

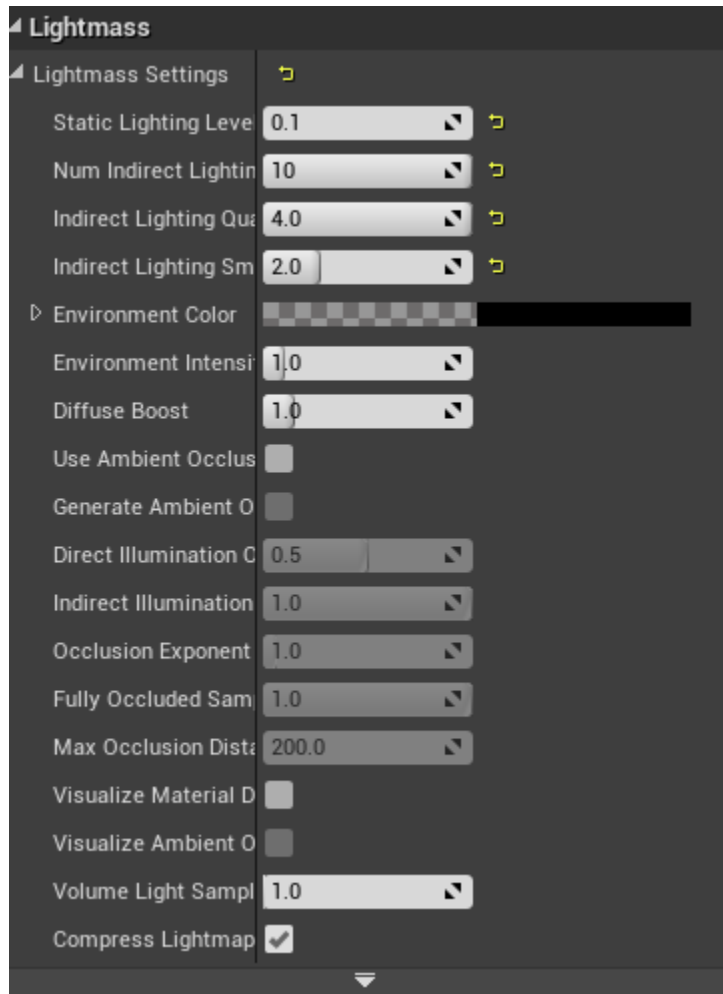
I started with the tutorial stage, and I found a lot of errors, especially shadows for example, with wall panels – one was light but another one was dark.



I did some research about this error (facebook groups, forums, websites) however I couldn't find how to fix it, I tried different assets, or the same wall panels but with different UVs, different settings (of the asset and world's light setting).

13th March

Today I tried to fix the lights again, I managed to fix different shadows by changing world's lightmass settings.



Later, I found another error - weird small shadows on the top of the walls.



Another error was that the lighting were changing as I moved the camera - without moving the character in one time the room was dark and seconds later it was light again.

Picture of the same room with the same lights but different angle of camera:



This error I fixed by switching off auto-exposure in the project settings.

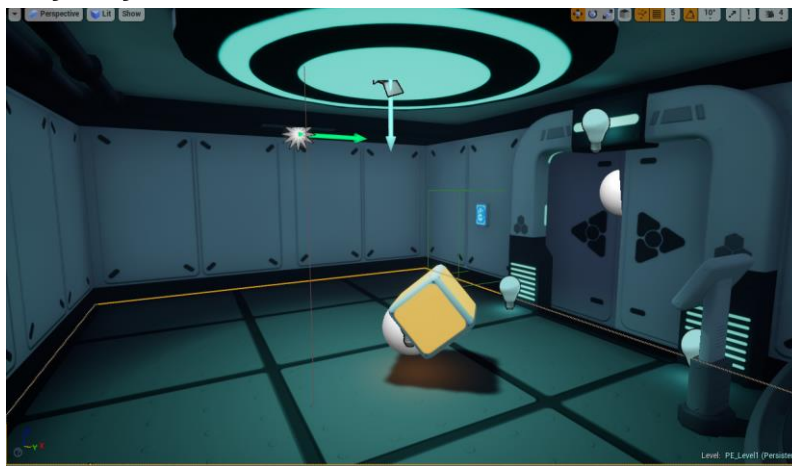
The small dots shadows disappeared after that.

When I finally fixed lighting errors I started working on lights in my environment.

Screenshots of the lighting in corridors:

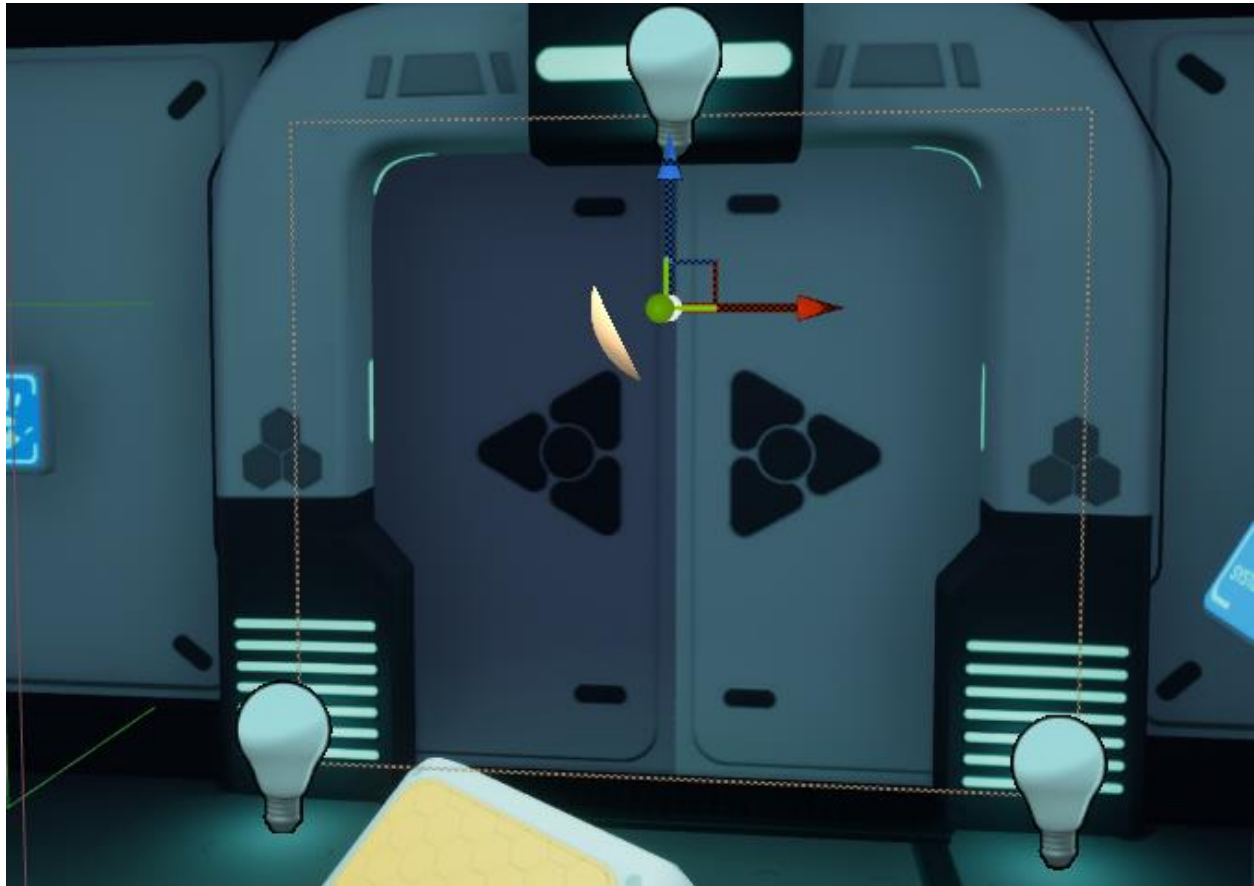


Screenshot of the lighting in first room:



I'm happy with the lighting so far however I think that its a bit too dark and I need more research on that.

Another error I found is about some of the door as one side is darker and second panel is lighter, however I fixed most of them by moving these panels slightly to the sides.



14th March

After I fixed the lights I was able to continue working on the secondary assets. Today I created vents, pipes, first aid box and cables assets and then textured them. Then I imported the assets to the UE4 (separate project) to test for any errors and to double check if the size is correct.

15h March

Today I created holograms and computers, additionally I made the holograms rotating and added simple particle effects to it.

16th March

Today I created bin, cabinet and barriers.

17th March

Today I created crates and barrels.

Week 2 (7th Project Week)

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Vents, Pipes, First Aid Box and Cables Design	Toxic Holograms , Computer s Design	Bin, Barriers, Shelves/C abinets Design	Crates/Bo xes, Barrels Design	Desks, Chair and Container s Design	Textures catch up if needed	Textures catch up if needed

Not Completed
Completed 

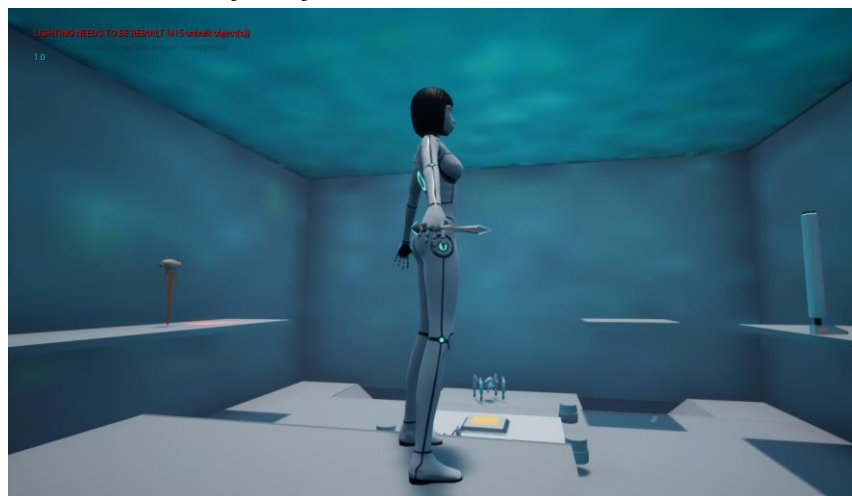
Updates

20th March

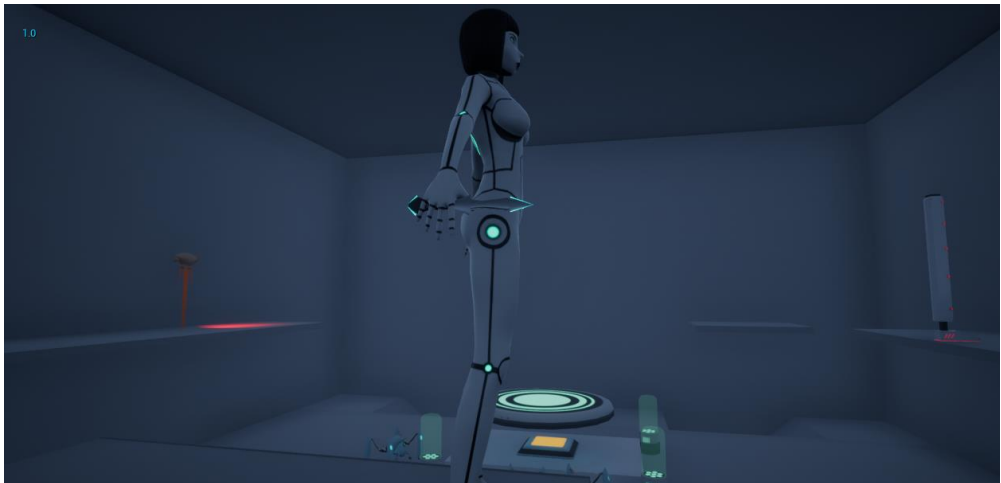
Today I have focused on the building second stage in our game. I started replacing the whiteboxing environment with final primary assets as this will help us with testing (for example if the player is enjoying the environment feel at this stage or not), and add secondary assets later.

Additionally I created flicking light material which I can apply to different lights. This can help me to create the proper mood in the game (for example flicking lights around damaged objects). I also fixed lights in last room - the problem was with the blue point light which have been attached to teleport asset so I had to decrease its radius and intensity.

Previous picture with broken lighting



Fixed lighting and added teleport + puzzle station. As the lighting haven't been done in this room its quite dark.

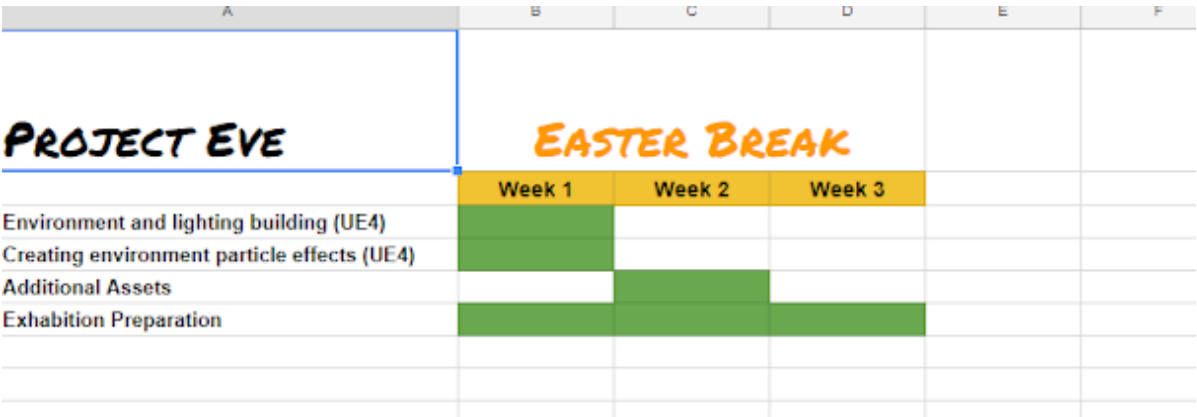


Today I also created flow chart for progression for second stage in our game and I also updated level design, changing it by removing one platform and replacing it with floor, adding activator for another platform and by adding more health rechargers as during the testing I found out that there is no enough health rechargers in the level. Also I have finished building the environment with all primary and secondary assets (up to tutorial stage).

22nd March

Today I started planning my work that I am going to do during the easter break. As I did not finish the environment I planned to do it in the first week of my plan, and this including building the environment with all secondary and primary assets and building the lighting in the environment. As my new role was to create environment particle effects I had to plan one week for this task aswell.I planned one week for creating any additional assets that we may need, for example if there are any assets with errors I will need to create another asset, or another version or just spend time on fixing it. During all these week I am going to spend the time on the exhibition preparation aswell.

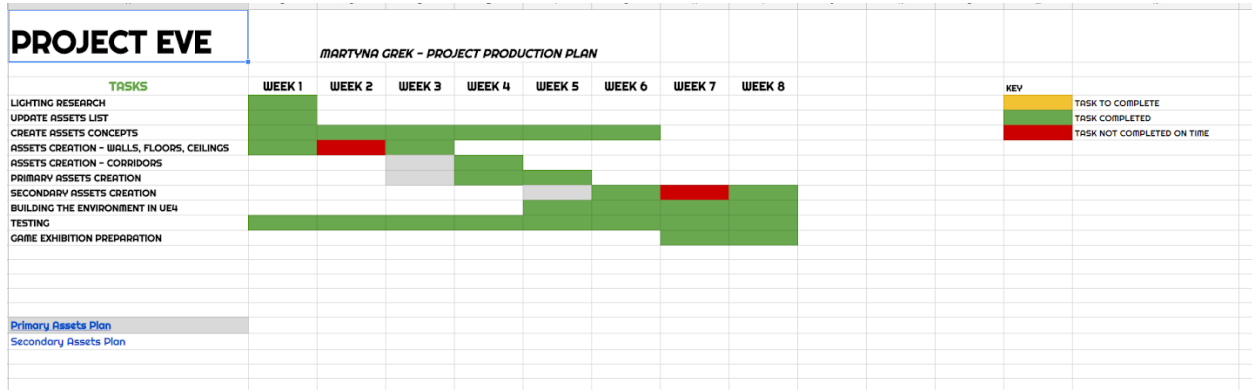
Easter Break Gantt Chart:



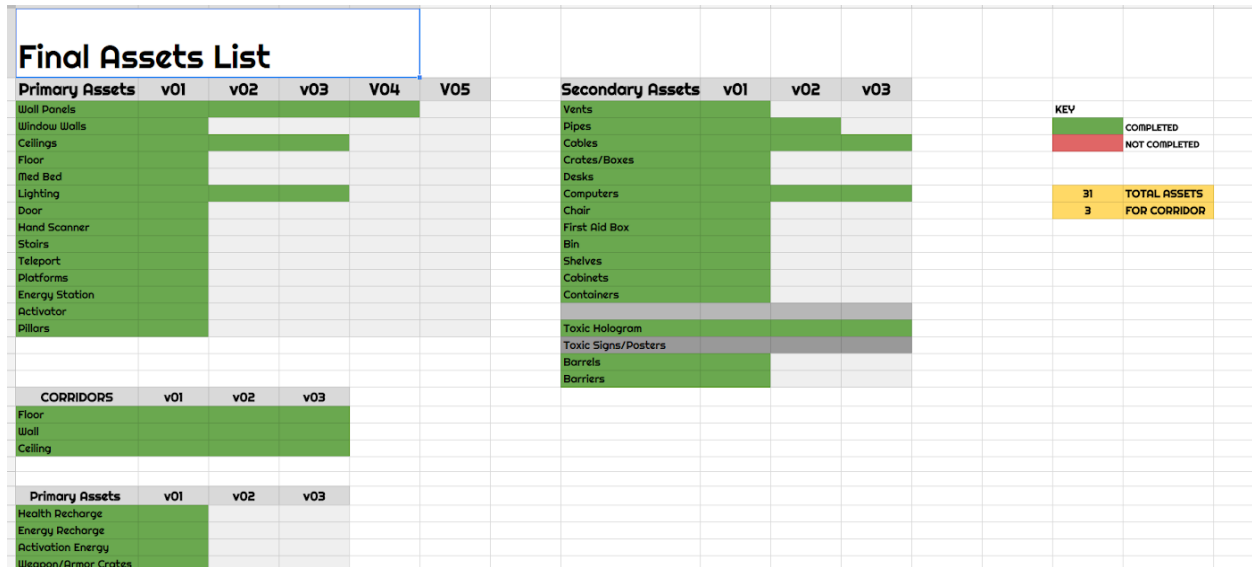
23rd March

Here is the updated Gantt Chart and secondary assets list at the end of week 8.

Updated Gantt Chart week 8:



Updated Secondary List week 8:



26th March

Today I updated my easter break plan as after group meeting we discussed project sharing times and I couldn't keep the project on my own for whole week. Environment and lighting building I planned for three weeks, as I will share the project with others and mainly I will do my work only during the weekends as I can do my work at home. I am going to create particle effects in second and third week of my plan and I am going to create any additional assets (if needed) in the second week. The new task that I added is post processing effects to improve the environment, and this task I planned in the 4th week of my plan as this is not that important as the rest of my tasks. During all these week I will spend my time on exhibition preparation aswell.



28th March

Today I was researching how the game exhibition should look and I created moodboard with some simple and basic ideas about the exhibition.

31st March

Here is updated Easter Break Gantt Chart at the end of week 1 (week 9 of the project)



2nd April

Today I created the moving screen for the computers. I created single plane and used logo alpha created by another team member. I also added particles to the pick ups (weapon crates, armor crate, energy and health rechargers and key cards).

Here is the tutorial I have used to help me with this process:

<https://www.youtube.com/watch?v=qaTWQtd6Bds&t=303s>

Also I created all floors for second stage and finished the environment (up to stage 2) with all the secondary and primary assets.

Additionally, I added flickering light effects to some of the lamps, using this tutorial:

<https://www.youtube.com/watch?v=2ZMcZqLIEqw>

3rd April

Today I created broken cables particle using this tutorial :

<https://www.youtube.com/watch?v=Y4ZEka9j4CA&t=1s>

I also continued building the environment and I managed to finish third stage with all needed assets.

17th April

Today I have found lights error, especially on the ceilings. I have changed some of the world lighting settings however I didn't manage to fix this problem.

I also created new generator model as we found some errors with the old one and we needed something what will be flat. I decided to make it similar size to the teleport.

18th April

Today I managed to fix the lighting/shadows problem on the ceilings. I decided to use dark ceilings in every room instead of the light ones. I couldn't see any errors on the dark ceilings so I removed all white ones from the environment.

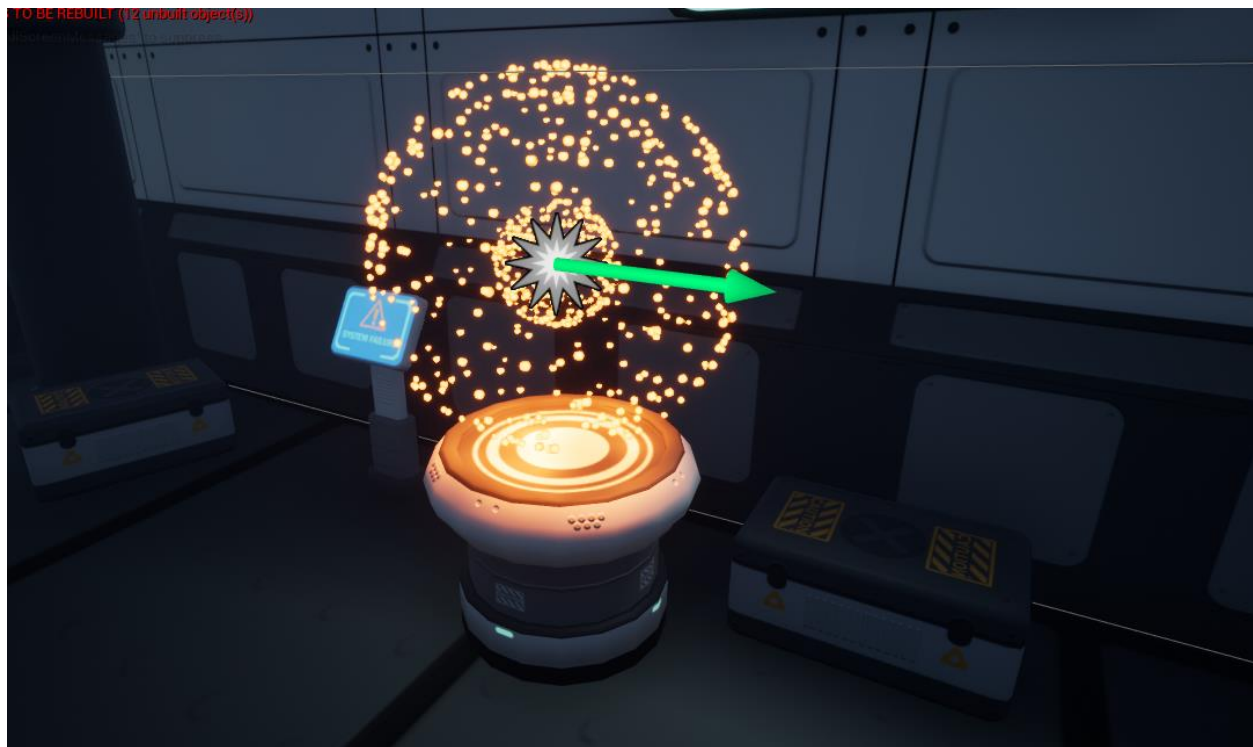
White ceilings error



Dark ceilings



Alo I created new particle for the old version of the generator. The particle I created using this tutorial : <https://www.youtube.com/watch?v=3lIQBIOOUMM&t=1s>



Emitters	
Particle Emitter	Particle Emitter
☒ ☒ S 420	☒ ☒ S 316
Required+	Required+
Spawn ☒	Spawn ☒
Lifetime+ ☒	Lifetime+ ☒
Initial Size ☒	Initial Size ☒
Initial Velocity+ ☒	Initial Velocity+ ☒
Orbit ☒	Orbit ☒
Initial Color+ ☒	Initial Color+ ☒
Light ☒	

I also improved old particles by adding lighter colour to them.

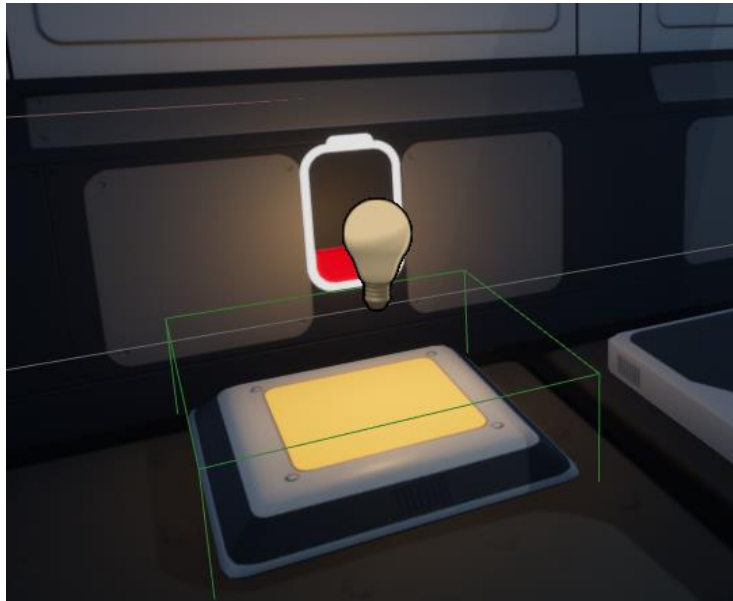
Additionally, today I created grenade particle effects. To do this I had to create electric sparks alpha as the grenade effect I wanted to design was electric explosion. The alpha I created I also used to create electric particle effects for activators and puzzle stations.

28th April

Today I spend the time on testing the game with my family members to check for any errors, bugs and their feelings about the game experience.

Testing notes:

Platforms activators - sometimes it's not clear for a player what he should do to go further, and what to do with the generated energy. To make it more clear I added low batteries icons above the activator to create like a tip for the player that he needs to power it up with the generated energy. To create the icons I made a simple plane in Maya, then I created the battery alpha in Photoshop and after that I painted the icon on the plane in substance painter.

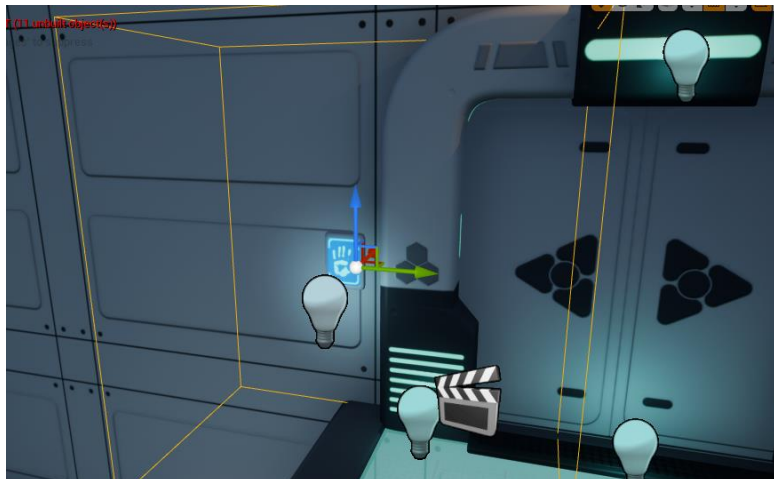


Last room puzzles - I found out that the puzzles in the last room may be too confusing, for example the player had no idea what to do after he killed all the enemies in that area. I decided to add the low battery icon above the teleport like above the activators to give the player an idea that he needs to activate it. Also, I discussed with my team member which is responsible for technical work that we should make the energy card rotating for example as at the moment they just laying on the floor and players didn't pay any

attention to it. Another idea is also to add some electric effects around it to make it more visible.



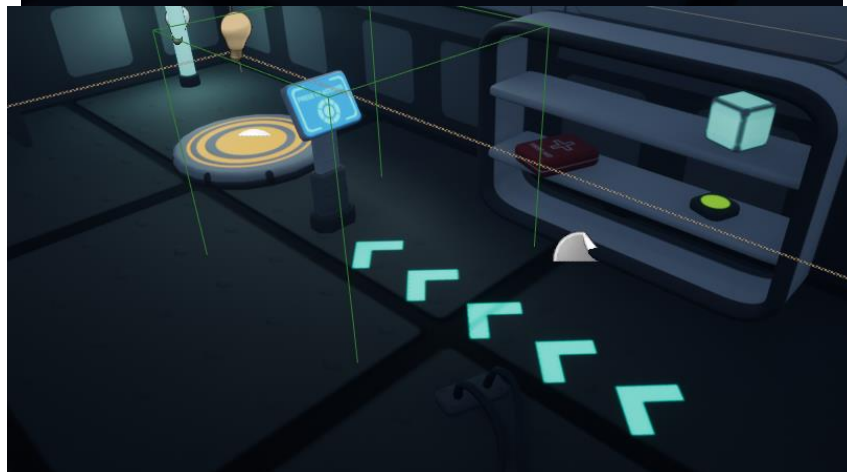
Hand Scanner problem – I found a problem with one of the hand scanners. I had one situation where a player wasn't able to go further and had to try use the hand scanner few times until it started working. To fix it I made the trigger box a bit bigger, additionally I added small light under the hand scanner to make it more visible.

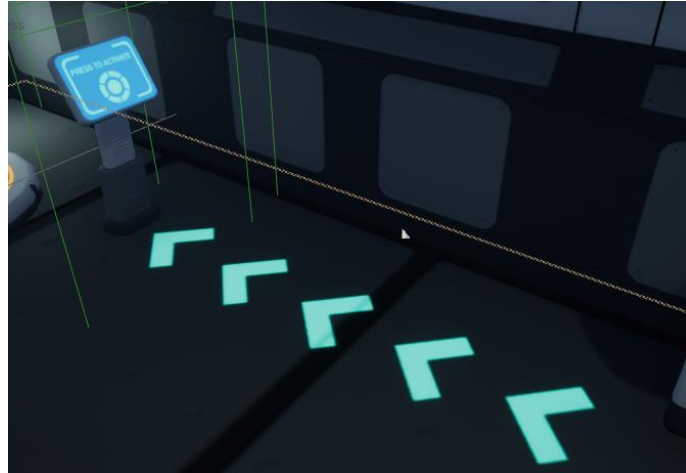


Bubbles particle error – The error I found with bubbles particle that we have used inside the containers was that the lifetime of the bubbles was that long that they appeared outside the containers aswell. To fix it I decreased its life time from 3.0 to 2.5.



Computers (to activate generators) - the problem was that the player was confused how to activate the platforms and the computers weren't that visible. To fix it and to add more tips on how to get the energy I added little arrows guiding the player to the computers.

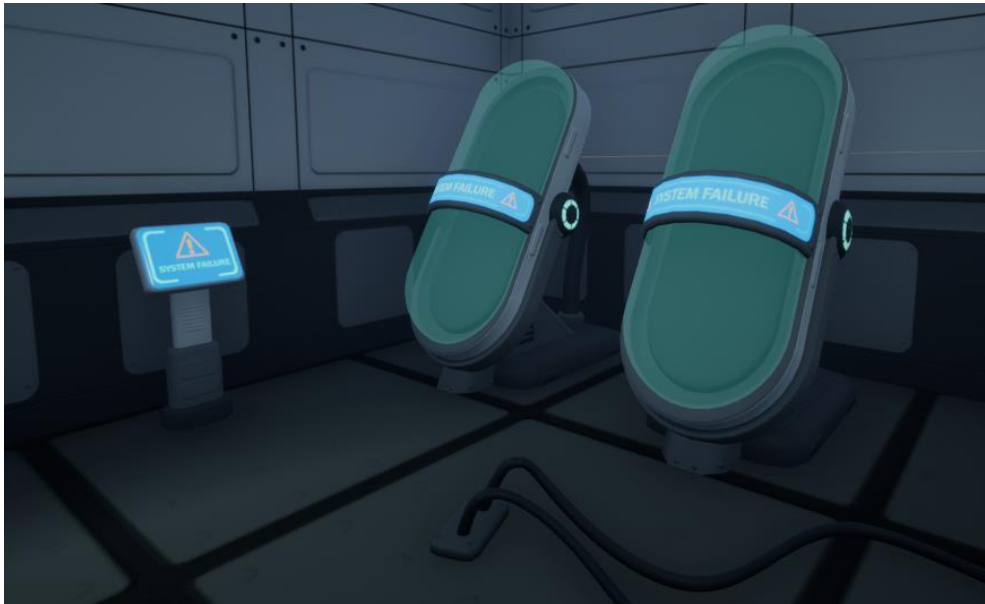




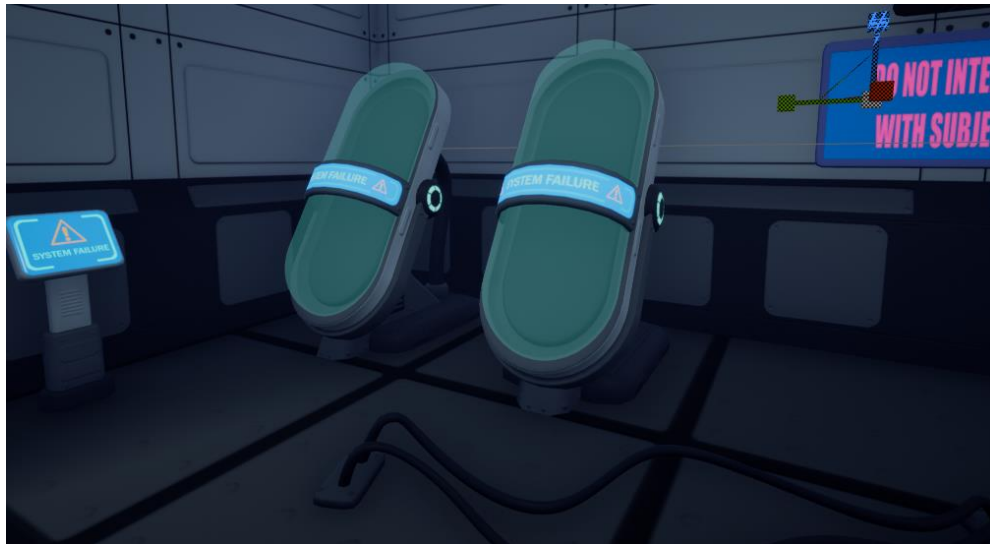
Drones death - after the drones die there is strange particle effects that should be replaced with the final one.

Today I was also working on the post processing effects. I wanted to make the environment in more deep shadows. To achieve this effect I used post processing volume and changed gamma settings. Also, I changed the settings to affect whole environment not only in the box.

Before



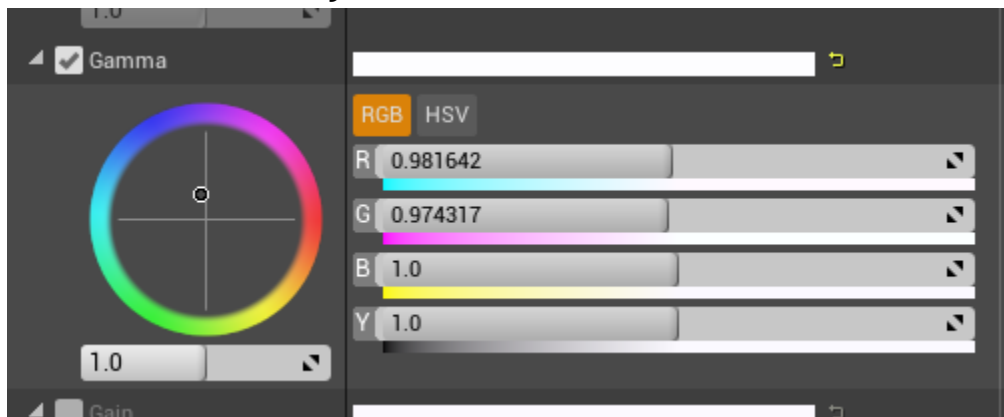
After



The colours are more deep, and the shadows look much better aswell.

Setting that I changed:

Gamma in Global Settings



Gamma in Shadows settings

