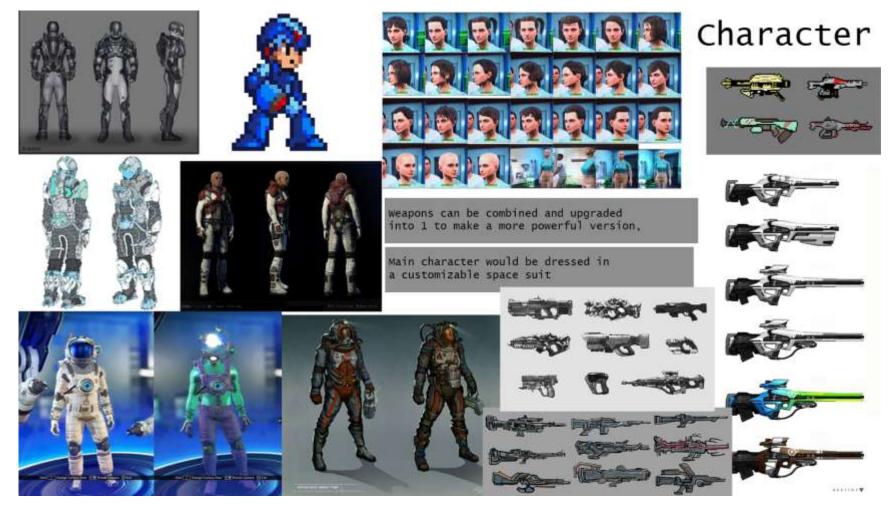
# Art Portfolio

By: Joseph Mackle

### MoodBoards

My chosen hypothetical game concept is 2D Space Dungeon Crawler

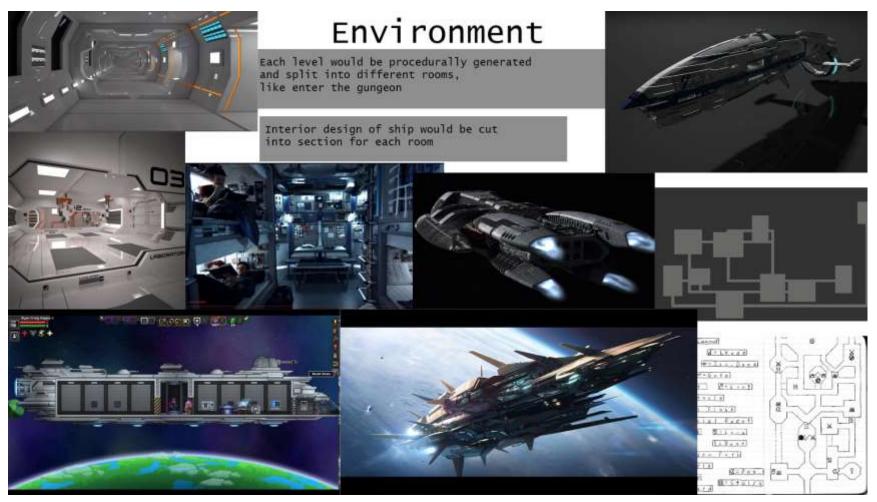
The setting for this game concept is onboard an alien mothership, the objective is to escape by making your way through each dungeon "floor" of the mothership defeating alien enemies and boss fights at the end of each floor to progress onwards.



This moodboard is showing the main character, who is a space explorer but has been captured, the player has multiple customization options available to add a bit of uniqueness to the character.

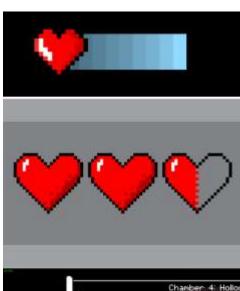
There is also a large amount of weapons available to collect within each dungeon. Each weapon can be combined together to make a fusion of the 2 weapons, combining their stats for more powerful weapons.

The Images used in this moodboard are from multiple sources such as "No Man's Sky", "Destiny" and "Fallout 4" To showcase the different elements of the character



This moodboard showcases the environment setting for this game. The main setting is within an enemy mothership, that is procedurally generated, with different room layouts, styles and enemies.

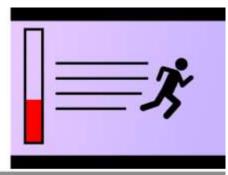
The main inspiration for this is games such as "Starbound" and "Enter the Gungeon", starbound is a 2D Space exploration game with different enemies and planets while Enter the Gungeon is a 2D procedurally generated game.



#### GAME HUD

The health bar is probably the most important visual elemant the player needs to see

The mini map, is an in-game feature included in most games depending on the genre and if it is required



Another important visual feature is the stamina bar, not all games require one, it works the same as a health bar where it drops down but fill up after a certain period





This moodboard is the Games HUD, the Hud is an important feature to any game as it shows the player the basic elements such as health, stamina and location at a quick glance.

The health bar in almost all games is either red coloured or heart shaped as this is a universally recognised thing in games.

The mini map which can be accessed by the press of a button is a useful feature for the likes of 2D dungeon crawlers.

Stamina and currency features are not always in games like the other 2 but are an important feature if required, they are usually placed towards the of the screen out of the way.



This moodboard is showcasing the visual style of the game, I want to make use of multiple different colour pallets for different levels and rooms, the overall visual style of the game is pixel art, as I seen this being the best suit for a dungeon crawler.

I have selected a few colour pallets as to me they are the more common and stronger looking pallets that can be used throughout a game.

This moodboard shows that the visual styling is 2D, as well as different colour pallets set each level apart.

For our first week we worked on creating moodboards around a high game concept of whatever we liked, I went with 2D space dungeon crawler as I have played a few dungeon crawlers before and really like how they play, their visual style and settings.

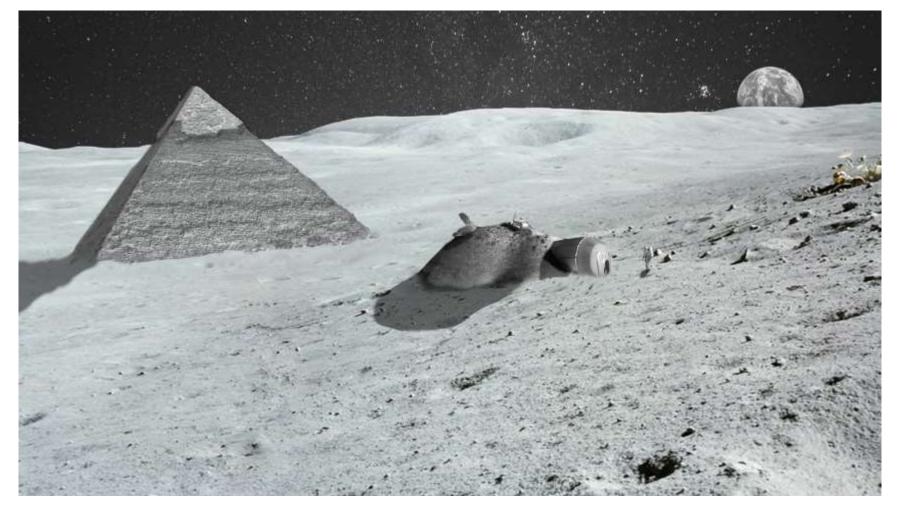
Luckily enough I have been using photoshop for a long time now and this was a very basic use of photoshop and the tools available to I had no issues with anything.

### Photobashing

This weeks exercise is to create an environmental concept, we had a choice of 3 concept environments to work on (Lunar, Dark wood, Scrapville) I chose Lunar as the main settings but didn't want to focus primarily on the united nations base.

We firstly needed to collect reference images that we would use to then bash into 1 image to produce our environmental concept.





This Image is my environmental concept, which is set on the moons surface in 1985, as mentioned I didn't want to focus on the united nations part but I did however want to do a lunar themed setting.

I sourced multiple images for this such as; the moons surface, moon base concept, earth, night sky and pyramids.

For our second week we were tasked with creating a photobashed images, which requires sourcing multiple images based upon our chosen concept, mine being lunar 1985. I based mine on the conspiracy theories of people saying there are pyramids on the moon and wanted to see how I could create my own version of this.

This week I learned a new tool within photoshop called "Magnetic lasso" which makes outlining objects so much easier and quicker, beforehand I would have used the normal lasso and manually outlined objects which took way too long. Credits to my lecturer Finley for showing me that tool.

As for my finished photobashed image I do think I could make improvements to it such as colouring and shadows as I got feedback saying I should try to improve the shadows to match up more.

#### Character Silhouettes

This weeks task is to design 2 character concepts, the concept for this task is a turn-based RPG, the characters are to be different and have the potential to have conflict. They are to have different personalities and gameplay attributes. They should both have their strengths and weaknesses.

For the genre of the concept we have 5 to select from (High Fantasy, Post-Apocalyptic, Superhero, Western, Sci-fi) I chose the High Fantasy Genre for this task.



This silhouette sheet is for my sorceress character, she is a small and friendly character, She can detect enemies around her and reveal their locations, her focus is on raw magic which she draws from life around her. In combat she deals bursts of damage to multiple enemies.



This silhouette sheet is for my rogue character, He is above average in height and medium build character, his focus is on stealth, and the disarming of traps. In combat the rogue will prioritize his one strike ability to deal as much damage as possible.



Above are my 2 character silhouettes refined

This task was one of the more difficult tasks, I am not the best when it comes to hand drawn art and I should spend more time practicing to improve. However we also had to use Photoshop for this task which was handy as I was able to make use of multiple tools to help me in my process.

I learned a lot about character design this week, it is something I have never done before so I had to look into how to get posture and positioning correct.

I also used a tool called pur-ref that was suggested in a video I watched, it was a great tool and helped me out when drawing my silhouettes.

I spent a bit longer than I would have liked on these as it took up a lot of time trying to come up with 2 different characters to fit into the theme.

### User Interface Design

This weeks task is to create a mock user interface design, once again we have a select few high concept designs, (Space mining game, Cold War era spy game, Greek mythology RPG, Victorian steampunk FPS, Modern military sniper game) For my high concept I chose the space mining game as I have recently been playing No Man's sky which includes a small amount of asteroid mining but the UI for the game is great for this purpose, as well as star wars battlefront 2's space combat UI.

For the stylistic approach I have chosen skeuominimalism, as some elements will have a slight background with some opacity. The design approach for this UI is Meta-UI



My high concept is: Space mining Game Backdrop used is from: videoblocks.com

The UI elements I implemented are; Health, Shield, Objective, Weapon Selected, Navigation Bar and Crosshair

This week's task was to create a high concept UI using Illustrator, I chose the space mining game as my high concept, as mentioned we had to use illustrator for this task, this was my first time using illustrator, thankfully our lecturers provided a tutorial on how to use the tools in illustrator so I was able to use that to help me with some tools, as well as my friend who had experience in illustrator.

My UI was heavily inspired by No Man's Sky and Star Wars Battlefront 2 as both games have a space flight/combat option so I was able to use reference images to base mine on.

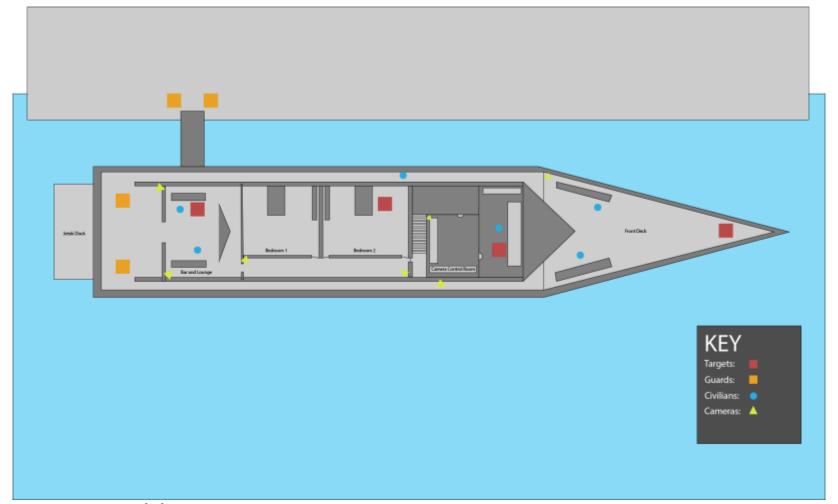
I was able to implement the basic elements such as health, shield, weapon, navigator and on screen objective box which are pretty essential for a space game.

#### 2D MAP

This weeks task is to produce a 2D top-down level concept for a 3D game, we had a selection of 4 high concepts (*Espionage, Raider, Walker, Killer*) I didn't really like any of the 4 high concepts in full.

I did however get inspired by the espionage concept and its inclusion of stealth and went with a hitman styled stealth game where you have to infiltrate a yacht, take out the guards and specified targets to whilst also not alerting the civilians.

There is also the threat of being spotted by cameras onboard the yacht so these will also need to be disabled.



High concept: Stealth Elements implemented: Targets, Guards, Civilians and Cameras

Alerting any of the above will set of the alarms and cause the mission to fail, the player must navigate their way around to the camera control room to disable the cameras this room is located on the second floor towards the front. Whilst also taking out any guards without alerting anyone.

This week we were assigned to make a 2D top-down map for a 3D game, I chose to do a stealth game as my high concept, we used illustrator for this weeks class again, I didn't have much problems as over the week I was experimenting in my own time to understand the tools a bit more, I still have issues with creating custom shapes, I find the tool selection for this to be very weak and it makes creating some shapes difficult.

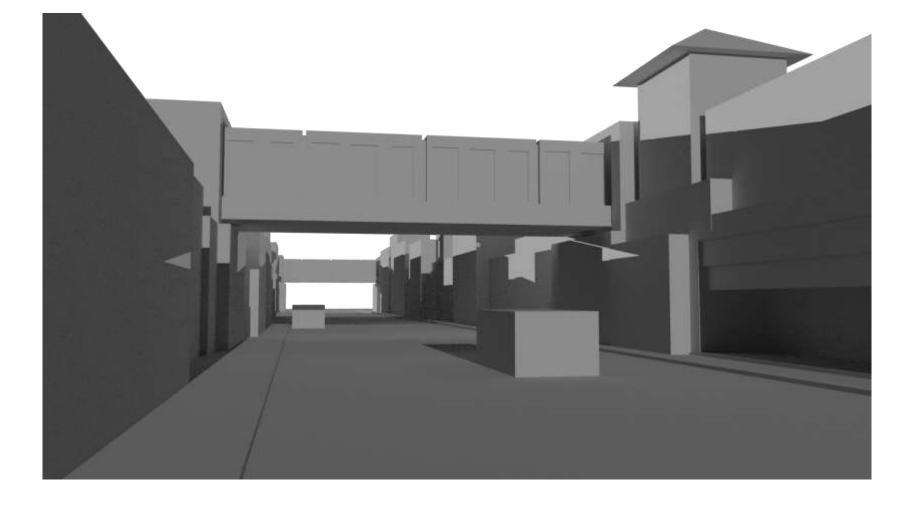
I enjoyed this weeks task of creating a level design, although it did take me some time to finally settle on a design as I tried 2 other designs but they weren't working out, thankfully I settled on the yacht and I am happy with how it turned out. I have learned that level design takes time to do and getting things to be just how you want is a tedious process but I did enjoy it very much.

### **Grey Boxing**

This weeks task it to re-create a grey-boxed scene using Maya or 3DS Max, I have chosen Maya as it is the program I have the most experience with.

We were given 3 images to chose from, I went with the "futuristic scene" as I liked how it had perspective in it and it seemed pretty straight forward to do.

I haven't done grey-boxing before, however it seems quite useful for early development of level concepts and being able to visually represent a scene with basic boxes is a pretty cool idea.



Above is a rendering of my grey-boxed scene, I used a high majority of cubes and some triangles that I manipulated to fit the buildings image.

I have the scene to a 45° angle to allow for the perspective to be shown.

Creating this grey boxed scene, was as I though pretty straight forward, I had some smaller issues with extruding on angled boxes, causing the extrusion to be slanted, I got this issue resolved quickly by firstly extruding before I angled the buildings, I had to angle the buildings to get the perspective correct, there may be other ways of doing it but this was the only way I knew of it at the time.

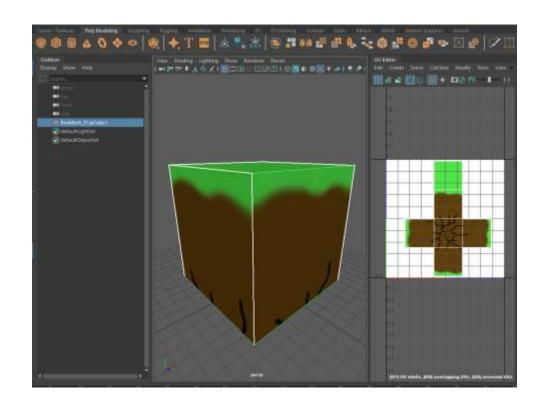
I added my own sources of lighting and placed them throughout the scene to allow the shadows to take full effect and add a little more detail.

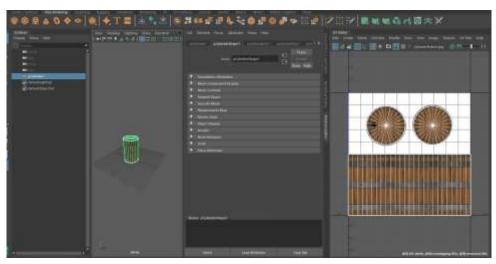
### **Basic Texturing**

This weeks task it to texture an already unwrapped box / cylinder using Maya or 3DS Max, I have chosen Maya as it is the program I have the most experience with.

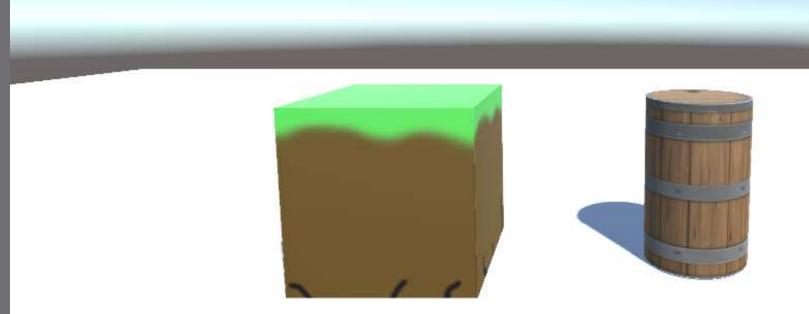
We also have the option to either create the texture ourselves or use sources off of the internet, to save on time I think I am going to use textures already available.

It was also recommended we try to import our models into unity to get to know the process, thankfully I have done this before and will import both assets into unity.





Since both objects were already unwrapped, all that was required was for me to bring the snapshots provided into photoshop and overlay my chosen images/texture onto it and then import it into Maya. This was a very simple process that took around 5-10 minutes on each model.



As mentioned we were asked to import our models into unity, shown above is both my textured models in unity in an empty scene.

This task was a pretty straight forward task as I have done this type of stuff before with basic shapes, I did use an already made texture for my cylinder and made my own Minecraft styled grass block.

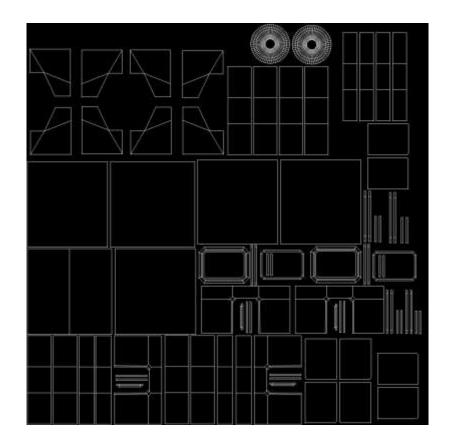
I used Photoshop for texturing the uv snapshot, It was simple and didn't take long at all as I only had to make one side and then duplicate it to the other sides and rotate.

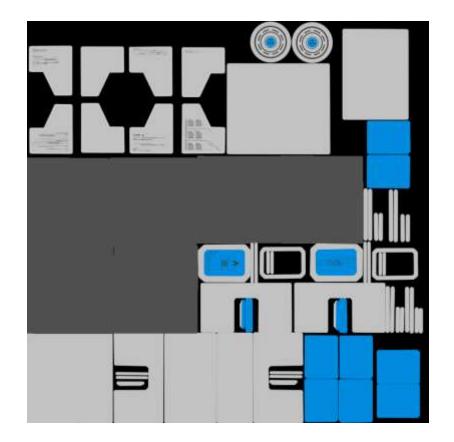
### **UV-Mapping**

This week's task is to unwrap an already modelled crate provided by our lecturer then texture it using photoshop or whichever program we like

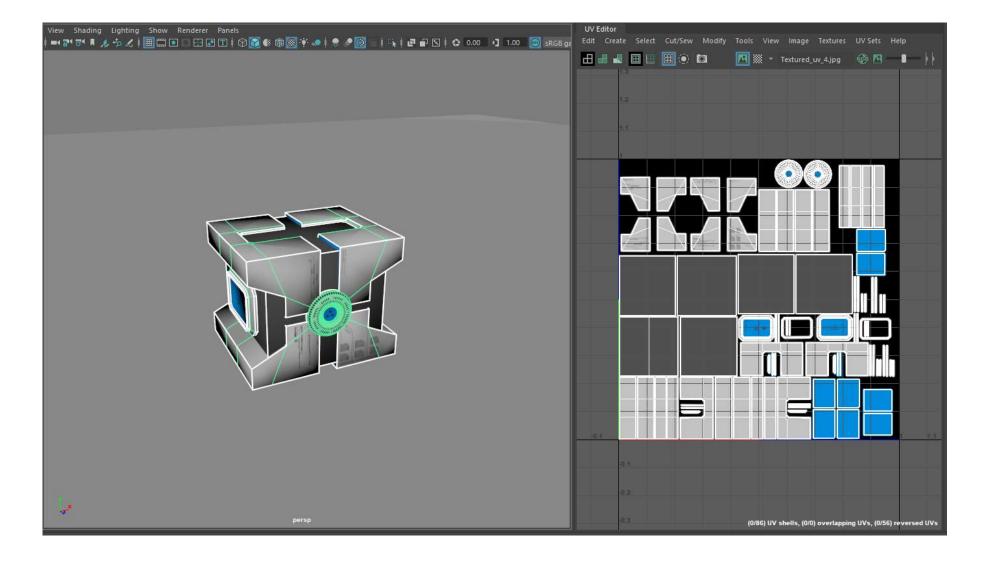
We can use either Maya or 3DS Max for this task, once again I have chosen Maya to unwrap and Photoshop to create the texture.

We have the freedom to design this texture however we like, I plan to create a futuristic styled box based on the Aperture cube from portal 1 / 2

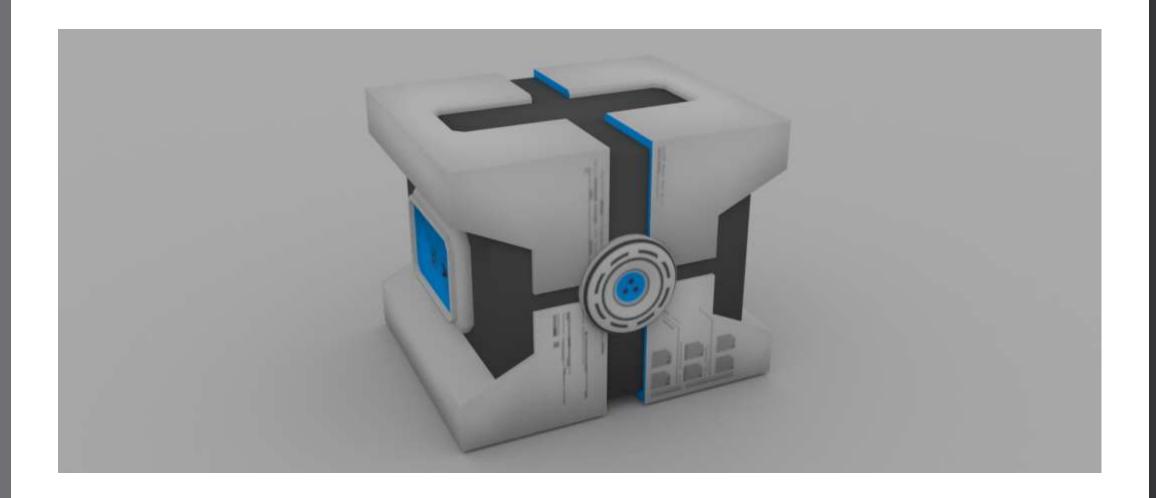




Here are both an untextured and textured UV Snapshot.



Here is a screenshot from within Maya with the texture applied and open in the uv editor.



Render of my final texture with the uv-map applied.

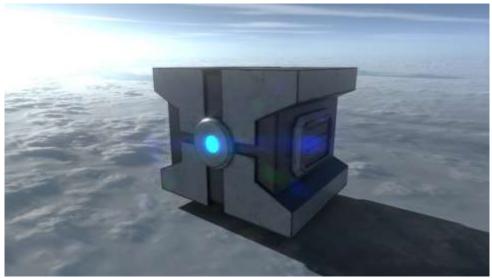
This week's task was a bit difficult compared to the prior weeks in the 3D programs, I have unwrapped before but I have always found it difficult to do so correctly and I usually make mistakes causing the texture to look distorted / stretched, thankfully this time it wasn't too bad, a little basic but time consuming still as I have much more to learn when it comes to unwrapping and texturing.

### Substance Painter

This week's task is to use a program called "substance painter", I have never used it before and only recently heard of it, we have to use a pre-unwrapped object provided by our lecturer, it is the same object as last weeks unwrap.

He gave a 30 minute example run through of substance painter and his process of texturing using the program, it seems easy enough to use and he said when using it think of how you would use photoshop with layers and how they actually matter.





Above is 2 renders from within substance painter of my finished texture.

Since this is a completely new program to me, I had to watch YouTube videos on how to use it. I know that there was provided ID maps, I did give these ago but it felt somewhat restricting for customization for certain parts, so instead I used a tool called "polygon painter" tool which does as it says, allows me to directly paint on the UV's of the object.

I made use of the metal edge wear and dirt generator to give it a bit of natural wear. I used multiple folders with black masks to allow me to select certain parts of the uv, for example on the side parts where there are slants I was able to paint them a separate colour.

I wanted to go with a worn futuristic feel to the box, to give the impression that it was once used for the likes of storage or deliveries but over time it has worn down.

## Unreal Engine Lighting

This week's task was to get a bit of experience in a new engine, using their lighting system, I have never used Unreal but I expect it to be similar to unity in multiple ways. I have always heard unreal is great for environmental scenes and their lighting techniques.

Our lecturer did quick run-over of the engine, showing us where the tools are and how to navigate the interface.

I expect this to be an easy task as there is not much being asked other than to light up a simple scene using 2 or more lights.



A high res render from within unreal engine of my light up scene.

I decided to go with a "happy feeling" mood using blues / pinks.

As thought this task was simple and enjoyable to do. I had fun with this light weight task using unreals lighting system. It has good customization and ease of access when wanting to adjust settings and colours.

I created my own materials for these lights just so I could understand how to do so. I was able to get the scene lit up quickly as all I had to really do was creating 1 of each light then just duplicate and place it where I wanted. I also added in a sky light to help brighten up the inside as it was a bit too dark for my liking.