

THE MAKING OF: LOST

A Behind the Scenes Look
at Storytelling Through
Motion and Environment

By Douglas Leigh



UNREAL
ENGINE



NICON



University of
Staffordshire



Project Problem

When creating cinematics there are many of different layers that need to be considered in order get the depth and emotion to satisfy the viewer.

However, for people who might be hard of hearing or struggle to stay focused on more than one thing at a time, some of the details of cinematics can get lost if the core visuals and body language aren't interesting enough.

This Cinematic project will explore how to successfully convey a short narrative by using a nameless character whose emotions will be shown solely using their body language, the environment that they are in, and the cinematography used.

The Plan

My plan is to create a Short Sci-fi Horror/Thriller cinematic which is set on a lone space station in orbit of a planet. A nameless character will be running from an alien monster in fear for their life.

I'm choosing this approach because I think it is a well within scope idea where I can effectively show my skills in Motion capture, Hand-key animating, Cinematography, and environment Building.

Project Inspiration

My Main inspiration for this Project's Cinematography the Film *Alien*.

This is because of how unique the cinematography is in it. The cramped and uncomfortable feeling in the shots throughout is perfect when it comes to the world building.

Commonly throughout the movie when filming characters it would be close shots at their head or in a place where there are a bunch of them in a small space allowing the viewer to experience the same feeling of dread and discomfort.





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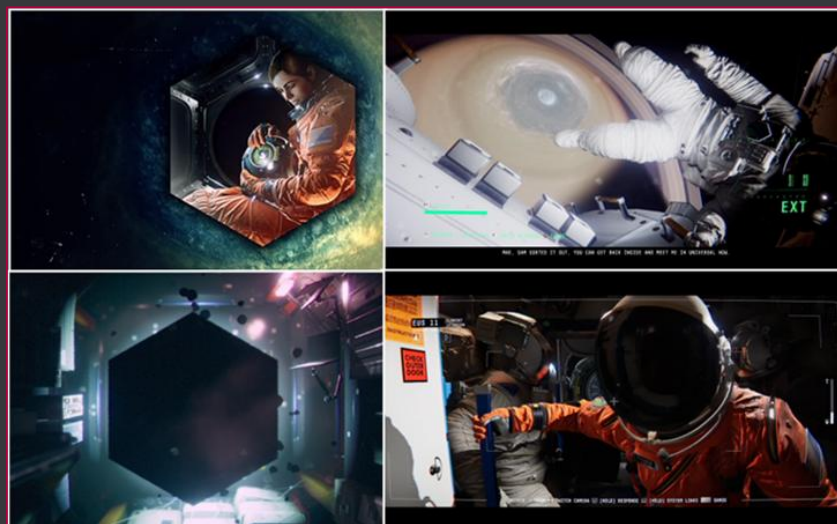
My other main inspiration for the setting and atmosphere is the game *Alien: Isolation*.

This inspires me because it takes place on a faraway space station where few ships go to. It helps me towards understanding the type of feeling I'm looking for in my cinematic.



I am also inspired by the game *Observation*.

This inspires me because of how the camera angles are throughout the game helping me understand the different ways I can reveal things throughout the cinematic.



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I'm also inspired by the Unreal 5 Short film, *THE EYE: Calanthe*.

I think that this cinematic uses the UE5 metahumans effectively with how the characters body language compares to their reactions on the situation they're in.



I'm also inspired by the short series made in Unreal 4, *ZENOBIA*.

I like this because in the technical demo it shows the detailed characters used and how the grime and sweat marks on their face help significantly in establishing emotion and atmosphere before it is even shown.



Environment Research Plan

I will be researching how to effectively build a scene in unreal. I will use asset packs to build the environment.

Then I will need to research how best to light the scene to make the environment seem alive and to drive the viewers eyes to important places throughout.



A good example of this is dead space remastered the dark areas of the environment aren't pitch black everything has some kind of lighting and to drive the player they use differing intensities throughout.



Deliverables and Project Planning

Expected Outcomes

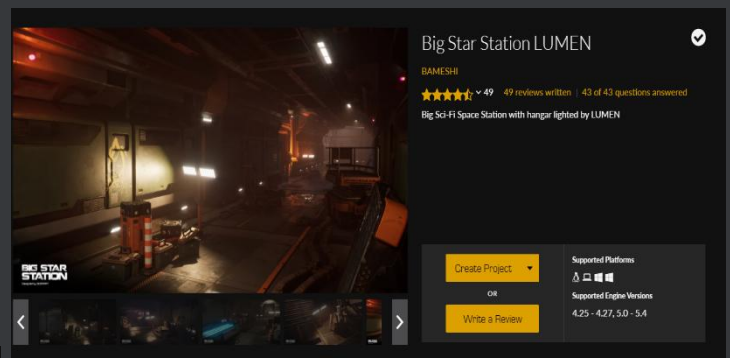
My expected outcome of this project will be to have created a detailed short cinematic which checks all the marks of key focus points that build on the story, emotion and environment.

- + Expressive body language and Detailed Face capture.
- + Hand keyed animation to create a realistic movement for a monster.
- + Comprehensive environment and building Lighting to bring said environment to life.

Asset Scouting

For this Project I've chosen a series of assets using the unreal marketplace (FAB), SketchFab, and other 3D model supplying sites.

For the Core environment and how I'm building it. I've chosen to use Big Star Station. A modular interior asset pack.



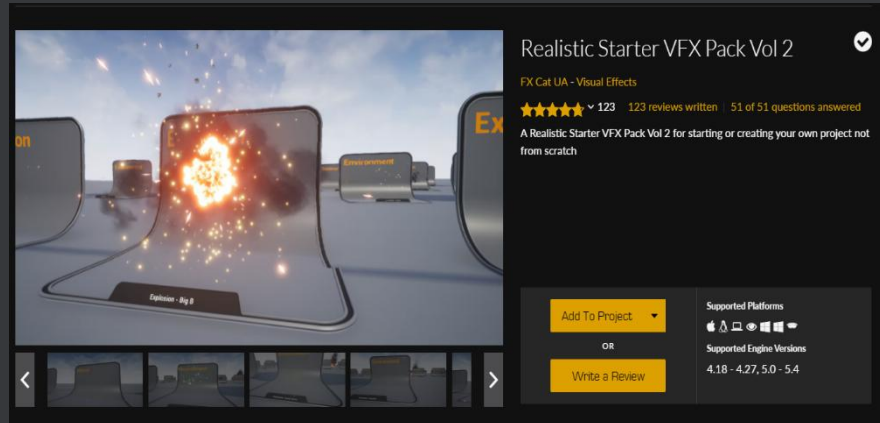
For the opening shots I wanted a View of the space station orbiting a planet. I think that Ultra Dynamic Sky.



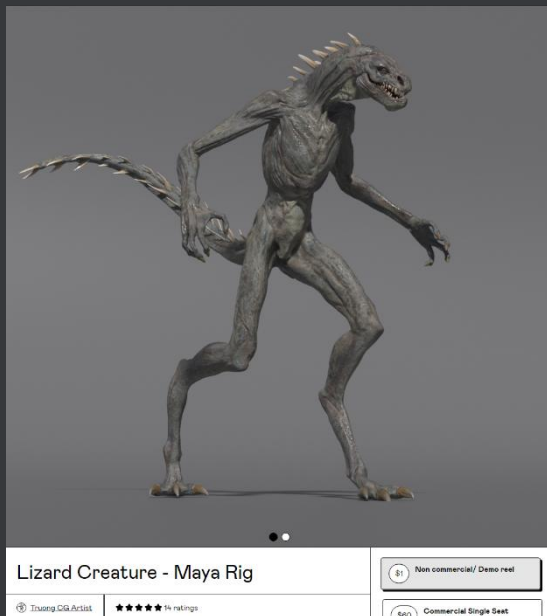
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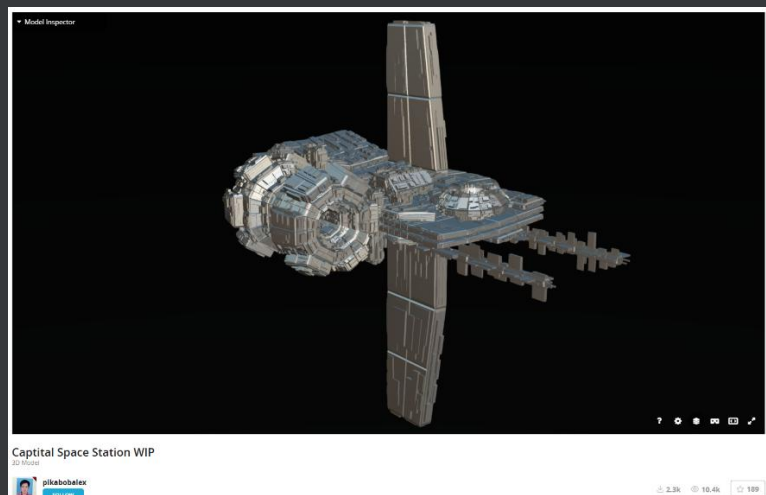
To make the environment more alive I decided to use the Realistic Starter VFX Pack.



For the monster that I'll be hand Key animating I'm using the Lizard Creature from Truong CG Artist Via Gumroad.



For the space station model, I found this on SkatchFab made by user pikabobalex,



Audio Research

When using premiere pro to put the renders together, I thought about the kind of audio and SFX I wanted to be played to bring the cinematic to life.

When conducting some research, I found that in Sci-Fi they use a significant amount of synth and Drone sounds. I believe this is to get a feeling of size when showing large Objects in space. This will help towards successfully creating the “Alone in space” theme I’m looking to get out of the cinematic.

A fitting example of this is the short films **Solstice - 5** and **Solstice - 5 Forgotten Archives**. They show shots of giant ships and machines that are made at an unfathomable scale. To help get this feeling across the creator **Paul Chadeisson** uses deep drones and horns to not only show the viewer size of the ships and machines but to feel them as well.



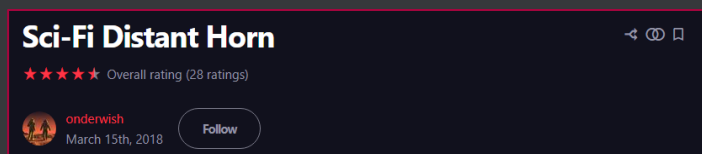


Audio Scouting

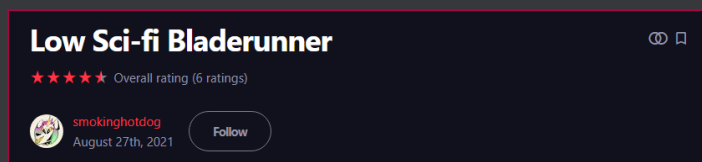
With the research I conducted in mind I started to look for similar aspects for my space stations reveal. I found this part to be incredibly important because I intend it to set the tone for the duration of the cinematic.

For my scouting I mainly looked at Freesound.org as there were many copyrights free SFX and themes I could use for my cinematic.

One of the Key aspects for setting the tone after the title card is the distant horn. I think it helps to add to the feeling of a Sci-Fi horror.

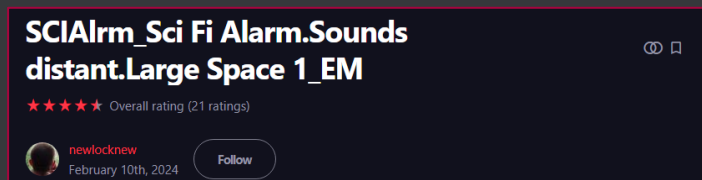


To also add to the Sci-Fi horror aspect during the exterior segment I also used a useful series of Synths.



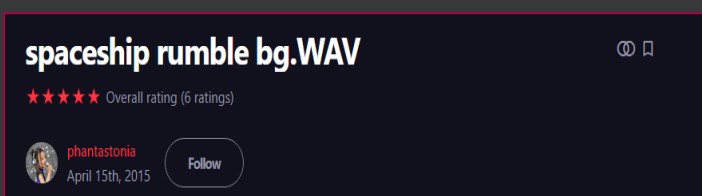
Another is the Stations alarm tone which helps with the chaos of the scene.

This made under Attribution 4.0 by [user newlocknew on freesound.org](#).



Another atmospheric sound I used was a deep rumble sound which I used to indicate a rise in tension throughout the cinematic.

This made under Attribution 4.0 by [user phantastonia on freesound.org](#).





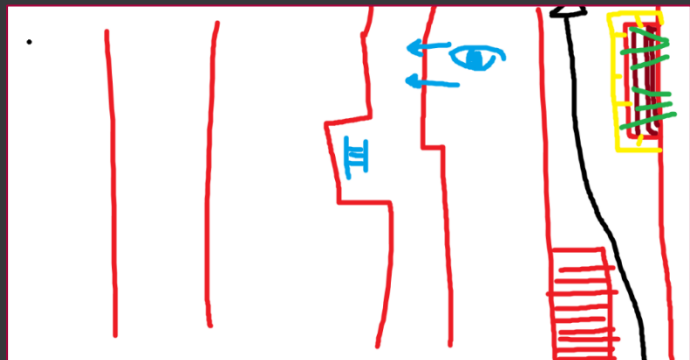
Building the Environment

Environment Iteration . 1

This was my first attempt at creating the scene I wanted the cinematic to take place in. It was mainly based on how the block-out was designed. However, there are a great deal of problems with this scene that required the whole scene to be remade later.

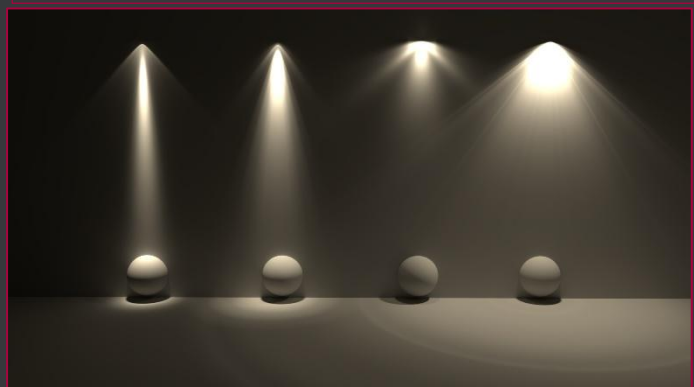


The first main issue was how straight the hallway was. With insignificant variation in the environment, it caused it to look quite boring. And wouldn't give much to look at to give the feelings and atmosphere I was looking to get out of the scene.



This is a diagram made and shown to me by my supervisor to help me better understand how to make the hallway more interesting on where the camera can see and where the character can move throughout.

The environment was too brightly lit for the Thriller/Horror Scene. This also creates a bland uninteresting scene. This can be improved by creating Light Function Materials as well as utilizing IES systems (Illuminating Engineering Society) to make the scene look more realistic.





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<https://youtu.be/OnaJrfrMVLc>

Environment Iteration .2

For my second attempt at creating the Environment I went for a more open approach to give the viewer more to look at. I also researched some geometry on “sci-fi Shapes”.

Which led me to create this interior.

Additionally, I started creating an outside scene for the opening shots of the cinematic. This is so the viewer sees where all of this is taking place and helps to add to that dreaded atmosphere I’m looking for. I also added a window in the interior to connect it better to the opening shots.



This iteration however, also needed some significant improvements. Starting from the outside, I found it to be too dark on where the camera was showing it. My first idea was to have it come out of the shadows to get a sense of scale for the station and create an ominous feeling. But it wouldn't make sense with the star's placement.



And for the interior I found that the spinning light

was too dark of a red causing it to be the brightest thing in the scene taking away from the other objects in it. I also needed to add more lighting in general to show off the corridor more with IES to bring it to life.





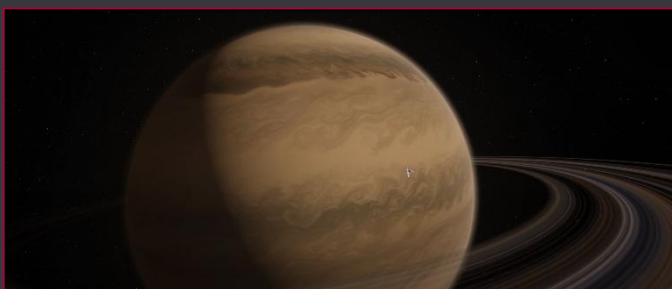
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<https://youtu.be/IWLOjH-c7yg>

Environment Iteration .3

For this iteration I started to think about how I wanted to approach the story of the cinematic with the new design for the environment. So, I decided to make it a much slower paced cinematic with the thought that this would help towards creating an extremely atmospheric piece.

To achieve this, I went for the approach of creating a slow building monster reveal instead of it running at the main character from the very beginning.



I also wanted to add to the “Alone in space” theme by creating a distant camera shot of the station far away looking like an ant compared to the gas giant it’s orbiting. This shows the viewer the vastness of space and how alone the station is.

Additionally, I changed the opening camera shot to look like the station is flying by instead of the camera. I think this helps to get the station reveal that I was looking for.

I got rid of the old texture I had on the station because I thought it didn’t have any real texture to it. Just colours so I left it blank for the time being.



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<https://www.youtube.com/watch?v=C-mOjhR90M>

Environment Iteration .4

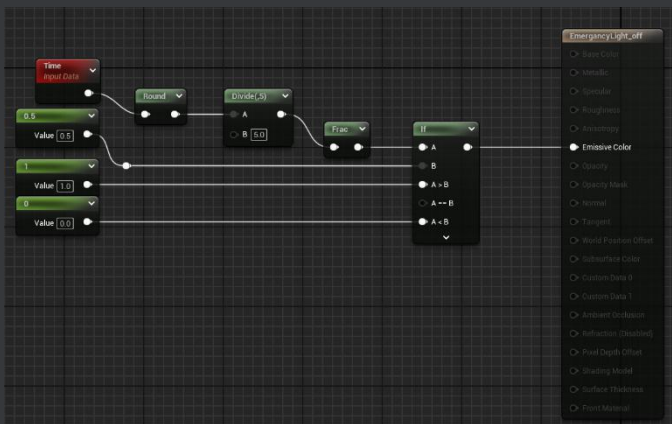
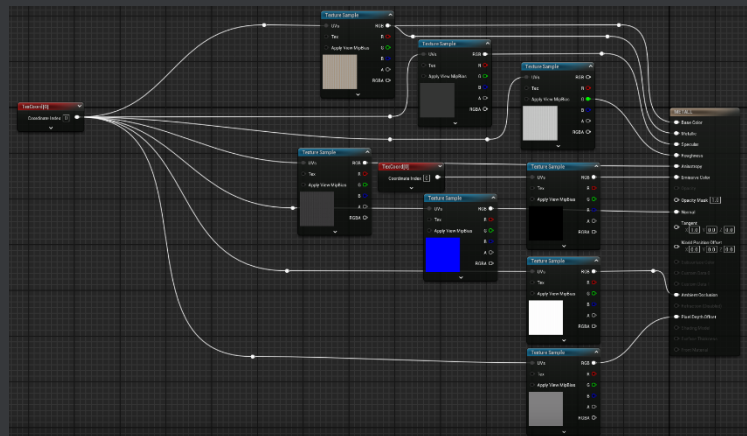
(This is the Iteration I where I thought would be best to start adding the animation block-outs)

In this iteration I wanted to add some more focus to the outside scene to make the station feel more alive. So, I created some light strips and placed them throughout the station. I also added some flashing beacons on some parts of the stations hull this helps towards making the fly by a bit more realistic.

I also finally chose a working texture for mesh of the station.

Due to the size of the station, I made the material tillable so I could upscale it to stop the textures from being low resolution.

With this I was able to use the Tex Coordinate node to tile the texture.



For the monster reveal segment flashing alarm lights to so that the monster will appear when the lights flash on and it's approaching the camera. To do this I made a Light function material which allowed the material's emissive to turn on and off.



Creating the Cinematic Sequence

<https://youtu.be/niesvhVftSA>

Cinematic Render . 1

The only sequences I've used so far are made for beauty shots and testing cameras in the environment. Now I was happy with how my environment looked, I decided that it would be the best time to add block out animations to get an understanding on how a character would move through the environment as well as how the monster would reveal itself with the new lights I added.

Creating the new sequence also helped me experiment and decide on how I will utilise different methods of cinematography I wanted for the cinematic.



When making the block-out I found that using the mannequin doesn't properly represent how the scene's lighting will interact with the character. This is due to the Manny having a Metallic texture compared to what the main character will have which is a more matted skin tone. The solution for this would be to create my metahuman character and get it into the scene as soon as possible so I can better understand how the lighting will affect the character.





<https://youtu.be/pRtQ7tBVigA>

Cinematic Render .2

For my next render I imported the metahuman character so I could create better lighting made around the actual character for the cinematic. Once I added the character, I realised that the lighting in the environment needed some significant improvements.

I think that the first corridor that the character is running down is still too brightly lit for an intense running scene. I needed to add some IES systems to diversify the lighting. I also was planning to create a flickering light function to make the scene a bit more interesting.



I also thought that the scene of the character walking away from the computer was far too dark and it took away from the details in the face. This limits the emotion that I wanted to show the character feeling.



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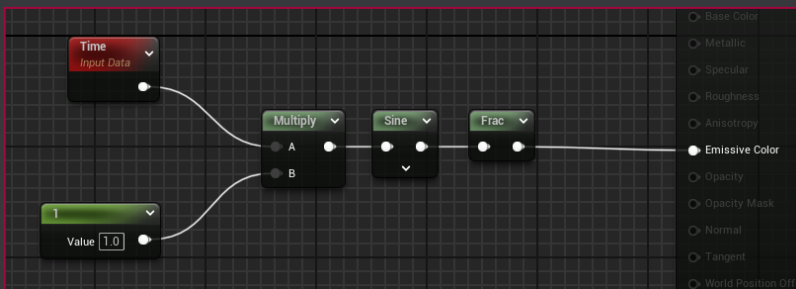
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<https://youtu.be/urm-PBCUdeE>

Cinematic Render .3

For this render I went back to re-working the lighting in the environment by finally adding some IES systems to diversify the way the lights in the scene are displayed. As well as giving the environment more moving parts.

I started with the first corridor as I found it before to be too well lit for it to match the dark industrial atmosphere that the station's interior gives. I found that the new IES Systems I put onto the corridor lights gave me that atmosphere I was missing in that opening interior section.



At the bottom of the hallway, I also added a new Light function material as a flickering to show that the station is in disrepair.

I also added an IES system to the spinning light to make it sharper on its edges. And on the flashing lights during the monster reveal. These IES systems have helped make the cinematic become significantly more polished.

In the monster reveal nothing much happens until the monster reveals itself and this can be quite boring which will risk the viewer losing interest. I decided to fix this by adding a rolling barrel intended as a fake out.





<https://youtu.be/3IAehqDqJdw>

Cinematic Render .4

For this render I started to focus more on the moving parts of the environment by creating an explosion in the opening interior segment and making a proper Pre-Vis animation for the monsters reveal.

Because I decided to go for a much slower burn of progression as the cinematics story unfolds, I separated how I saw the cinematic into 3 segments.

1. Space station exterior: Establishing the setting and tone for the cinematic
2. Interior focused on main character: Intense running showing the character conveying their emotions to the viewer.
3. Monster Reveal: Slow burning scene with heavy atmosphere showing the main reason for the characters fear.

The Pre-Vis animation of the monster is important because I want to test how it will reveal itself with the current lighting conditions. I want it to be crawling up out of the darkness to then stand into the light from the sun where it will then run at the camera cutting to black.

I found that the parts of the monster that were revealed up until it is showing itself fully in the light when it stands have worked well and it gives that heavy tense atmosphere I was looking for.





Motion Capture Plan

Now my block-outs where in a place where I was happy I though it to be the best time to head to the Motion Capture studio and finally get the animations for the main character.

As the director I though it to be important to create the Pre-Vis animations because I can show my actor how to move on the stage. They can get an understanding on the kind of emotions they need to express during the shoot.

MOCAP Plan:

1. The Main character is shown running out of breath down a corridor.
2. They stumble when an explosion goes off at a side panel on the wall.
3. They turn the corner in a fast-paced way into the hall.
4. They run up to the console at the end of the hall and rest their hands on it.
5. Starting at the console begin to swipe and tap with fingers simulating a typing in a code and it is failing each time. Then slam the console out of frustration.
6. Then hear terrifying noise behind the character and slowly turn around walking in the direction that the sound came from and hold in place.



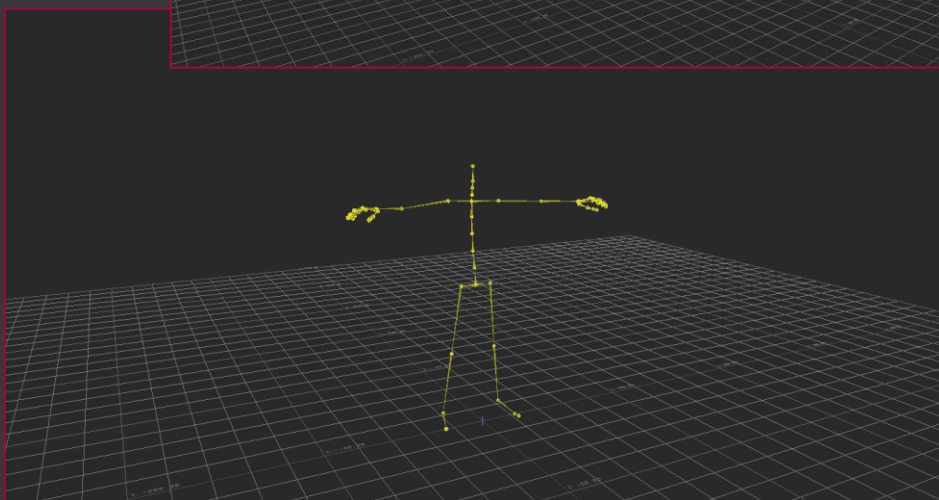
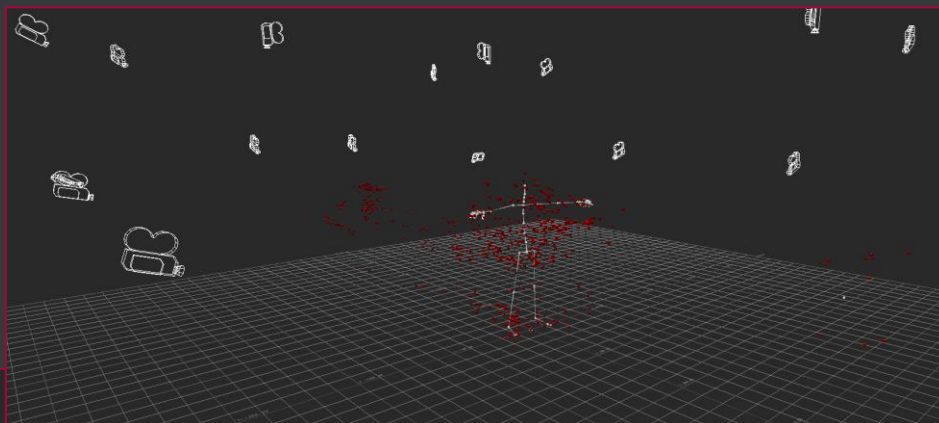
After The MOCAP Shoot

Stripping and Sorting Data

After the MOCAP shoot I was able to import the data Into Motion Builder where I could clean the data and apply it to my Metahuman.

For data processing I used this file structure as a step by step with constant iterations of the mocap data in case I need to go back a step for any reason, helping me work non-destructively.

1.RAW	14/01/2025 13:35	File folder
2.STRIPPED	14/01/2025 13:36	File folder
3.T-POSE	14/01/2025 13:36	File folder
4.CHARACTER	14/01/2025 13:36	File folder
5.TRIMMING	14/01/2025 13:45	File folder
6.BLENDING	14/01/2025 13:37	File folder
7.CLEAN UP	14/01/2025 13:37	File folder
8.EXPORT	14/01/2025 13:47	File folder



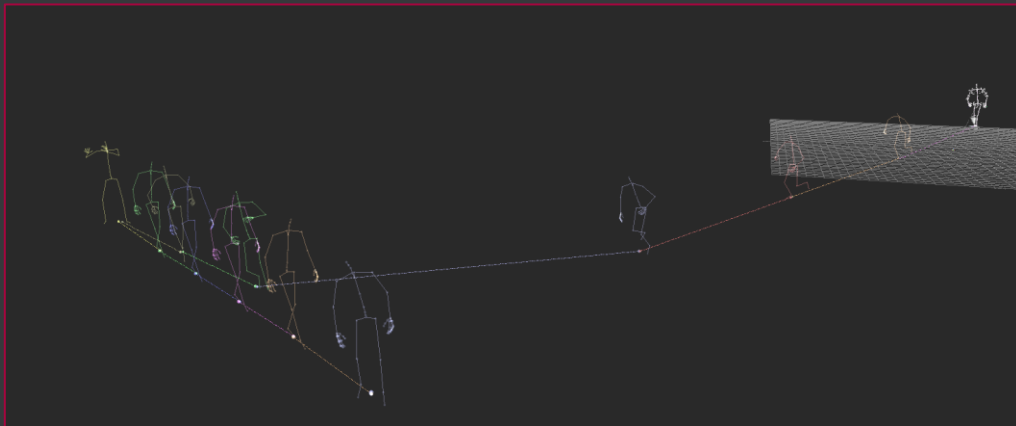
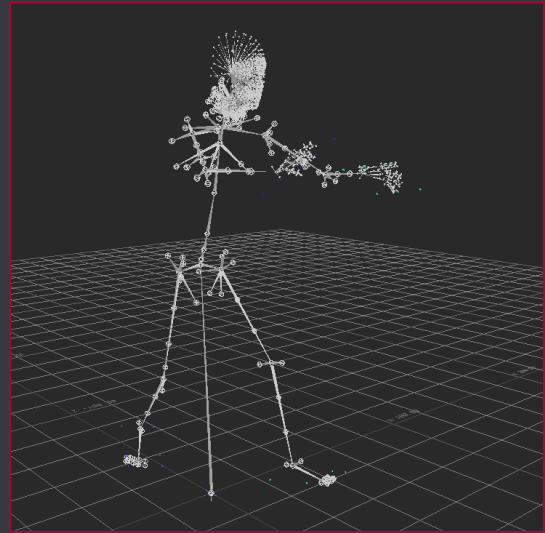


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Cleaning and Blending Data

The cleaning process was quite easy with this project as the latest updates to the Vicon Studio have made the data come out with less implications.

With that I was able to start blending the takes together to create a single seamless sequence which I was quite happy with the outcome.



<https://www.youtube.com/watch?v=DWuQ4QfrMsw>

MOCAP Pass Render

This render took a few attempts to get the placement right. I had to make some animation loops to blend in so the character can get through the whole scene. Doing this required me to go back and forth to get the right distance through each section. However, I am extremely happy with how it has turned out.



The next step will be to add expressions on the characters face and hand key animate the Monster for the final reveal.

After some feedback from my supervisor, I need to rework the cinematography for much of the sequence. Because I don't think that it meets the vibe that I was inspired by from the Alien movie. The current Cinematography shows quite wide camera shots compared to the Alien film having close claustrophobic feeling shots.





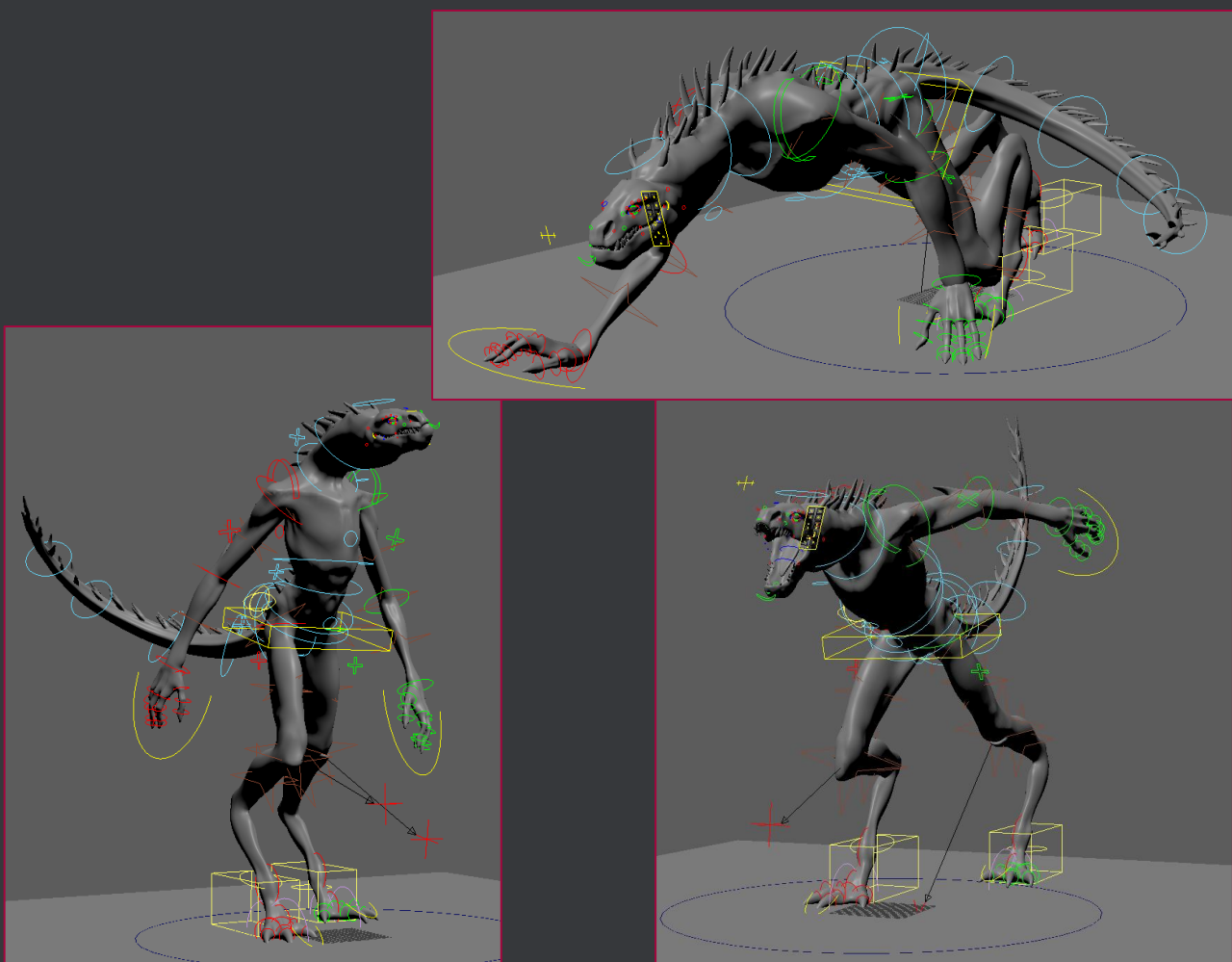
Animating The Monster Reveal

Due to time constraints I needed to change how I wanted the monster to act slightly. Instead of it running at the camera, I have decided to replace it with a scream followed by a cut to black instead.

I am quite happy with what I have been able to animate in Maya as I found the rig rather difficult to work with for the crawling section as I don't think the mesh was intended to be used in that way.

I started with making a walking loop on all fours and then made it push itself to its legs. I then wanted to have the monster slowly stand and stretch revealing its true height.

This is then followed by a roaring animation with its mouth opened past the face rigs control limits to unnerve the viewer.





I reworked the cinematography of the character acting on feedback given about how the cinematography wasn't capturing the essence of claustrophobic camera angles when around the character.

I also changed the camera movements for the monster reveal where it shows itself quicker than before.

The monster animations also imported extremely well. I was able to achieve the tense feeling of its reveal while hiding some of the less emotive animations within the falling smoke.





Final Render

The Final render changes I made are adding facial hand keyed facial animations after running into Face Capture Issues.

A new spinning light in hall to balance out how bright the other one is. This also helps to light up the main characters face better when walking away from the console.



I also added some of my own voice acting into the cinematic to replace the radio in the fly by segment, The characters breathing while running, and the monsters sounds and Roar. This was all done using Voice mod to get the required effects and Audacity to record them.

