

Thesis Report 2020

Submitted by Babrak Khan

Registration: F2017 - 440

Beyond Chips

Submitted in partial of the requirements for the degree of

Bachelor of Design (B.Des.)

In Visual Communication Design

At the Beaconhouse National University.

Table of Contents

Chapter 1	3
1.1 Key Words	3
1.2 Abstract:	3
1.3 Design Statement:	3
1.4 Passion:	4
1.5 Project Scope:	5
Chapter 2	6
2.1 Research Questions	6
2.2 Theoretical Framework	6
2.3 Concepts	7
2.4 Literature Review	8
2.7 Research Question Explained	15
Chapter 3	16
3.1 Research Methodology	16
3.2 Data Sources- Secondary	16
Chapter 4	19
4.1 Medium of Presentation	19
4.2 Pre-Production	19
Chapter 5	21
5.1 Documentation of Work in Progress	21
Chapter 6	29
6.1 Conclusion	29
Bibliography	30

Chapter 1

1.1 Key Words

Storytelling, Characters, Cyberpunk, Robots, Human Race, Human Nature, Human Psychology, Dominance, Future, Life, Power, Violence, Torture, Killings, Massacres, Threats, Technology, 3D Animation, Short Film.

1.2 Abstract:

This study Beyond Chips is focused on exploring the human-machine interaction structured around the themes of Cyberpunk and AI. It deals with ideas of dominance, power dynamics and human nature to exercise authority over all else that exists. The tools of 3D animation have been implemented throughout the project in order to execute a short film. Ideas of cyberpunk have been researched and analysed to be further translated into visuals elaborated into the narrative of human-machine conflict in order exercise dominion. This study aims to debate on the future of the intelligent machines at the hands of humans using formal aspects of animation.

1.3 Design Statement:

The thesis is based on a Speculative Design in which a predicted certain narrative is developed in a near future fictional setting. The plot and the setting are inspired from present human conditions. The hierarchal structures and power play amongst human-race has helped me explore a research concern based on the future of a world that will be inhabited by both men and machine. Ideas such as morality, free-will and the right to live being granted to machines have been explored in relation to artificial intelligence and machines. A narrative of an alternate universe is infused with the futuristic themes of cyberpunk, human-machine interaction and the human condition that questions and challenges notions of power dynamics in society.

Through the narrative of the project a question is being posed on the innate nature of dominance. I have tried to highlight the subconscious violent tendencies of human beings that has already affect-

ed all that came across us and will affect more. As William Gibson said, we can't see future but we can write stories about it thus an attempt was made through the project to illustrate a near-future where human race turns against its own creation i.e. the artificially intelligent machines. The project aims to explore and communicate the above mentioned research concern in the simplest manner possible

The tools of 3D Animation are used to visually depict my personal perspective on these concepts.

1.4 Passion:

Human brain has always fascinated me in numerous ways. It's function in relation to cognitive psychology is what intrigues me the most. The idea of perception is further broken down into learning, thinking, memorizing, responding and how this vital organ is completely responsible for how we situate ourselves as an individual and as a collective. I have always been keen to observe human behavior and interaction with ourselves and others in light of how the cognitive process of the brain unravels.

It is still not very clear what sparked my interest particularly in the working of the human brain, was it either innate or learned but what must have played a significant role was my father being a psychiatrist. Growing up in that environment, I understood at a very early age that we ourselves need to look within to find meanings and reasons for our actions. Furthermore, to understand them, one must understand the human brain as a collective.

While my interest in above mentioned came to me naturally, I have worked over the course of years intentionally to develop my skills in 3D animation. Of all the mediums, animation came across to me with the maximum potential and possibilities after exploring other practices such as photography, filmmaking and motion pictures for a decade. My practice in visual communication design has gradually evolved towards 3D animation as I acquired the skillset and work process of an animator and realised it suited best to execute my ideas and interests.

Also, I have always been a keen enthusiast of technology and the digital world as far as I can re-

member. A 5-year-old befriending computers and softwares was supposedly inevitable to respond his appetite towards the advancement of science, wonders of design and the limitless potential of technology. I simply tried to channel my interests and skillset it in the most suitable creative manner.

1.5 Project Scope:

If historically examined, humans have a natural tendency to exercise dominion and power over all else that is seen as the other. May it be an individual, group of individuals, non-human animals or the planet itself. Presumption is our original disease that has manifested itself so deeply in us, that acts of genocide, atrocity and violence doesn't seem to be a transgression of our moral spheres, rather are justified as being politically charged and for a greater good. My narrative is a projection of such instances, where hate and fear are masked by our desire to seek protection from all else that has the ability to over-power us. It develops on the idea of our thirst for power and dominion that drives us to extreme acts of violence, that might direct course towards the machine and a conflict between human and machine would be in play.

Chapter 2

2.1 Research Questions

- Humans have exercised dominion over every other specie throughout the history for the thirst of power, will they continue to do the same with artificially intelligent machines?
- What is it that brings the notion of idea of exertion of dominion amongst the human race and how does the power play establishes a hierarchical structure such as the one between countries and living beings?
- Exploring the innate tendency of humans being towards violence and atrocity in order to remain in power and authority, typically in times of conflicts.
- Investigating the position of artificial intelligent machines in near future and how will we perceive them as friends or a threat?

2.2 Theoretical Framework

My study explores the idea of Cyberpunk in reference to a dystopian post-human reality where the robots and human are to co-exist. My initial areas of concerns such as modification of bodies, multi planetary species, science and technology can be condensed into the idea of a trans-humanism further elaborated by Artificial Intelligence. Furthermore, I am critically analyzing another aspect of the society that has been of keen interest to me, a future where our intrinsic nature to remain in absolute power that will drive us to such extents that we will turn against our own creations that is, The Machine. Our insecurity of losing the authority that we enjoy presently, will soon be threatened by emerging idea of artificial intelligence. I have explored the interaction of machine and humans against each other in a narrative that is rendered on the idea of a shift from what we are working towards right now that is technological boom in a utopian light of progression being perceived as a potential threat to authority. I have established a storyline inspired by cyberpunk and developed a set of characters in a futuristic fictional setting. The storyline that revolves around humans, technological advancements and AI robots is bridged with the tendency of humans towards dominance.

Violent acts of power play charged with human psychology to exercise dominion route a way towards a human-robot encounter. As William Gibson said, “We can not access future but we can write stories about it”. I have tried to weave a narrative about cyberpunk, trans-humanism and AI given the tools of animation in a fictitious plot where a new reality is at play. By working closely on world building, character development, and storytelling taking an inspiration from the themes of cyberpunk after a thorough research I have been able to condense all of this in an animated short film.

2.3 Concepts

2.3.1 Cyberpunk- Cyberpunk is a sub genre of sci-fi highlighting a dystopian future. It focuses on crimes, corruption, corporates ruling the world, poverty, addiction and dangers of technology. The culture of cyberpunk stands out as High Tech - Low Life. We see poverty and addiction to different kind of drugs and vaccines. Massive sky-scrapers and futuristic architectures are a major element along with roles of mega corporations. Cyberpunk heroes either work for the corporation or against them. Cybernetic augmentation introduced by cyberpunk is the next phase of human evolution. It is the replacement of body parts into mechanical features. Also the idea of android and lack of empathy is also webbed into theme of cyberpunk by Philip K Dick. The first film to capture the grand idea of cyberpunk was *Colossus : The Forbin Project* 1970 directed by Joseph Sargent.

2.3.2 Trans humanism Developed initially as a philosophy and later evolved into a cultural movement, it articulates of a near future in which humanity is being rendered into post humanity by fundamentally altering the basic elements of the organism and condition that leads to an emergence of machines/robots as another co-habituating specie. Though a creation of mankind itself, it is an evolution rather an extension of us in the futuristic setting we have already created for ourselves.

2.3.3 Artificial Intelligence

AI is the simulation of human intelligence processes by machines, especially computer systems such as Siri, Alexa, Cortana and Google Assistant Intelligence to perform tasks. It is a system generalized by human cognitive abilities, meaning it can't solve tasks and find solutions without human intervention. For example, a self driving car has features of computer vision instead of human sight, image recognition and in depth learning to operate a vehicle with minimum hazards. AI has made its way into a variety of industries and is now a major part of the technological and digital age but such a broad application of AI raises legal, ethical and security concerns. The growing abilities and power status of AI poses a certain ambiguous concern to humans as they are emerging as a prominent section of the society.

2.4 Literature Review

My project is developed on thematic concerns such as Cyberpunk, Trans-humanism, Technology and AI. For this purpose comics, TV series, movies and literature related to the above given genres were closely reviewed. The goal of the project was to illustrate a fictional setting where a narrative voices my perspective on the interaction of human and technology. In order to do that I was required to translate the language of the genres in visuals based on narrative, world building, character development, plot and setting. The following media and literature are the seminal components of the project that acted as building blocks.

2.5 Comics and Novels

2.5.1 Hard Boiled (Miller, 1990-1992) is a comic based on specifically AI and cyberpunk provided in



Figure1: Hard Boiled

visual data explaining scenes of violence against robots. it made easier to picture and illustrate scenes of human robots encounters and also that narrative added in the element of Robot rights and they being a citizen. References from scenes such as robots against humans in fights and riots were incorporated into the storyboard illustrating mass killing and violence against robots.

2.5.2 Transmetropolitan (Comic) written by Warren Ellis and co-created and designed by Darick Robertson in 1997-2002 is a trans-humanist cyberpunk comic book majorly contributed in character building (Ellis, 1997-2002). The main character of the comic, Spider Jerusalem helped in elaborating how a character has to be established in a story from the start till the end. The interaction of the character with story and his projection in the plot laid the setting for my work and aided me to understand to support the plot by the

characters. The character was written as super genius, determined ex-reporter from a news agency. The exaggeration of his character was adding excitement to the plot as his bizarre house, a pet cat with two faces along with the rest were adding to the uncanny effect of the comic. For instance, his telephone was found in the flush to avoid contact was a good step to register his anti-social behavior. It was a very different rather unusual character but perfect fit into the cyberpunk



Figure2: Transmetropolitan

trans-humanist world. His appearance and personality was projected and exaggerated in all his actions such as eating, walking, interacting, smoking etc. that added more to the setting and made him the focal point along with narrative development. The analysis of his character helped me a lot to develop the characters for the project. The introduction, placement and registration of the character by simple acts such as wearing only pants and his love hate relationship with people yet being a voice against oppression and corruption were hints that aided me to learn about good character building. I enjoyed the precision of the narrative.

Moreover, the tools of world building of Cyberpunk demonstrated in the comics coupled with the element of excessive drug usage as intoxicants, medicine and basically a key component for life, with eerie costumes, bizarre appearances etc. helped me understand how to render and elaborate the dystopian theme of cyberpunk.

2.5.3 *Neuromancer*, (Gibson, 1984), written by the pioneer of cyberpunk, was a key component of my literature review. The novel has been an inspiration for all media that followed on the theme of cyberpunk along with *Do Androids dream of Electric Sheep*. William Gibson is also the creator of cyberspace (the environment of cyberpunk) along with Philip K. Dick. Gibson believed that cyberpunk is now a heritage and fashion is a global language, we communicate through what we wear that eventually became key feature in illustrating the theme. Moreover, he also said that, “What was a presidential term, is now like a fraction of news cycle” (Gibson, 1984) explaining how the new futuristic world works. He also closely talked about the ideas of prosthetic memories i.e. inside our phones and science and technology as an invincible reality.

What now are seen as basic components of cyberpunk were introduced in the novel and helped me understand this theme well enough to translate it visually. The elements of world building, theme specific architecture, transport such as flying cars. neon lights, smoke, aluminium buildings, ambience, spaceships, weapons, drugs such as vaccines, boosters as compulsory like food were intro-

duced as the new norm in the novel. His work introduced me to peculiar details about technological advancements like micro-chips and techno-criminal subcultures assisted in a better understanding of the genre. Elements such as rich fields of data, Microprocessors for monitoring blood, genetic surgeons that can operate on genes were key components that inspired me to explore further into the concepts. Ideas such as filtration masks as an appearance. Nikon eyes for the anatomy, gun metallic silk suits, platinum bracelets with chips, all these factors lead to a better visual storyboarding in the project especially the costumes illustrations.

2.6 Movies

2.6.1 Blade Runner (Movie) (Scott, 1982) and Altered Carbon (Tv-series) a Netflix series (Russo, 2018), helped me in creating the plot of my film. By experiencing a visual presence of all the concepts that I had earlier read about I was able to develop the overall style of architecture and transport system that included the functioning of spaceships and flying cars, concepts such as humans inventing humans. The ambiance of the films provided a better understanding of how architectural language plays a major role in plot development. I was to able to crucial link between power play and mega structures of the plot. The existence of corporations as an emerging power and reality

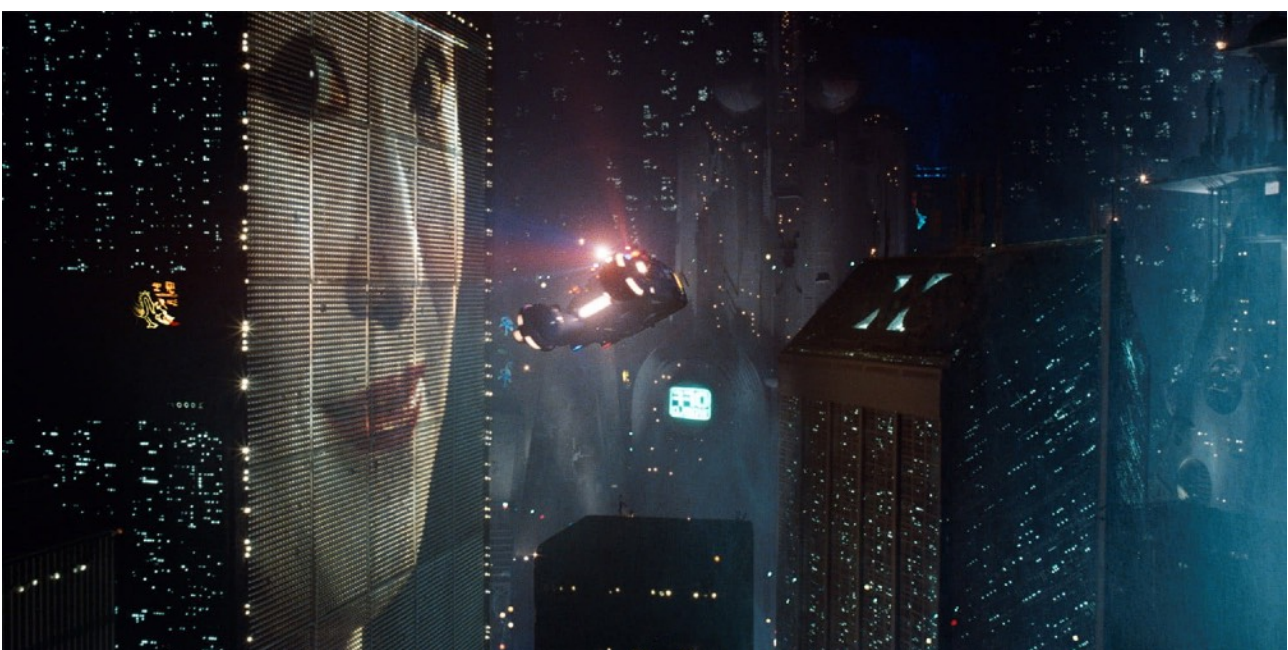


Figure3: Blade Runner

and how being on heights held a hierarchal symbolic meaning. The presence of

auto tinted windows, genetic design and artificial genes in production from the narrative added to my understanding and key tools of the concepts.

2.6.2 Ex-Machina (Garland, 2015) and WestWorld (Nolan, 2016-2020) provided me with additional ideas about how robots are treated and how artificial intelligence react to such treatments. It gave me a deeper understanding of the perspective of artificially intelligent robots and how they see. Re-viewing these films determined a key point in the project as both characters that were being developed were instilled with conscious and mental capacity that had to be projected.



Figure4: WestWorld

2.6.3 Love Death Robots (Miller T, 2019) a TV series helped me in execution of film focusing on how an elaborate idea can be summed-up in a few minutes of an animated film. This also helped me in creating my main character DD4, which I took inspiration from an episode '3 Robots'. His appearance in terms of facial features, head, and body were inspired from the episode. This piece helped me establish an understanding of time restriction in play with storytelling.



Figure5: Love Death Robots

2.6.4 The movie I am Mother (Sputor, 2019) inspired me in creating a better interior for the charging room for the robot of this project. The visuals given in the movie in context with the life of a

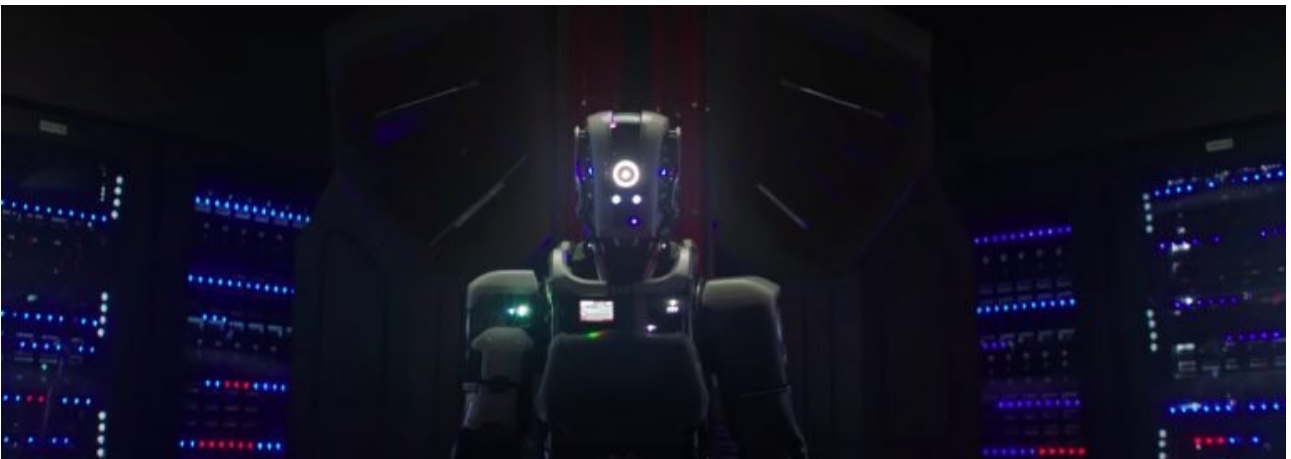


Figure6: I am Mother

robot were very helpful in visualizing major aspects of my plot.

2.6.5 Chappie (Blomkamp, 2015) is a film that helped me in developing my main character DD4, how he talks and interacts with other people is inspired from the film. The mechanical way of talking and moving and his attitude towards human beings added a lot into the development of the character development and is illustrated in various manners throughout the project.



Figure7: Chappie

2.6.6 Black Mirror (Brooker, 2011) is a TV series that supported in the narrative building given that it explained that how artificial intelligence affects the world. The thematic concerns of Black Mirror



Figure8: Black Mirror

opened up window for me to explore the other side of the story that was how the world will affect artificial intelligent machines and became one of my key concepts.

2.7 Research Question Explained

The interesting power play between countries establishes the fact that there is a politically charged desire to dominate the other, in case of nations it is usually for a purpose of obtaining control and access of resources and economical benefits. Further simplified, it is not only politics or economics that drives us but also beings have enjoyed the excretion of power and dominion over rest of non-human living beings. They have presumed themselves in authority of sabotaging the habitats of other species just for the sake of their own expansion and comfort. What interests and terrifies here the most is the tendency to not regard any other existence than of our own.

Moreover, acts of violence are not always committed to gain something particularly but also to simply terrorize and establish a certain position of power in the fabric of time and space. Just to make a mark and suppress any potential threat. Such acts have been witnessed amongst nations in wars, between similar people in riots, inter-religion massacres and any such conflicts. This brings me to wonder that who will be next victim of ours? Artificial intelligence which is now a booming area might soon pose to be adequate enough to occupy a certain position socially for their intelligence and capabilities thus giving rise to a conflict.

Chapter 3

3.1 Research Methodology

For this particular study most of the research conducted was desktop research considering the fact it is a speculative design project. Case such as Novels by pioneers of cyberpunk movement, Tv series based on similar genres of the dystopian reality of technology, trans-humanism, artificial intelligence were analyzed and dissected in order to devise a strategy for the project. The idea was to study the key concepts being explored and collect sufficient vocabulary both visual and narrative based in order to develop an animated film. For the medium of film, it was required to not only be able to produce visuals but also a strong storyline, plot and strong characters. The data that was collected and categorized into two major sections. Section one was the formal aspects of the project that was to understand the framework establish a visual understanding of the themes followed by section two that was an in-depth study of story-telling and narrative building. All the secondary sources cited later were analyzed for the purpose of these two categories.

3.2 Data Sources- Secondary

Following are the data sources analysed for this project along with works cited that have employed as an inspiration.

- Elon Musk (CEO SpaceX) (Talk, 2016)
 Making Humans a Multi Planetary Species
https://www.youtube.com/watch?v=H7Uyfqi_TE8
- Neri Oxman (Professor at MIT Media Lab) (Oxman, 2019)
 Creating Bio-Architecture
 Netflix: Season2 Episode 2 (Abstract, 2019)
<https://www.netflix.com/watch/80237094>

- Blue Planet 2 (BBC Earth, Attenborough, 2017)

Documentary Series on Ocean Life

<https://www.bbc.co.uk/programmes/p04tjbtx>

- Planet Earth 2 (BBC Earth, Attenborough, 2016)

Documentary Series on Life on Earth

<https://www.bbcearth.com/planetearth2/>

- Oscar Pistorius (Pistorius)

Professional Sprinter, (Harmon, 2013) Artificial Legs.

https://www.youtube.com/watch?v=hDATmwV9M_E

- Comos: A Spacetime Odyssey (Ann Druyan & Steven Soter, 2014)

Presented by Neil deGrasse Tyson

An in-depth documentary series about the existence of the entire creation.

<https://www.nationalgeographic.com.au/tv/cosmos-a-spacetime-odyssey/>

- Rick and Morty (2013-present)

An animated TV-series Created by Justin Roiland and Dan Harmon.

It highlights social issues and portray them in the light of Science Fiction and dark humour.

<https://www.netflix.com/search?q=Rick&jbv=80014749&jbp=0&jbr=0>

- Cartoon Box by Frame Order

An animated series about old fictional stories, and changing its narrative by adding humour.

<https://www.youtube.com/channel/UC1D26ByrbZVwuMgjVWmsOuw>

- Hard Boiled (Comic)- AI plus Cyberpunk (Miller F. , 1990-1992)
- Transmetropolitan (Comic) (Ellis, 1997-2002)
- Neuromancer (Novel) (Gibson, 1984)
- Blade Runner (Movie) (Scott, 1982)
- Altered Carbon (Tv-series) (Russo, 2018)
- Ex-Machina (Movie) (Garland, 2015)
- WestWorld (Tv-series) (Nolan, 2016-2020)
- Love Death Robots (Tv-series) (Miller T. , 2019)
- I am Mother (Movie) (Sputor, 2019)
- Chappi (Movie) (Blomkamp, 2015)
- Black Mirror (Tv-series) (Brooker, 2011)

Works Cited

- Abstract season 2* (2019). [Motion Picture].
- Attenborough, D. (Director). (2016). *Planet Earth 2* [Motion Picture].
- Blomkamp, N. (Director). (2015). *Chappi* [Motion Picture].
- Brooker, C. (Director). (2011). *Black Mirror* [Motion Picture].
- Earth, B. (Writer). (2017). *Blue Planet 2* [Motion Picture].
- Earth, B. (Writer). (2016). *Planet Earth 2- Series of life on earth* [Motion Picture].
- Ellis, W. *Transmetropolitan*.
- Garland, A. (Director). (2015). *Ex Machina* [Motion Picture].
- Gibson, W. *Neuromancer*.
- Harmon, J. r. (Director). (2013). *Rick and Morty* [Motion Picture].
- Harmon, J. R. (Director). (2013). *Rick and Morty* [Motion Picture].
- Miller, F. (1990-1992). *Hard Boiled*.
- Miller, T. (Director). (2019). *Love Death Robots* [Motion Picture].
- Must, E. *Making humans a multiplantery species*.
- Nolan, J. (Director). (2016-2020). *West World* [Motion Picture].
- Oxman, N. (Writer). (2019). *Creating Bio-Architecture* [Motion Picture].
- Pistorius, O. (Director). *Proffesional Sprinter* [Motion Picture].
- Russo, J. (Director). (2018). *Altered Carbon* [Motion Picture].
- Scott, R. (Director). (1982). *Blade Runner* [Motion Picture].
- Soter, D. a. (Writer). (2014). *Cosmos- A Spcae Time odyssey* [Motion Picture].
- Sputor, G. (Director). (2019). *I am Mother* [Motion Picture].

Chapter 4

4.1 Medium of Presentation

The medium of presentation is 3D Animation. I started with my characters, made Character Sheets for all of them and modelled them on Cinema 4D and Adobe Fuse. Once they were done, I designed the entire architecture of my film, including interior and exterior. I modelled everything in Cinema 4D.

Then I furthered to storyboards on my sketchpad for my narrative. I hand-sketched all the scenes, with a brief description of what's going on in each one of them. After this I wrote the entire script for my film. This included all the dialogues, actions, expressions and movements.

After I had made all this ground for my animations, I started to animate all my scenes according to my storyboard. I used Adobe's Mixamo to rig my characters and would animate them in Cinema 4D. For GPU Rendering, I have rendered my entire animations on Arnold Renderer and Cinema 4D.

Once all the scenes were rendered, I exported them to Adobe Premiere Pro where I stitched all the scenes together and edited them. For post-processing and adding minor details I used Adobe After Effects.

After my film was ready, I worked on sound design. I used different sound effects from the internet and also created many of them myself. I recorded the voice overs on my iPhone's mic and edited them on MorphVox and Premiere Pro according to my scenes. I also downloaded voice overs from the internet which I couldn't create with my iPhone's mic, as some of them had to be of studio quality to give the viewer a better experience of the scene.

4.2 Pre-Production

For the short film I enhanced my skillset from YouTube. The channels I have taken tutorials from are the following:

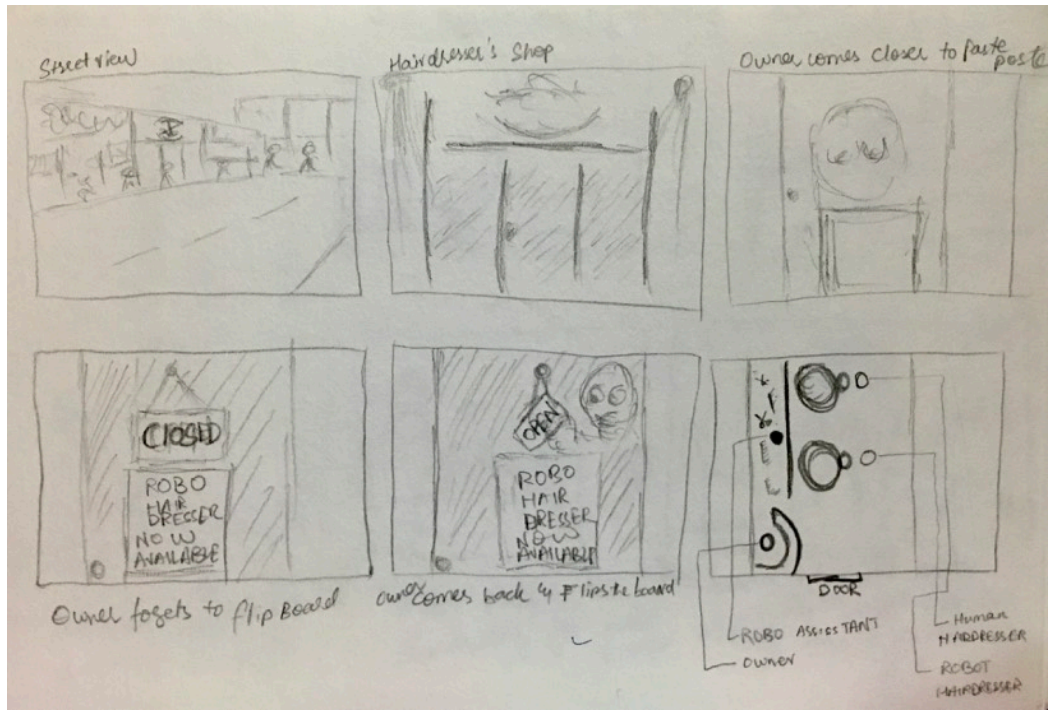
1. Greyscalegorilla for working with Arnold for cinema 4d, which includes setting up lights and creating a realistic scene.
2. Andrey Lebrov aided with making my ideas clear on how to make good quality animation
3. Cinema4D by Maxon for learning different tools in cinema 4D.
4. Cineversity guided me with making my animations better.
5. Mograph Plus helped me with learning different plugins in cinema 4D.

Also the studio elective Animation 3 helped me in boosting my progress, as the constant guidance and support of my instructors helped me troubleshoot any technical errors and difficulties I was facing through one to one tutorials and demos. With the access to YouTube and guidance of the instructors coupled with my constant practice and experimentation of tools of making of the software eventually resulted in a desirable outcome.

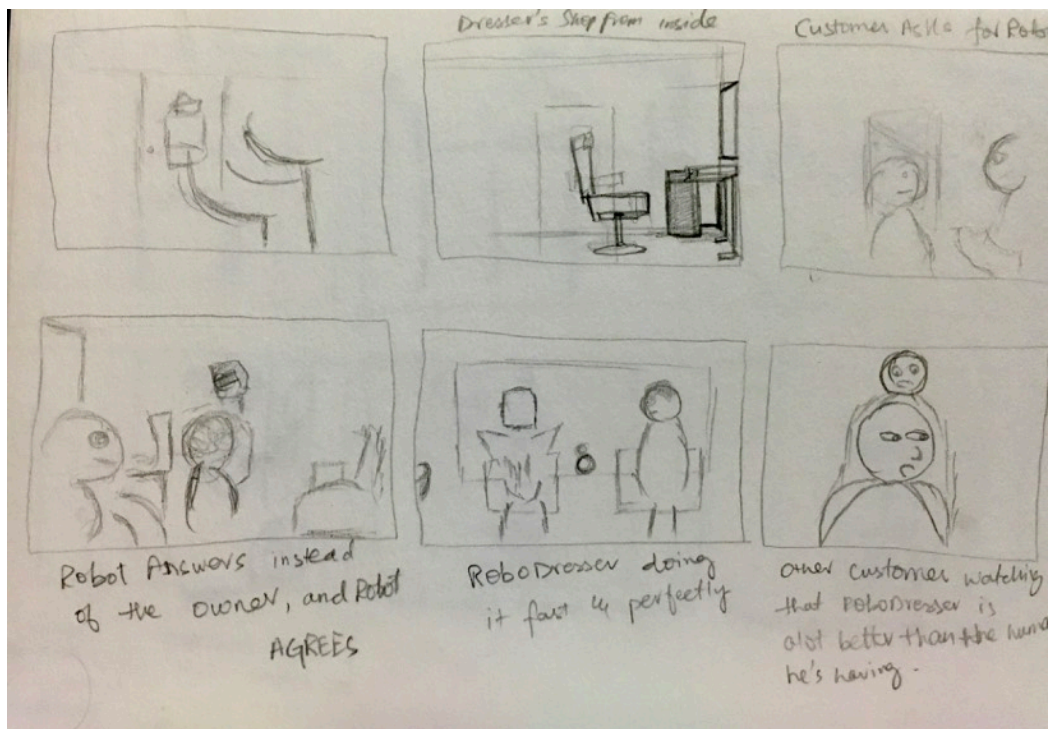
Chapter 5

5.1 Documentation of Work in Progress

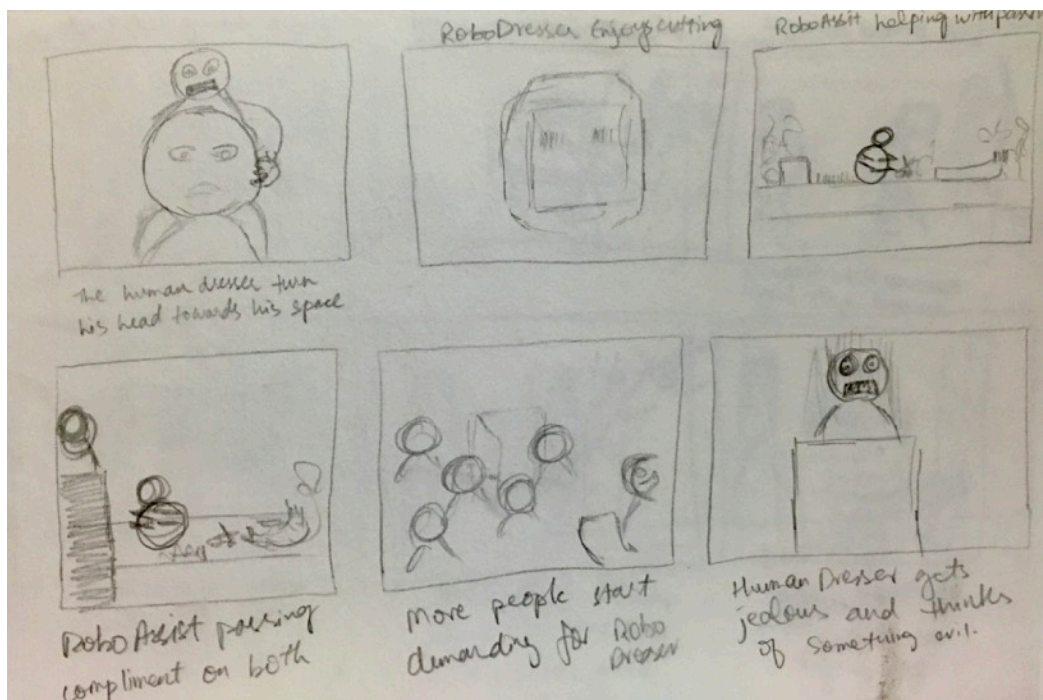
Storyboarding:



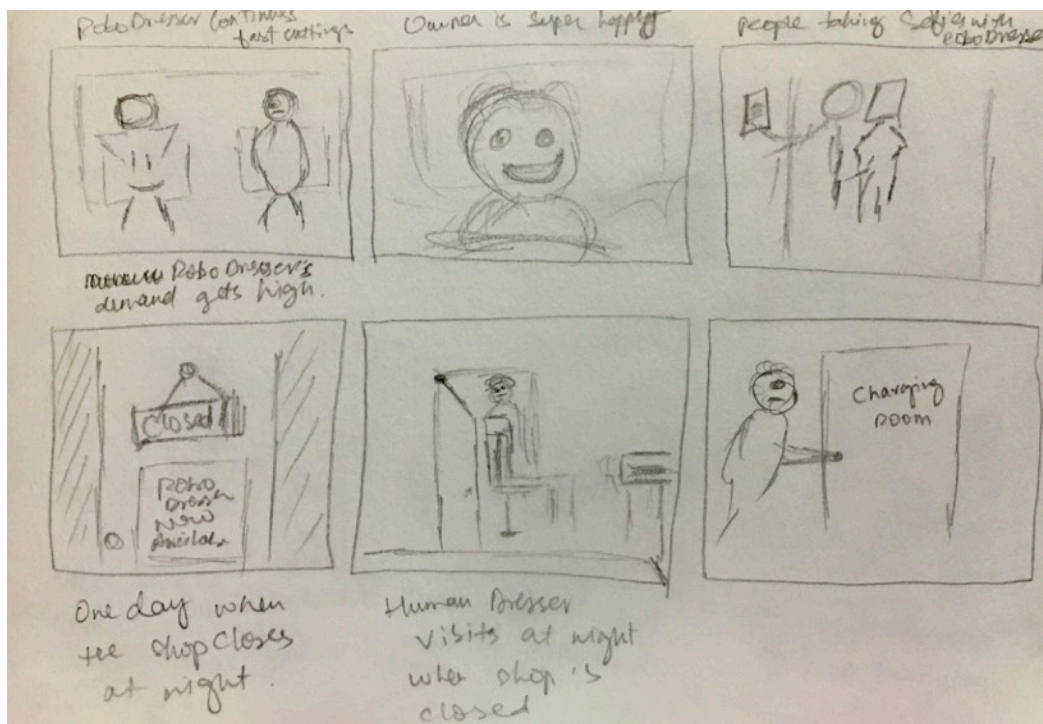
Scenes 1 to 6



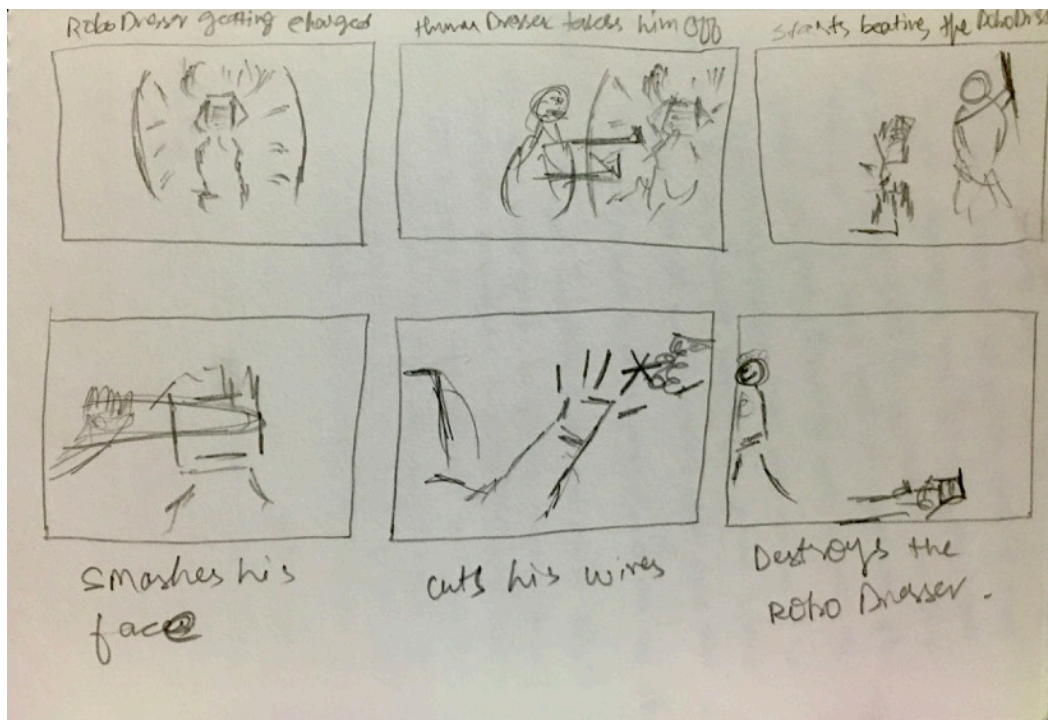
Scenes 7 to 12



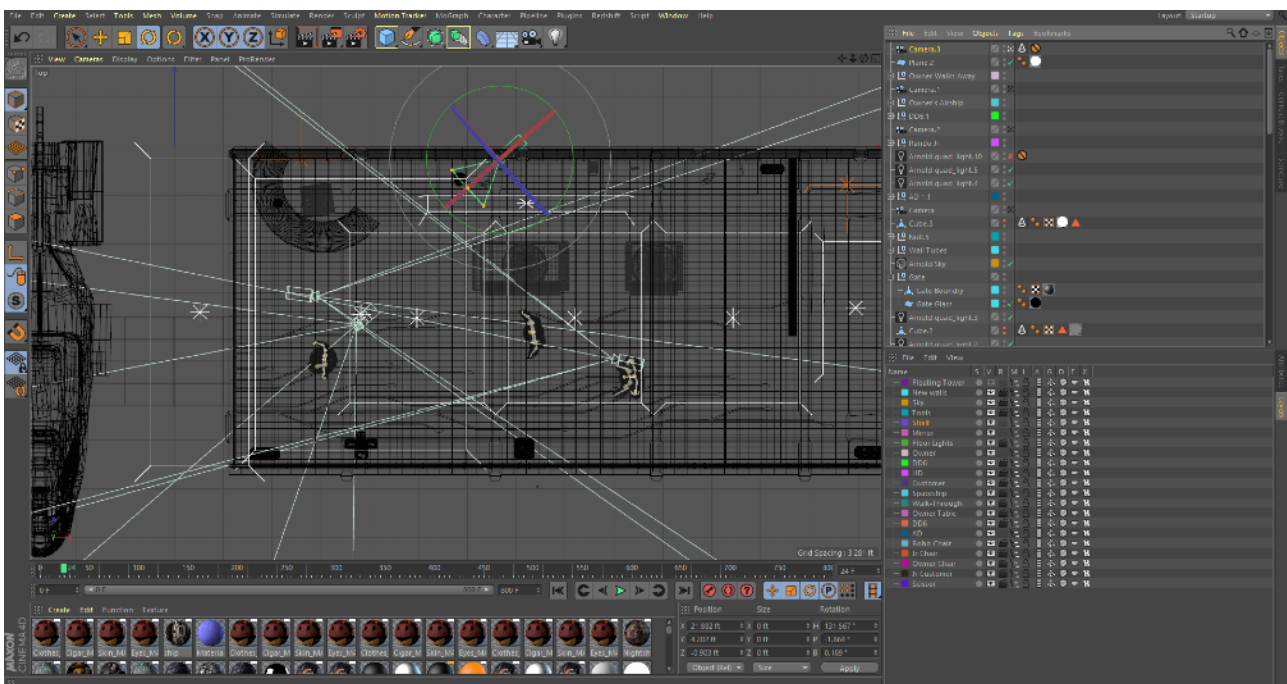
Scenes 13 to 18



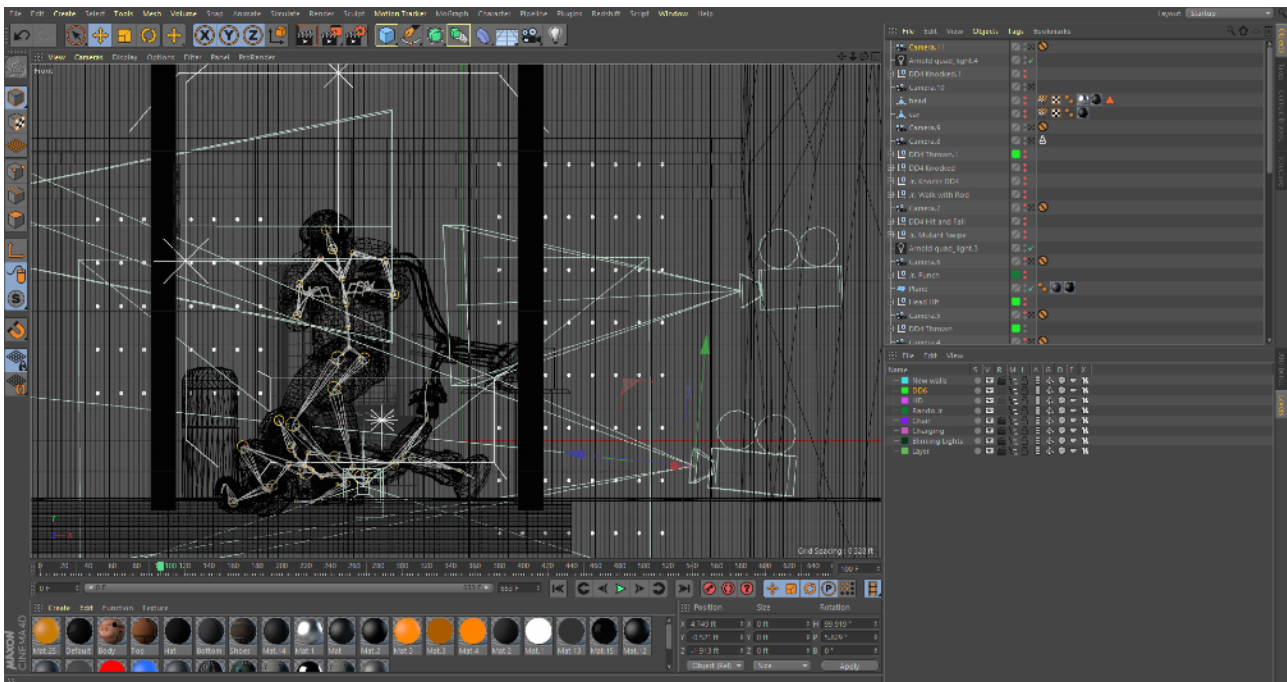
Scenes 19 to 24



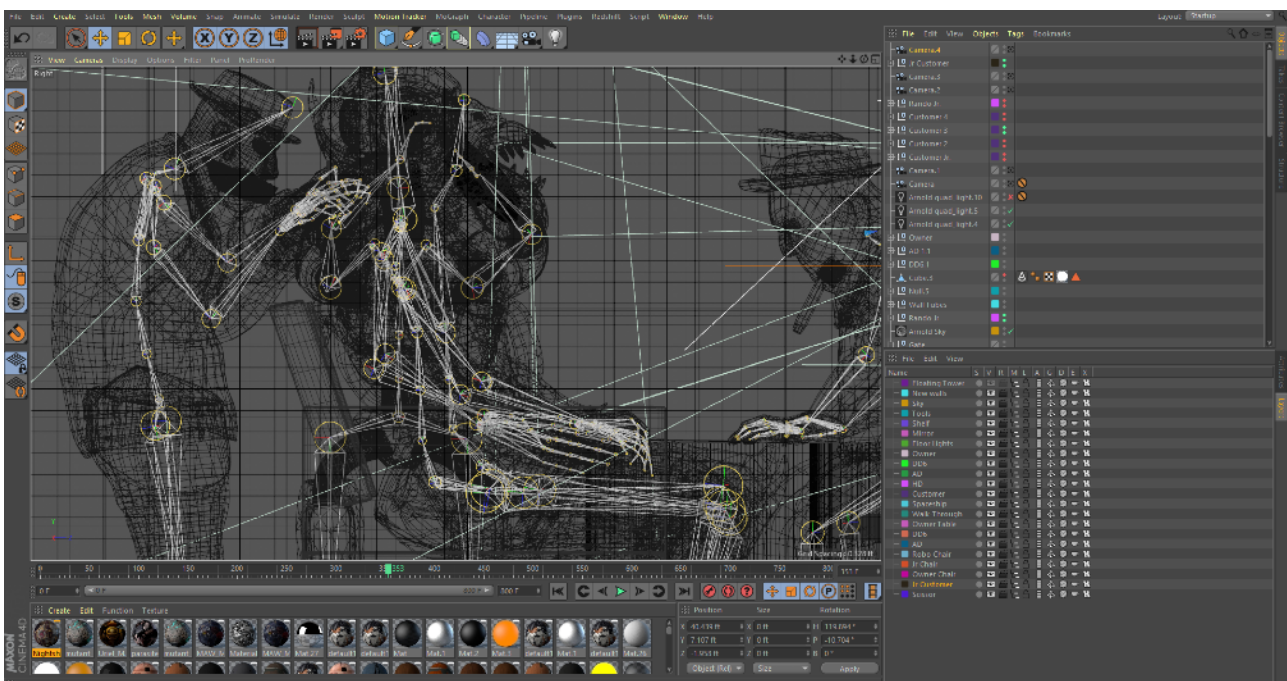
Scenes 25 to 30



Light and Camera setup of Salon in Cinema 4D.



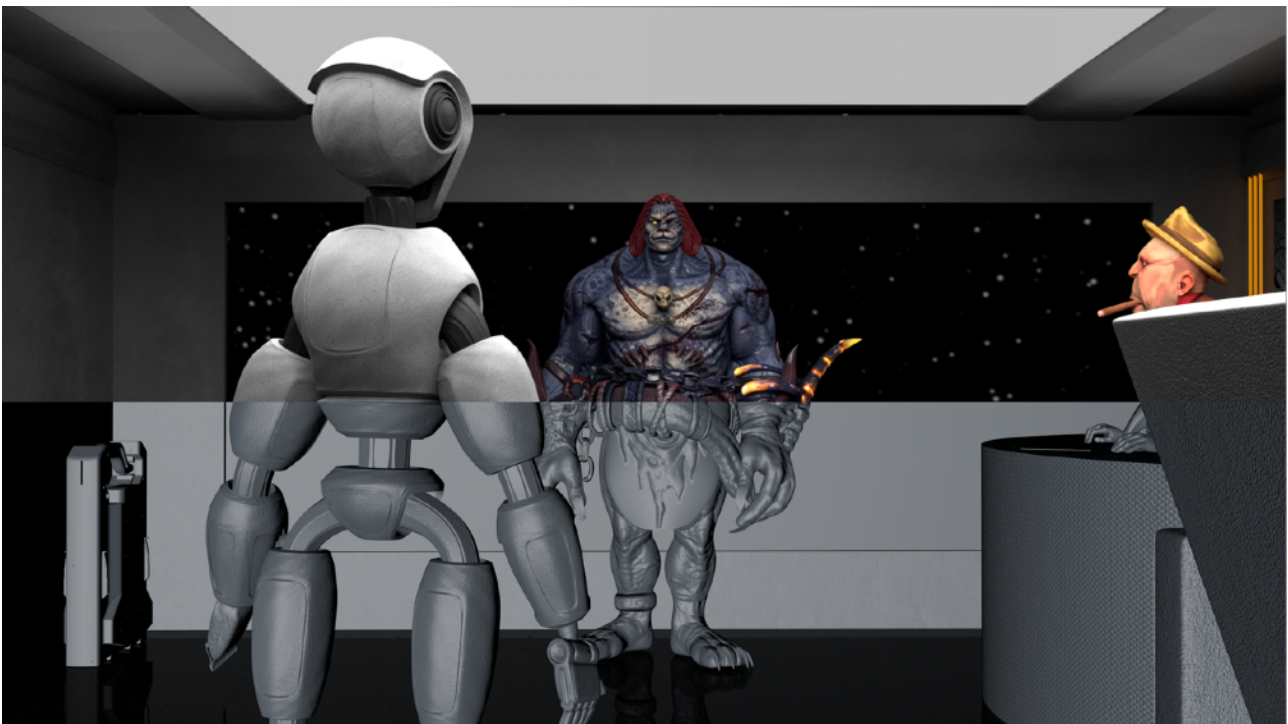
Light and Camera setup of Charging Room in Cinema 4D.



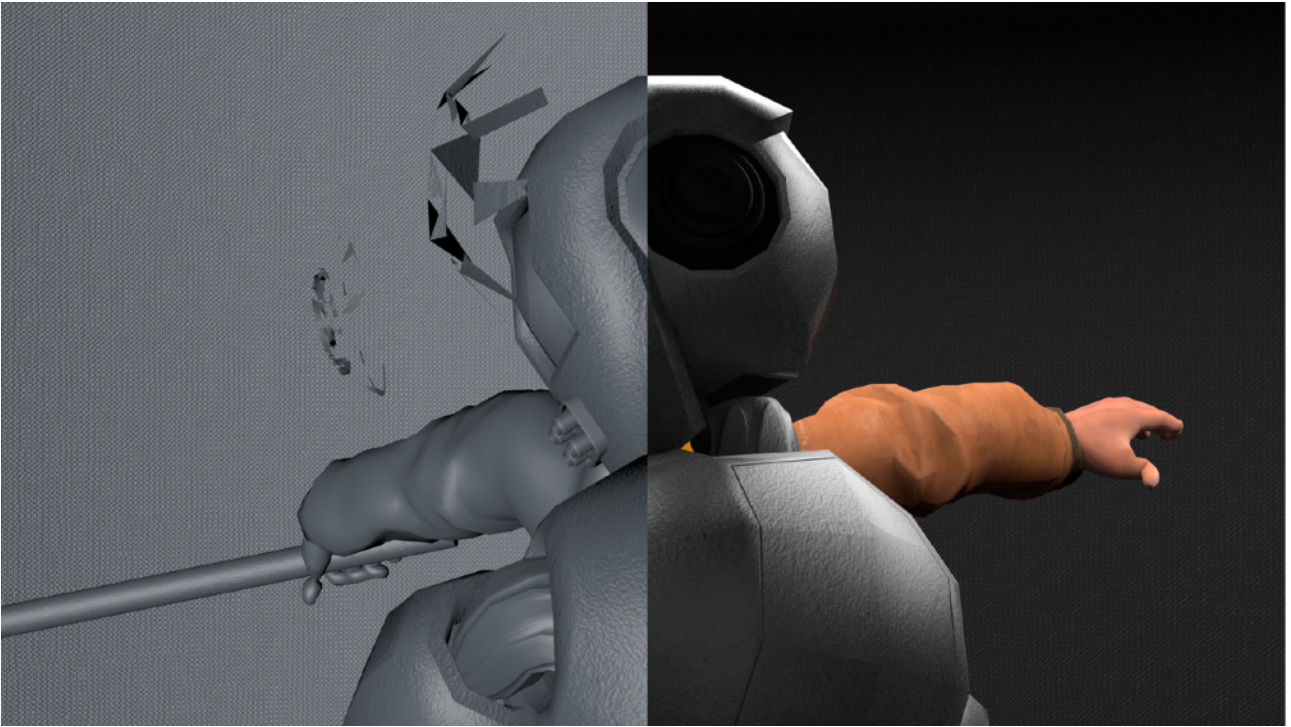
Bones and Joints of Characters in Cinema 4D.



Model and Textured Model of Floating Tower in Cinema 4D.



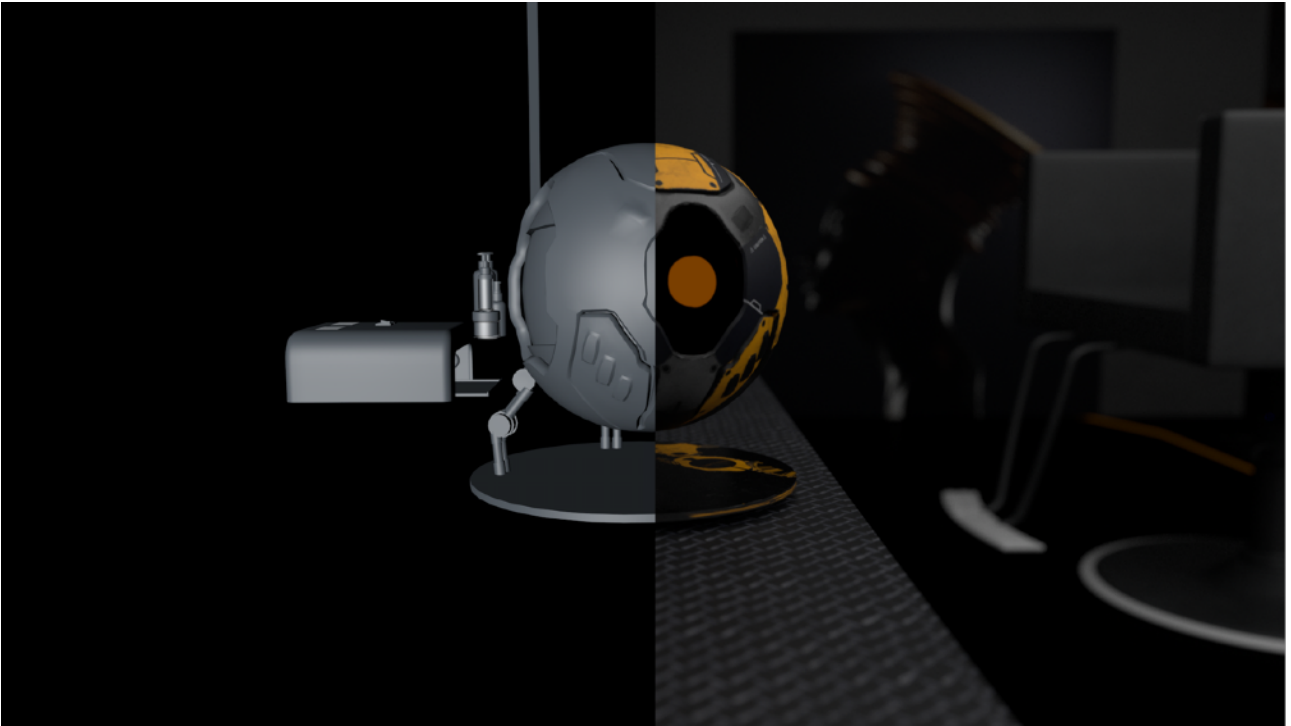
Model and Textured Model of Scene 9-3 in Cinema 4D.



Model and Textured Model of Scene 17-8 in Cinema 4D.



Model and Textured Model of Rando in Cinema 4D.



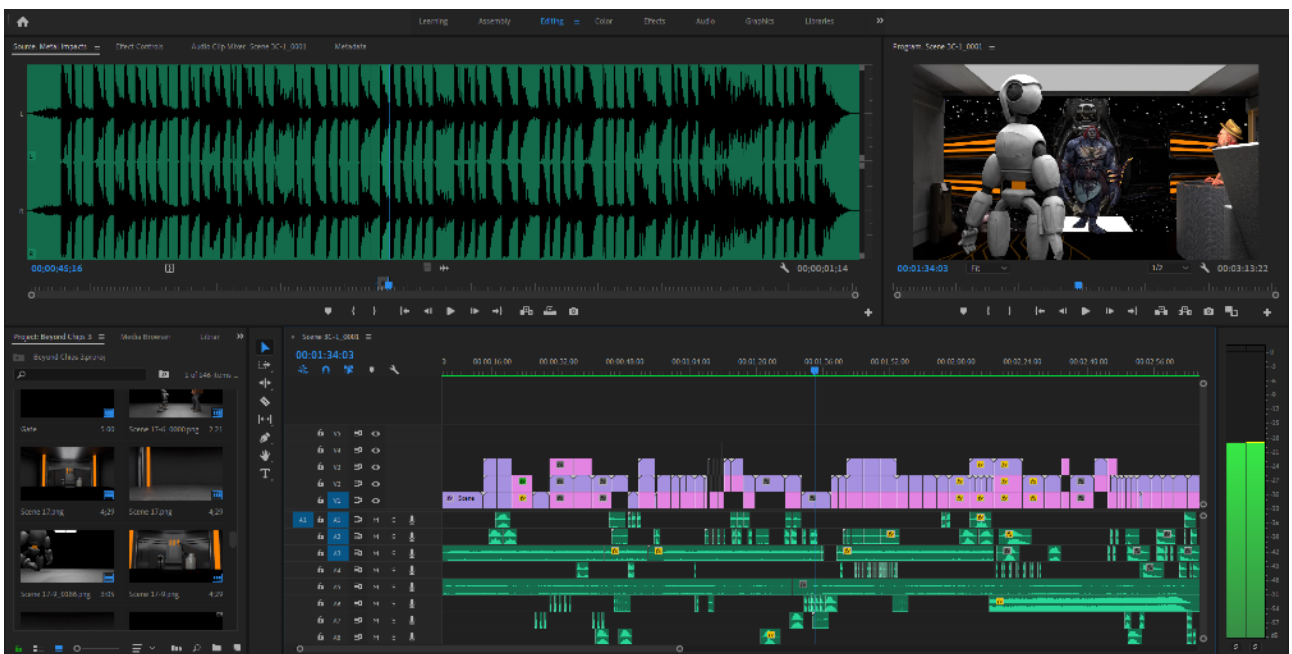
Model and Textured Model of AcD 1.2 in Cinema 4D.



Model and Textured Model of Rando Jr in Cinema 4D.



Model and Textured Model of DD4 in Cinema 4D.



Stitching all the scenes and designing Sound in Adobe Premiere Pro.

Chapter 6

6.1 Conclusion

The thesis project has helped me explore more into the idea of narrative building and exploring the dynamics of effective storytelling. The opportunity to research specifically informed me of methods to refine concepts and develop an idea into a study based on data analysis and translation into visual vocabulary of a theme. By dissecting present works of films and TV series I was able to identify key components of narrative, world building and character design for a speculative project that is based on imagination and probability both.

Throughout the thesis, the discussions with instructors informed me of various possibilities of execution and approaches that lead to it. The constant feedback added informed me about the elements of interest for the viewer and how to develop on the project keeping the other side in mind as well. Moreover, by categorizing the project in several parts and analyzing the progress I was able to have an in-depth look into all the steps and their contribution to the project at large. The project has enlightened me on how to identify one's own drawbacks and work on them for better. This entire year of thesis has not only helped me in polishing my thesis project but will help me a lot in my future projects as well.

Bibliography

- Abstract season 2* (2019). [Motion Picture].
- Attenborough, D. (Director). (2016). *Planet Earth 2* [Motion Picture].
- Blomkamp, N. (Director). (2015). *Chappi* [Motion Picture].
- Brooker, C. (Director). (2011). *Black Mirror* [Motion Picture].
- Earth, B. (Writer). (2017). *Blue Planet 2* [Motion Picture].
- Earth, B. (Writer). (2016). *Planet Earth 2- Series of life on earth* [Motion Picture].
- Ellis, W. *Transmetropolitan*.
- Garland, A. (Director). (2015). *Ex Machina* [Motion Picture].
- Gibson, W. *Neuromancer*.
- Harmon, J. r. (Director). (2013). *Rick and Morty* [Motion Picture].
- Harmon, J. R. (Director). (2013). *Rick and Morty* [Motion Picture].
- Miller, F. (1990-1992). *Hard Boiled*.
- Miller, T. (Director). (2019). *Love Death Robots* [Motion Picture].
- Must, E. *Making humans a multiplanetary species*.
- Nolan, J. (Director). (2016-2020). *West World* [Motion Picture].
- Oxman, N. (Writer). (2019). *Creating Bio-Architecture* [Motion Picture].
- Pistorius, O. (Director). *Proffesional Sprinter* [Motion Picture].
- Russo, J. (Director). (2018). *Altered Carbon* [Motion Picture].
- Scott, R. (Director). (1982). *Blade Runner* [Motion Picture].
- Soter, D. a. (Writer). (2014). *Cosmos- A Spcae Time odyssey* [Motion Picture].
- Sputor, G. (Director). (2019). *I am Mother* [Motion Picture].