



ASTEREON
CHARACTER CONCEPT FOR TRANSFORMERS

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Character Concept
For Transformers

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TIIVISTELMÄ

Astereon on originaali ajoneuvo/hahmosuunnittelu projekti, jonka tavoitteena on luoda uskottava konsepti Transformers-universumiin sen lähdemateriaaliin sekä visuaaliseen ilmeeseen pohjautuen. Projekti tutkii tarinan-kerrontaa muotoilun keinoin sekä viihdesuunnittelun maailmaa tutkimuksen, kokeilun, virheiden sekä onnistumisien kautta.

AVAINSANAT: Viihdesuunnittelu, Ajoneuvomuotoilu
Hahmosuunnittelu, Konseptisuunnittelu

ABSTRACT

Astereon is an original vehicle/character design project for the Transformers franchise, with a goal of creating a believable concept that is aligned with the source material and its established aesthetics. This project explores storytelling with design and the landscape of Entertainment design through research, experimentation, trial and error.

KEYWORDS: Entertainment design, Vehicle design,
Character design, Concept design

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1. CONTEXT

1.1 | DESCRIPTION

In this project, the main goal is to concept and design a Transformer inspired by the designs from the Transformer's universe. Concepting relies heavily on research and design analysis and the final product will be 3D-models of the vehicle and robot mode produced in 3D-software Blender.

1.2 | GOALS OF THE PROJECT

Transformer was chosen to challenge the author and to explore the entertainment industry as they are one of the most impressive designs in that space. Also improving his 3D-skills and developing a proper workflow that the author could utilize as a part of his design process and in his work as a freelancer.

Exploring the entertainment industry has been an interest of his because he hopes to work in the industry and it is not something we have covered extensively during our degree. A lot of industrial and vehicle designers specialize in the entertainment industry and for that reason he would like to research it further and explore its techniques and apply the methods in his graduation project.

Working in 3D-softwares been a big personal obstacle but its potential value as a part of the design process has always been clear. For that reason the author wanted to improve his skillset in the 3D-space before graduating. His software of choice is Blender due to its accessibility, versatility and community surrounding it.

1.3 | METHODS & RESEARCH

Author's main source of research is a book that explores concepts and designs of the Transformers – Transformers: a visual history by Jim Sorenson. The research will include a look of Transformers history and how the designs have changed over the years. Other main researching method will be visual analysis of all Transformers movies and their designs. This method will be based heavily on observation and author's own analysis.

Other sources will include research, articles and images from web sources that cover designs of Transformers and entertainment design.

2. RESEARCH

2.1 | TRANSFORMERS

Transformers started in 1980 as a toy-line called Diaclone created by a company named Takara Toys in Japan. In 1982 Hasbro bought the licensing rights to the whole toy-line and brought them to America. Many of the most iconic character designs already existed in the toy-line but Hasbro turned to Marvel-comics to create new backstory and names to the characters to appeal to American kids. (Logie, 2020)

Jamie Logie sums up the backstory well in his article The History of Transformers: From Toy to Legacy:

“ The Transformers are made up of the heroic Autobots led by Optimus Prime and the evil Decepticons led by the villainous Megatron. They live on a metallic planet called Cybertron. Both groups would have to leave Cybertron to find alternative sources of energy to revitalize their war efforts. This led them to crash land on Earth where they laid dormant for 4-million years. When they awaken in the year 1984, the deceptions pillage the Earth while the Autobots attempt to protect the new world they find themselves in.” (Logie, 2020.)



FIGURE 1. Diaclone catalog (Transformerland, 2021)



FIGURE 2. Package art, Star Convoy Generation 1, Japan (Sorenson 2019, 26)

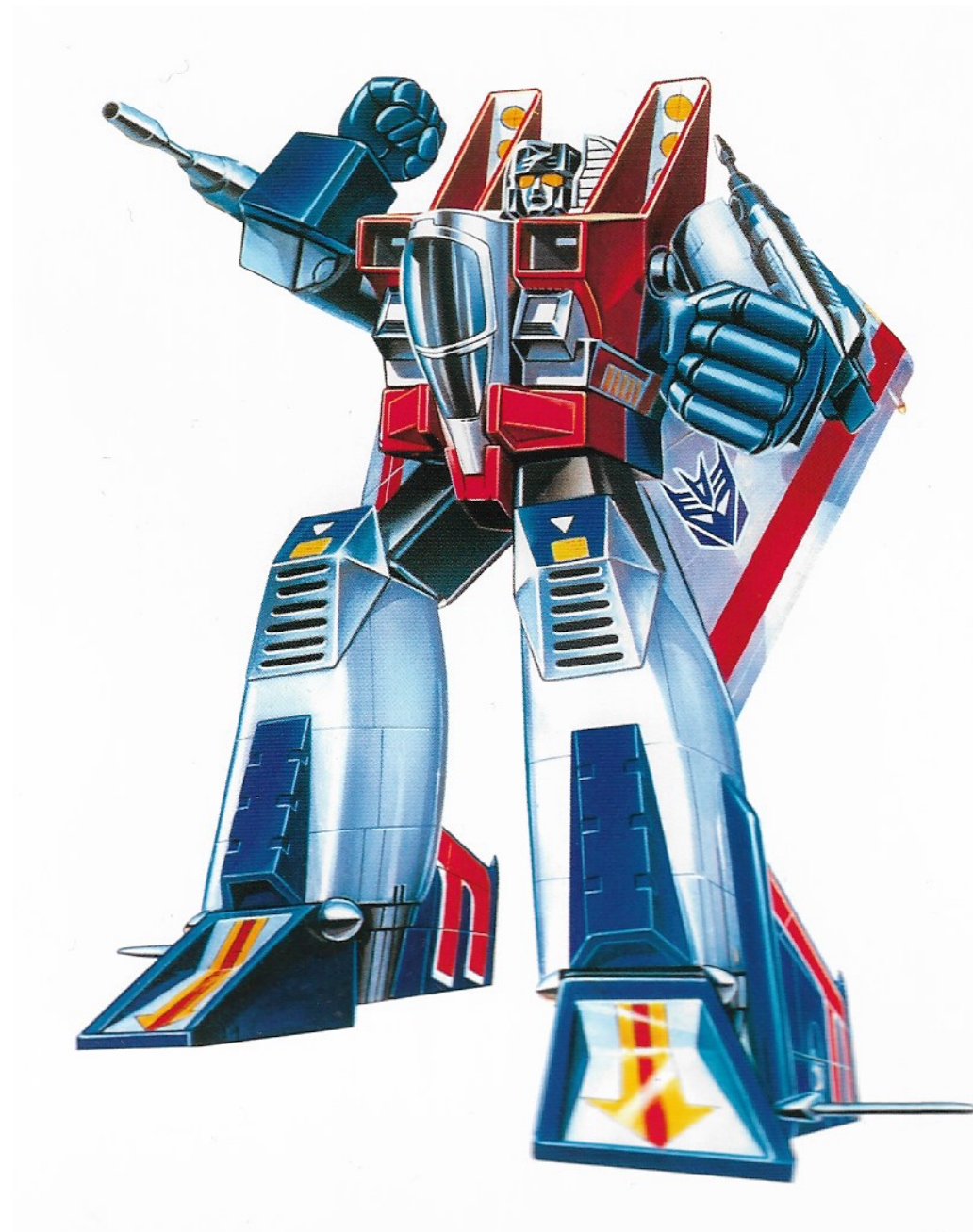
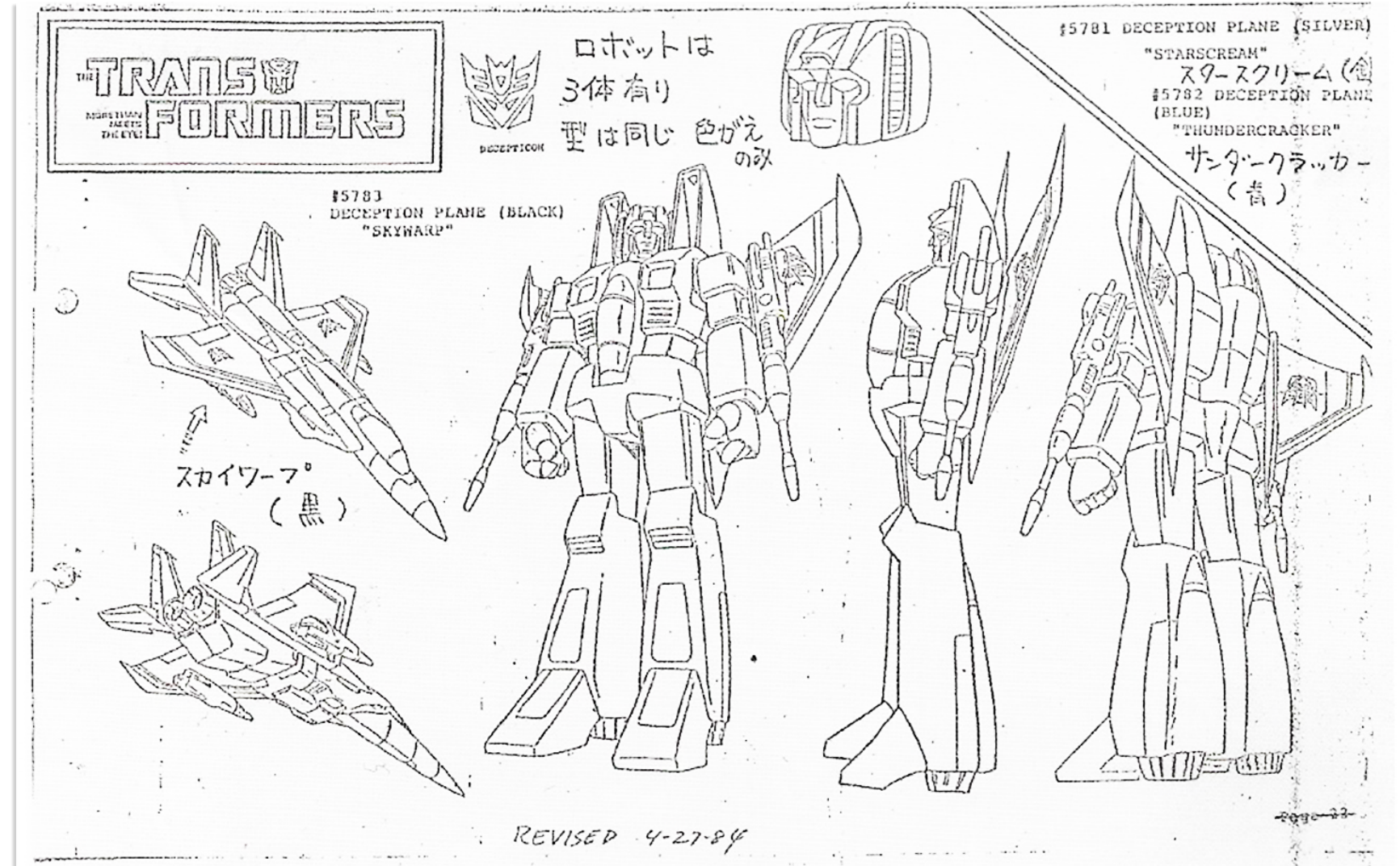


FIGURE 3. Starscream generation 1 (Sorenson 2019, 16)

The storyline was presented in an animated tv-show, comic book series and a film to market the toys. Many other tv-shows and comic-books have appeared since then, maybe most notably *Beast Wars* (1996) which flag shipped a new franchise of its own. (Logie, 2020)

The First live action movie adaptations were directed by Michael Bay. *Transformers* (2007), *Revenge of the Fallen* (2009), *Dark of the Moon* (2011), *Age of Extinction* (2014), and *The Last Knight* (2017). In *Bumblebee* (2018) Travis Knight took over as director and Michael Bay stayed on as a producer. The franchise is projected to have multiple films on the way in the future. (Wikipedia, 2021.)

FIGURE 4. Character designs, "Decepticon Planes, The Transformers" (Sorenson 2019, 227)



2.2 | DESIGN ANALYSIS

Some of the design elements have stayed from the toy-line all the way to modern day through all forms of media. The original favourite characters and their exaggerated proportions established in the original designs have carried through all forms of media. Bright colors and patterns have also been a big part of the designs which is very understandable as they were originally created as toys to appeal to kids. The main function of the toy-line was the ability to transform from a robot to a vehicle. This function has since then been transformed in to an integral part of their essence in the lore surrounding the franchise.

As the original toy-line originates from Japan the lineage is very evident in franchises such as Gundam. The Japanese invented Mecha (Short for mechanical) and it is very prominent in Japanese popular culture. This is where the original toy-line originated from before being re-branded for the western consumer.

AN ALTERNATE MODE commonly shortened to "alt-mode", "alt mode" or "alt-mode", also known as "trans-form", "transform" or "alt-form" is a term used to describe a Transformers non-robot form, whether it be vehicle, animal or otherwise" (TFWiki, 2021).

ROBOT-FORM (also known as "bot-form") is the form that Transformers have outside of their alternate mode. Although generally a bipedal humanoid in shape, the robot mode is not always so. (TFWiki, 2021.)

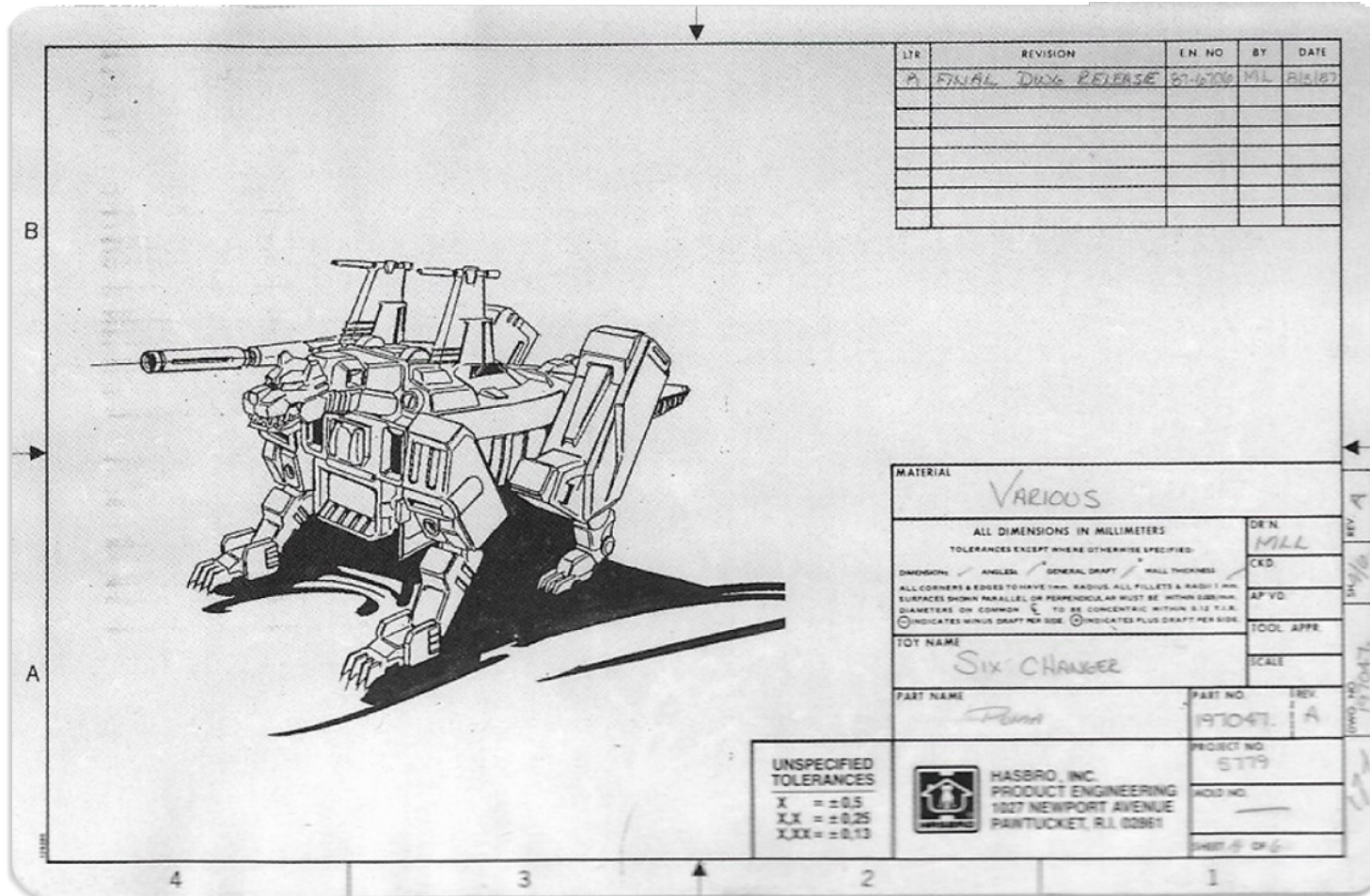


FIGURE 5. Technical drawing Quickswitch, Generation 1 (Sorenson 2019, 112)

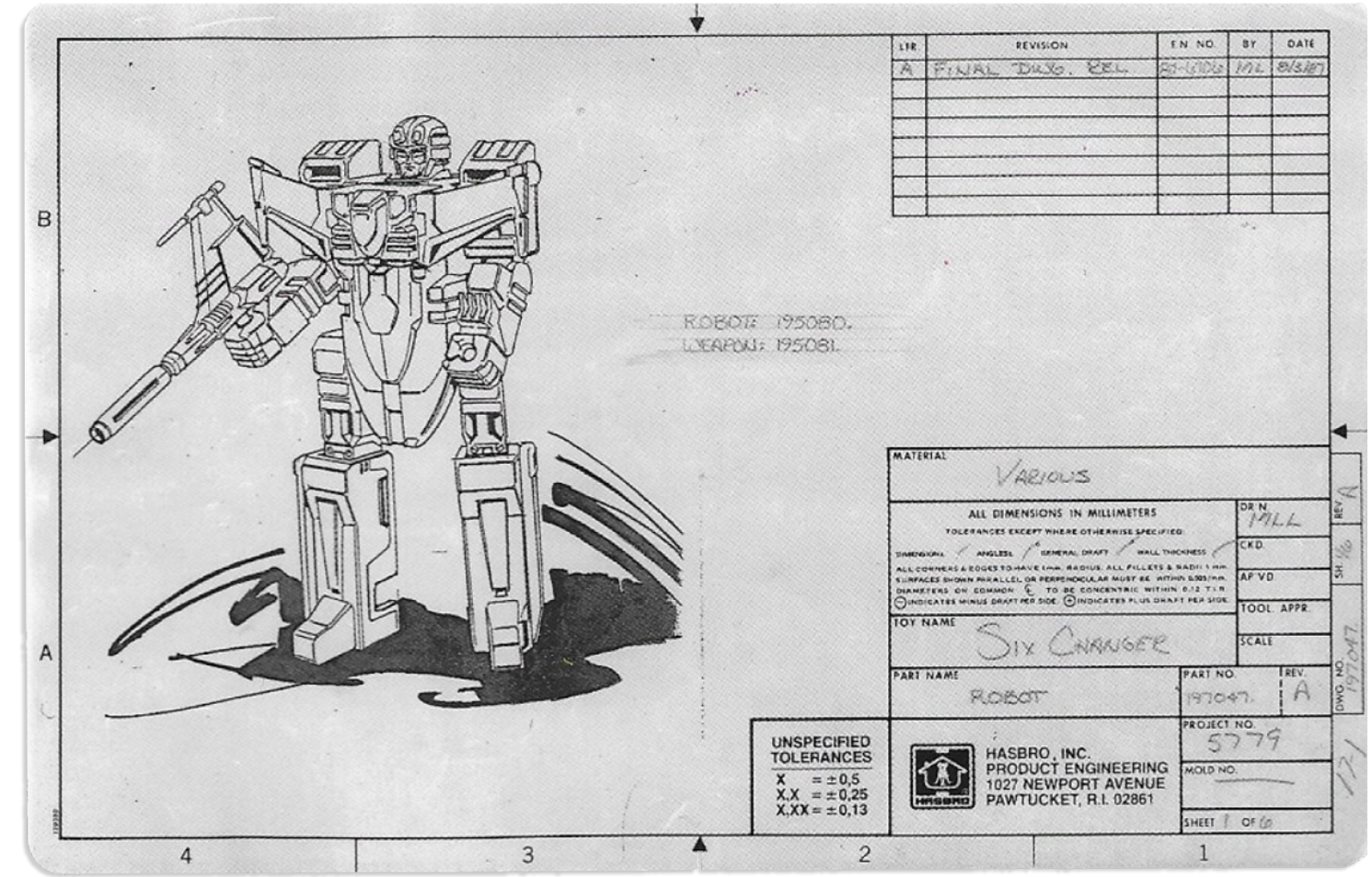


FIGURE 6. Technical drawing Quickswitch, Generation 1 (Sorenson 2019, 112)

2.3 | FILM ANALYSIS

As my character is designed for film, extra analysis was done of the art direction in the films. The Transformer films have been extremely successful in the box-office but have divided opinions. Many fans of the franchise do not like the films because they consider them not being very faithful to the original source material.

The first films that were directed by Michael bay had a very specific aesthetic. In these films the robots were intricately detailed and especially the Decepticons had a more organic design which is quite different from the original designs. Very extreme texturing, color grading and lighting created the distinctive "Michael Bay" look to the designs. These designs were considered by many fans to be too different from the original designs.



FIGURE 7. Bumblebee design (Fanpop, 2021)

Cybertron BumbleBee and Vehicle rough concept
2018.04.04 A. Jaeger ILM



The 2018 film Bumblebee was directed by Travis Knight and was a massive change in Art direction as it moved towards the more traditional designs from the toys and animations and also brought back more original fan favourite characters. This film is where I took most of my inspiration. ILM has an article on their website about creating the character designs for Bumblebee. The concept art and thinking behind it gave some really good insight and understanding of what direction the franchise is going design-wise. From these concepts came the idea to do Astereons "cybertronian" form. Cybertronian form is a Transformers original form when they have not copied the appearance of another vehicle.

FIGURE 8. Cybertronian Bumblebee and vehicle rough concept (Jaeger, ILM 2020)



FIGURE 9. Star Wars concept art by Ralph Macquarrie "X-Wing Concept" (Macquarrie, 1975)

2.4 | ENTERTAINMENT DESIGN

One of the goals of this project was to learn more about the entertainment industry. The opportunity presented itself to interview a very experienced vehicle art director at a major studio about how he perceives design in the entertainment industry.

We talked about the differences in designing something for "real-life" and designing something for a game or film. What I learned was that there really is no difference in modern times due to technological advancements. Due to high processing power for example designing a car for a racing game is almost as intricate as designing a real car as the player can see every detail in high definition instead of low poly models of the past. As the level of detail gets closer to realism the designs have to follow. The biggest difference is that the designs only exist in virtual space so there is no manufacturing, material or mechanical concerns.

New education programs are created constantly that are aimed towards entertainment design and they are quickly changing the landscape. There used to be only concept artists and now there are concept designers who can have more practical expertise on how things work and function. All fictional universes have their roots in reality so the same design principles apply to all fictional worlds in some capacity. All of design has layers of industrial design. In entertainment design it is all based on reality to create a "super-reality". The whole graduation project was an opportunity to really figure out the tools and methods to create my own "super-reality".

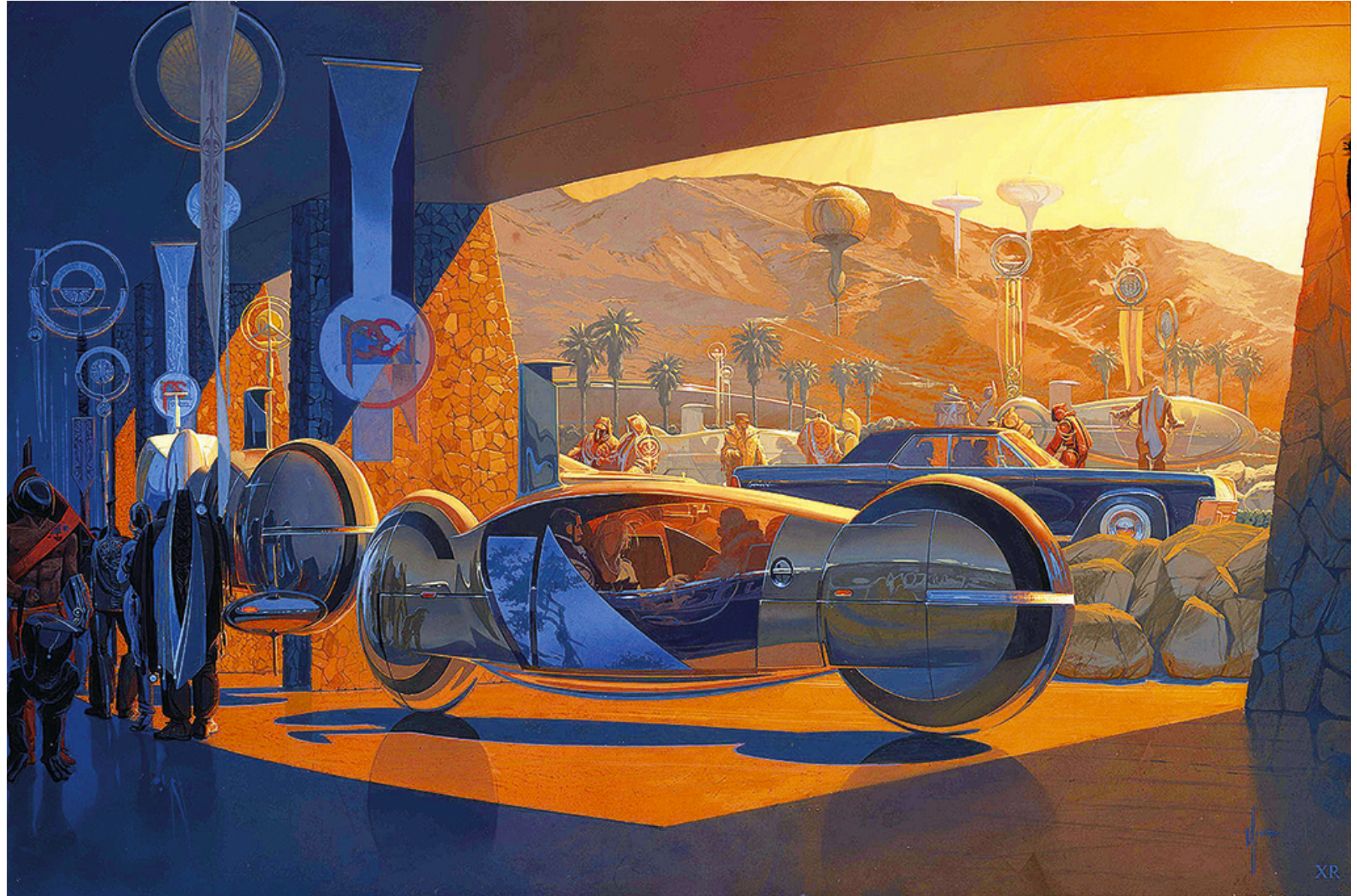


FIGURE 10. Illustration by Syd Mead "Palm Springs 2006" (Mead, 2021)

3. 3D WORKFLOW



FIGURE 11. Artwork by Ian Hubert "Party Tug" (Hubert, 2020)

3.1 | 3D AS DESIGN TOOL

I found 3D to be a powerful way to conceptualize, block out forms and experiment complex solutions. You can produce a plethora of visual information regarding forms, materials, light, perspective and much more. I found combining it with 2D workflows can be very effective. In the design phase quickly sketching in 2D for problem solving and then in the end overpainting and photo editing to produce more polished and striking final images. In a normal situation where there would be much less time it would be beneficial to utilize overpainting and "photo-bashing" much more to get results faster. As this project was about learning 3D the end design was taken much further in 3D and almost no overpainting was done in the end.

3.2 | SOFTWARE

I used Blender for all the 3D in this project. Blender is a free and open source 3D program. It supports all of the 3D pipeline: modeling, rigging, animation, simulation, rendering, compositing and motion tracking, video editing and 2D animation. Blender is completely free for everyone to use and is the most accessible 3D software on the market. The massive community and number of resources make it quite easy to learn. (Blender, 2021)

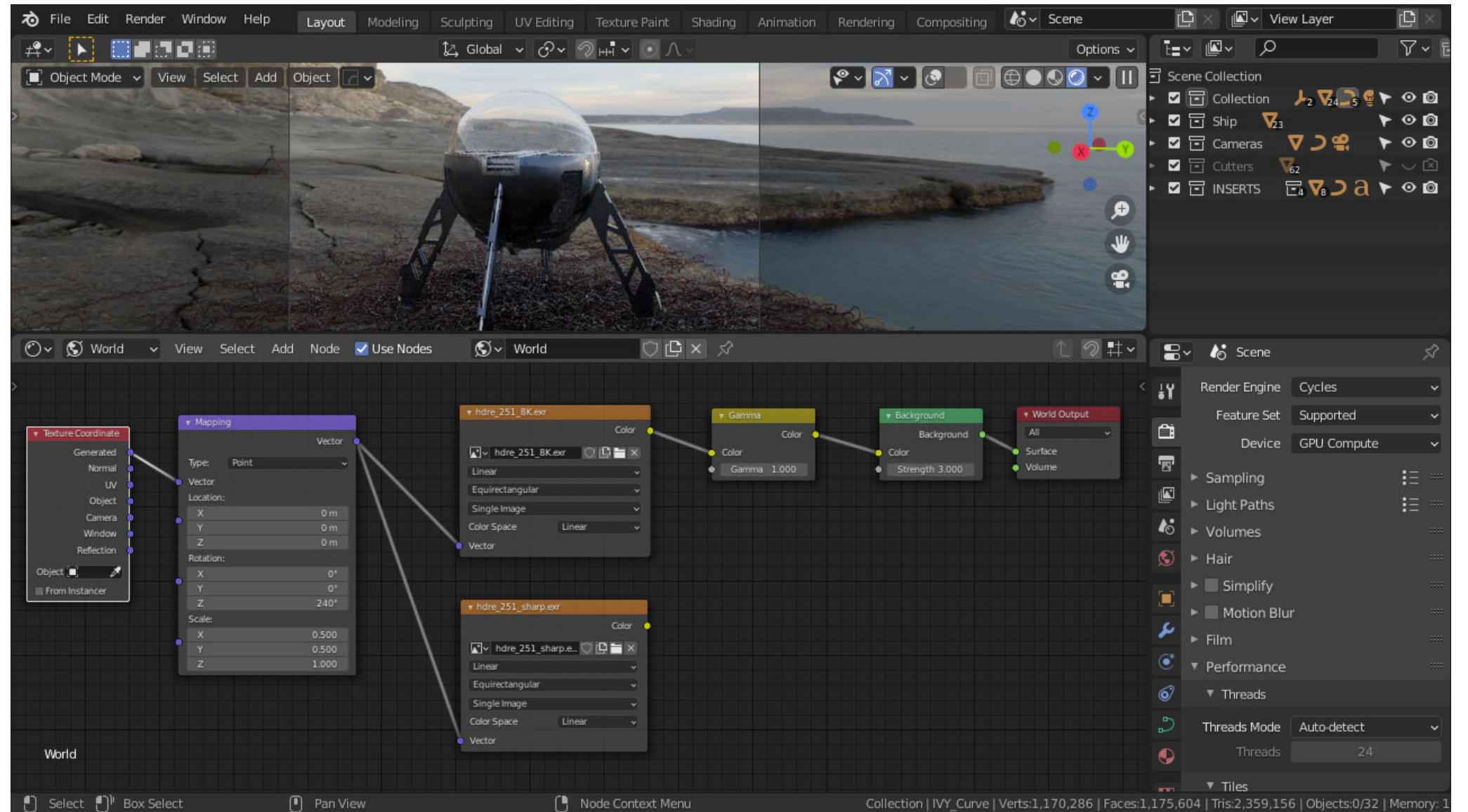


FIGURE 12. Blender view (Gwronkowski, 2020)



FIGURE 13. Texture collage, photos from street (Joono Lahtinen)

3.3 | TEXTURING

A lot of image textures were utilized that were taken by myself around Lahti to create collages which were then layered on elements and painted digitally as decals. These textures bring a lot of photorealism and can inform the design details. The collages I created were then projected on to a 3D surface through projection mapping. Amazing textures are everywhere around you. When you start paying attention to it, it becomes a valuable asset.

Different metal materials and dirt were added with help from an addon called "Definitely EEEVEE Materials" in partnership with Blenders node system.



FIGURE 14. 3D vents and parts from collage (Joono Lahtinen)

FIGURE 15. 3D part (Joono Lahtinen)



4. DESIGN

4.1 | BACKSTORY

Astereon was a scientist in a city called Praxos which was considered the center of culture and technology in Cybertron. It became the first city to be destroyed in the civil war between the Autobots and Decepticons. After the destruction of his hometown, he dedicated his life to tracking down Decepticons.

Astereon was imagined to be a side character that helps the main characters in their quest. His personality traits include wisdom, courage and a sense of justice but he is also quite arrogant, stubborn and has a temper. He can get angry very fast and can be very impulsive.

When creating the backstory it was important to bring some complexity to the character. If you read the comic books for example you can find very complex characters with flaws and weaknesses. The relationship between good and evil also doesn't need to be so black and white. Autobots and Decepticons are two factions in a civil war which might have room for interpretation. The character was designed with that in mind, he is not perfect and there might be more to his story concerning his loyalty to the Autobots.



FIGURES 16-18. Space shuttle (NASA, 2013), Cybertronian Bumblebee and vehicle rough concept (Jaeger, ILM 2020), Toyota AE86 (Eratilmu, 2021)

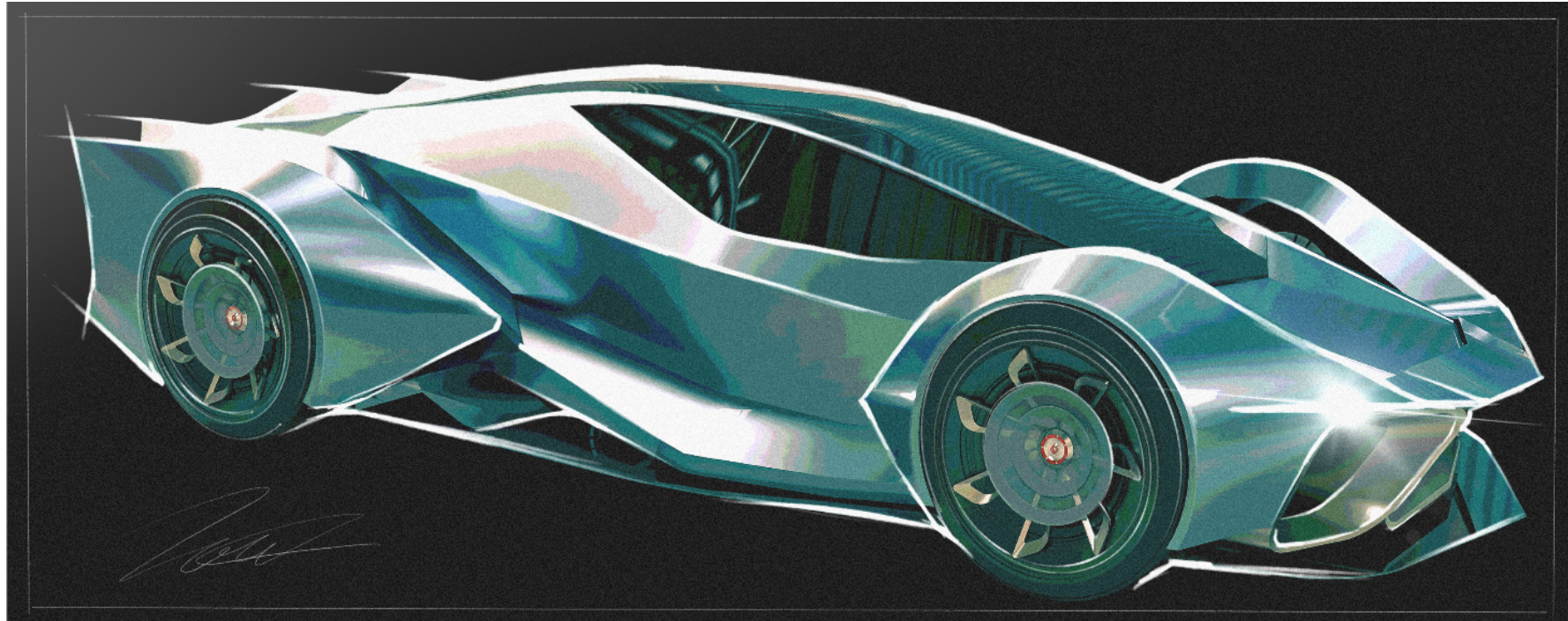


FIGURE 19. Design sketch (Joonas Lahtinen)

4.2 | ALTERNATIVE MODE VERSIONS

It was important to have a solid start with the vehicle to act as a foundation for the robot later. Almost all work was done in 3D as that was a goal of mine to improve in this project and as in the beginning my 3D skills were not great many revisions and a lot of learning was required to achieve a decent outcome.

After learning the hotkeys and other useful controls 3D can be used quite effectively for sketch-modeling. You are able to see your design in multiple perspectives straight away and able to experiment with different materials. You have the ability to do quick renders which you can use as base for a 2D illustration. The base offers you accurate reflections, perspective and lighting. It was also used a lot intentionally in this project to get better at it. After finishing the Design four distinct turning points can be seen in the Design which will be analyzed and explained next.

4.2.1 | VERSION 1.0

In the beginning there were two different potential topics, a Transformer and the GT car of the future. In the first seminars it was suggested to try and combine the two. The idea of the vehicle was that it was perfectly symmetrical, able to drive both ways and had a moving suspended cockpit. The design language was very minimal and sleek with very geometric shapes.

The project was being approached from a vehicle design students' perspective. A certain perspective of what a vehicle design graduation project should look like was interfering with the design. The problem was that it was very disconnected from the Transformers franchise and the goals of the project.

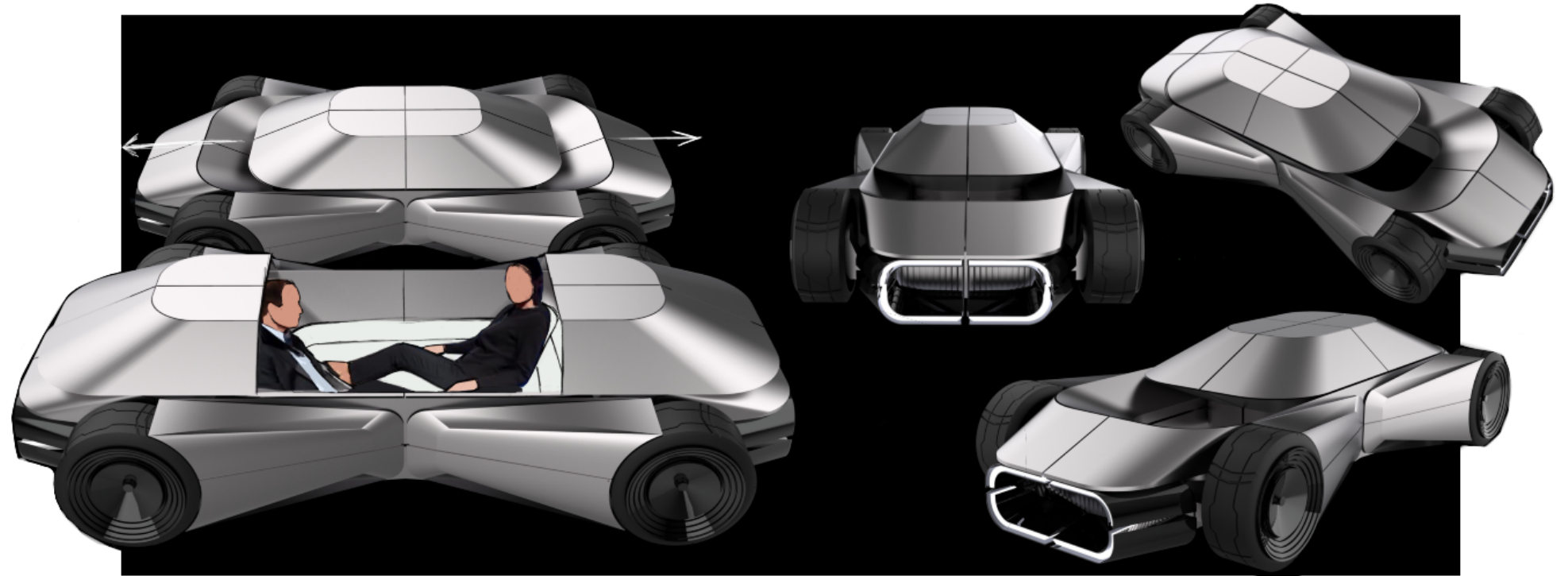


FIGURE 20. Design sketch version 1.0 (Joona Lahtinen)

4.2.2 | VERSION 2.0

A new model was started from scratch to explore possibilities with a more traditional design in mind. I wanted to create good basic form and focus on proportions. At this point the backstory was developed a bit further and an effort was made to bring it out in the design. The goal was for the design to have an "outlaw" quality with quite aggressive forms and materials.

This design ended up being too aggressive. The character was intended to be an Autobot but with the aggressive forms and especially the red color it gave the immediate impression of being a Decepticon. Further color-tests were made but the design remained too aggressive for the project.

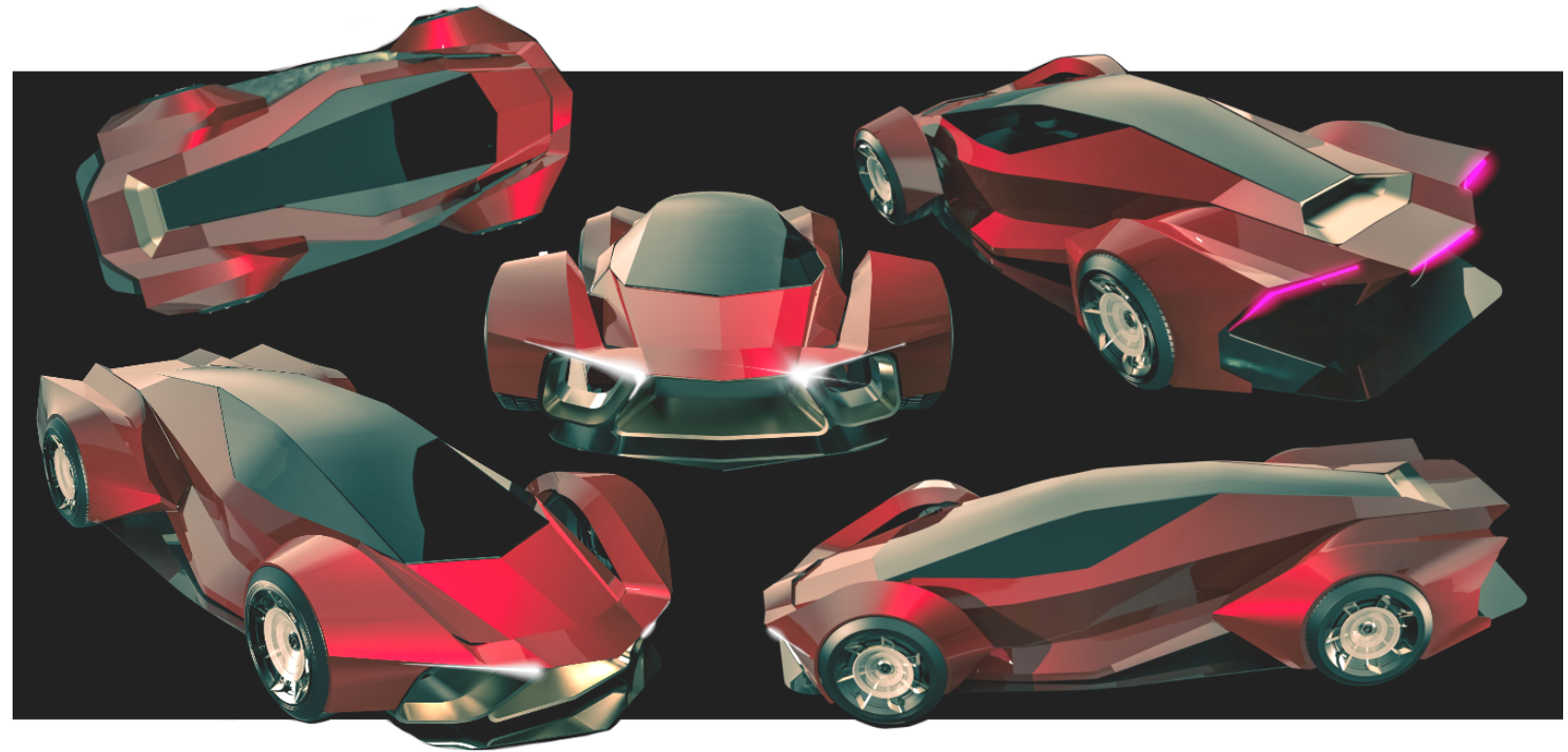


FIGURE 21. Design sketch version 2.0 (Joonas Lahtinen)

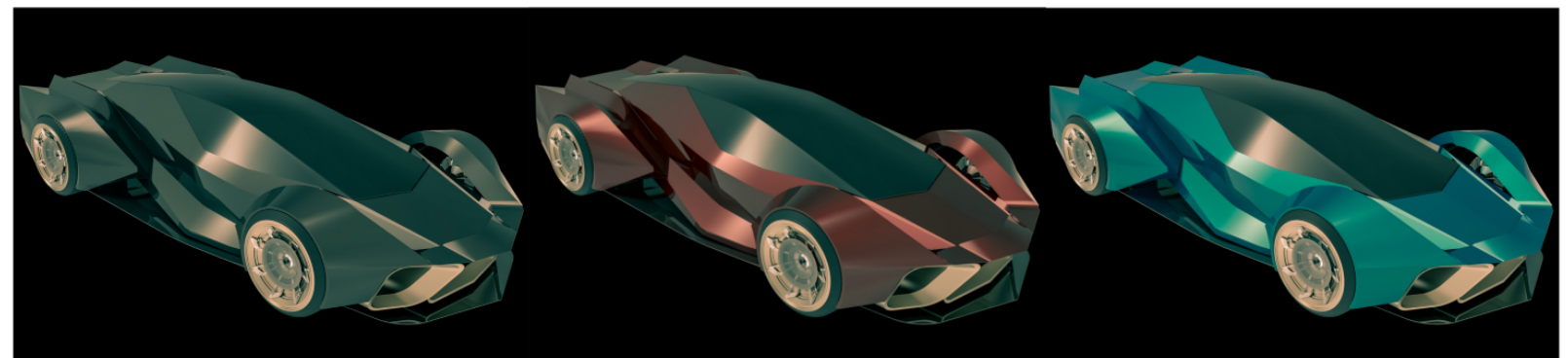


FIGURE 22. Color testings version 2.0 (Joonas Lahtinen)

4.2.3 | VERSION 3.0

With the third version an earlier model was used as a base, but the biggest flaws were dealt with. The proportions were altered to be more reasonable, and the color changed to make it more obvious that the character is in fact an Autobot. At this point it was still exploration to find good shape. The wheels had a design with a turbine and a glass panel to create a connection with the vehicle and the robot. That detail in the end did not align with the design language of the franchise on the basis that they are very rugged robots formed from metal. Such fragile parts do not work for the design.

Biggest problems with this design were that it was still very disconnected from the franchise and more of a vehicle design project. It had some very fundamental issues to solve. Was it trying to be an actual car? If it was meant to be an actual car then what brand is it? How does that align with the Transformers universe?



FIGURE 23. Design sketch version 3.0 (Joonas Lahtinen)

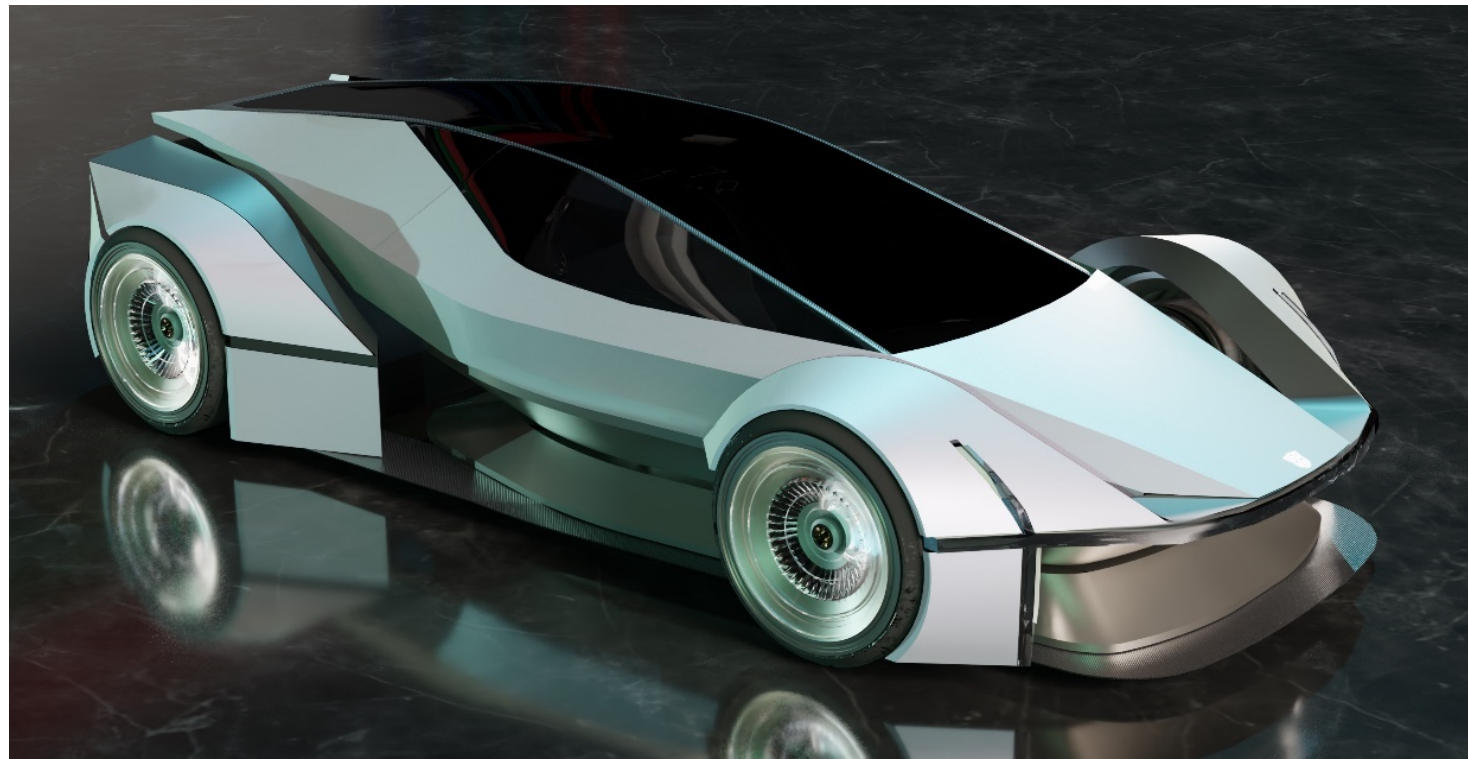


FIGURE 24. Design version 3.0 (Joonas Lahtinen)



FIGURE 25. Wheel design version 3.0 (Joonas Lahtinen)

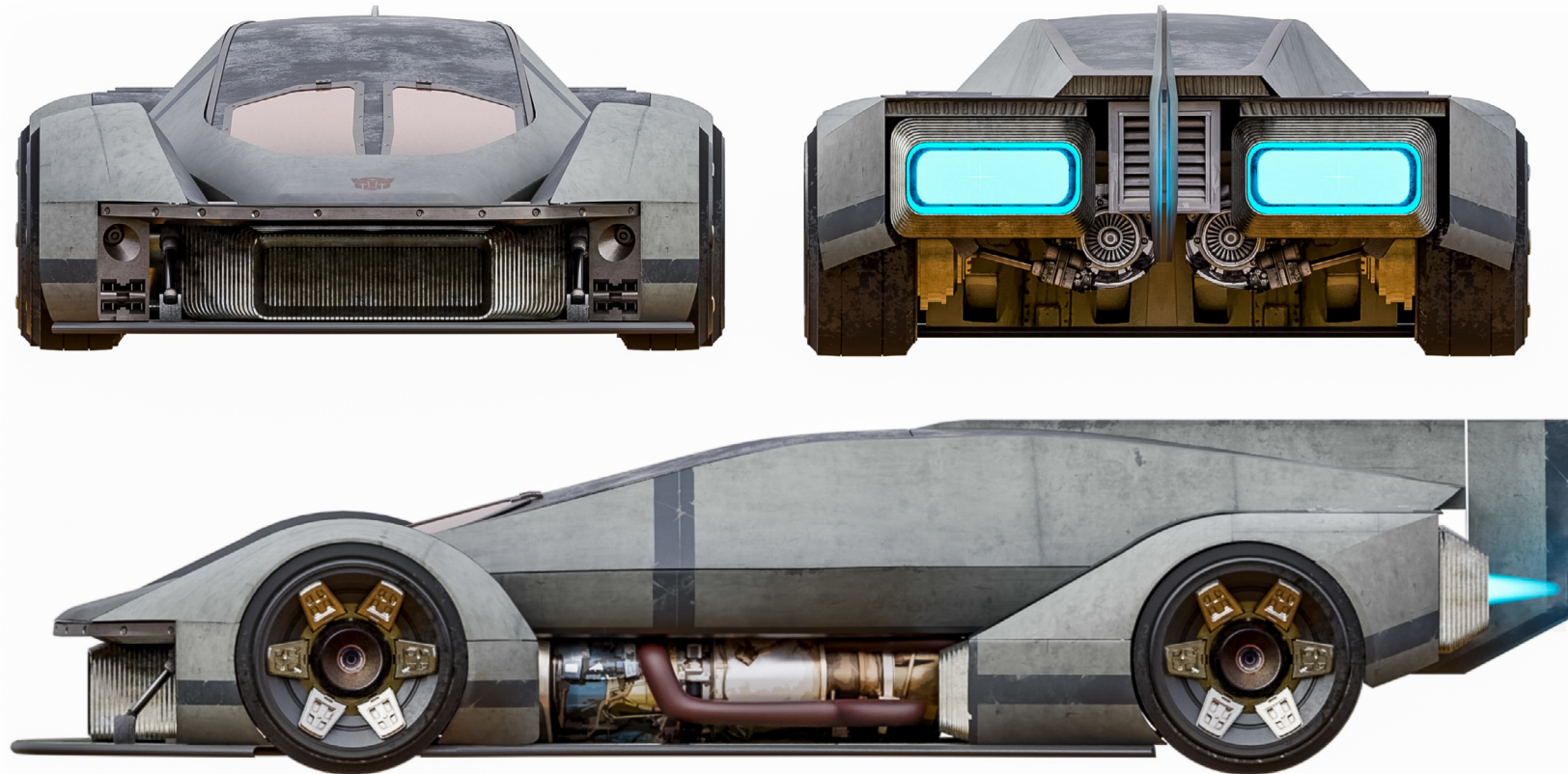


FIGURE 26. Design of the alternative mode (Joona Lahtinen)

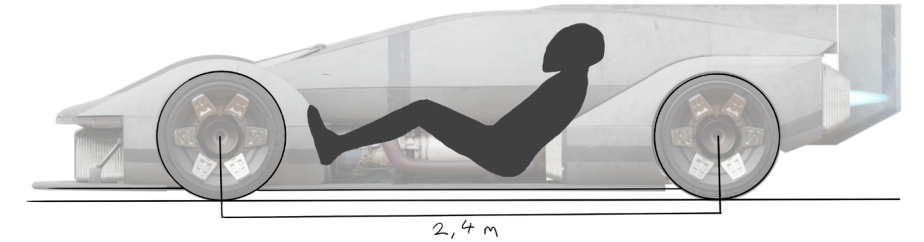


FIGURE 27. Packaging design (Joona Lahtinen)

4.2.4 | FINAL VERSION

To answer some of the questions raised in the last design the decision was made to make Astereons vehicle form his "cybertronian" version which means he has not copied an existing vehicle form to blend in. It is his original and authentic form so to speak. This decision was heavily inspired by the 2018 film Bumblebee where the main character is seen in his cybertronian form.

At this point the characters backstory had been fleshed out so the next stage was to infuse the design with more of his personality and background. His background as a scientist is portrayed by the jet engines and technical components. His form is basically a jet engine on four wheels. It has the same wheelbase as a Corvette C4. The chassis can be used as a base for a stunt-car.

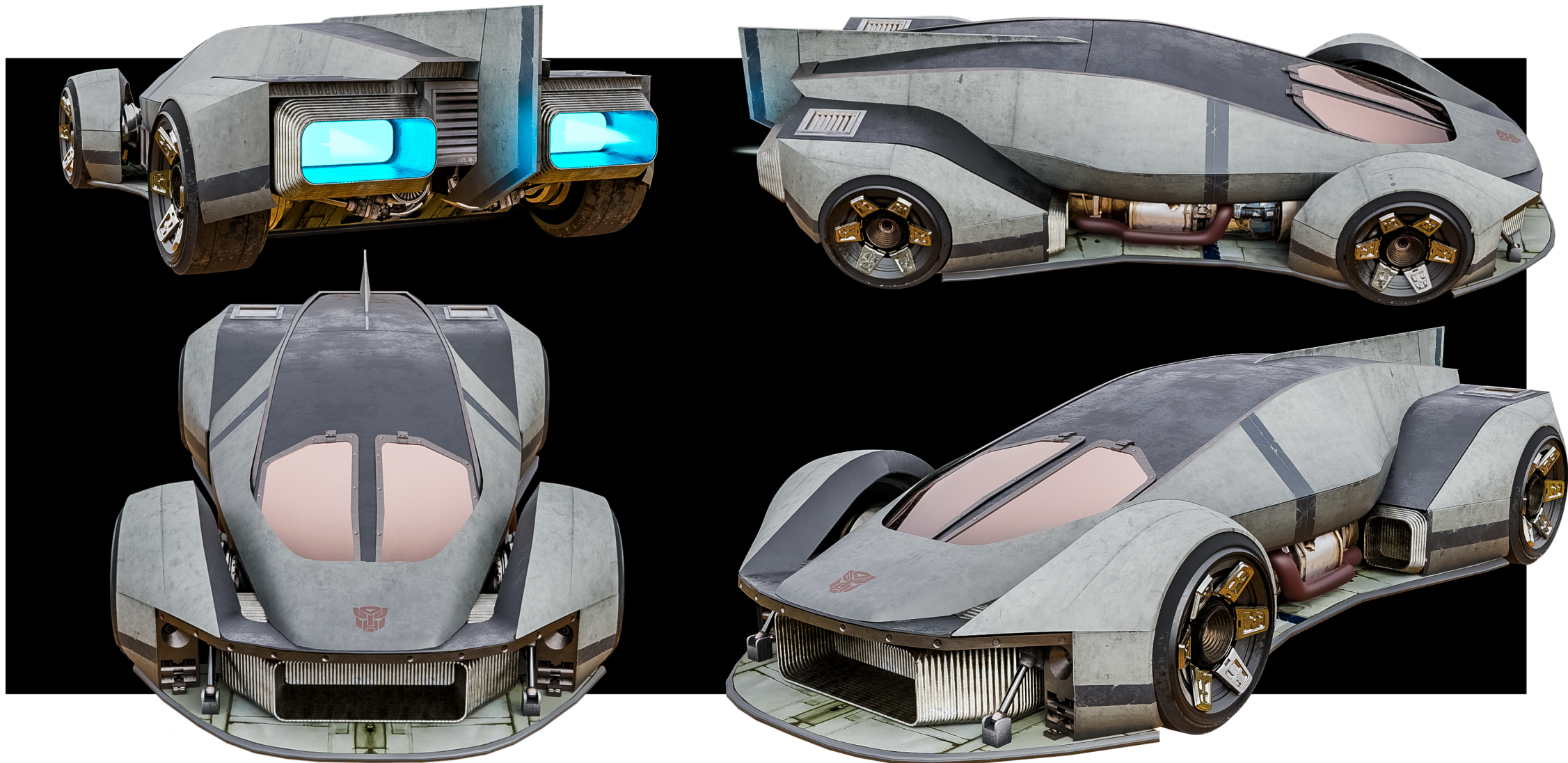


FIGURE 28. Design of the alternative mode (Joono Lahtinen)

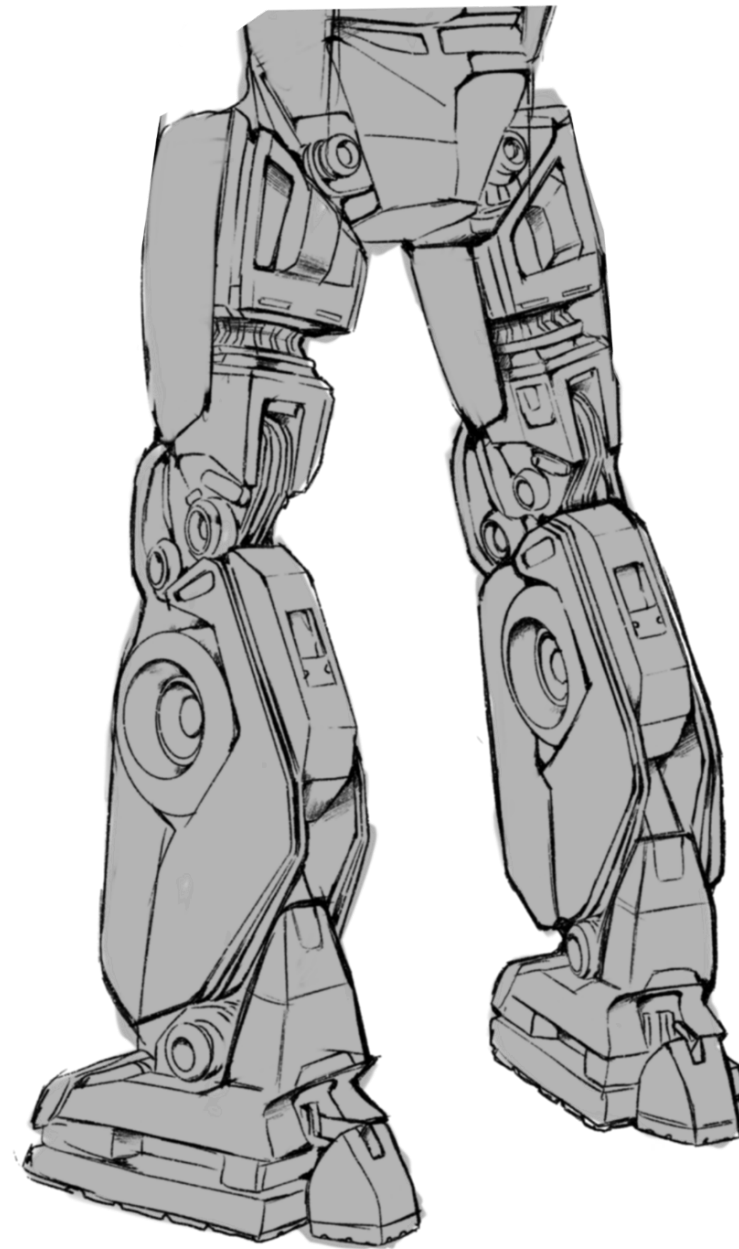


FIGURE 29. Sketch of legs
(Joona Lahtinen)

4.3 | ROBOT MODE

The design of Astereons robot mode went hand in hand with his Alternate form as the panels and parts from it form the bulk of the design. This was also something that was kept in mind during the whole project. A goal also was to capture some of the classic proportions of a Transformer. Exaggerated feet and arms and bulky forms. A balance between detail and bigger surfaces.

A metal skeleton was built to act as a base for the design. At this point the proportions were a top priority. Studying and implementing elements from human anatomy but still keeping the recognizable proportions of a Transformer. Tendons and muscles were replaced with pistons and motors. Joints are very important in this kind of design to insure the illusion of realistic mobility and articulation. Bone structure also inspires many design features and decisions that were made.

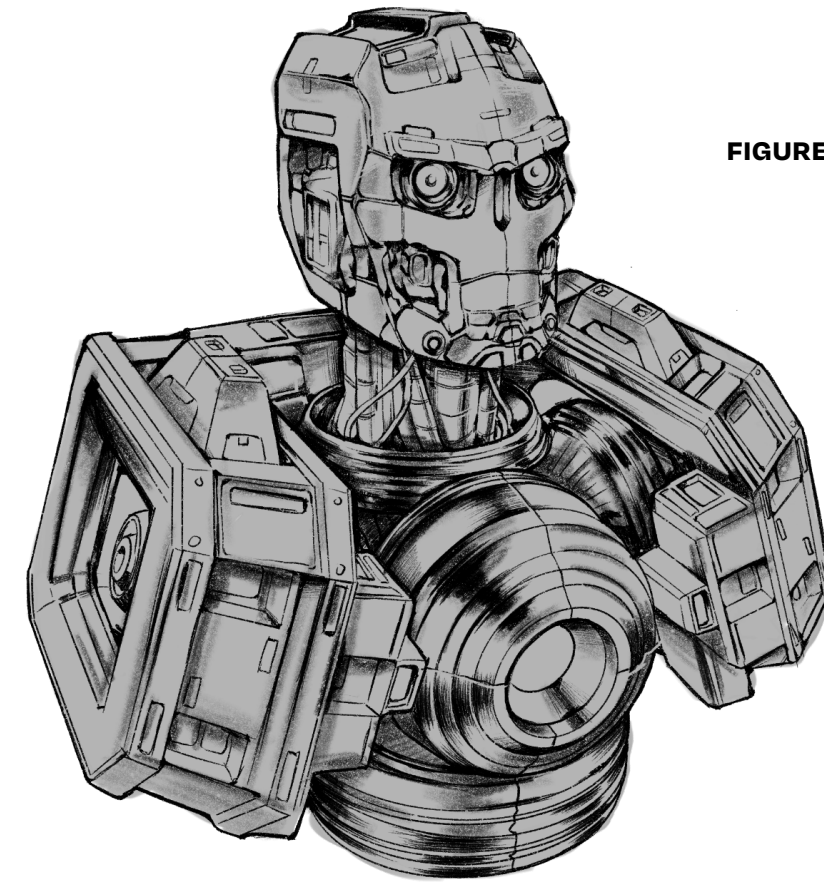


FIGURE 30. Sketch of upper body
(Joona Lahtinen)

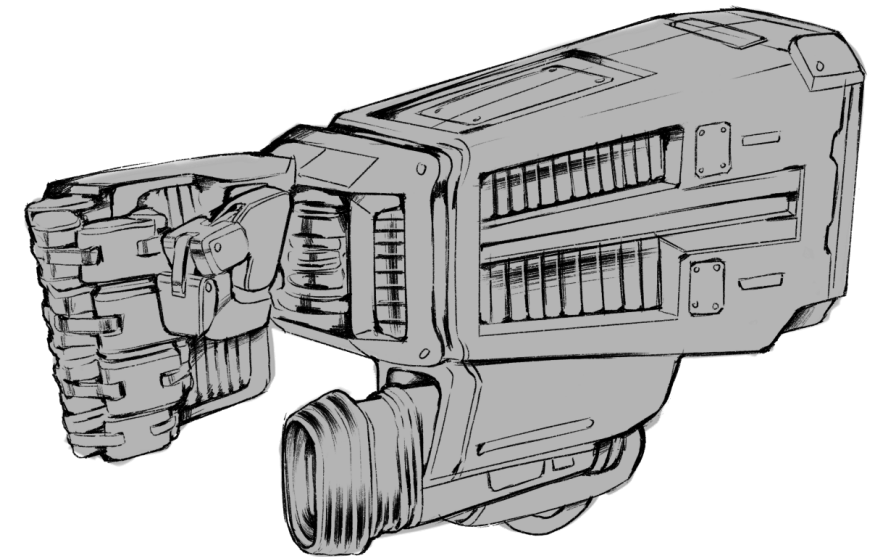


FIGURE 31. Sketch of hand (Joona Lahtinen)

FIGURE 32. Revolver, Smith & Wesson, five-shot .38-calibre (Britannica, 2021)

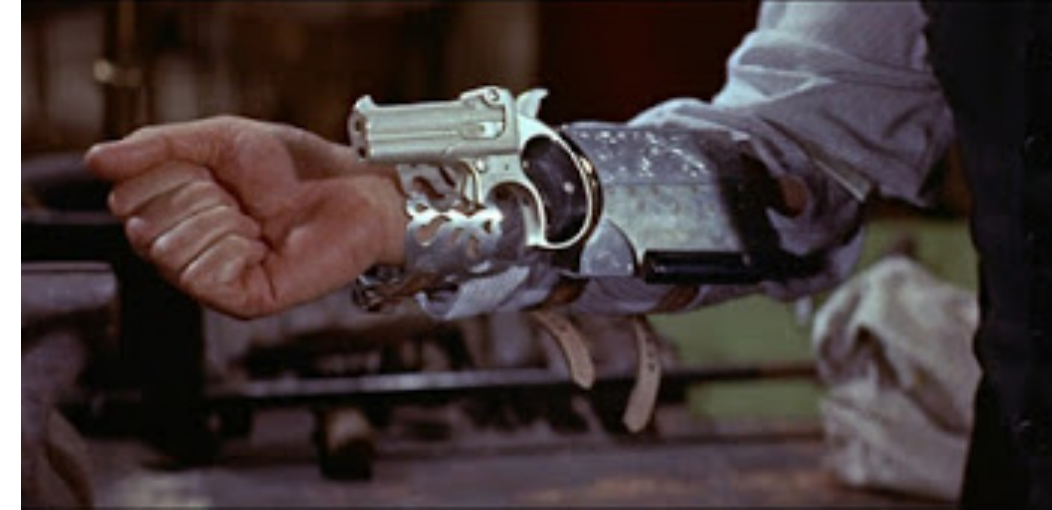


FIGURE 33. Derringer from the movie "The Sheriff of Fractured Jaw" (Jeffarnoldblog 2018)

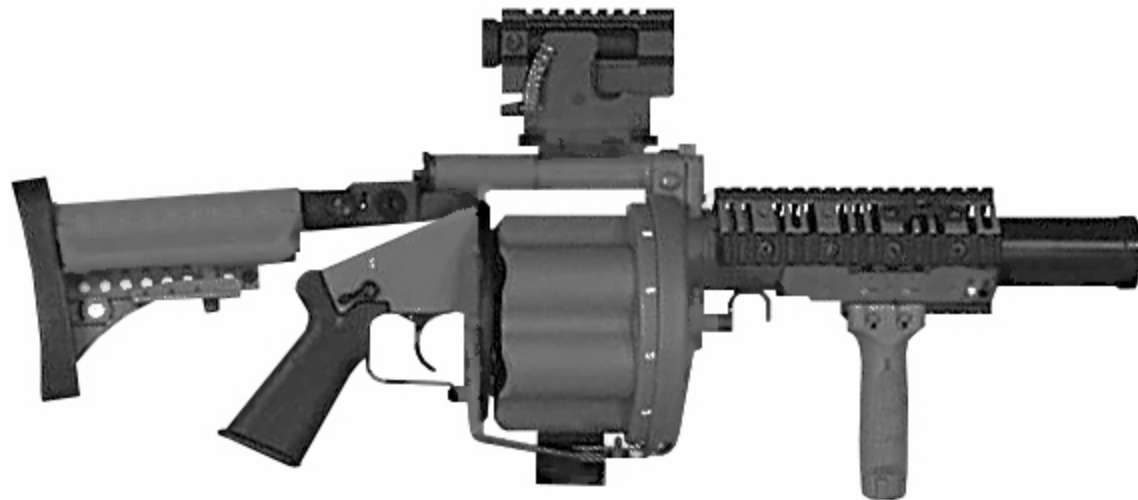


FIGURE 34. Grenade launcher, Millkor MLG (Wikipedia, 2021)

To tell the story of Astereon that he used to be a scientist is represented by the influence of spaceshuttles and technical components. His transformation in to a warrior is represented by influences from Japanese drift cars. Both share the same black and white color-scheme, with added hints of color with muted reds and greens in the components.

Elements from historic warriors and gladiators were also incorporated in the design especially in the helmet and loincloth to drive home the idea of Astereon being a warrior. Some weaponry was also designed for him which are inspired by revolvers and grenade launchers. The idea was to evoke feelings of a gunslinger in the Wild West. The weapon extrudes from an opening in Astereons wrist.

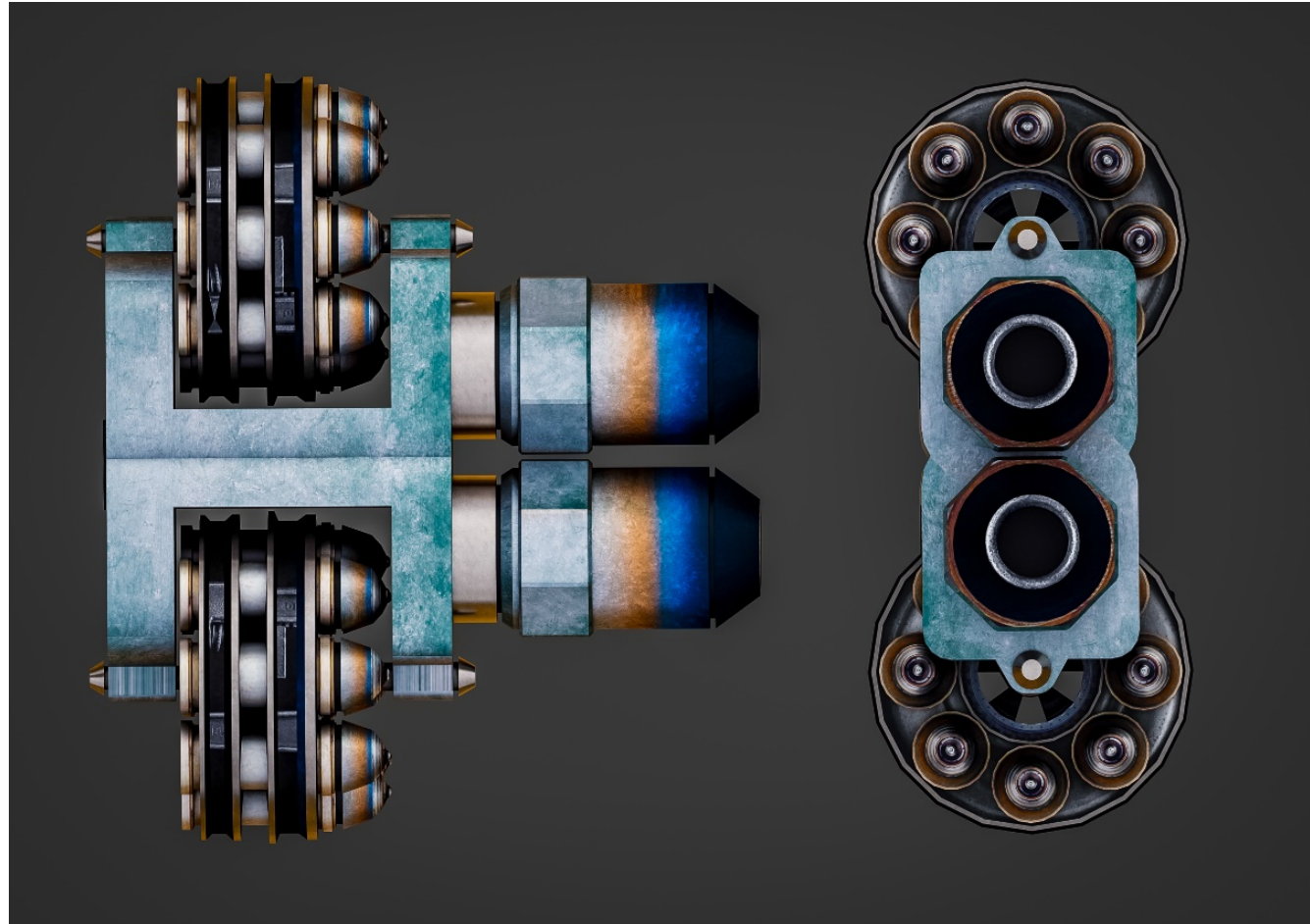


FIGURE 35. Weapon design (Joono Lahtinen)

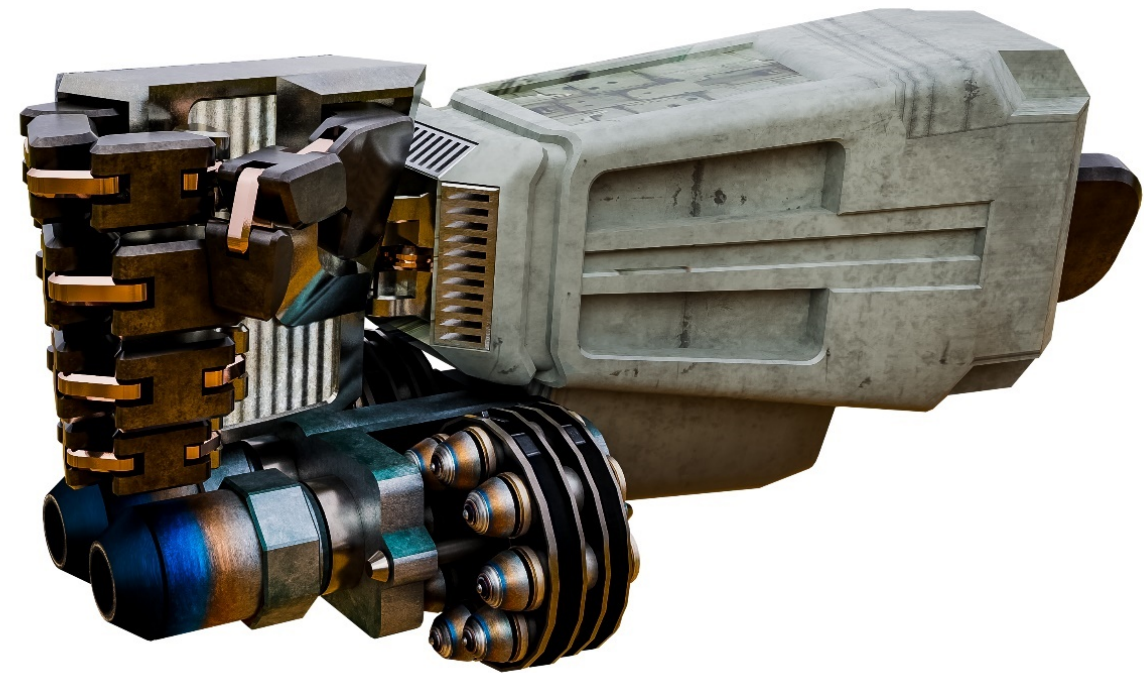


FIGURE 36. Process photo of the weapon design (Joono Lahtinen)



FIGURE 37. Exploration of the robot mode (Joona Lahtinen)



FIGURE 38. Exploration of the robot mode (Joona Lahtinen)

He is from the same city as Bumblebee, so an effort was made to bring some "family-resemblance" with his proportions, scale and details such as the "wings" on his back. His face was designed to have a stoic presence about him, giving the impression of a more serious character. To further the image of a heroic character blue glowing eyes were selected.

Final details were added to create balance and visual interest. The biggest last minute addition was the nose. Through out the process Astereon did not have a nose but in the final stages that was experimented with. Reading peoples comments online on the subject made it clear that people had differing opinions on the matter. After experimenting with a few different nose designs the decision was made to add a nose to make the character a bit more humane and add to the traditional design language that we have established.

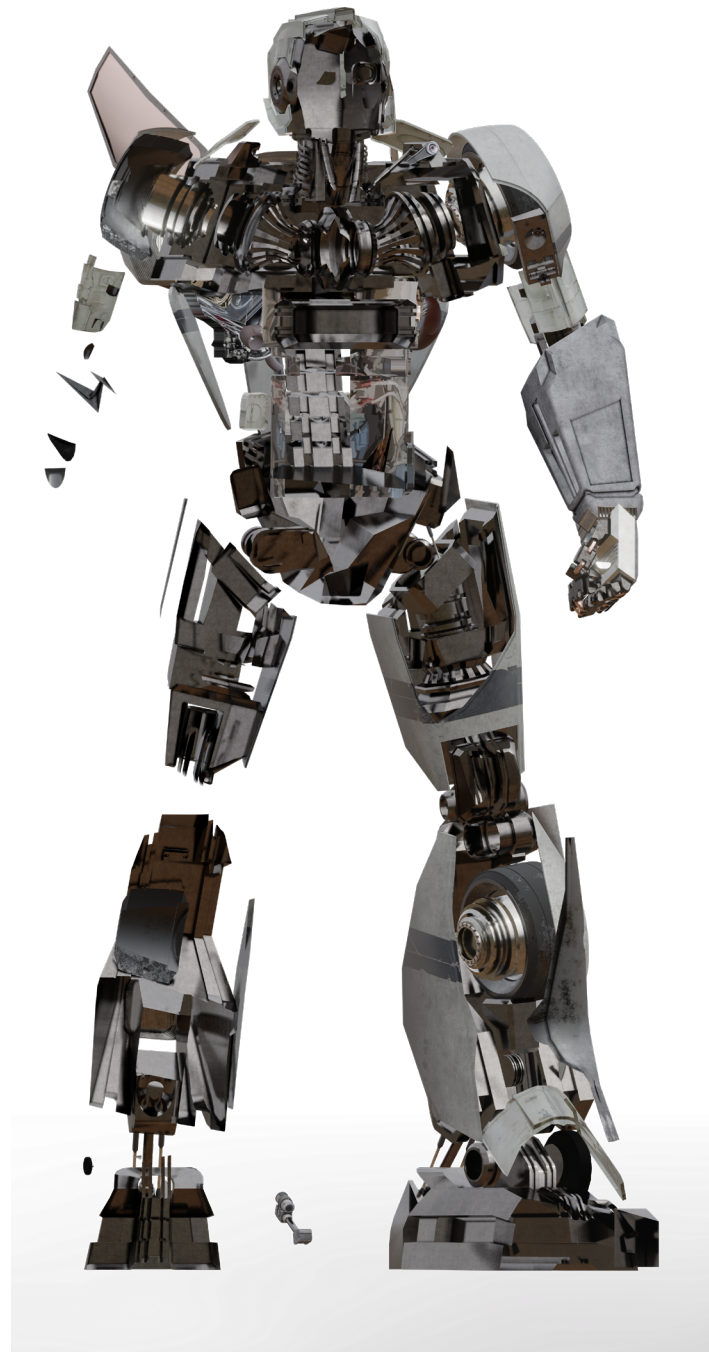


FIGURE 39. Process photo of the robot mode (Joona Lahtinen)



FIGURE 40. Process photo of the robot mode (Joona Lahtinen)



FIGURE 41. Process photo of the robot mode (Joona Lahtinen)



FIGURE 42. Process photo of the robot mode (Joona Lahtinen)

5. FINAL DESIGN

FIGURE 43. Final character design
(Joonas Lahtinen)





FIGURE 44. Final character design,
(Joona Lahtinen)



FIGURE 45. Final vehicle design (Joonas Lahtinen)



FIGURE 46. Final vehicle design (Joonas Lahtinen)

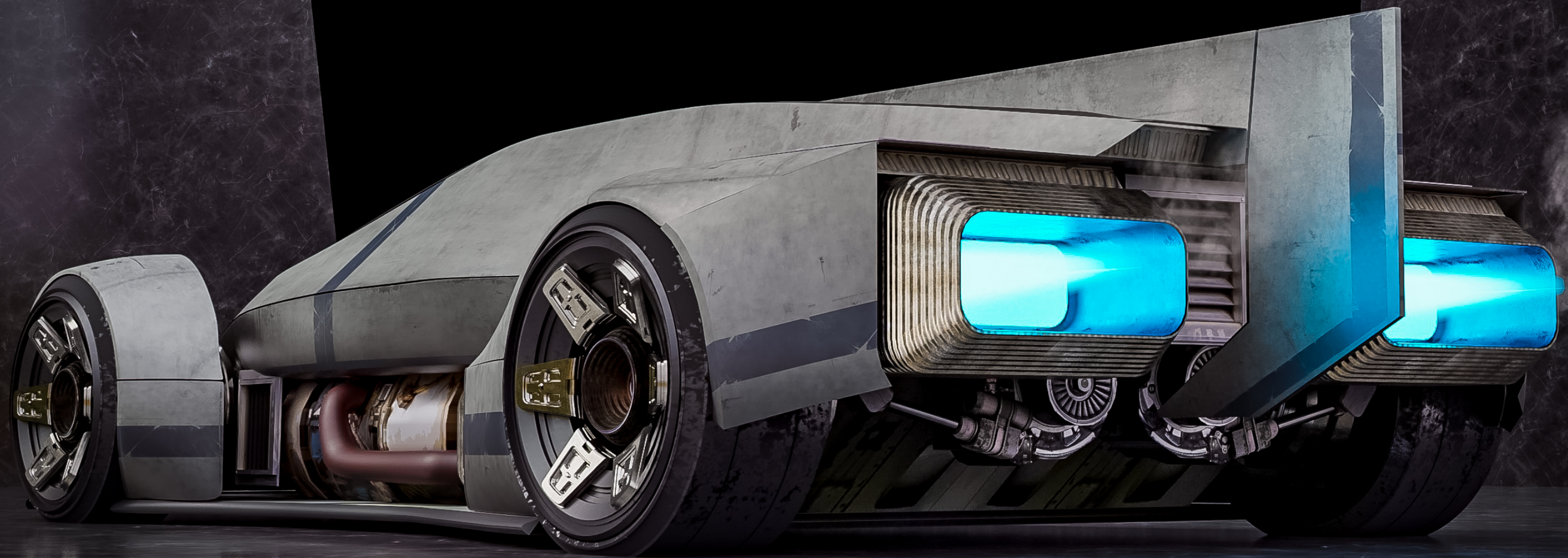


FIGURE 47. Final vehicle design (Joona Lahtinen)

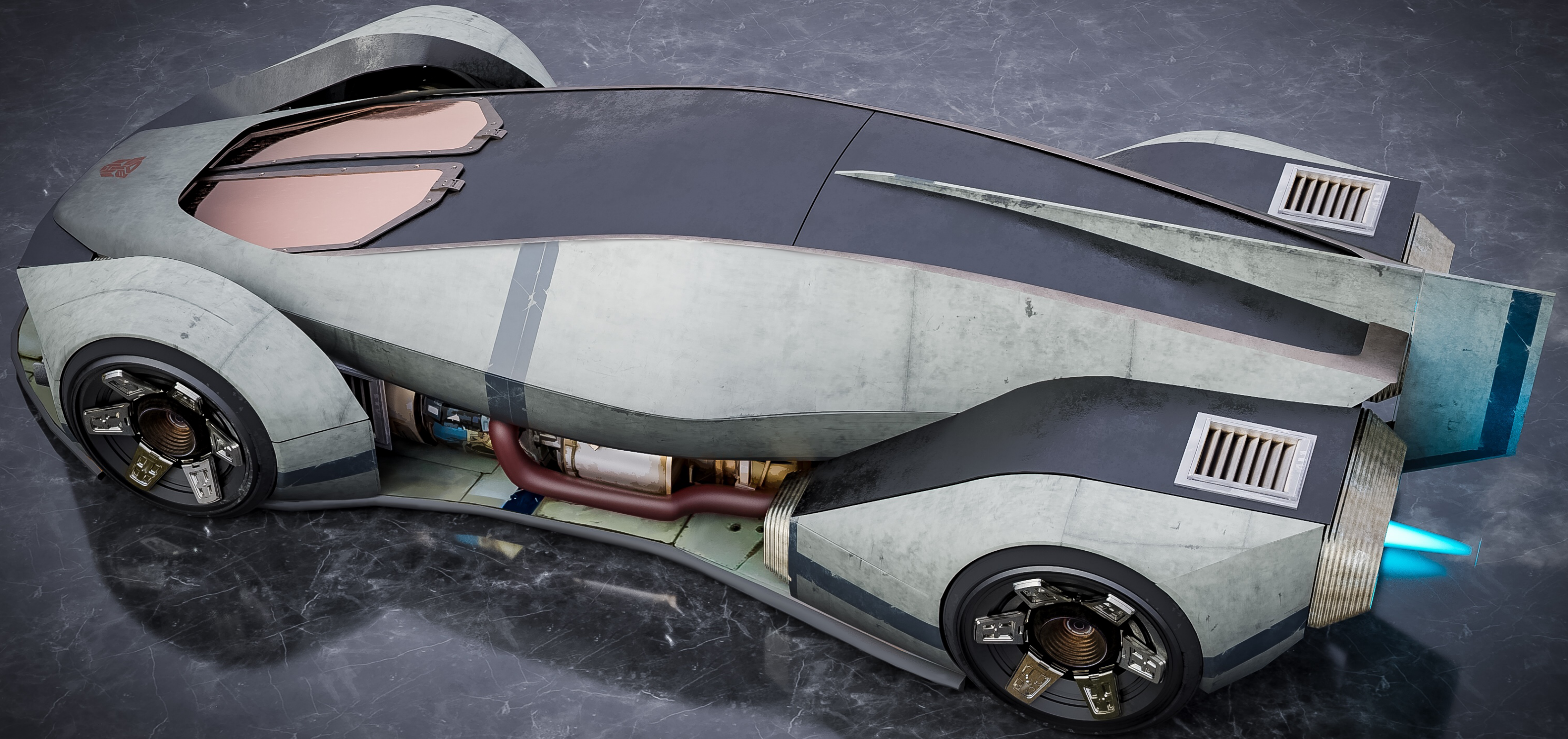
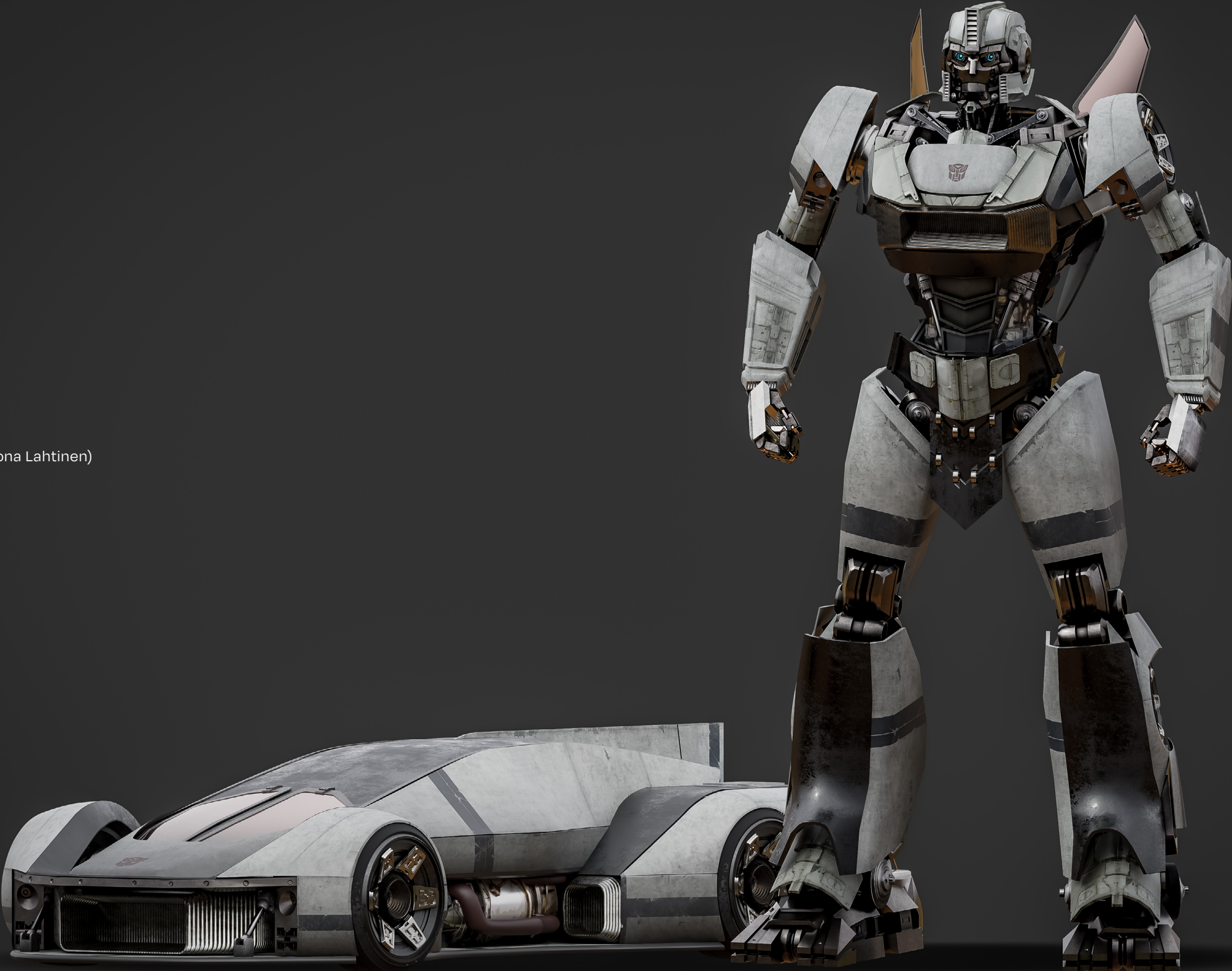


FIGURE 48. Final vehicle design (Joonas Lahtinen)

FIGURE 49. Final character and vehicle design (Joona Lahtinen)



6. EVALUATION

6.1 | PROCESS

The project was overall successful considering the goals that had been set. In terms of learning and implementing 3D in to my workflow I am very happy considering where I started from. In the process I got to learn modeling, texturing, environments and rendering. The potential of this process makes me very excited for future projects. The design process in this project was quite heavily impacted by the big learning curve involved with 3D which required a lot of time in the project. Doing most of the work in 3D gave me a more clear idea of when 2D would actually work better. In the future I will

know when using 2D is more beneficial. For example more 2D sketching in the ideation process and overpainting in the final images would make work much more efficient.

6.2 | RESULTS

The final design fulfills its goals in my opinion considering the time and resources invested. It fits in the parameters and setting which were set and the final images present the design quite well. The final written work was the most challenging part of the whole process but it represents the inspirations, phases, lessons, research and the overall process with all its imperfections quite well.

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FIG. 19 **LAHTINEN, J.** (2021). Design sketch.

FIG. 20 **LAHTINEN, J.** (2021). Design sketch version 1.0.

FIG. 21 **LAHTINEN, J.** (2021). Design sketch version 2.0.

FIG. 22 **LAHTINEN, J.** (2021). Color testing version 2.0.

FIG. 23 **LAHTINEN, J.** (2021). Design sketch version 3.0.

FIG. 24 **LAHTINEN, J.** (2021). Design version 3.0.

FIG. 25 **LAHTINEN, J.** (2021). Wheel design version 3.0

FIG. 26 **LAHTINEN, J.** (2021). Design of the alternative mode

FIG. 27 **LAHTINEN, J.** (2021). Packaging design

FIG. 28 **LAHTINEN, J.** (2021). Design of the alternative mode

FIG. 29 **LAHTINEN, J.** (2021). Sketch of legs

FIG. 30 **LAHTINEN, J.** (2021). Sketch of upper body

FIG. 31 **LAHTINEN, J.** (2021). Sketch of hand

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FIG. 35 **LAHTINEN, J.** (2021). Weapon Design.

FIG. 36 **LAHTINEN, J.** (2021). Process photo of the weapon design.

FIG. 37 **LAHTINEN, J.** (2021). Exploration of the robot mode.

FIG. 38 **LAHTINEN, J.** (2021). Exploration of the robot mode.

FIG. 39 **LAHTINEN, J.** (2021). Process photo of the robot mode.

FIG. 40 **LAHTINEN, J.** (2021). Process photo of the robot mode.

FIG. 41 **LAHTINEN, J.** (2021). Process photo of the robot mode.

FIG. 42 **LAHTINEN, J.** (2021). Process photo of the robot mode.

FIG. 43 **LAHTINEN, J.** (2021). Final character design.

FIG. 44 **LAHTINEN, J.** (2021). Final character design.

FIG. 45 **LAHTINEN, J.** (2021). Final vehicle design.

FIG. 46 **LAHTINEN, J.** (2021). Final vehicle design.

FIG. 47 **LAHTINEN, J.** (2021). Final vehicle design.

FIG. 48 **LAHTINEN, J.** (2021). Final vehicle design

FIG. 4 **LAHTINEN, J.** (2021). Final character and vehicle design.

SPECIAL THANKS

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ASTEREON –
Character Concept
For Transformers

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