KORG

STANCE

LAB University of Applied Sciences

Graduation work
Vehicle Design

Spring 2020
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Abstract

In my graduation work I create a concept for a brand that has not yet produced a vehicle. I also assess the possibilities of combining sound and music with a vehicle, while considering the future of music-making and sharing it as well.

The brand chosen for this concept is Korg, a Japanese manufacturer of synthesizers and electronic studio equipment. My goal was to find out the appearance and purpose of a vehicle that would serve the target audience and brand image of Korg in 2040.

The result is a 3d model of a vehicle interior and exterior, and a visual interface.

Tiivistelmä

Opinnäytetyössäni luon ajoneuvokonseptin brändille, joka ei valmista ajoneuvoja. Tutkin myös äänen ja musiikin yhdistämistä ajoneuvoon, musiikin teon ja jakamisen tulevaisuutta sivuten.

Työni kohteeksi valikoitui Korg, joka on japanilainen elektronisten soittimien ja studioinstrumenttien valmistaja. Tavoitteenani oli selvittää minkälaiselta näyttäisi kyseisen valmistajan luoma ajoneuvo ja miten se palvelisi brändin imagoa ja kohderyhmää vuonna 2040.

Lopputuloksena on 3d-malli ajoneuvon ulkoasusta ja sisustasta sekä visuaalinen käyttöliittymä.

Opinnäytetyöni on englanninkielinen.

Contents

1. Introduction

1.1 Subject

The car industry is going through a major change in its history. Changing lifestyle, beliefs and values are key factors in emerging megatrends and needs in our society. For over a century, cars have served consumers the same way: transporting people from one place to another and providing a private freedom of traveling regardless of destination or schedule. Lately this purpose has become a subject of discussion whether it is a threat to our planet, which suffers from increasing pollution and overpopulation.

When observing the megatrends and lifestyle changes in industrialized countries for last ten years, increased environmental and ethical awareness and interest in sharing can be seen in consumer habits as well as in transportation. I believe that the car will eventually be seen less as an everyday consumer product one can own and rather become more like a service that integrates with our society effectively.

I considered various subjects to inspect the future of a car and how it would serve the daily routine of its user. I ended up toying around with sound and its effects on human wellbeing, and how it could be combined with a vehicle. My primary motivation was to create something intriguing and less apparent, so I decided to choose sound as one of the key elements in my concept.

To narrow down my subject and to help in developing a clear concept, I chose to focus on a niche target audience of musically oriented people. This resulted in choosing Korg, which is a well-established name in music industry and has some curious technology that I want to utilize.

1.2 Goals

The main elements in this graduation work are brand identity, future mobility and user experience. My aim is to create a credible future vision of a vehicle for Korg showcasing their technology. The vision is not necessarily a prediction of an actual production model, but is rather answering a question out of curiosity.

- What would a vehicle made by Korg look like, and what would be its purpose?

2. Research

2.1 Autonomy and sharing

Autonomy is a trending solution in future mobility. The benefits are safety and efficiency when the vehicle's control is not relying on human estimation and affected by habits or attitudes. Autonomy is being developed to be more advanced and fully-fledged than being just a driving assist, and many visions show fully automatic driving experiences being the future. Many solutions utilizing autonomy of some type have been implemented and used prior now, such as parking radars and cameras, lane assists and cruise control, to mention a few.

Increased interest in car sharing sparks new business models and combined with new automotive technologies cars are heading to a direction of being more like a service than product. Estimations made in 2015 show there will be 35 million users of car-sharing services by 2021, with 10% being heavy users. Car sharing attracts users in areas where parking space is limited and hard to find, such as in big cities. Environmental thinking is also a big factor in car sharing, as fewer cars traveling fewer overall miles equals less emissions.

A survey conducted in 2015 about self-driving vehicles showed 58% of overall respondents to be interested in using an SDV (as seen on the right, figure A.). A shift towards more accepting attitude on self-driving vehicles can be seen, which could ease the adaptation of SDV's into our infrastructure. Attractions mentioned were the ability of being more productive during trips, and not needing to find a parking spot as the vehicle performs parking as well.

The key benefits I see in car sharing are reduced costs in ownership and if executed effectively, a carefree way of getting what you need without having it laying around when you don't. Autonomy brings the possibility

Many Consumers Are Open to Trying a Self-Driving Car
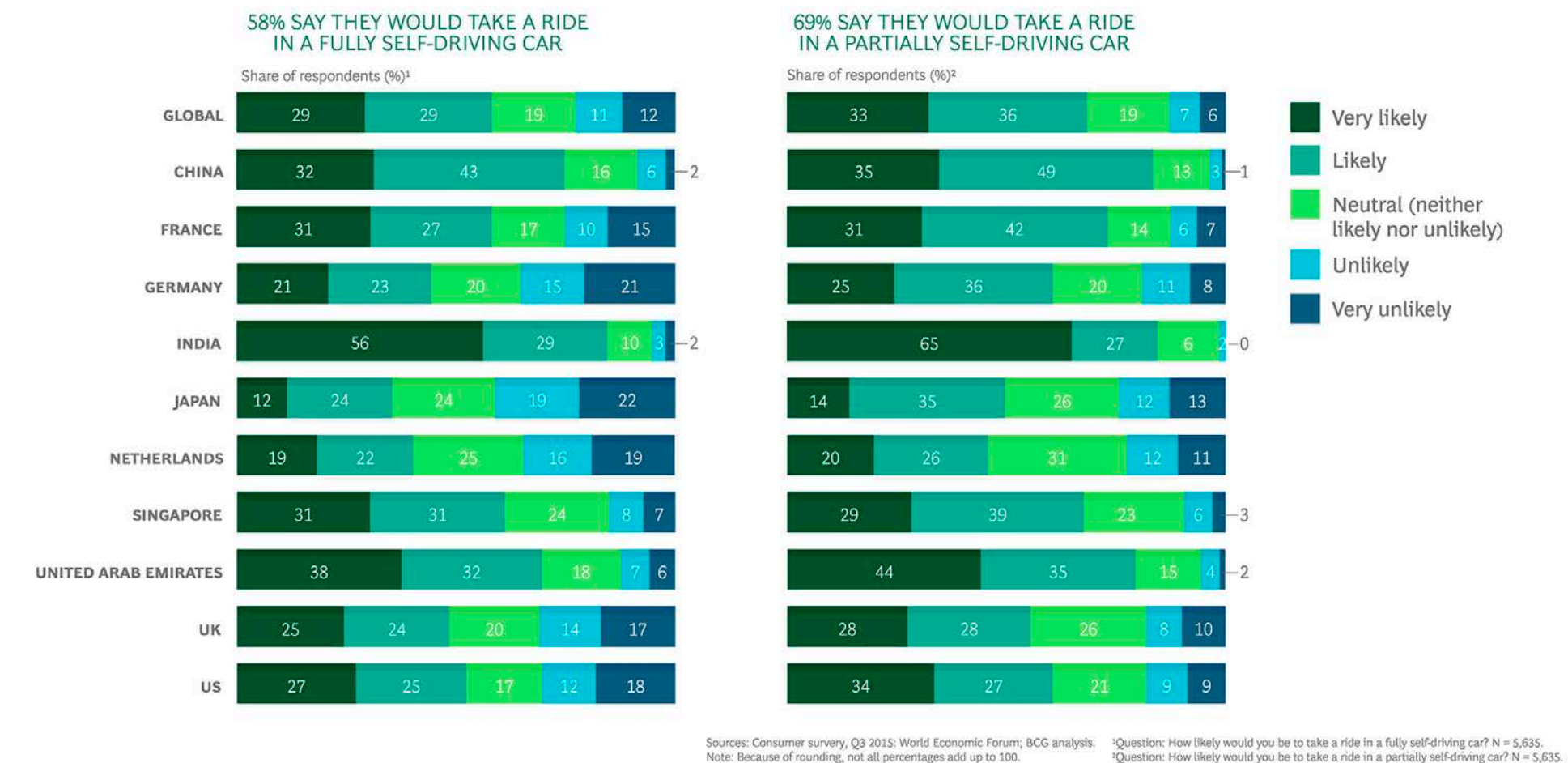
The survey involved over 5 500 consumers in 27 cities in 10 countries.

https://www.bcg.com

to concentrate on other things than driving and literally lets your thoughts wander as you travel to your destination.

There are strong signals of car sharing and autonomy being the future game-changers for mobility, and by 2040 technology has taken a big leap into what we have envisioned, becoming a part of a more efficient and easier everyday life.

2.2 Sound

Sound is one of the main senses for humans. We sense the surrounding environment through a combination of sound and vision. Sound, however, can affect our image of certain environments or situations perhaps stronger than soley vision. Soundscape generates a feeling our psychology describes as calming, threatening or uplifting. Because hearing is passive and immediate, it is capable of producing an emotional response irrespective of the intention of the human experiencing it [Case & Day 2018, Designing with Sound].

Sound design is an important aspect in developing products, services and media. With sound it is possible to give a more emotional and profound user experience without adding to the visual clutter. Sound is a powerful tool, because with inadequate use it can cause stress and affect negatively to wellbeing, but with proper use it can even improve our cognitive thinking.

Several ordinary examples of sound design in vehicles are different warning chimes to remind the driver for closing the door, or radio altering its volume depending on the vehicle's speed and tire noise. Extensive sound design solutions in vehicles may come into prominence if electric engines become abundant, as the noise of a combustion engine has usually been the main source to a car's soundscape.

The 2020 BMW Concept i4 is an example of the use of sound design in an electric vehicle. Film composer Hans Zimmer was involved in developing the concept's sound.   >>>

www.engadget.com

2.3 Music

After researching the benefits and significance of sound and rhythm, I became confident of creating a musical concept. I considered various musical styles from orchestral to electronic, and I ended up choosing electronic music as the genre, because I felt it gives a broad catalog of soundscapes that can be produced by technology which establishes Korg's brand.

In music, instruments have a characteristic sound and sometimes even a certain brand is distinguished by its tone. In electronic music sounds are created synthetically with the help of computer technology and is usually very modifiable, giving its user possibilities to express themselves by creating original sounds.

Recording music had been for years an extensive process. The need for recording equipment required studio sessions or expensive hardware investments. The development of DAWs (Digital Audio Workstations) brought music making more accessible to hobbyists and amateur musicians. Digital interface and home computers have changed the way

of making music dramatically, as anyone can have a recording session in their living room by simply pressing a button. Internet and different streaming platforms such as Soundcloud and Spotify have made music distribution broader and easier.

Being a follower of several musicians on social media I have noticed that it is quite common to give a peek of songs that are still in progress. This seems to be a good way to get feedback from followers on whether the new material is satisfying. It can also serve as a way to keep the followers interested between publishing new material.

As music making and sharing has already become easier and more accessible with new innovative production tools and interfaces, the future definition of a musician will probably change as anyone can create soundscapes to express themselves. Video games such as Dreams (2019) and Fuser (2020) let the player affect to the audiovisual experience and create original sounds and mixes without previous knowledge in musical concepts.

Fuser, Dreams and Audiosurf are games where music plays a major role.   >>>

A) https://www.fuser.com

B) https://www.playstation.com/fi-fi/games/dreams-ps4/

C) https://www.rockpapershotgun.com

2.4 Korg

Clean, minimalistic look was typical for Korg's lineup of instruments during the M1 era.

Big and bold letters on a clean surface created a distinctive look that couldn't be mistaken.

2.4 Korg

Korg has a well-established image among the music industry for its capable sound technology and programmable synthesizers. It has developed innovative sound technology throughout the decades, and many of their classic instruments are still used today by film composers and musicians.

Korg is perhaps best known for its long-running series of flagship workstations, but they also produce professional DJ tools and computer software. Many of their classic products have also been converted into a digital interface to be used in DAW programs. Recent resurrection of analog synthesizers led to the release of Volca-series, which are analog synthesizer devices designed for impromptu music programming rather than creating polished production.

The motivation behind creating a vehicle concept for Korg sprang from an idea where you could use their technology without having to own a studio's worth of analog gear in your living room. Even if you had the space and income for such equipment, it's not exactly portable; whenever you have an idea you need to get to your workstation and hope for the inspiration to keep up.

The brand has a bold and confident image, with distinguishable style to their instruments that often don't leave much space for styling. I find the combination of simple graphics and dark, industrial materials quite fitting to the state-of-art sound the instruments produce. Transfering this image of sound and looks to a vehicle sounded like a fascinating idea from the start.

2.4 Korg

The company was founded by Tsutomu Kato and Tadashi Osanai in Tokyo, Japan in 1962 and was first known as Keio Gijutsu Kenkyujo Ltd. and later Keio Electronic Laboratories.

Their first production instrument was a rhythm machine called Donca-matic DA-20, deriving its name from the type of sound it produced. Upon releasing an electronic organ in the late 1960s, the company became known as Korg, emphasizing their aim at the electronic organ market.

Korg became a prominent name in the late 1970's with its affordable modular synthesizers, which brought programmable synthetic instruments to the reach of an ordinary musician. By early 1980's Korg had developed several analog and digital keyboards that were easy to program

and use, like the PolySix and Poly-800.

It was however in 1988 when the company had its breakthrough innovation: the all-in-one workstation called M1. The Korg M1 allowed its player to record multiple music tracks into a built-in sequencer and create whole songs with a single instrument. This meant that you could create sketches of songs or even complete records without having to go to a big and expensive recording studio.

Korg products have been used by well-known composers such as Jean-Michel Jarre, Moby and Vangelis, among other recording musicians.

2.4 Korg

Some of Korg's innovative tools - What comes next...?

A)

1963
Doncamatic DA-20

C)

1981
PolySix

E)

1992
Wavestation

G)

2012
Mini Kaoss pad 2

I)

2020
Wavestate

1978
MS-20
and MS-40

B)

1988
M1

D)

**1999**
Triton

F)

2013-2014
Volca-series

H)

?
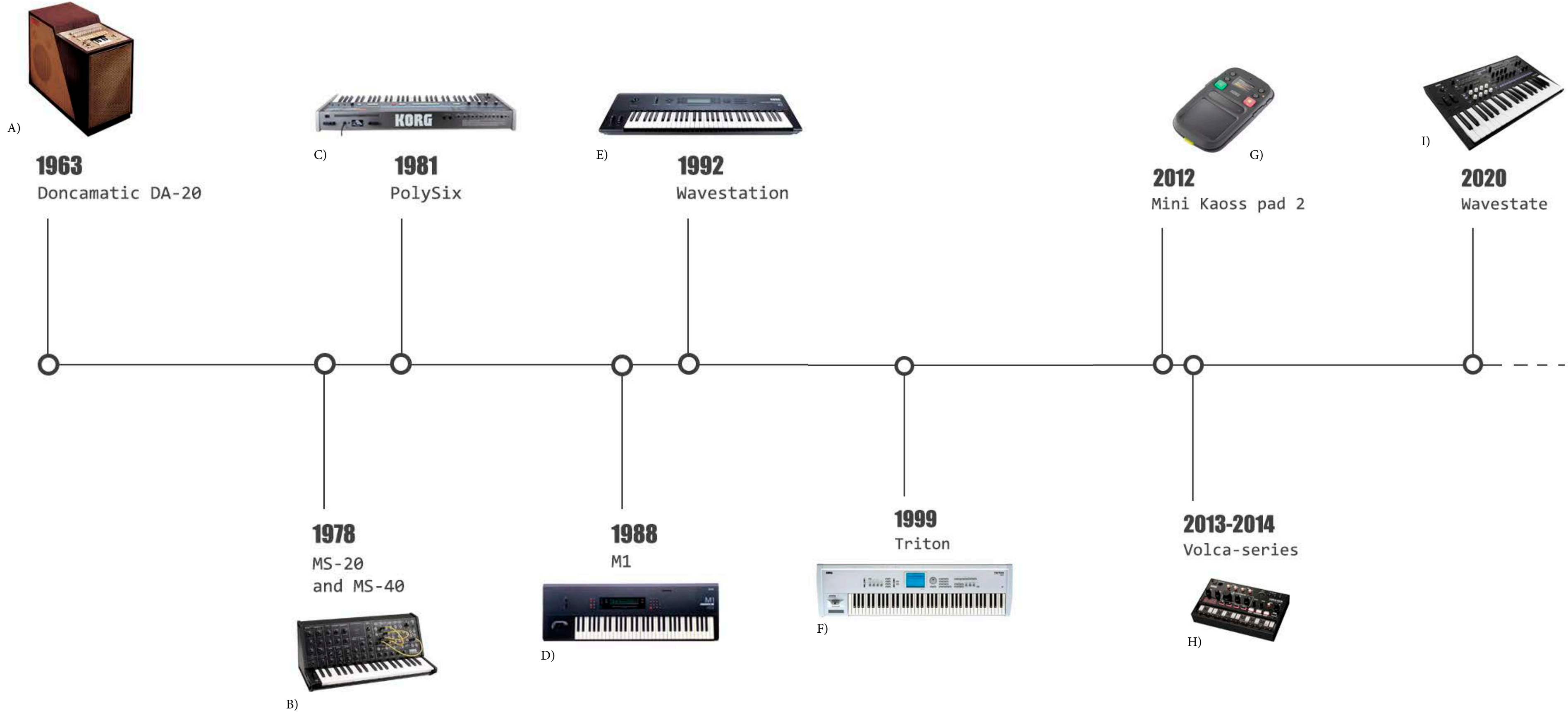
2.5 Benchmarking

Active noise-cancelling

Noise cancelling is mainly used on headphones to block out ambient noises for better audio pleasure.

Noise cancelling reduces unwanted ambient sounds using active noise control, and makes it possible to listen to audio content without raising the volume excessively. Though first patents on active noise cancellation have been submitted as early as in the 1950s it has found its way to commercial use more recently and will likely be used more extensively in the future.

Bose has implemented noise cancelling in a vehicle by using microphones and algorithms to cancel out sound. Using noise cancellation inside a vehicle could improve the ride quality and leave room for more informal sounds to become distinct.
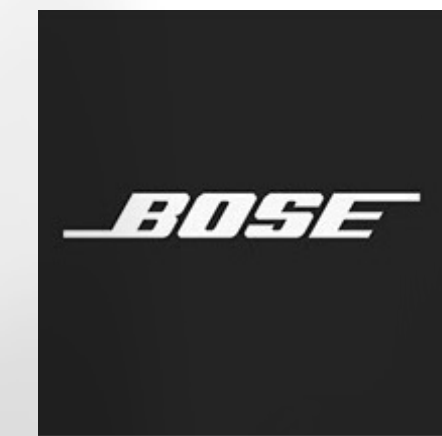
Screenshot from a Youtube video by Bose

2.5 Benchmarking

KAOSS -pad device

There is already a product out there for quick sound and rhythm creation by Korg. The Kaossilator is a palm-sized rhythm and melody composer. It can be used as a notebook to craft ideas that can be later refined into complete songs. The most interesting feature on the Kaossilator is a touch pad to control the sound. By moving a finger on the pad the user can alter the tempo, tone and velocity of a rhythm or sound. For example, touching one area on the pad will trigger a certain chord, and touching an area next to it triggers another.

This kind of intuitive control gives me inspiration for new expressive ways to create sounds, without thinking of hitting a wrong note or breaking other musical rules unintentionally.

https://www.korg.com/

2.5 Benchmarking

Generative music

Generative music is a concept of constantly evolving music that sounds different on every listen. As stated in an article by Wired, music is something of a historical oddity, as we listen to pre-rendered performances over again, without any variation.

English music composer Brian Eno, together with composer and programmer Peter Chilvers, has developed a musical app called Scape, which makes music on its own from given elements. Perhaps more music albums in the future could give variable performances to its listeners, offering something new each time. Listeners could get a profound experience of the album's themes as only the main elements stay the same, but they are rearranged into different soundscapes.

Another interesting aspect of Scape is the ability to create literal scapes out of music. Given music can create shapes and compose them into imagery, expanding the listening experience.

Music can evolve and create visual content, but what if images could be brought to life in audio format? A synthesizer program called Pixelsynth, created by Olivia Jack, is able to create sounds from images by transposing visual information into sound. Pixelsynth reads only white information against black background, but the technology is curious, and is likely going to be developed in the future.
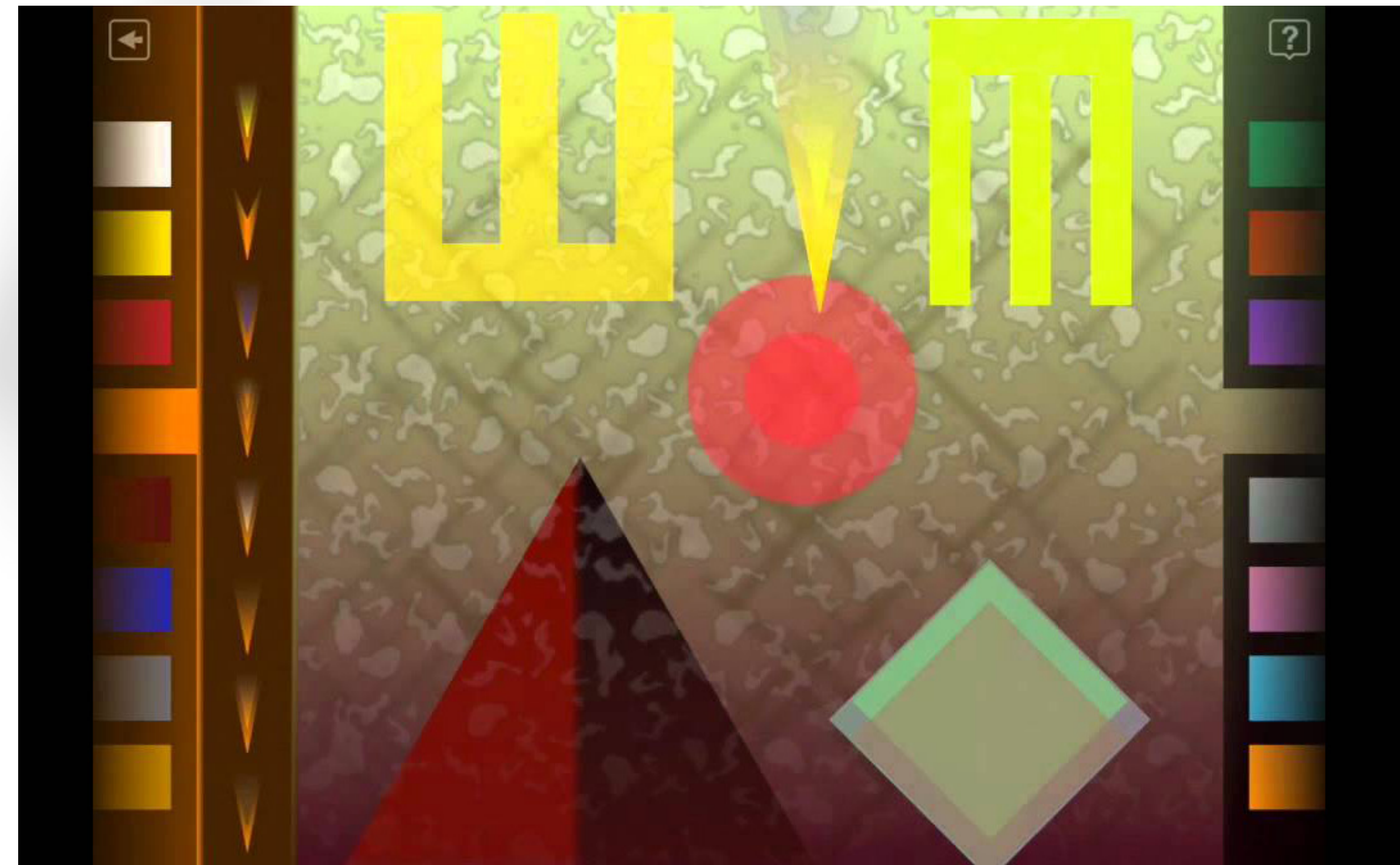
Screenshot from a Youtube video by generativemusicapps

2.5 Benchmarking

Augmented reality interfaces

Augmented reality is the blending of interactive digital elements into our real-world environments [computer.howstuffworks.com]. Augmented reality, or AR, has found its place in different phone applications, as it can create a digital interface to enhance the user's experience. AR implementations can range from haptic feedback to visual overlays.

Google SkyMap uses AR to display information of constellations and planets directly on a mobile phone's screen while pointing the camera toward the sky.

Games like Dreams for Playstation 4 and Google's Tilt Brush use virtual reality in their gameplay, allowing the player to dive into another world and create their own elements to affect their surroundings.

Photo by www.snecsllc.com

2.6 Interview

As a part of my research, I interviewed a hobbyist producer/musician based in Toronto, Canada, known under his artist name Full Eclipse. With the interview I wanted to find out several habits and preferences an electronic musician might have, like what kind of interface they feel comfortable using and which environment they find most inspiring.

Although the car would be mostly used by future generations with likely differing preferences from today's musicians, the interview gave me lots of information to base new design solutions and helped me in shaping the final concept.

I found out several needs in common with my thoughts. These were the lack of dedicated time for lenghty studio sessions and limitations on having variety of gear at hand when inspiration strikes.

https://www.korg.com/

3. User & Mood

3.1 User personas

After doing the research on Korg's brand I started thinking of the users. What would be the backgrounds of possible users and what are their preferences?

I created two character personas for representing the target group of my concept:

Jacob, 32

Jacob lives in Toronto, Canada. He is a professional producer and DJ, who often works with other artists for commissions. He is always on the move and therefore can't keep his recording equipment with him all the time. His busy schedule drives him to seek every opportunity to create novel tracks for a perfect late-night mixtape.

Elisa, 25

Living in Turku, Finland, Elisa spends her days studying visual arts. She used to take piano lessons after school and finds emotions and surrounding environment inspiring to make art. She loves spontaneusly created music and would like to play and work with other musicians, but she can't afford music gear at the moment.

3.2 Moodboard

To help me think of a style that I would use in the vehicle, I created a moodboard consisting of different shapes and elements that would represent the brand.

From the start it was clear to me that I would use a high tech visual language with architectural shapes and industrial materials. I wanted it to pay homage to analog audio technology, too. The vehicle should look like a top-of-the-line instrument.

With these ingredients I pursued a feel of getting inside an electronic instrument.

A)

B)

KORG

C)

D)
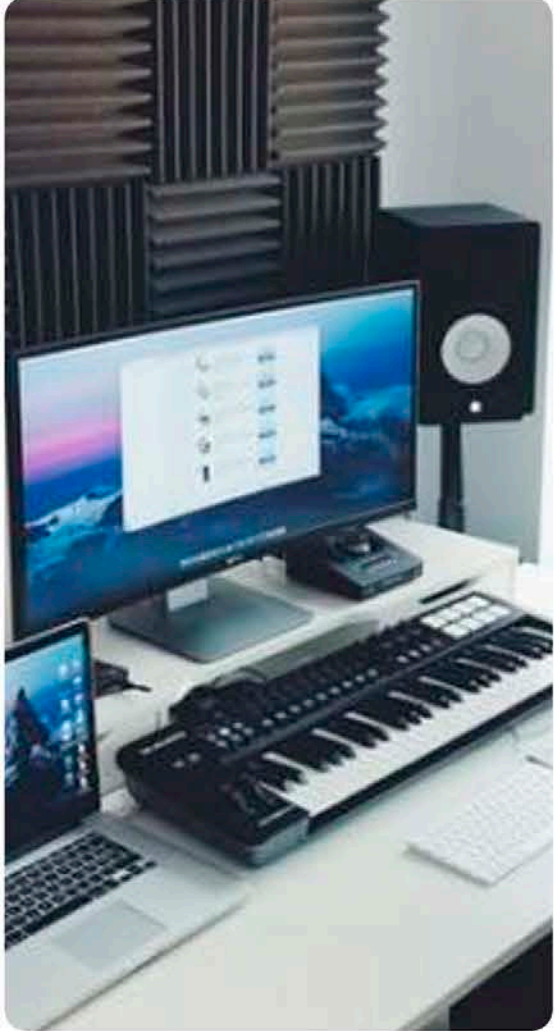
E)
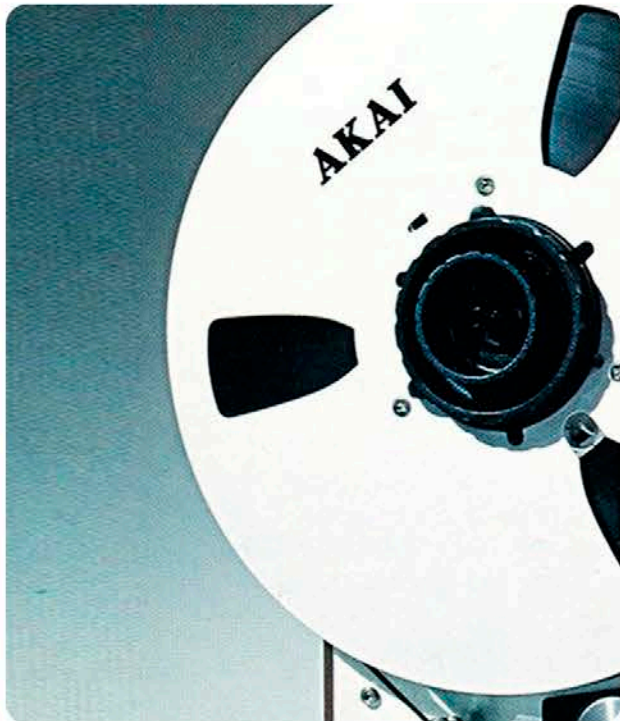
F)
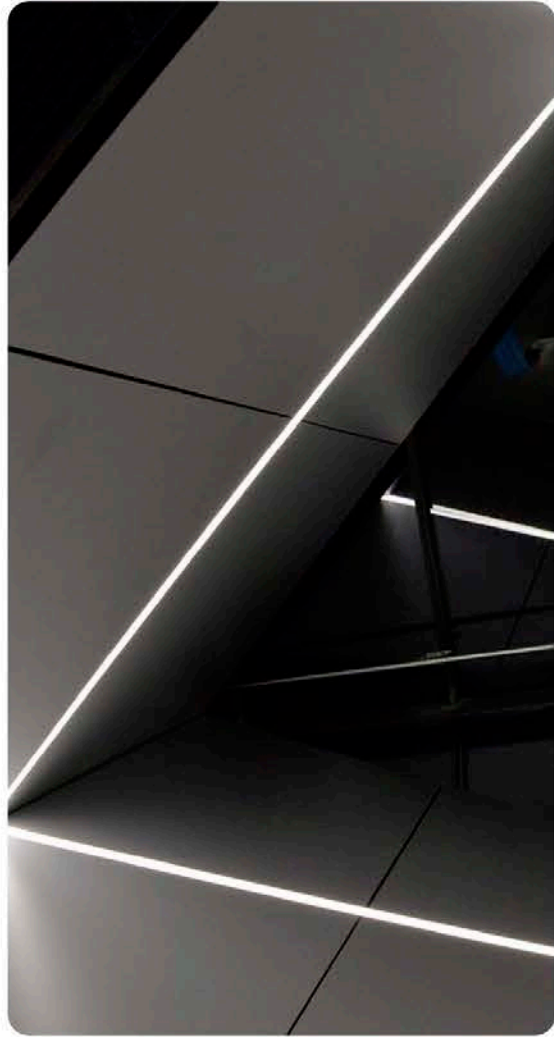
G)

H)

4. Sketching

4.1 First sketches

I started sketching even before determining my final brief, and my first sketches were random ideas within the framework of sound and music. I was thinking what might be inside of a musical vehicle. With the feel of getting inside an instrument in mind, I drew playful ideas that were inspired by music instruments and would allow the user to play with sounds in different ways.

The initial sketches were quite experimental and had the user interacting with the interior. At this point the ideas were more about listening experience than creation.

After sketch seminar I would choose to develop a vehicle for Korg, and it would be aimed for professional audience.
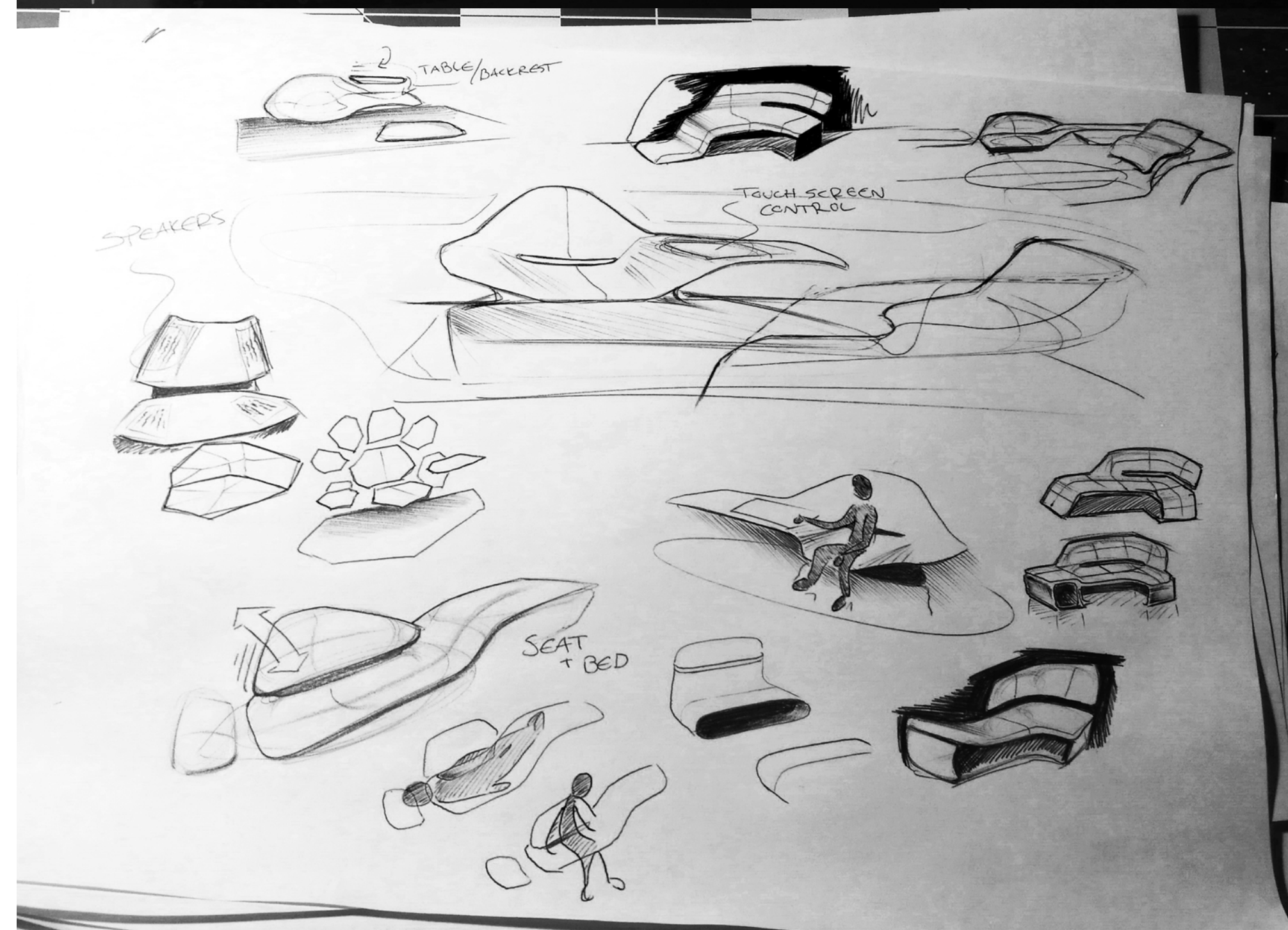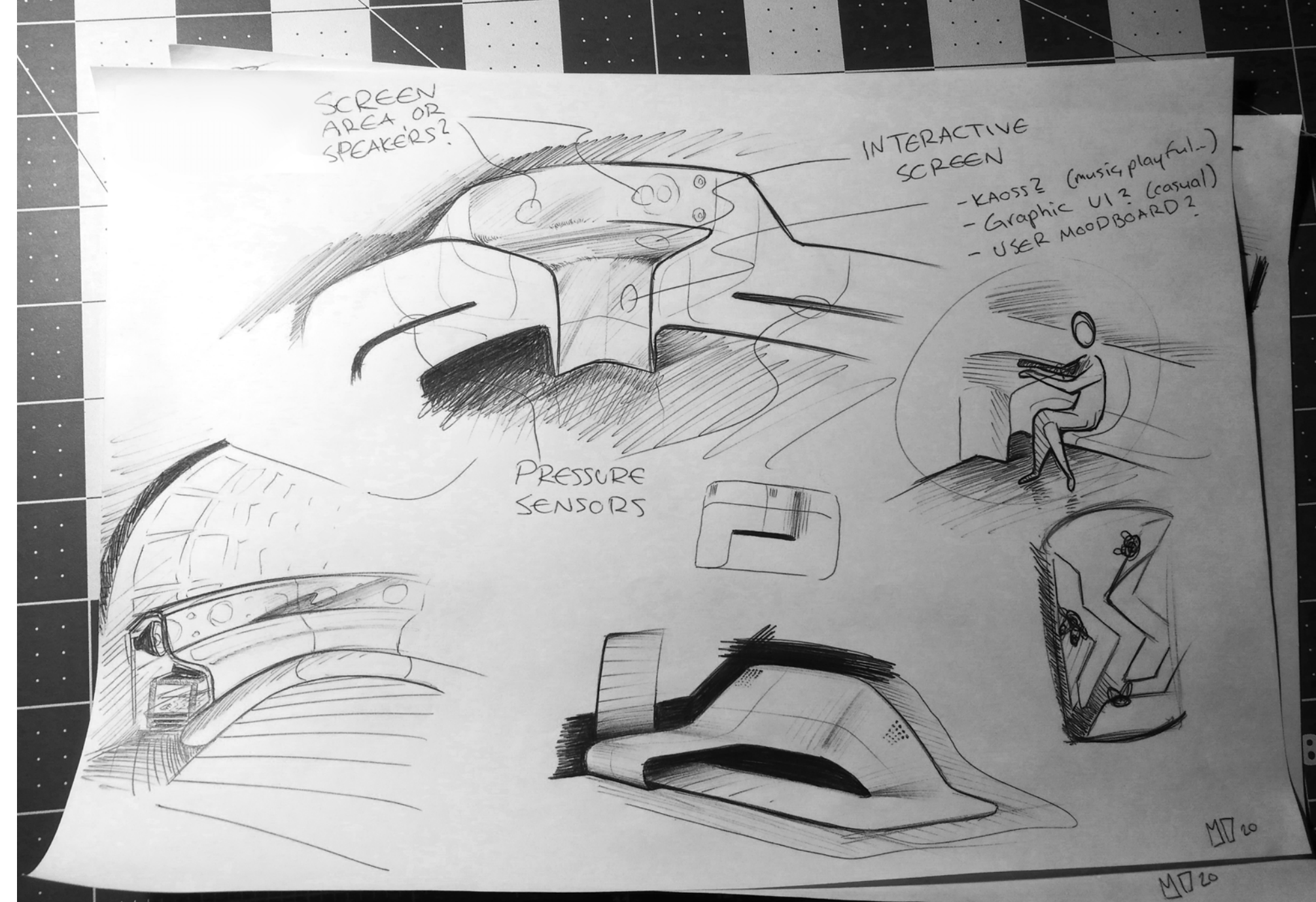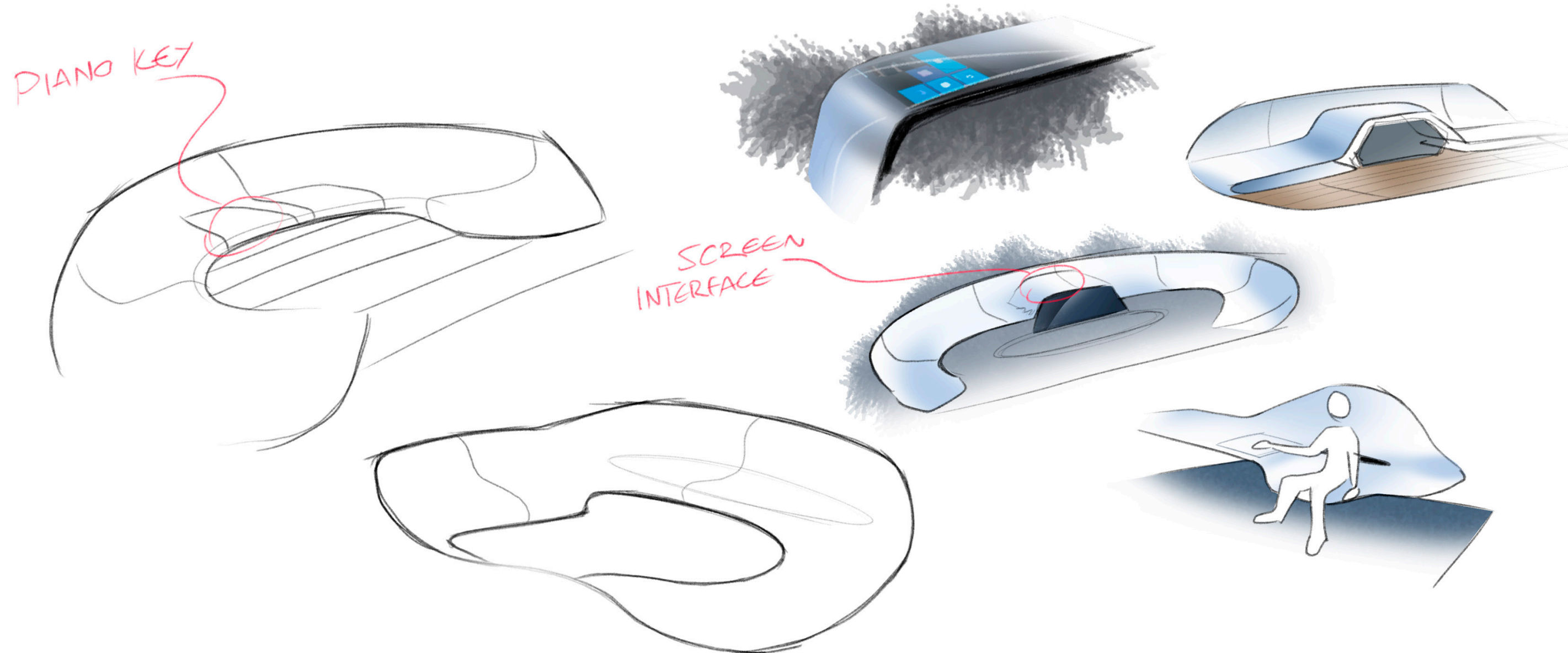
4.2 Interior sketches

Now that I had determined my brand and final brief, the stylistic direction changed quite a bit. Thinking of it as an electronic music studio, my first concern was the layout, as the user should be able to work there and not just sit around.

I decided rather quickly that the vehicle would be meant for more than one person. I wasn't yet sure whether the vehicle would be used as public
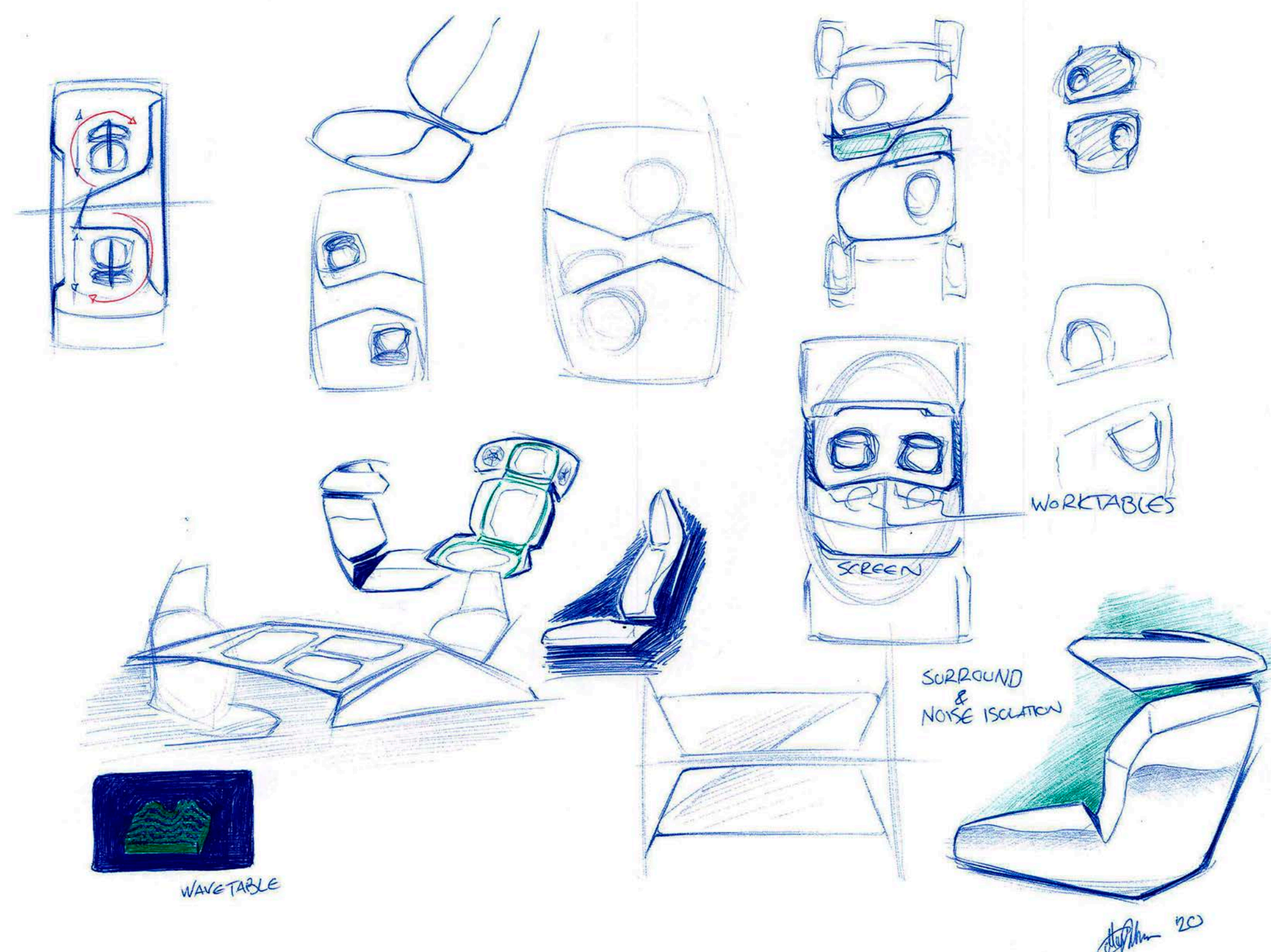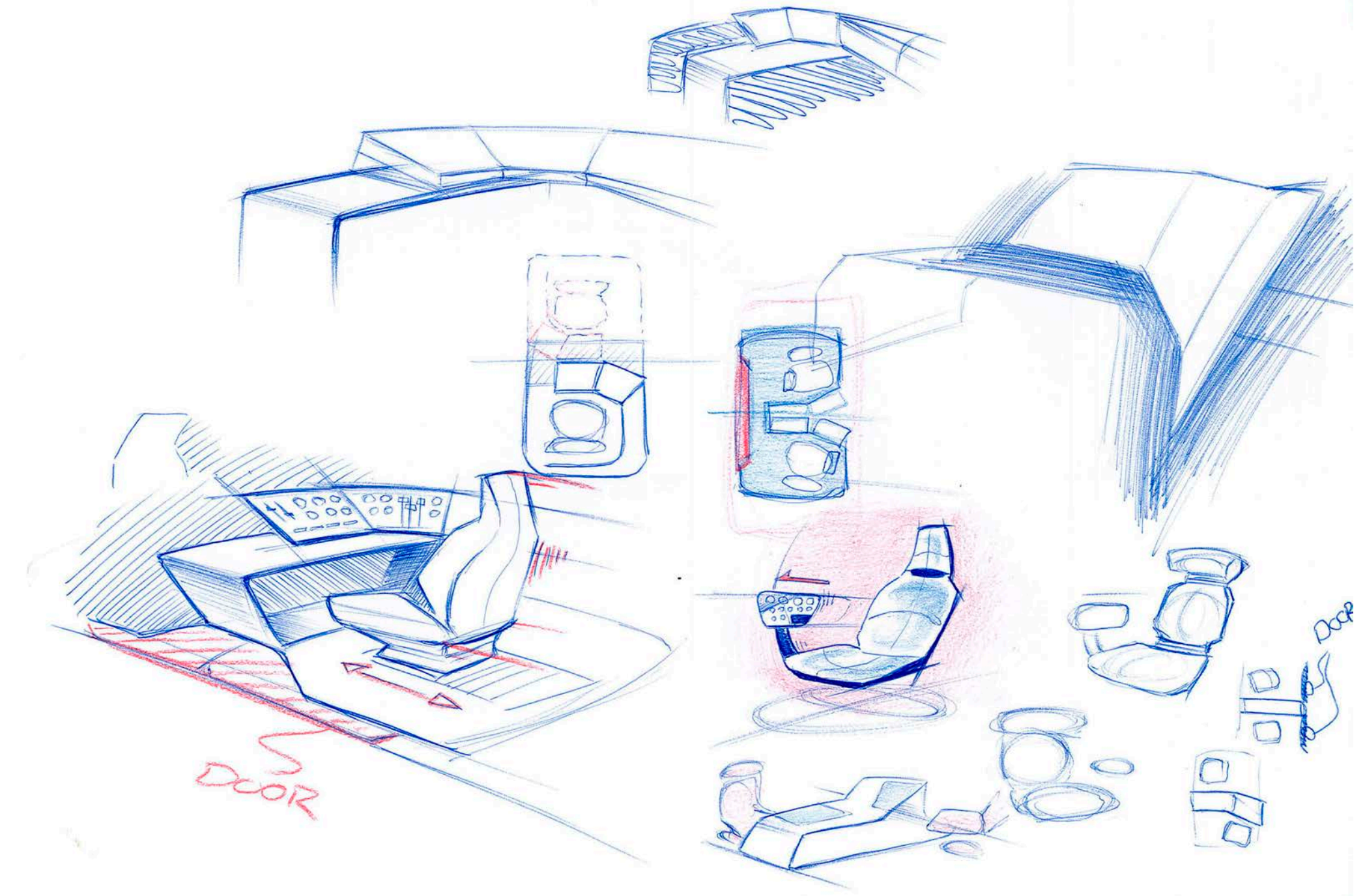
transport or called by request, so I made several layouts in order to find the most efficient and suitable working environment. My key elements were the seats and the interface for creating sounds and music. How would the user control all the music gear and how much space would it need to be able to reach everything?

I didn't overthink about the size of the vehicle at this point, as it would be autonomous and thus wouldn't need to be maneuverable by the user riding it.

I would continue the interior development in the modeling stage to have a better picture of dimensions and ergonomics.

4.2 Interior sketches

The ideas then proceeded into what became a music workspace intended for two people. I tried out ideas for different controllers to minimize the movement of the seats. I thought that the interface would surround the user so they wouldn't need to reach out too far when working on a desired element.

One of the ideas was a layout reminiscent of a drumkit: multiple screens scattered around the user would provide easy access to different "modules", such as drum tracks, effects, sequencers etc. The idea had to be scrapped for complications with space and accessibility.

At this point I felt that the best solution would be a small controller pad under the user's palm that allows the user to control the interface. A table with screen display would serve also as a space divider.

I wanted to make use of active noise cancelling on the seats. Both users would be able to work on their own or share their work without the use of headphones.
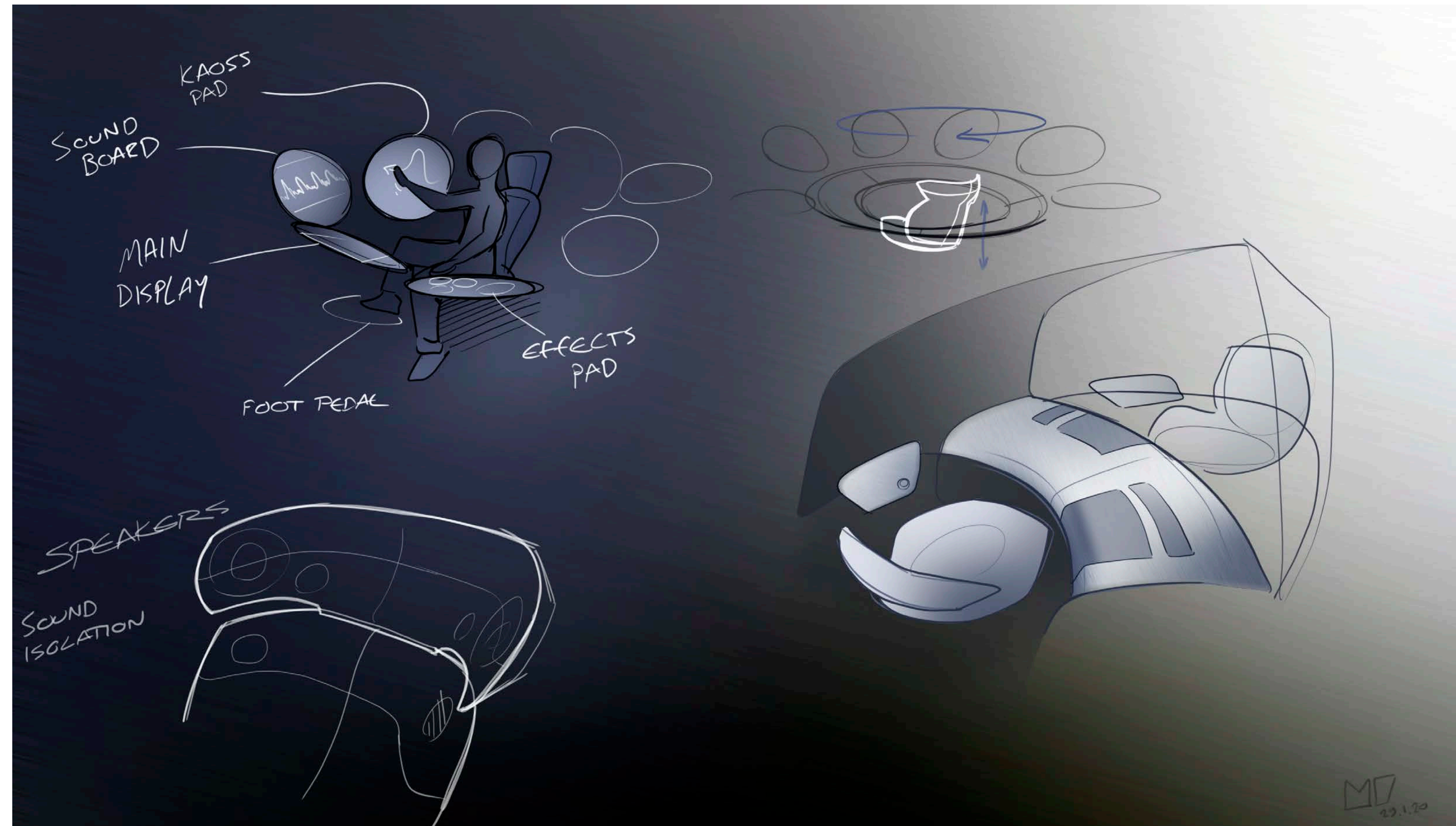
4.3 Exterior sketches

Although the interior and its interface were initially the key elements of the vehicle, I was so curious about the possible look of the vehicle on the outside, that it was only natural to sketch some exterior shapes as well. Also much of a vehicle's brand comes from the outside appearance so I decided to highlight the exterior styling as a part of the brand image.

My initial sketches were inspired by the space-age technology and image of synthesizers. The theme was rounded from the edges and more reminiscent of trends in the late 1980s, and more organic than you would expect from such a technology-based company. I decided to scrap the theme and continue to a different approach.
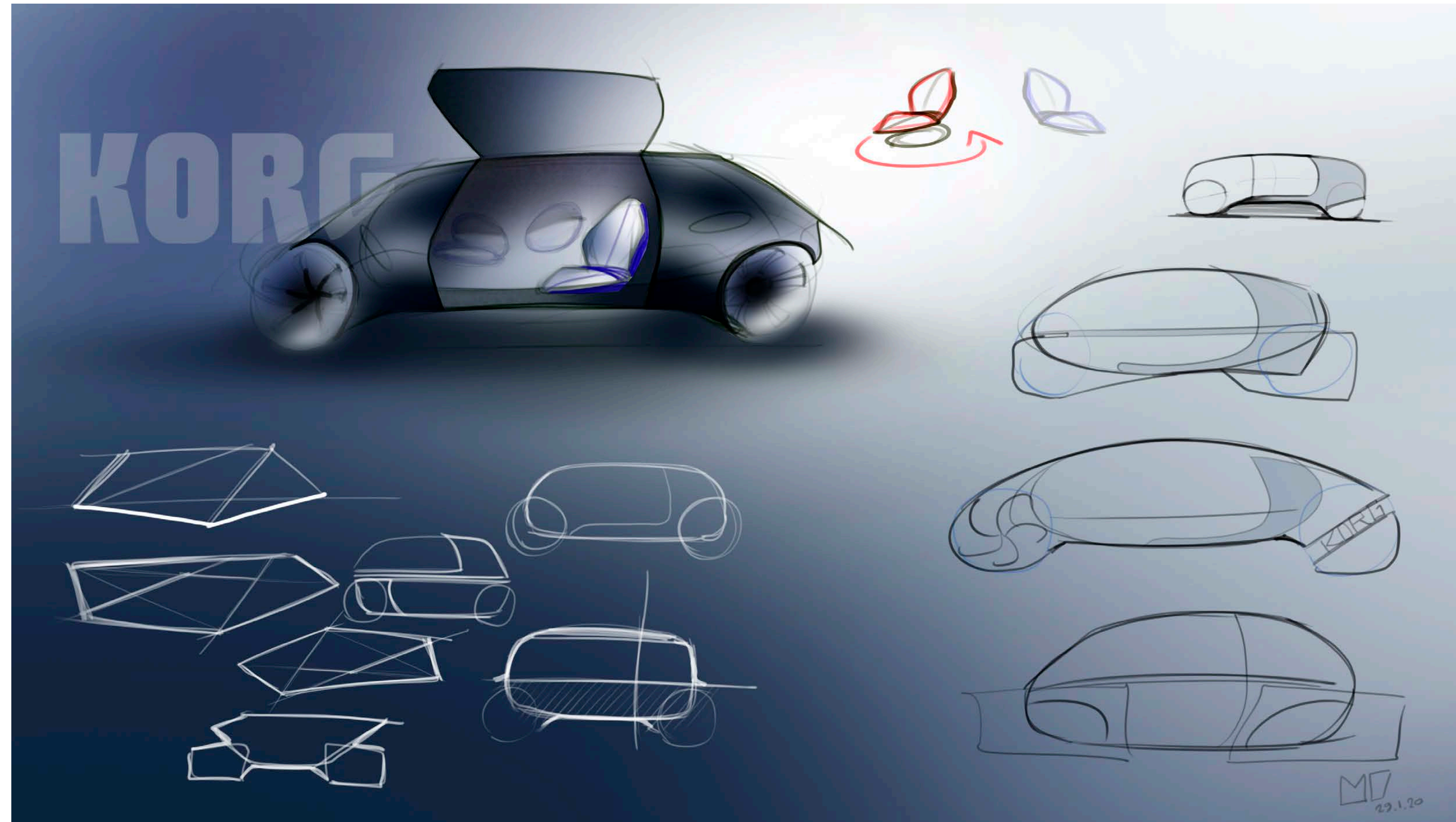
4.3 Exterior sketches
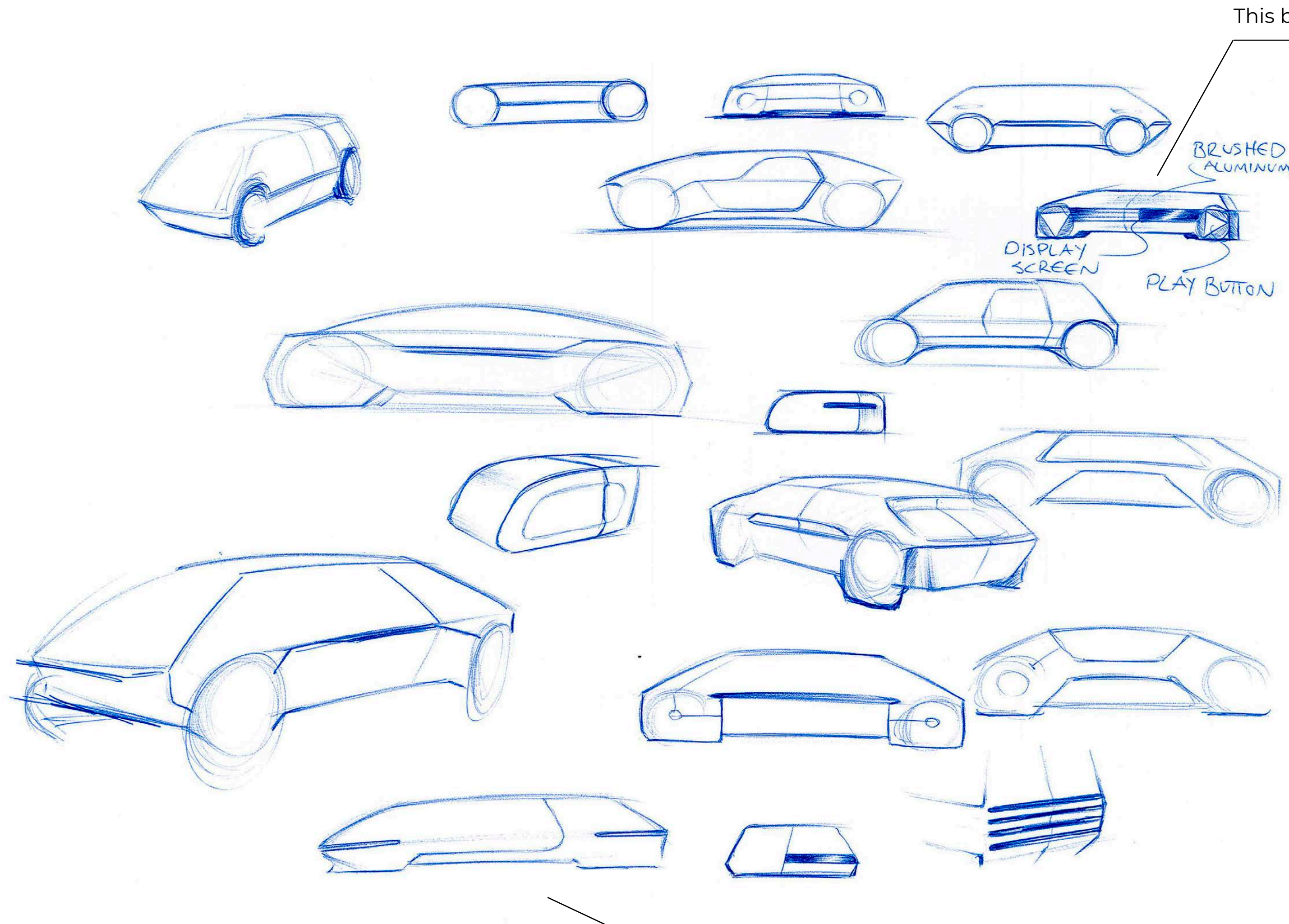
This became the key sketch that I continued developing

BRUSHED ALUMINUM

DISPLAY SCREEN

PLAY BUTTON

Back at the drawing board, on the phase two of sketching I tried a more angular theme. With some styling cues from product design, The concept started to look like something else than a conventional car. This became a major driver in forming the exterior design for the concept.

As much as I liked to draw dynamic, streamline sketches, it just wasn't the right thing for this concept.

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4.3 Exterior sketches

Instead of a "play" -button, the wheel design is derived from audio reels.

Key sketches came to be the ones with a bold, minimalistic shape and a three-spoke wheel design inspired by reel-to-reel tape recorders. I became affected with the element that I would include it as a homage to Korg's prominence in the analog-era.

BRUTALISM

I liked this design. Sharp edges standing on huge wheels create a nice stance.
However I felt it was a bit van-ish.

A symmetrical, more static approach, which I kept in mind.

4.3 Exterior sketches

As the next step I brought the ideas into Photoshop to assess the forms and material surfaces.

I came up with two color themes: a silver color reminiscent of Triton-series of Korg synths, and a black version inspired by the legendary M1 workstation among others. The black metal finish has become a staple for Korg and is used on current models like the Minilogue and Wavestate as well.

I also added a display screen to show certain information and messages, such as greeting the user upon approaching or telling that the car is being used.

I felt that integrating the display screen into the side of the vehicle would continue the theme of paying homage to synthesizer keyboards that may become extinct or obsolete in the future.

5. Modeling

5.1 Exterior

I started modeling simple shapes and surfaces in Blender based on the Photoshop sketches I made.

During the early stages I started realizing that the distinguishable front and rear-end would look too much like wedge-shaped sports cars from the era of Gandini at Bertone. I tried to come up with a decent idea for the front-end while working around in Blender, but none were working the way I wanted.

The dynamic shape had to give way for a symmetrical and more architectural shape, which I saw fitting much better with the brief than the design portrayed in the Photoshop render.
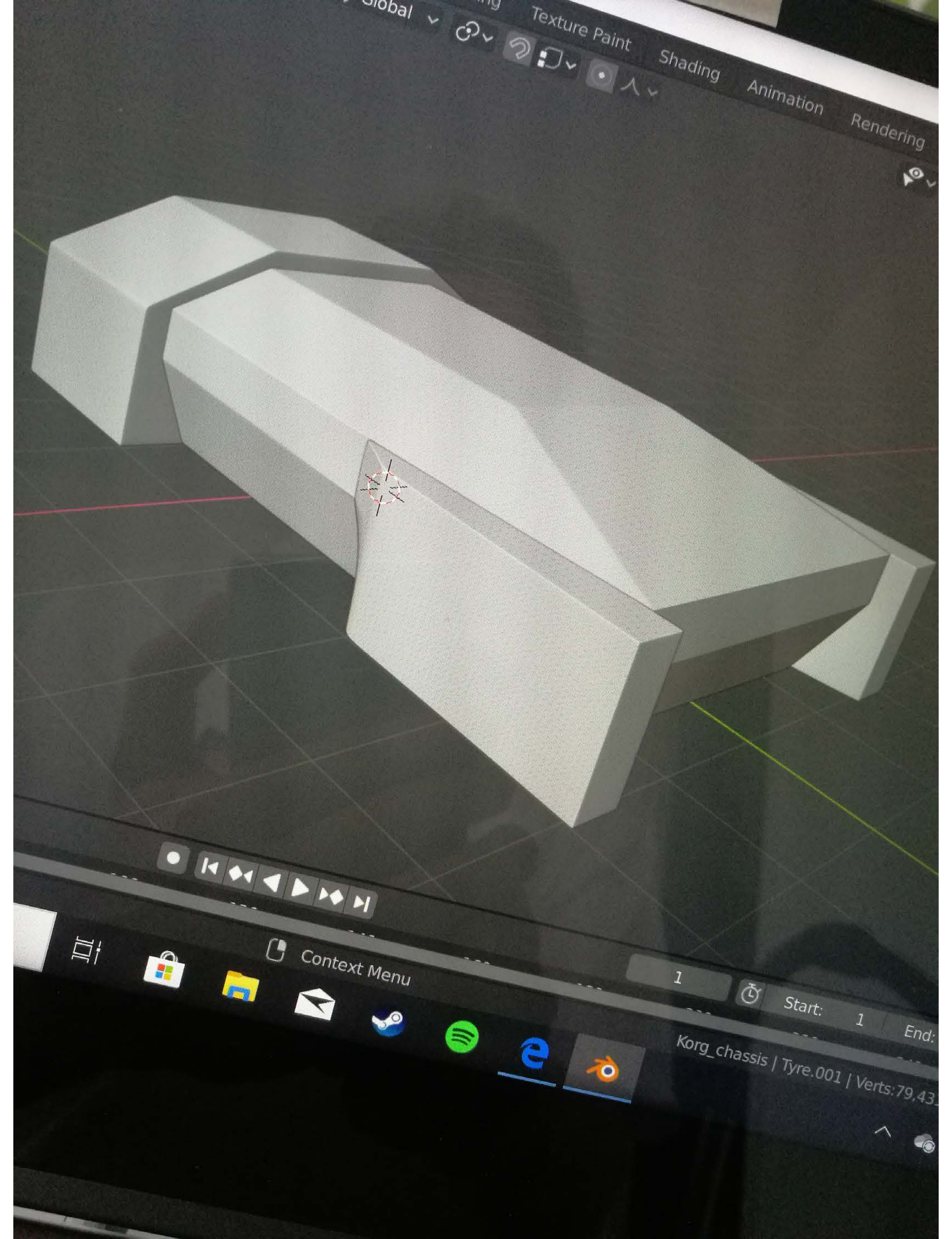
5.1 Exterior

Next up I started refining the exterior shape and applying some materials to see the graphics. I created and tested several wheel designs that would continue the industrial theme of the body shell. I chose the ones with three holes
that were seen in some of my key sketches.

I added a display screen to one end of the vehicle. I thought it reminded me graphically of the air vents seen in classic sports cars.
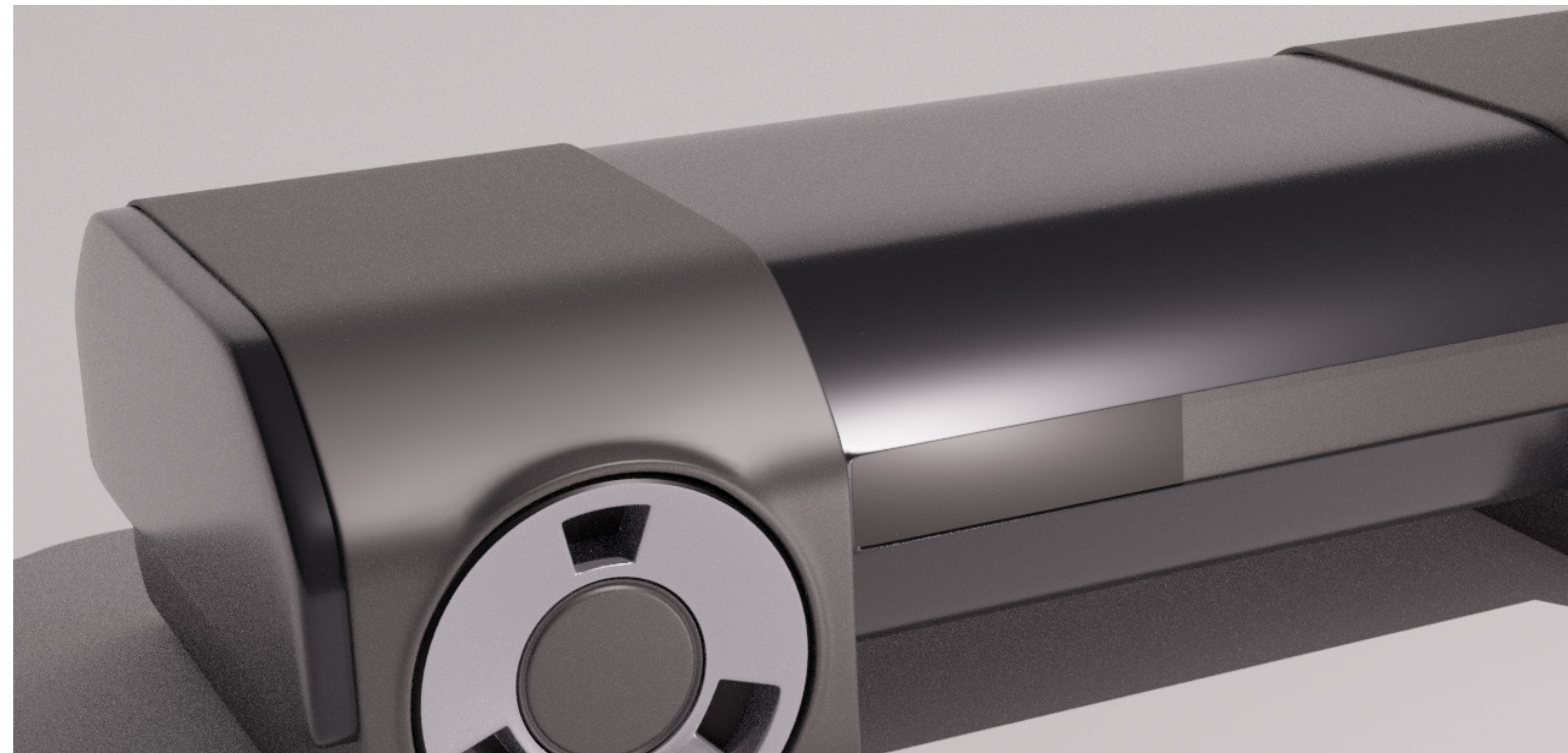
5.1 Exterior

I created a moodboard of the models and sketches I had made at the time to help me get ideas for the design, as I felt that having them in sight would prompt me with new ideas on different parts of the car.

5.1 Exterior

By now I had come up with a quite final design for the exterior, and I would continue to focus on the dimensions to make it less enormous that it had become.

I wanted to maintain the low profile with distinctively-sized wheels, so I decided to drop the unnecessary ground clearance in the middle and make the vehicle a little bit narrower.

The packaging started to be more reasonable without compromizing the styling theme, as I managed to chop off almost a metre of the overall length.

35
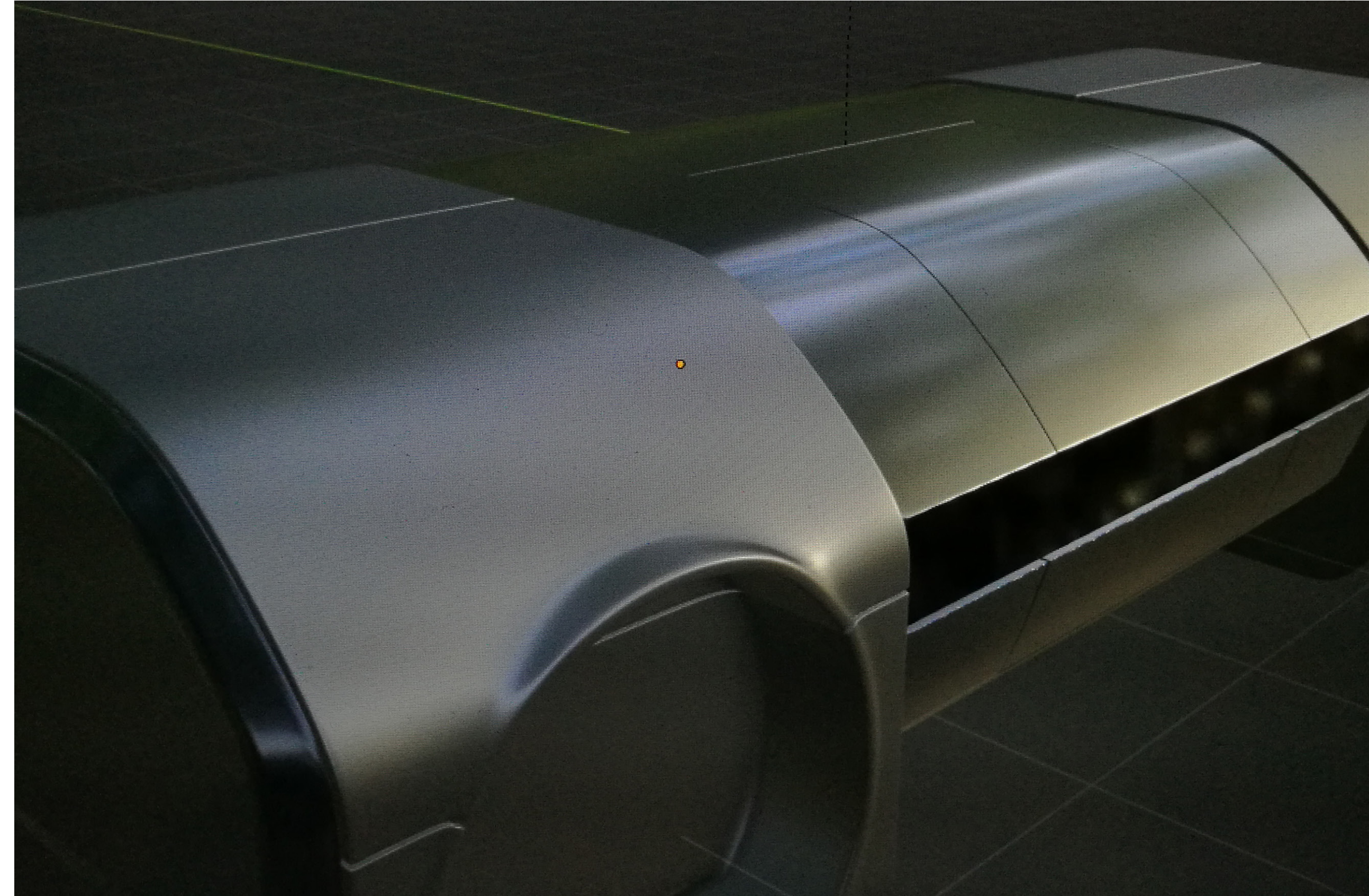
5.2 Interior

Seats

I went through couple of makeovers on the seat design. First I thought it would expand and retract between "listen-mode" and "work-mode". Then it came across that in most cases the user would probably listen to the sounds simultaneously while working, so I let the idea go.

I also wanted to go away from the traditional appearance of car seats that usually have lumbar support and sculpted backrests to prevent slipping in high-speed turns.

As the vehicle would be ideal for urban use, I considered a design inspired by armchairs and office chairs suitable.
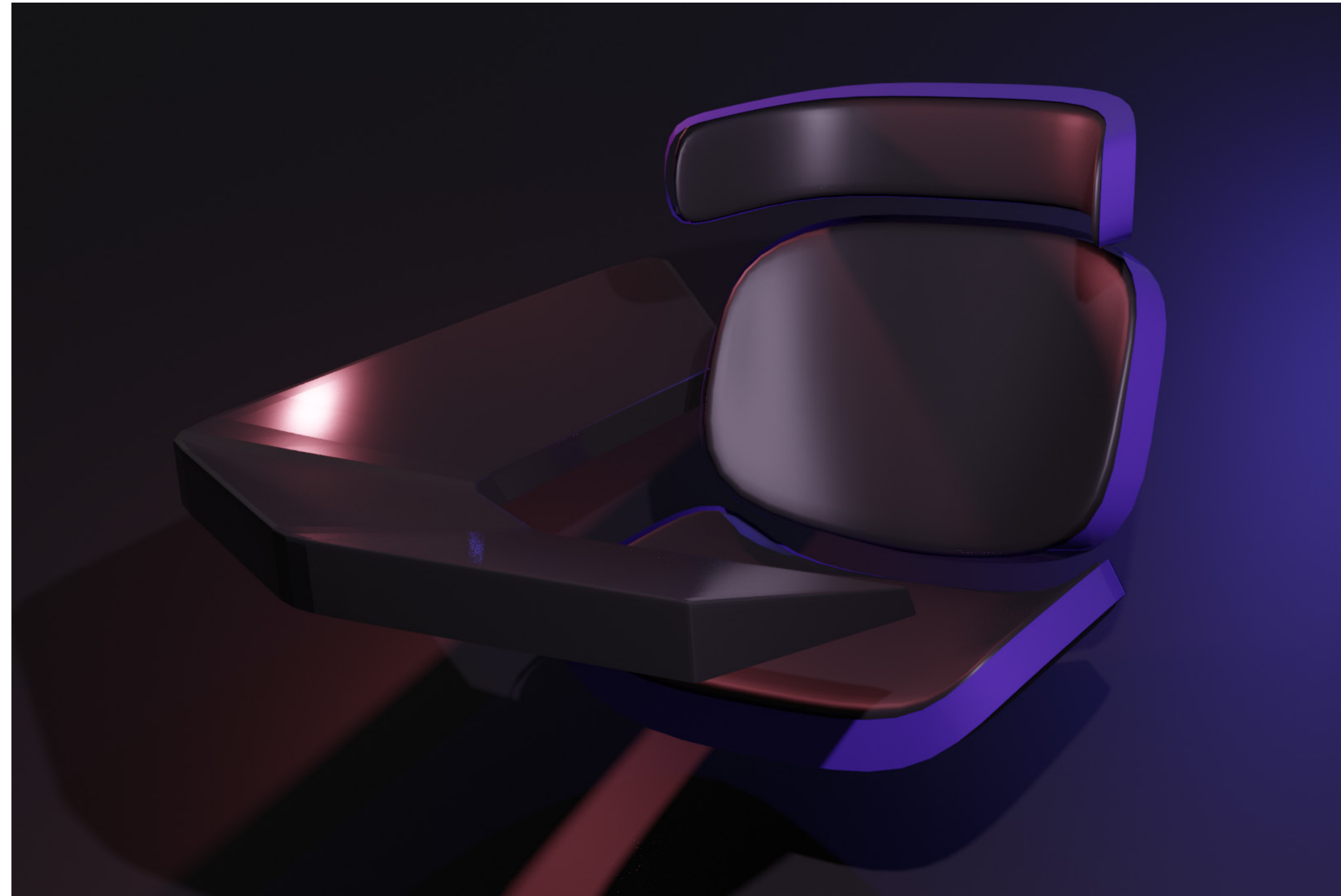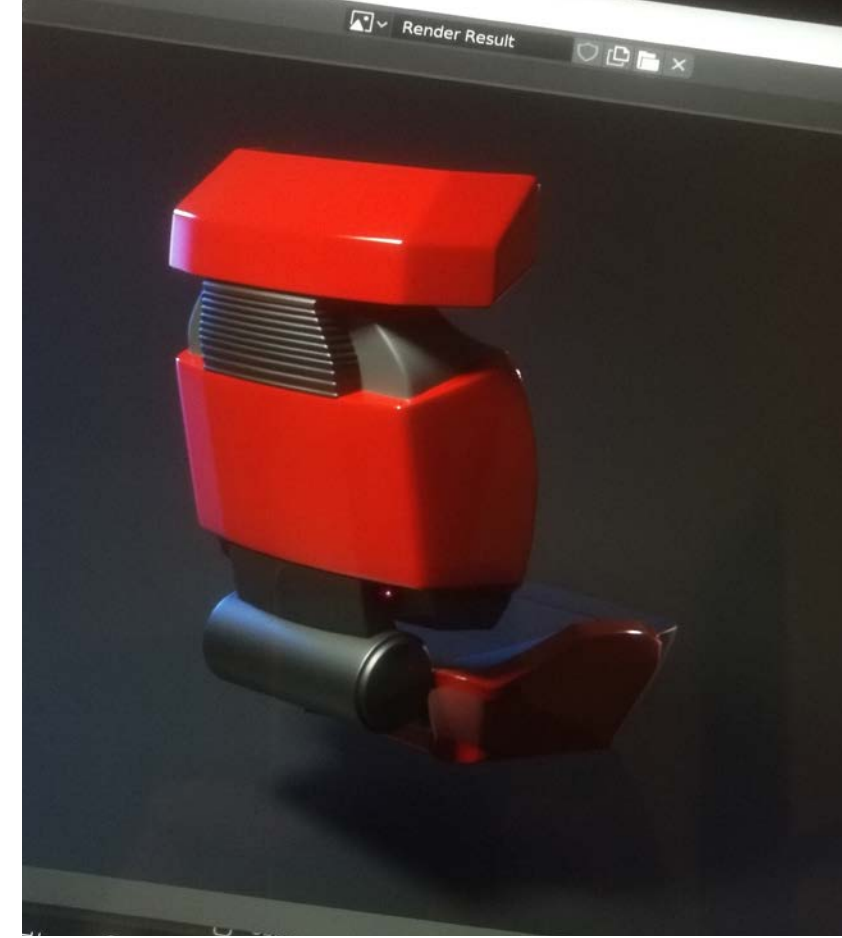
5.2 Interior

Work interface

Design 1

This design was very similar to my earlier sketches and quite traditional in its layout. I thought the keyboard-looking interface was cool, but it lacked innovation that you'd expect for a futuristic concept. Plus it would require more space when the user would have to reach out to the screen.
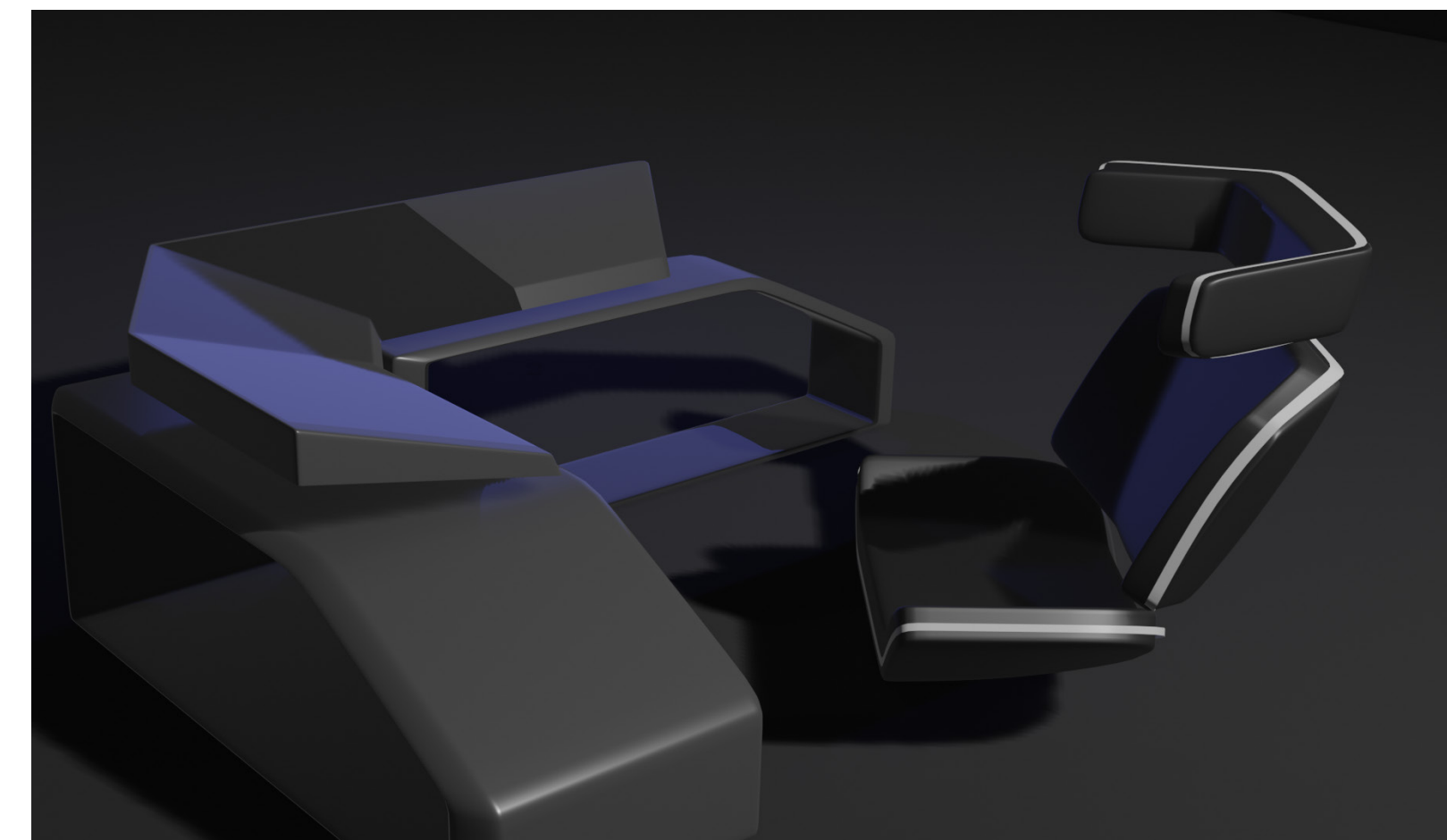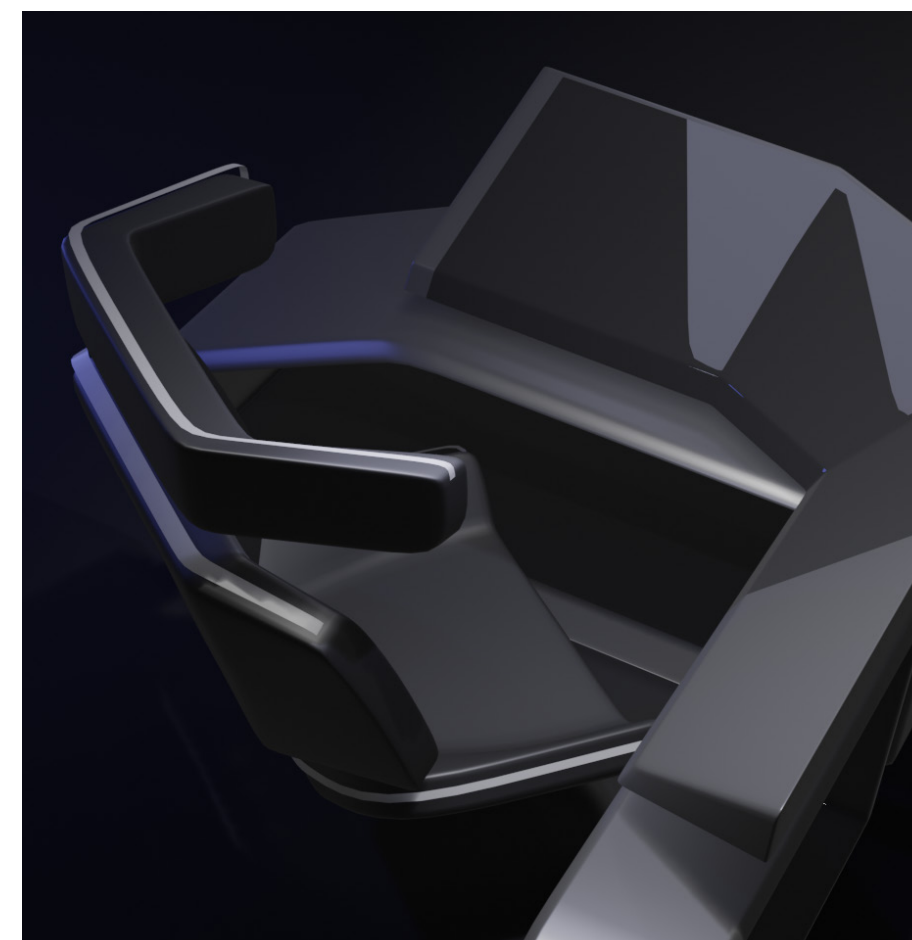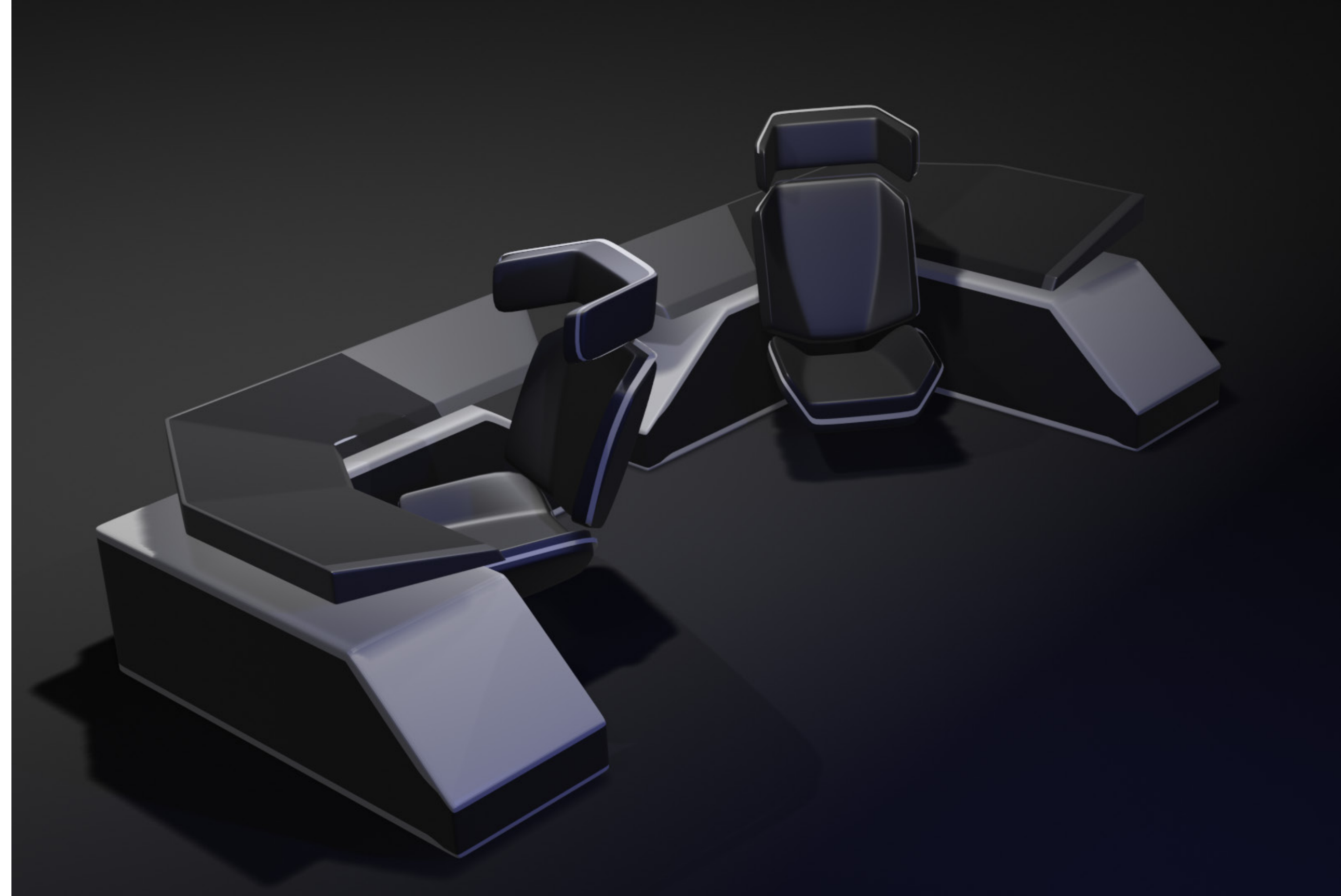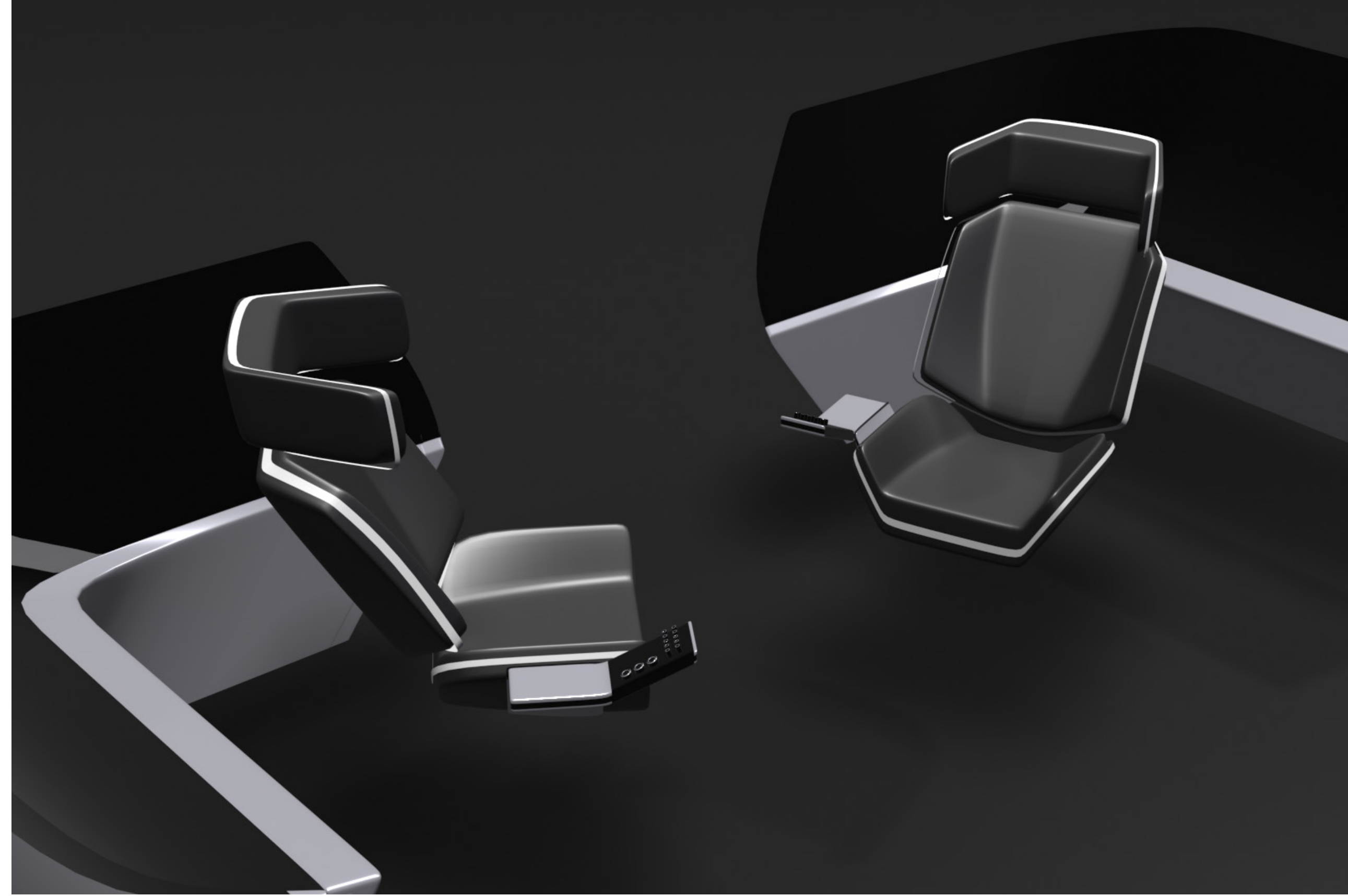
5.2 Interior

Work interface

Design 2

The second design shows more efficient use of the interior space, as the interface would be integrated with the walls and allow the user to look forward, controlling the interface via a touch control attached to the seat.

There was still much unnecessary space within the interior, and I would continue to refine the packaging while integrating the interior with the exterior.

5.3 Combining

5.3 Combining

After getting the exterior in the shape I wanted, I started to make another interior model, this time in proportion with the exterior shell. I decided to remodel the interior layout also because I wasn't happy with the designs I had already made and wanted to develop them to better match the exterior styling.

This came into fruition as I got better ideas for the interface as well. Keeping the layout simple and minimalistic it would have better adjustability, too, with graphics being simply an overlay on the interior space.

Instead of having pre-determined screens for the interface, I decided to use AR elements in displaying different graphic controls and information that would be movable within the interior depending on the users' preference.

I would continue to develop the interface after modeling the interior "shell".
I will explain more about the final interface in chapter 6.6.
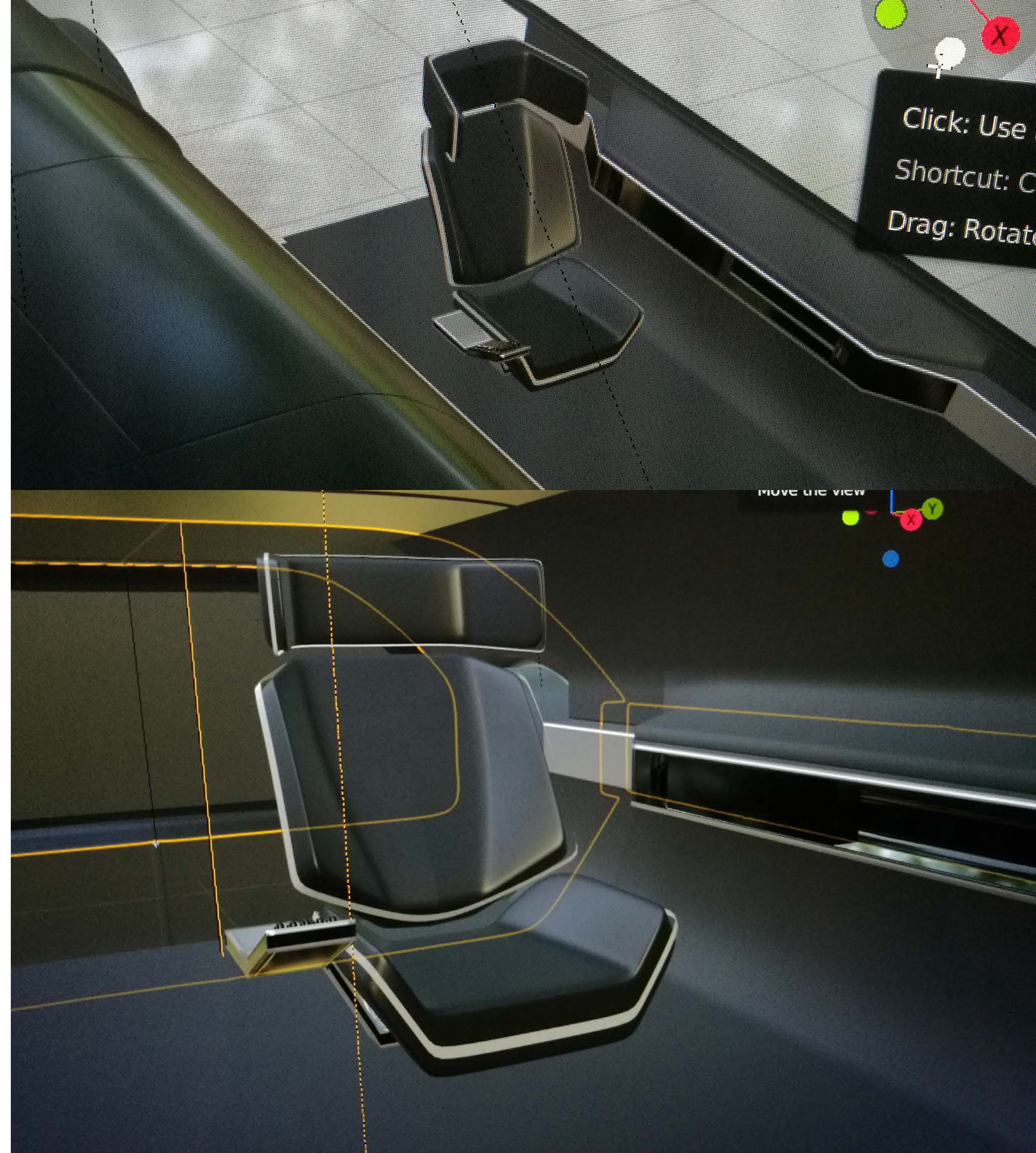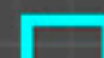
6. The Concept

6.1 Overview

The final concept is Korg MEW/40, a level 5 autonomous Mobile Electronic Workstation for 2040. It is a shared workspace that grants its users access to extensive sound creation and music composing on the go.
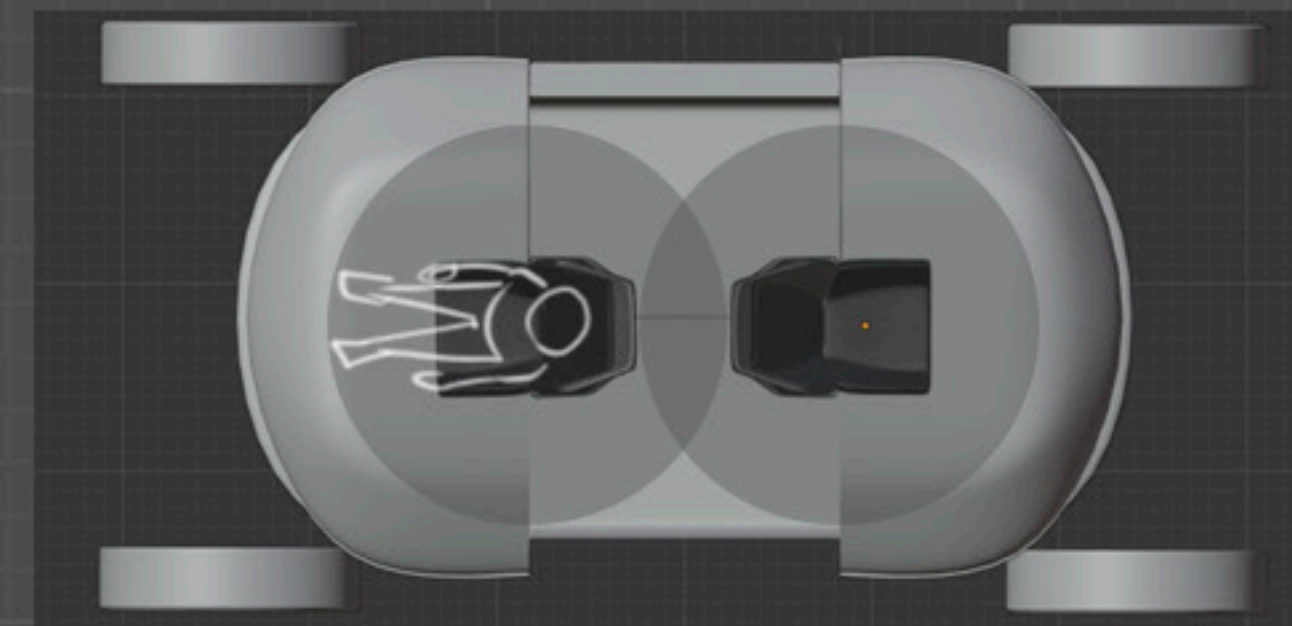
The MEW/40 takes its styling cues from both Korg products and audiophile instruments and equipment, creating an original look as a vehicle. By making it look like a synthesizer I wanted to pay homage to Korg's impressive history in music production tools. Secondly, I wanted it to give a feel of getting inside a synthesizer instrument.
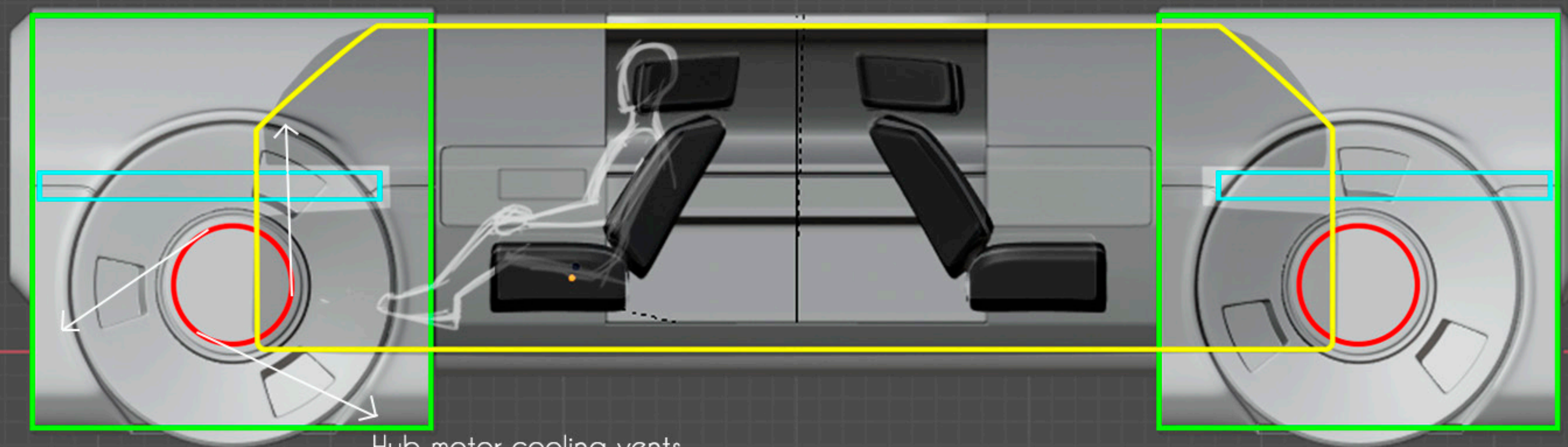
6.2 Package

Analog soundboard
Electronics / Battery packs
Interior space
Electric motors

2 800mm

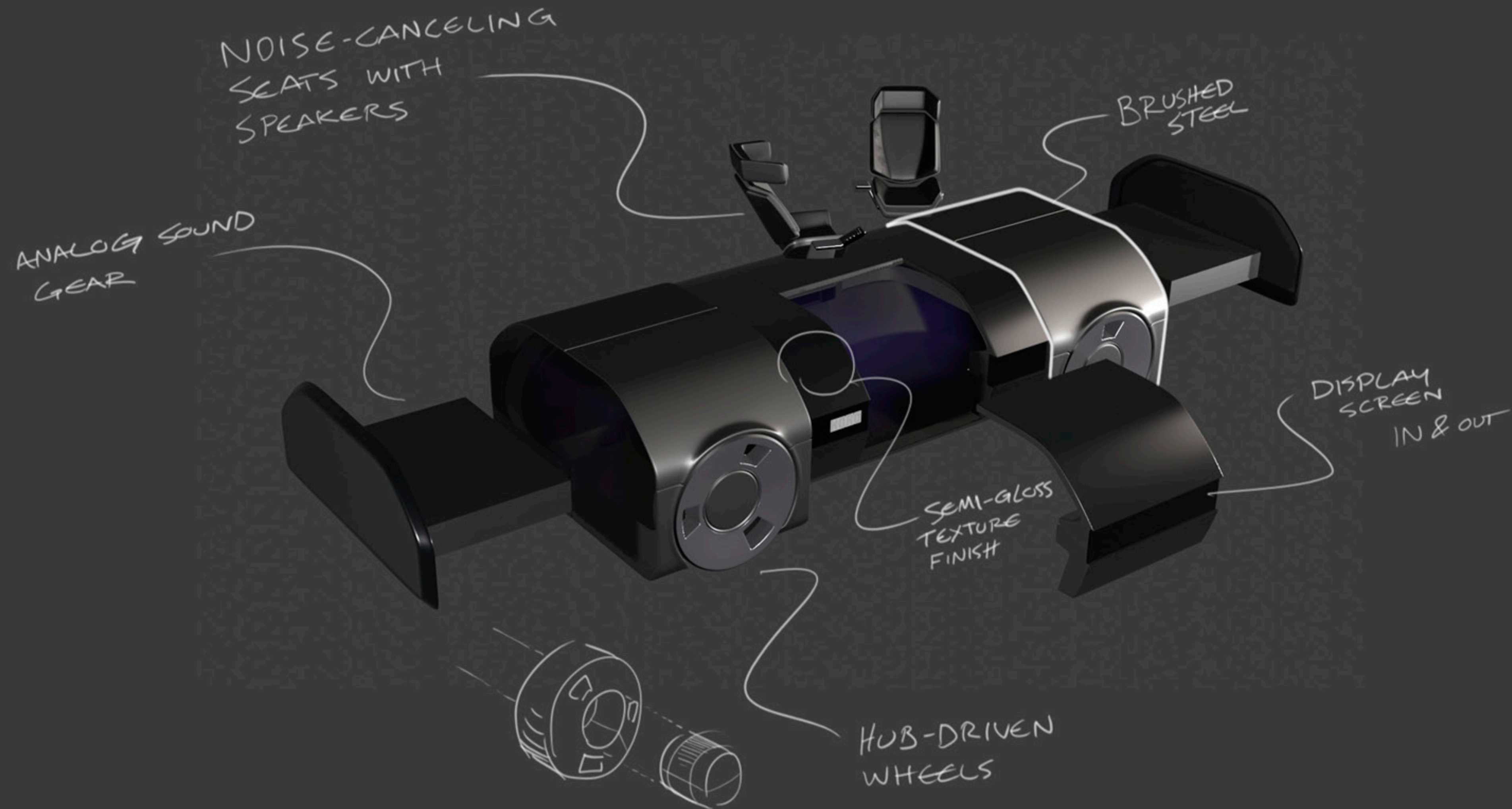1 800mm

Hub motor cooling vents

6 500mm

6.3 Technology

NOISE-CANCELING SEATS WITH SPEAKERS

ANALOG SOUND GEAR

BRUSHED STEEL

DISPLAY SCREEN IN & OUT

SEMI-GLOSS TEXTURE FINISH

HUB-DRIVEN WHEELS

6.3 Technology

The Korg MEW/40 uses variety of analog and digital sound oscillators for both music production and emulating engine noise. For music production there are extensive sound tools such as moodboard-type digital sampling, generative sound algorithms and essential to any synthesizer: a vast selection of filters and effects to enhance the sound library.

This all gathers around an intuitive user interface projected on a huge display system within the interior space. The user can choose between making synthesized sounds from scratch using an analog soundboard and creating moody soundscapes based on surrounding noises or selected keywords with a generative sampler tool.

The analog oscillation is also used to generate noise to simulate the engine and other sounds required in communicating with the user and the environment.

Sound-proofing projects all outside noise away from the car. The user can however adjust the noise-cancelling level and let the outside environment in if wanted.
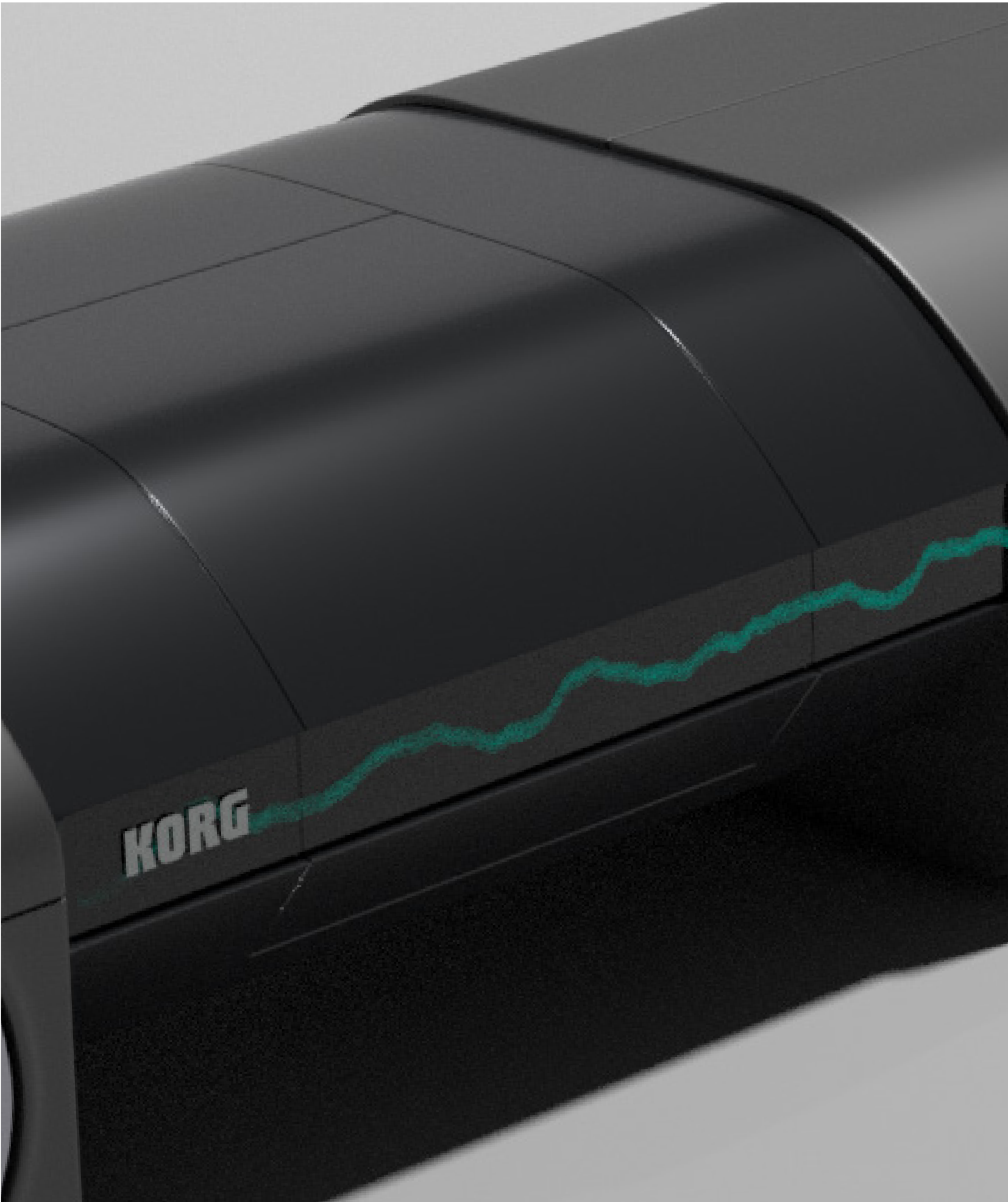
6.4 Exterior details

Automatic gullwing doors will greet the user upon approaching and exiting the vehicle. The seats will move to ease getting in and out.

A display screen shows information as the vehicle is being used.

The graphic equalizer-type lights can change depending on the direction the vehicle is about to move.

6.5 Materials

The MEW/40 outer shells are made of recycled aluminium found on old Korg products, applied with a clearcoat treatment to protect from weather and grit.
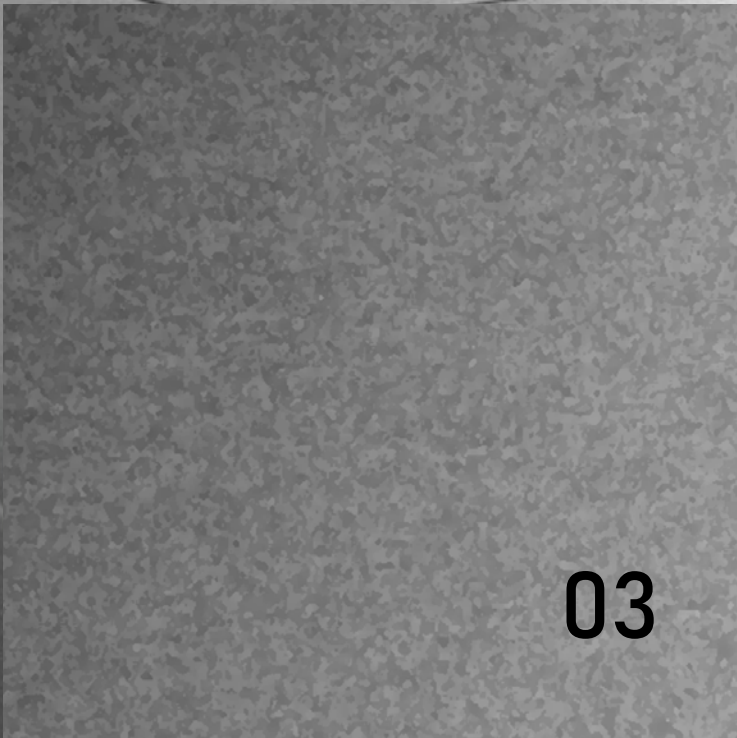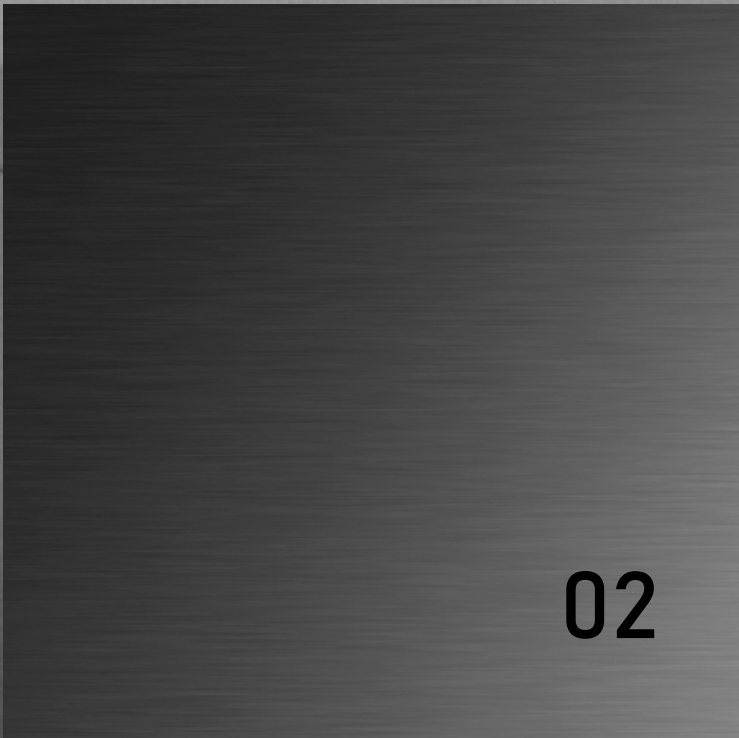
01 Trinity Silver

Unpainted brushed aluminium with clearcoat.

03 Stainless steel

Textured stainless steel with clearcoat

02 Wavestate Black

Brushed aluminium with black paint finish and clearcoat

01

02

03

6.6 User interface

Sound is altered by dragging different parts of a graphic soundwave.

The user can switch between multiple sounds to edit by swiping them.

Multiple channels and programs can be toggled to be displayed, such as sound editor, music sequencer or different keyboards.

A drum module with a graphic sound control (sphere) that is tuned by twisting and turning.
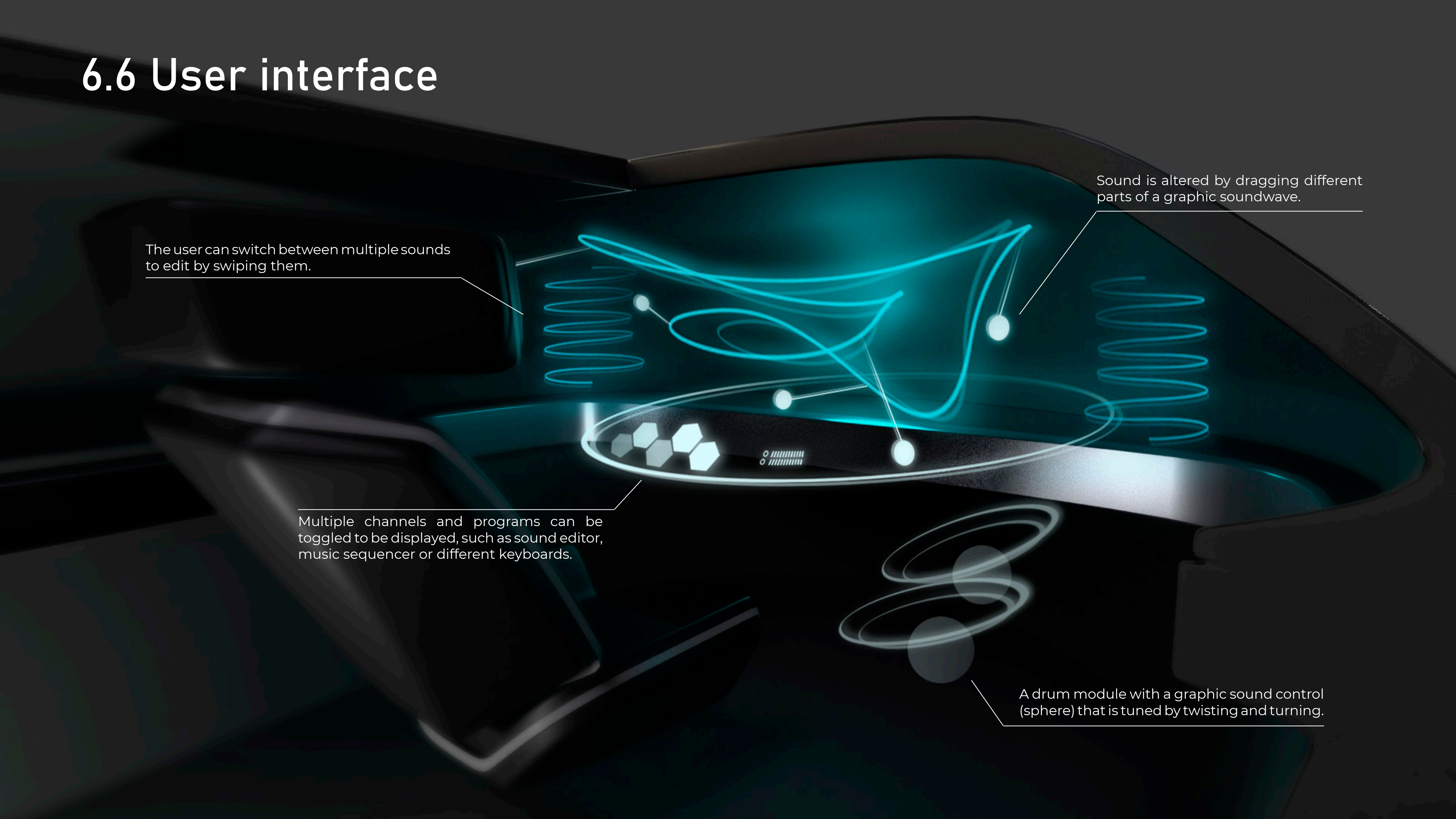
6.6 User interface

The interior consists of a studio space for up to two users, who can create music and share it with the world. The interior has two workstations with freely movable noise-cancelling seats that will playback the sound for the user without the need of headphones. While working in "duo-mode" both users can work on their own projects or share the workspace and work together.

The user interface is a hologram-type haptic display that recognizes touch, such as dragging and twisting, in order to activate various commands like changing volume or tone of a sound. The user can edit a sound by simply touching the soundwave itself.

As I found out in the interview; haptic, physical controls are what many players prefer when working on music, so I thought of keeping the physical control, but to provide a new expressive way to create music.

Solo:
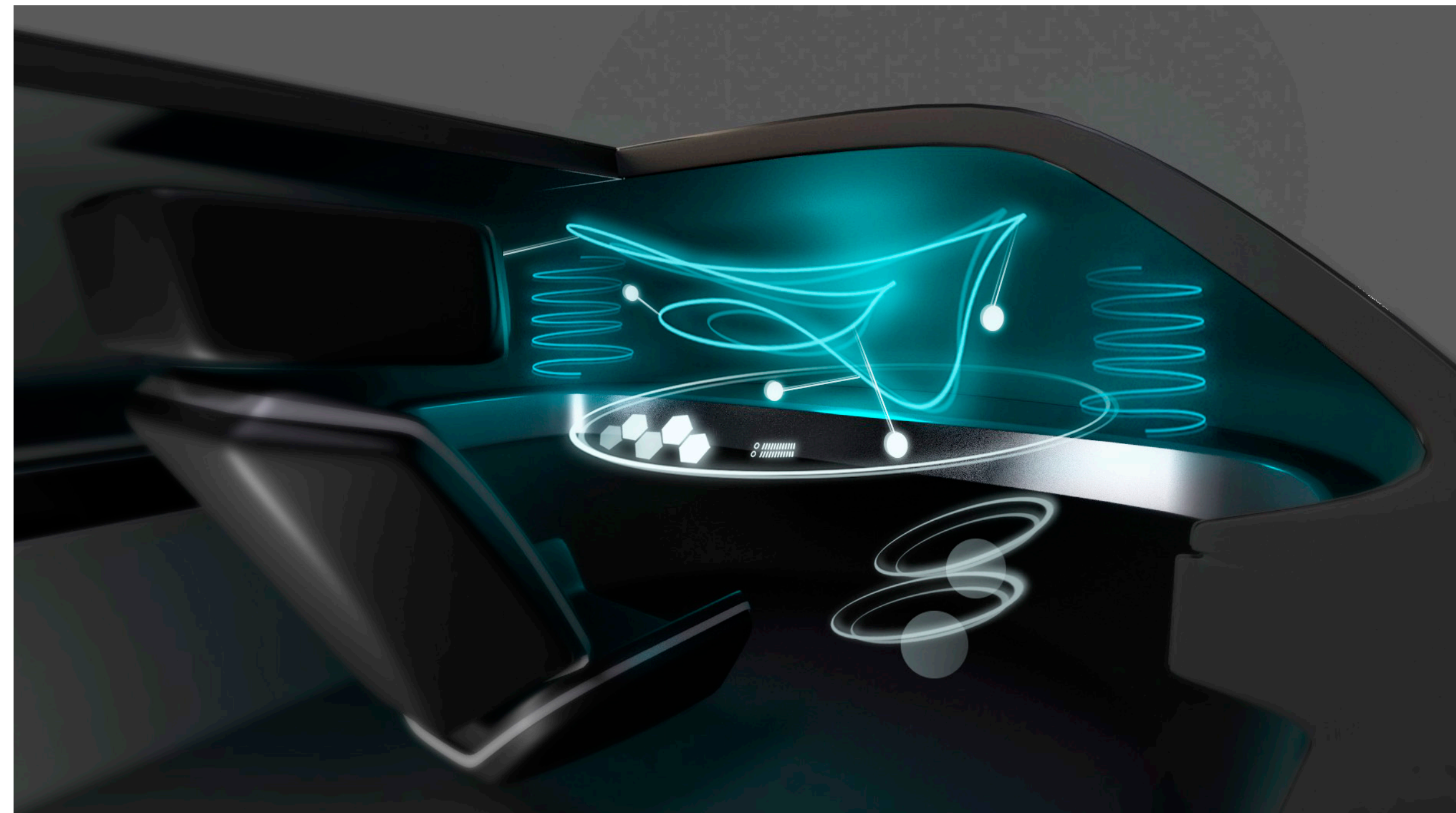
Duo:
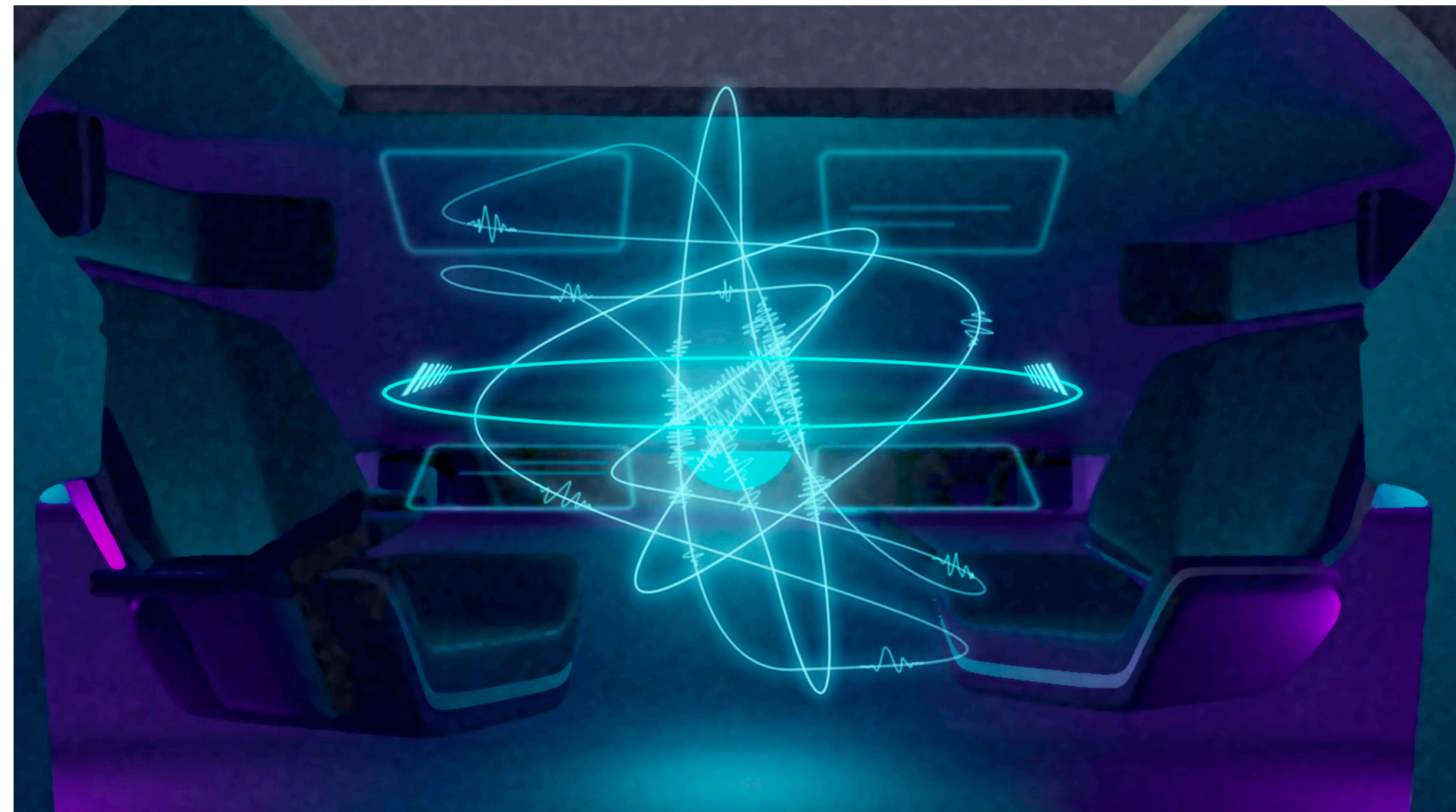
6.7 Generative moodboards

Another feature inside the MEW/40 studio space is the ability to create sound moodboards.

These moodboards will help the user to create desired soundscapes or moods to their sounds and compositions via generative algorithms.

Active programs such as graphic moodboard and noise-cancellation is shown here

Vivid

8:08
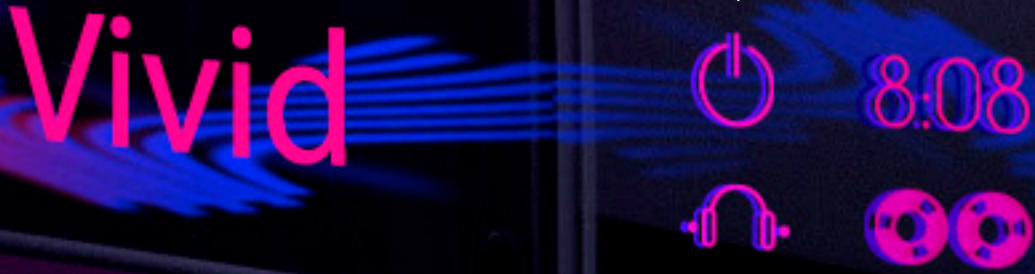
An audio reel icon showing that streaming is activated

6.7 Generative moodboards

These algorithms work via elements given by the user.
The moodboard can be shaped in a variety of ways: from
a simple melody the user might be humming or by
selecting descriptive keywords.

The algorithm will then generate a selection of sounds
and rhythm patterns based on the information, which
the user can then continue editing to their favor by
touching the graphic sound "mesh" projected on the
walls.
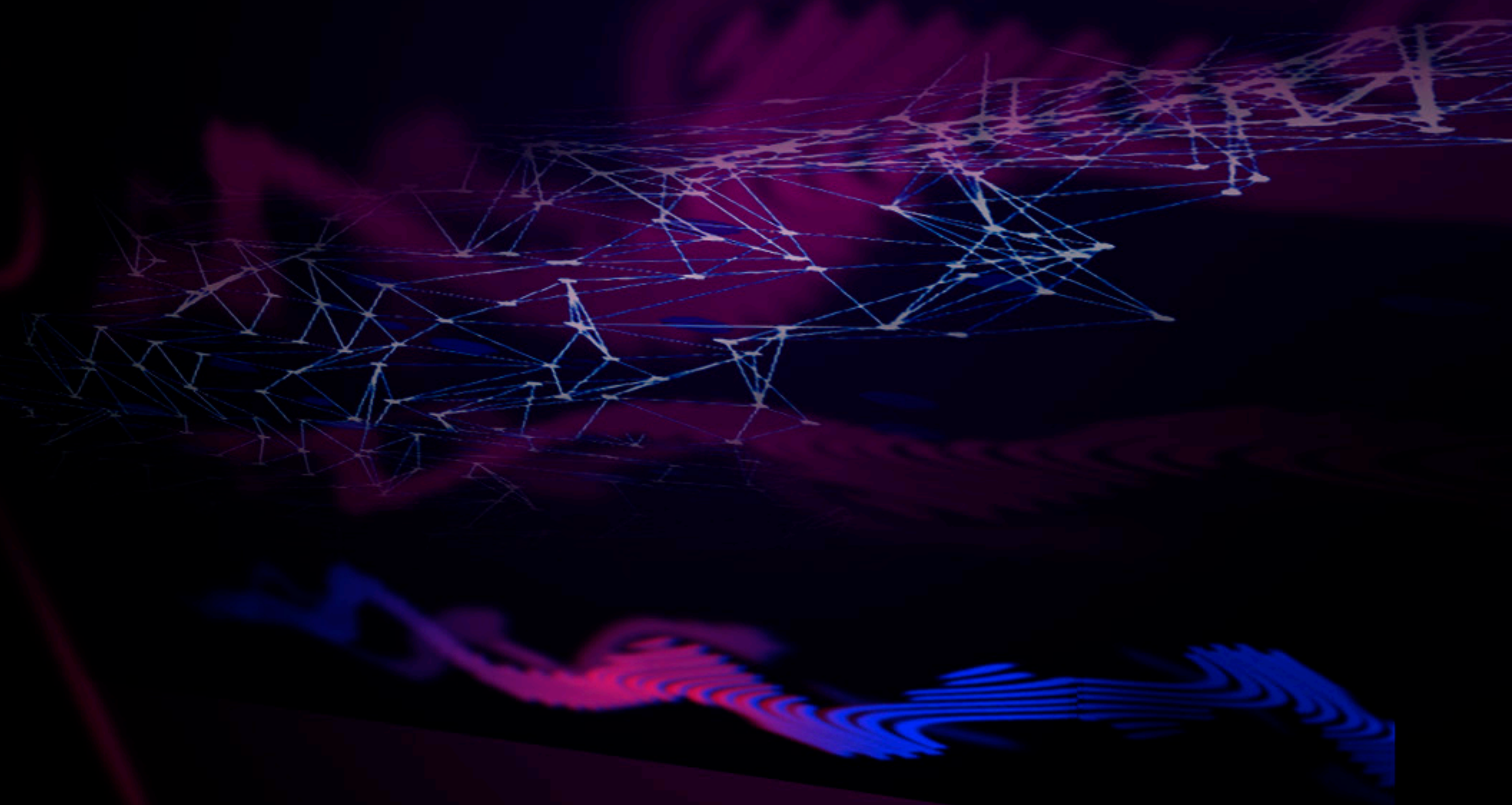
6.7 Generative moodboards

The graphic imagery displayed on the wall will change depending on the elements the user has given.

Here is an example of an aquatic mood generated for tracks with a mystic underwater feel:

Aquatic

3:03

6.8 Service

The Korg MEW/40 can be used like an ordinary taxi for moving around. It is a shared vehicle that can be ordered for the use of a desired trip or time period.

The user can work in the vehicle within the duration of a trip or keep working while the vehicle is parked, using it as a private studio. Once the vehicle has approached the destination, it will notify the user who can then decide whether to exit the vehicle or continue working.

The studio can also be extended outdoors if the passengers decide to open the door to enjoy a patio-like working environment or share their music to the outside.

After use, the vehicle will store the user's data and prepare itself for the next user, so they can continue working from the point they left the last time.

Jacob

You have reached your destination.

1527 Denison Blvd

Continue   End session   Change destination
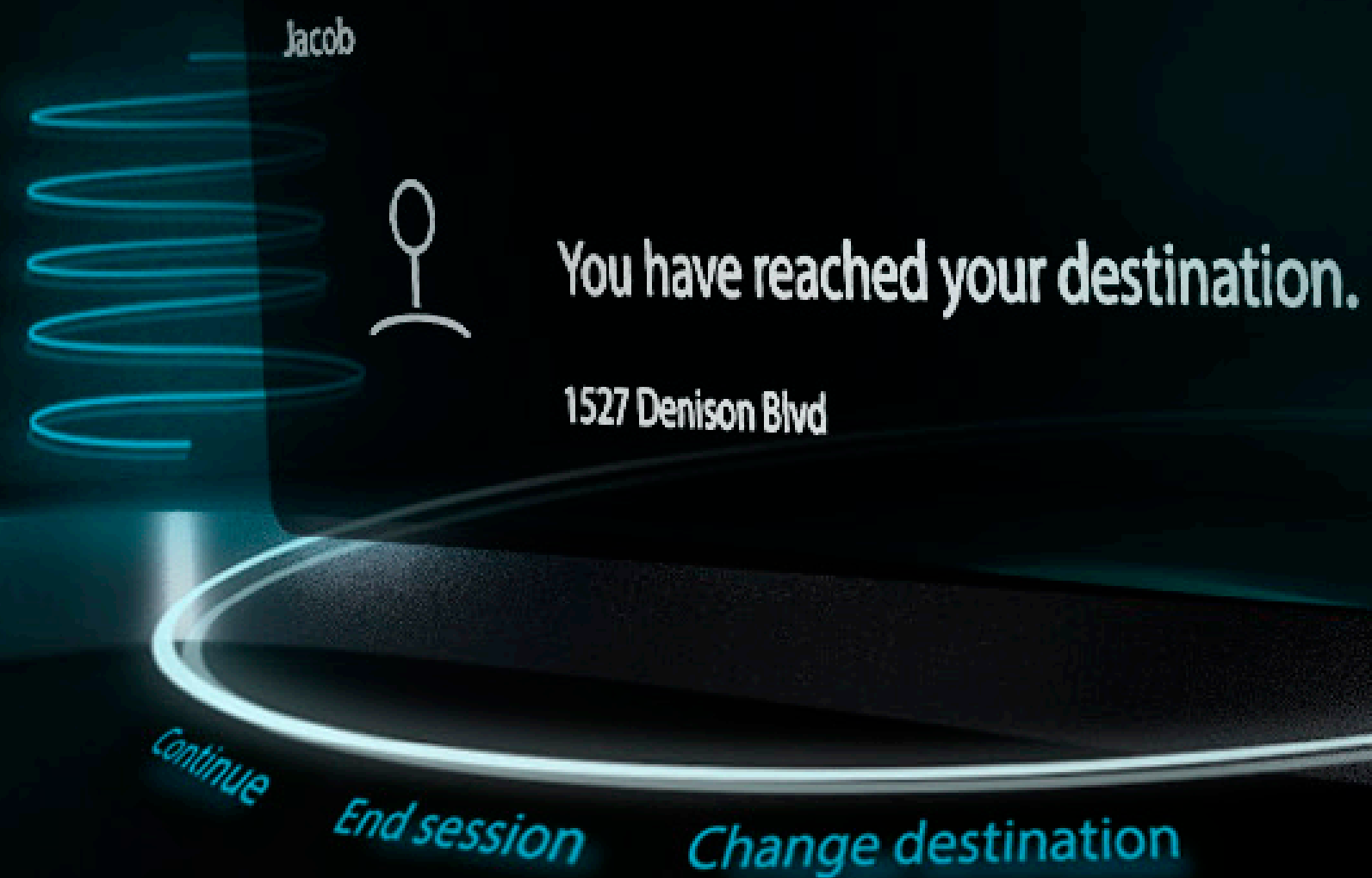
6.8 Service

The MEW/40 is connected with the world via an ultra-fast internet connection. Any user can share their work with the world in an instant, whether it is a complete song or they want to be followed as they create music.

The vehicles are also connected with each other so they can be used simultaneously if two musicians want to work together from a distance.

The user could stream their music to promote their work, for example in commercials on the internet, shopping malls or podcasts.

Any work that is done in one vehicle can be shared forward to another. If a musician wants someone to be featured in their song or mix, they can send their session to another artist who can then work on it on their workstation or once they enter a MEW/40.
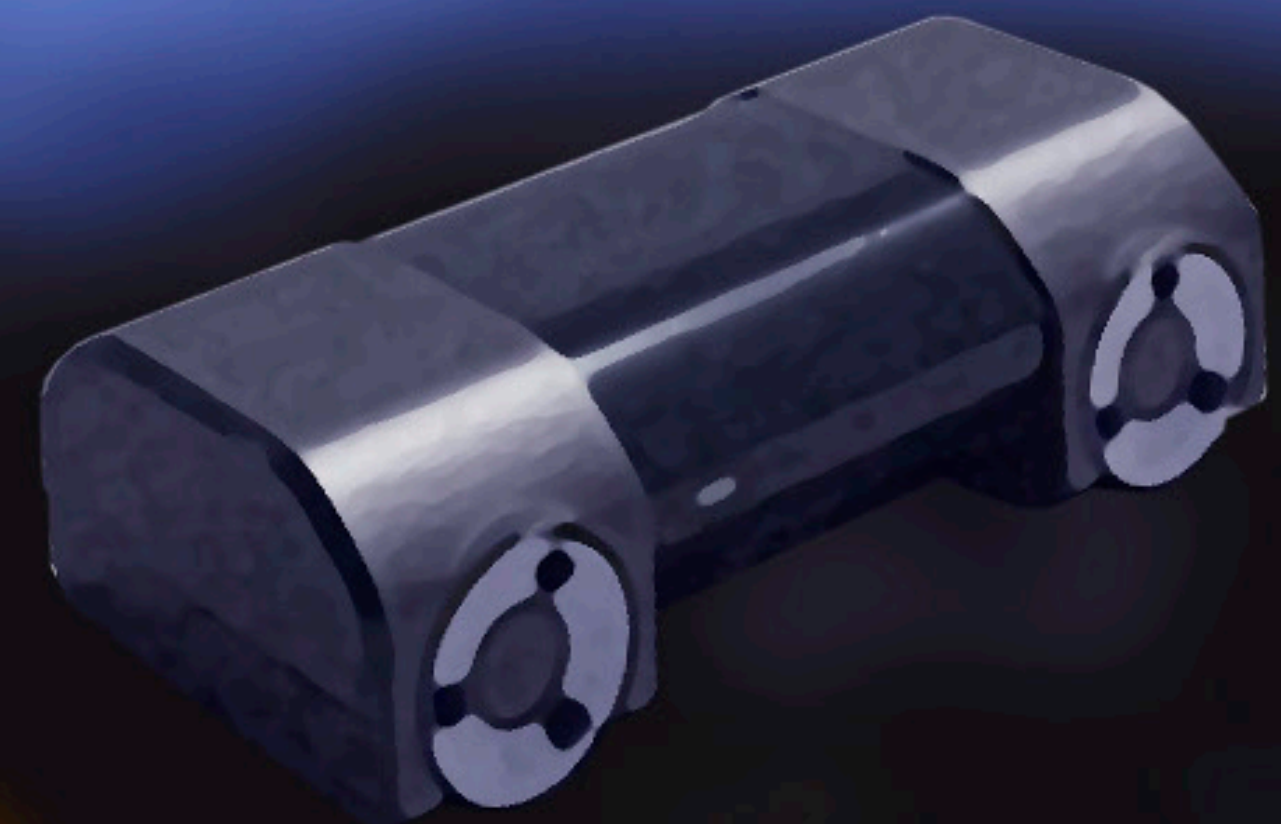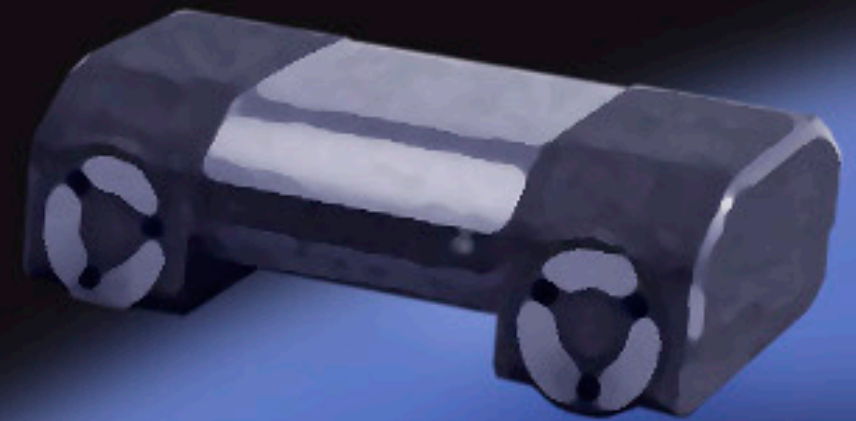
7. Renders

KORG

KORG
MEW /40

LAB University of Applied Sciences

STANCE

Matias Pekkonen   AMU16

Coming up...

An audiovisual video presentation as well as additional renders coming out on April 20th-21st 2020.

8. Evaluation

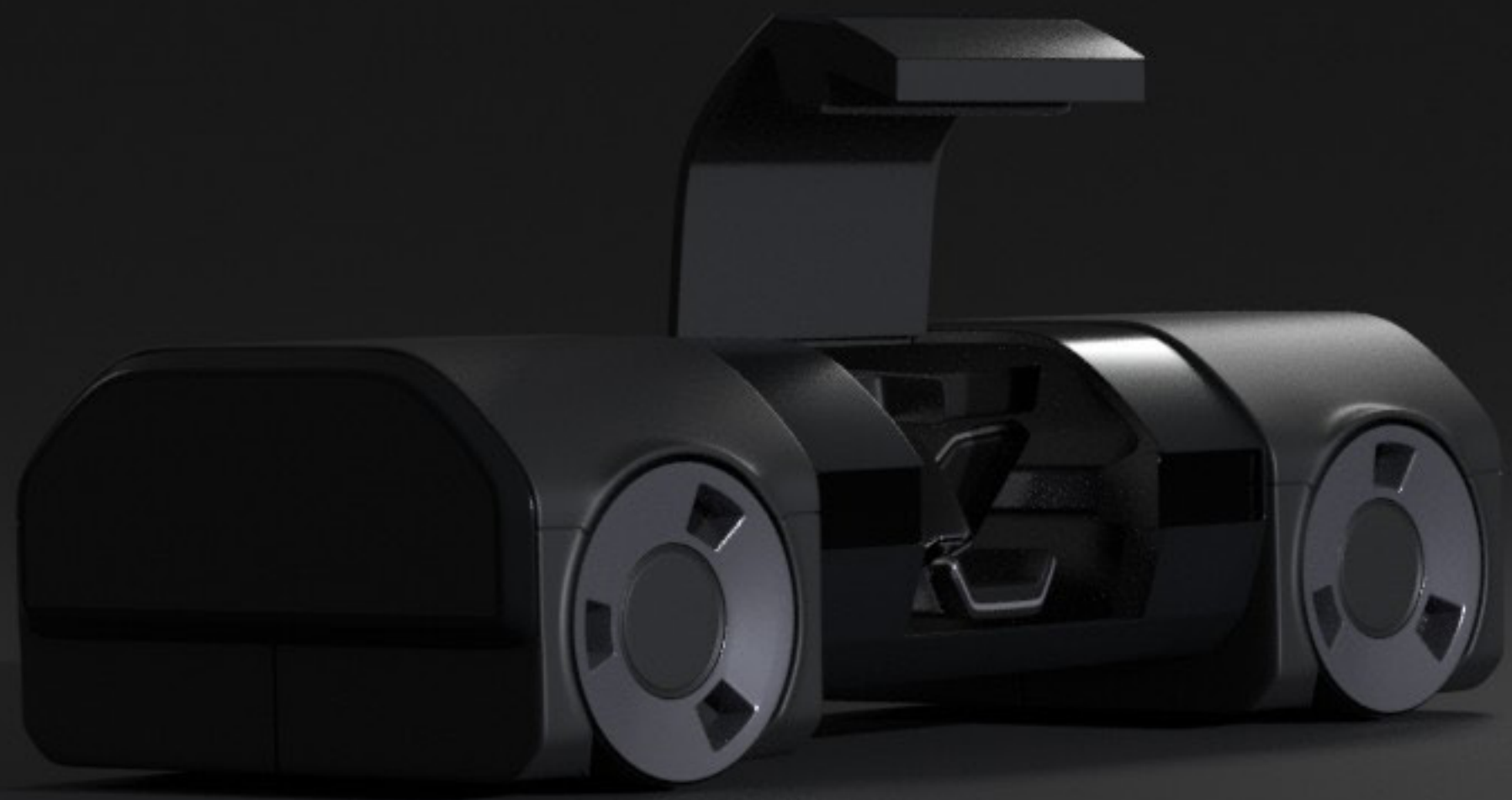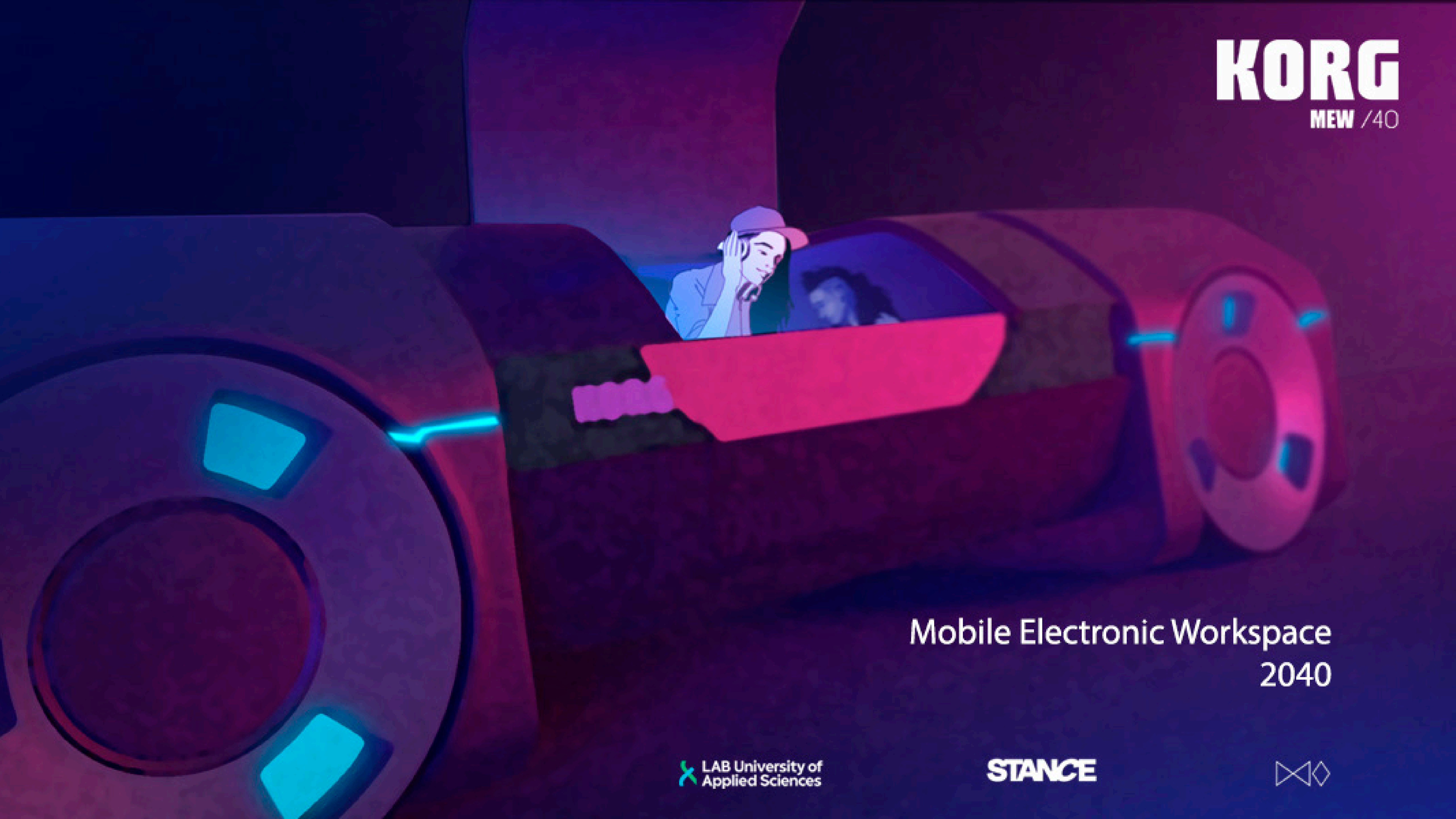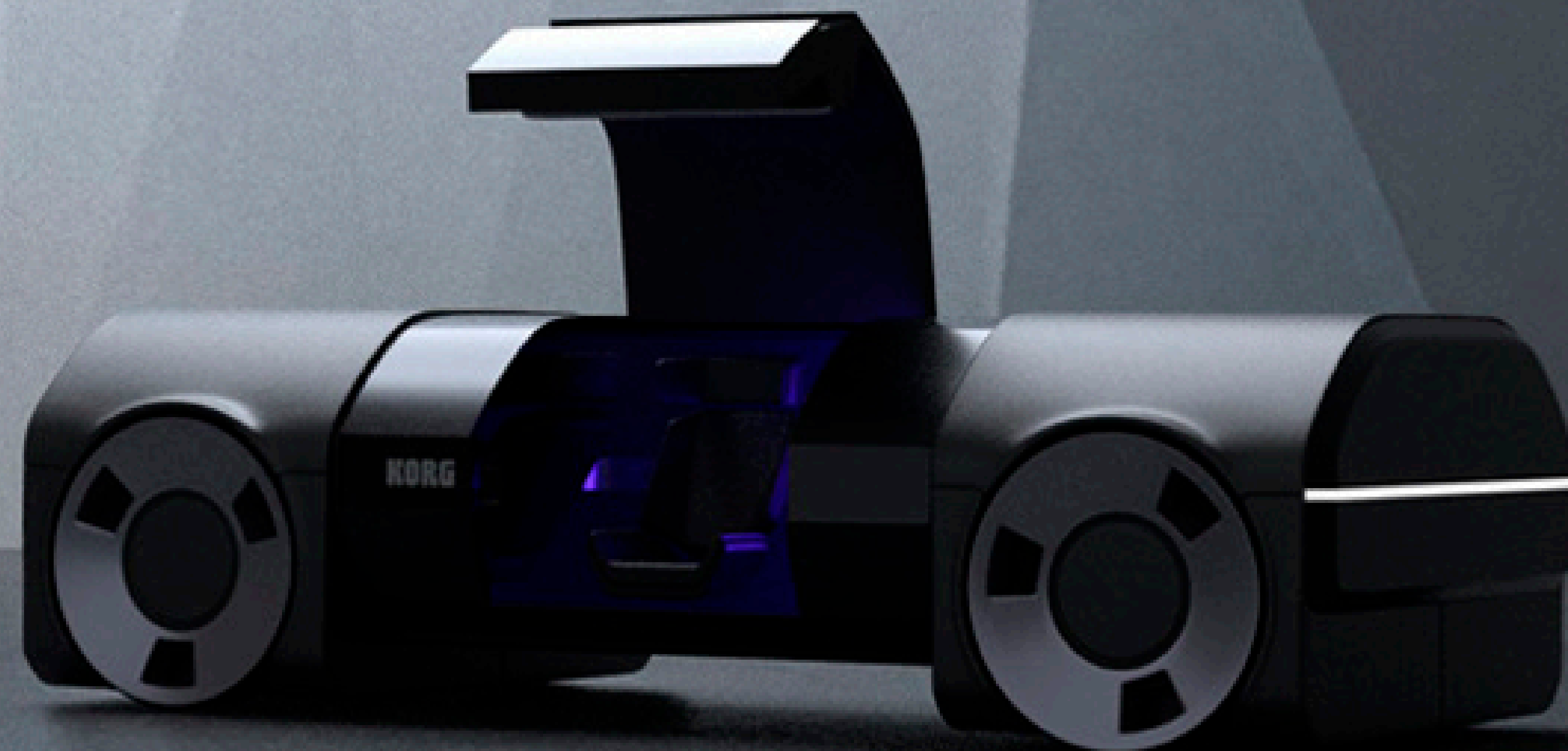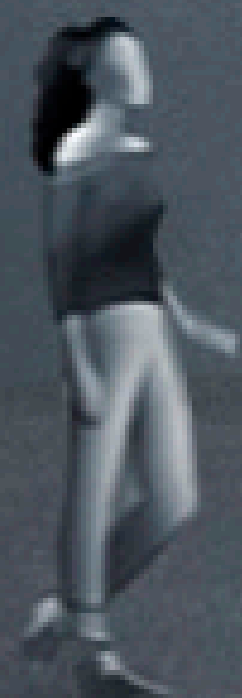As my brief changed quite a bit between the fall and spring semesters, I was happy that I ended up finding a subject that I would be so keen to work on.

I had good tips and directions from my professors Lee Walton and Sami Hyyryläinen during and between seminars that made me consider novel ideas and approaches to a subject I've been somewhat familiar with before.

My opponent Olivia Leino has been very helpful as well as fellow vehicle design students and alumni Janne Mustonen, Antti Tirri and Julius Ranta to mention a few. I should have used these contacts more, though, as I was easily trying to find out so many things by myself.

I am quite satisfied with my ideas for the concept, and specially with the decision of choosing the final interface to be more expressive than relying on synthesizer standards.

There are many things I would do differently as I'm looking back to it. I was ambitious enough to consider a VR simulation of some sort to showcase the music aspect of the concept, but I had to leave room for learning 3d-modeling.

As far as research go, there was so much to potentially cover for 20 years ahead. I tried to figure and filter some of the information and focus on things and phenomena that would be related to my concept.

Having a complete vehicle with a service to design I think I managed to keep quite a coherent package after all by not trying to design everything. I could have gone deeper on one of the aspects, but once I had started to envision a concept for a non-vehicle brand I felt I should do a complete vehicle.

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