

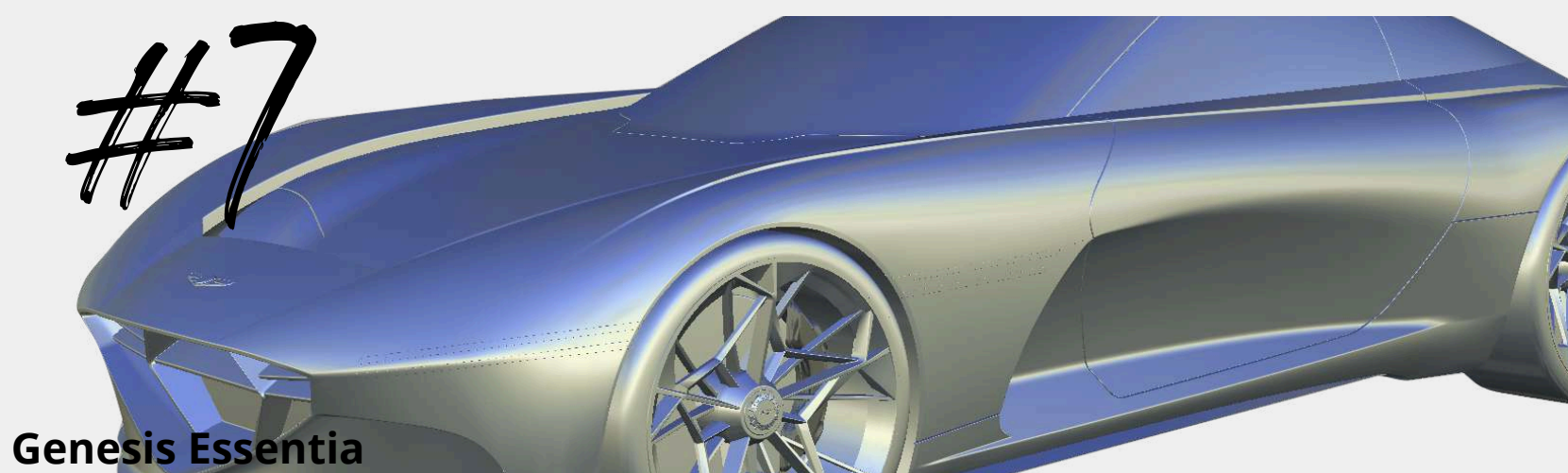
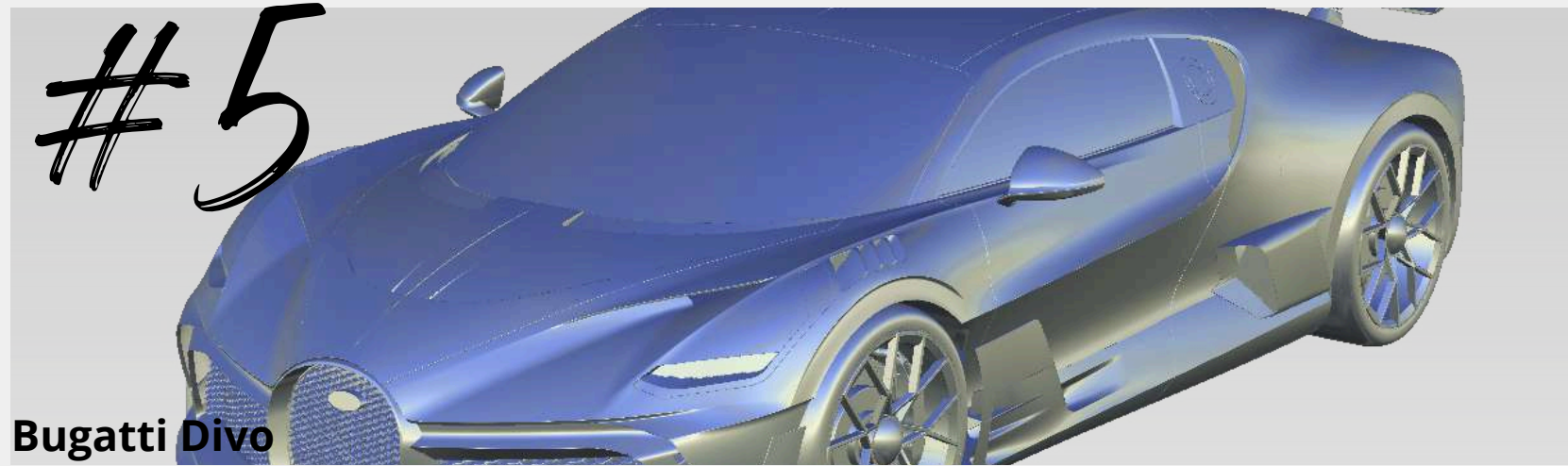
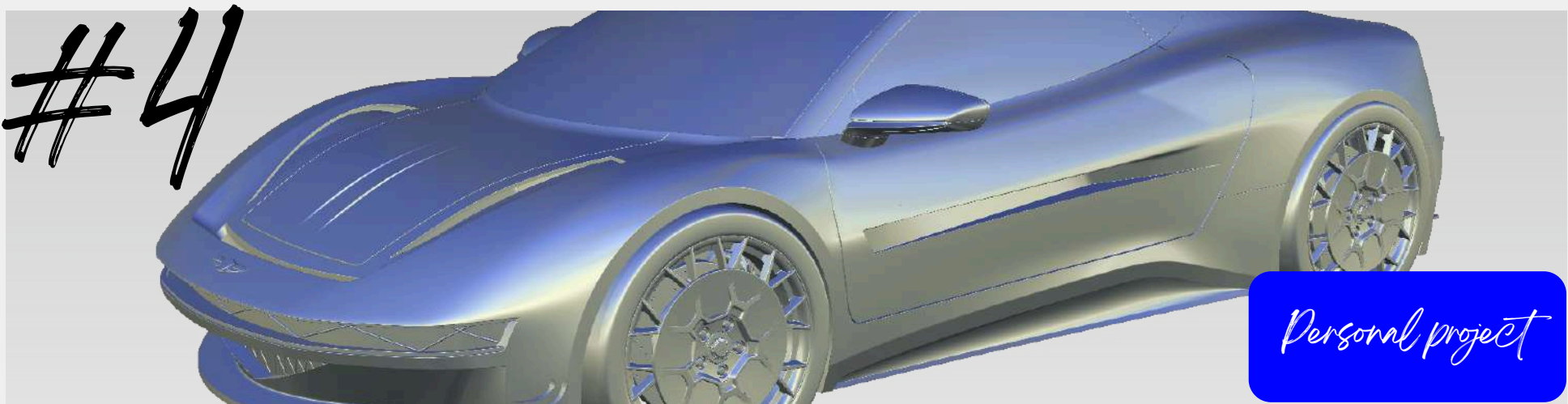
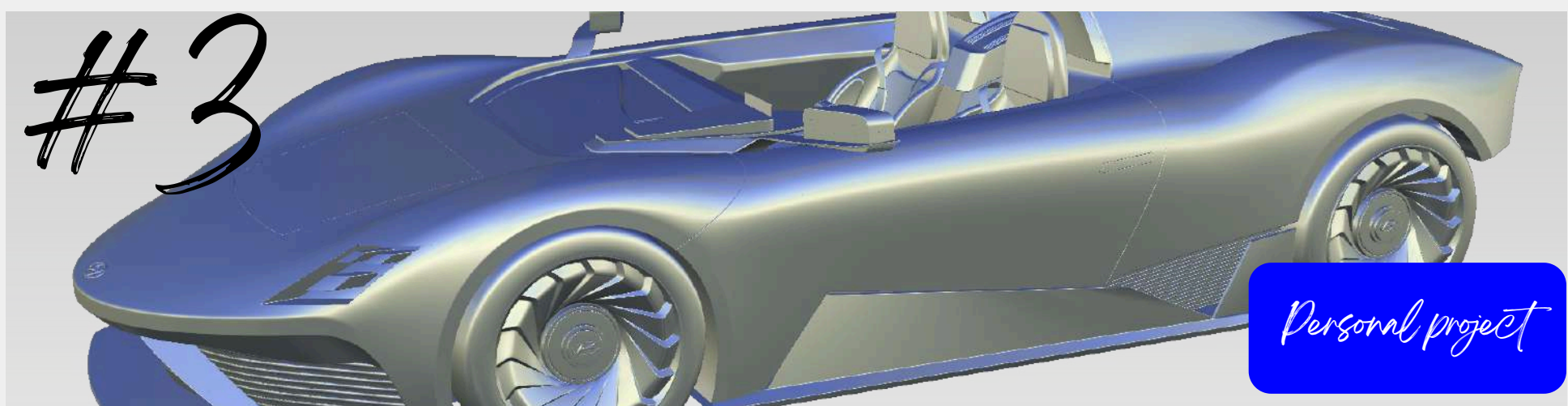
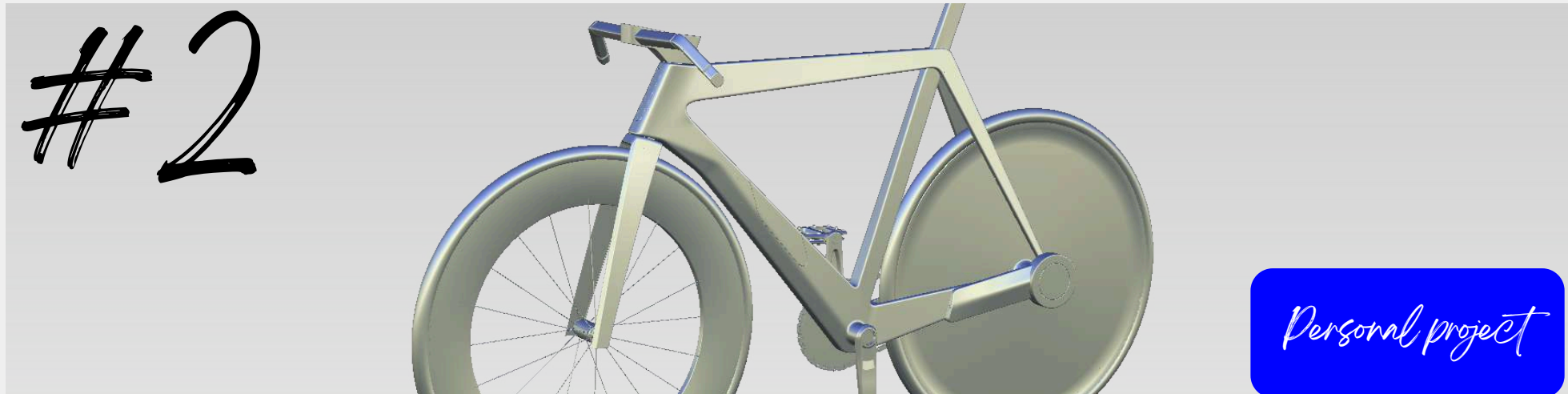
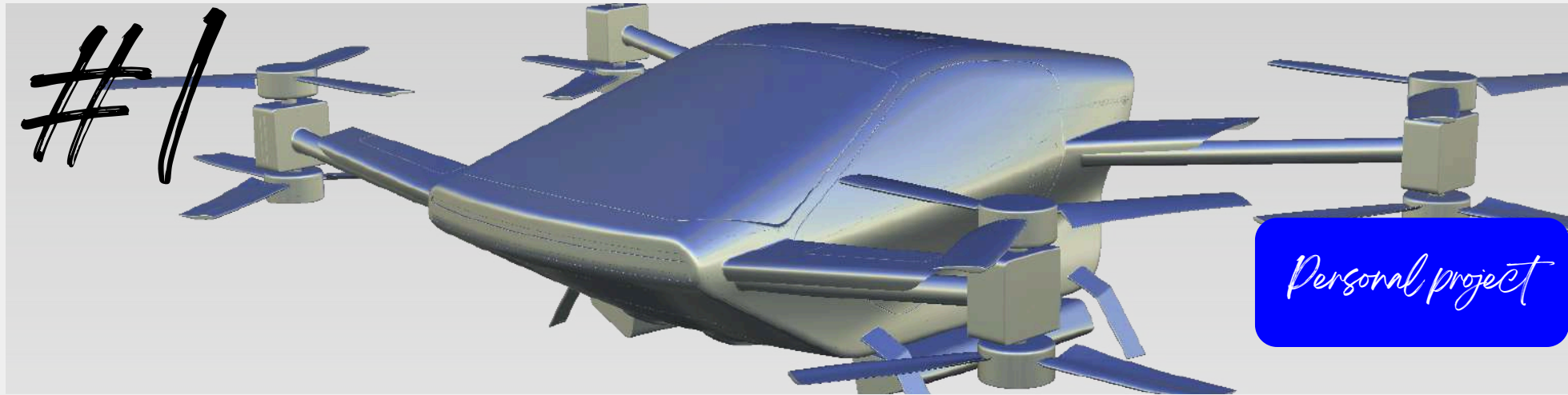
Transportation Design & Surface Modeling Portfolio



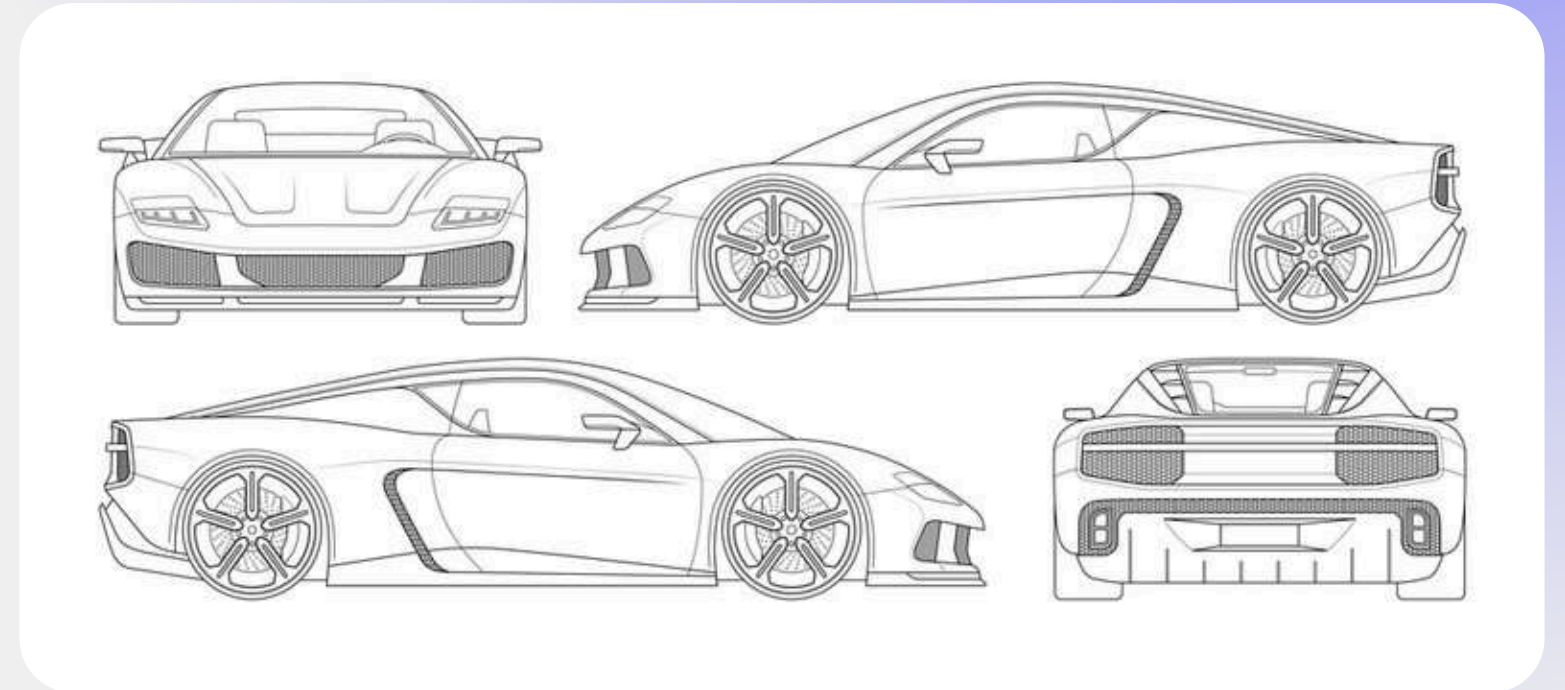
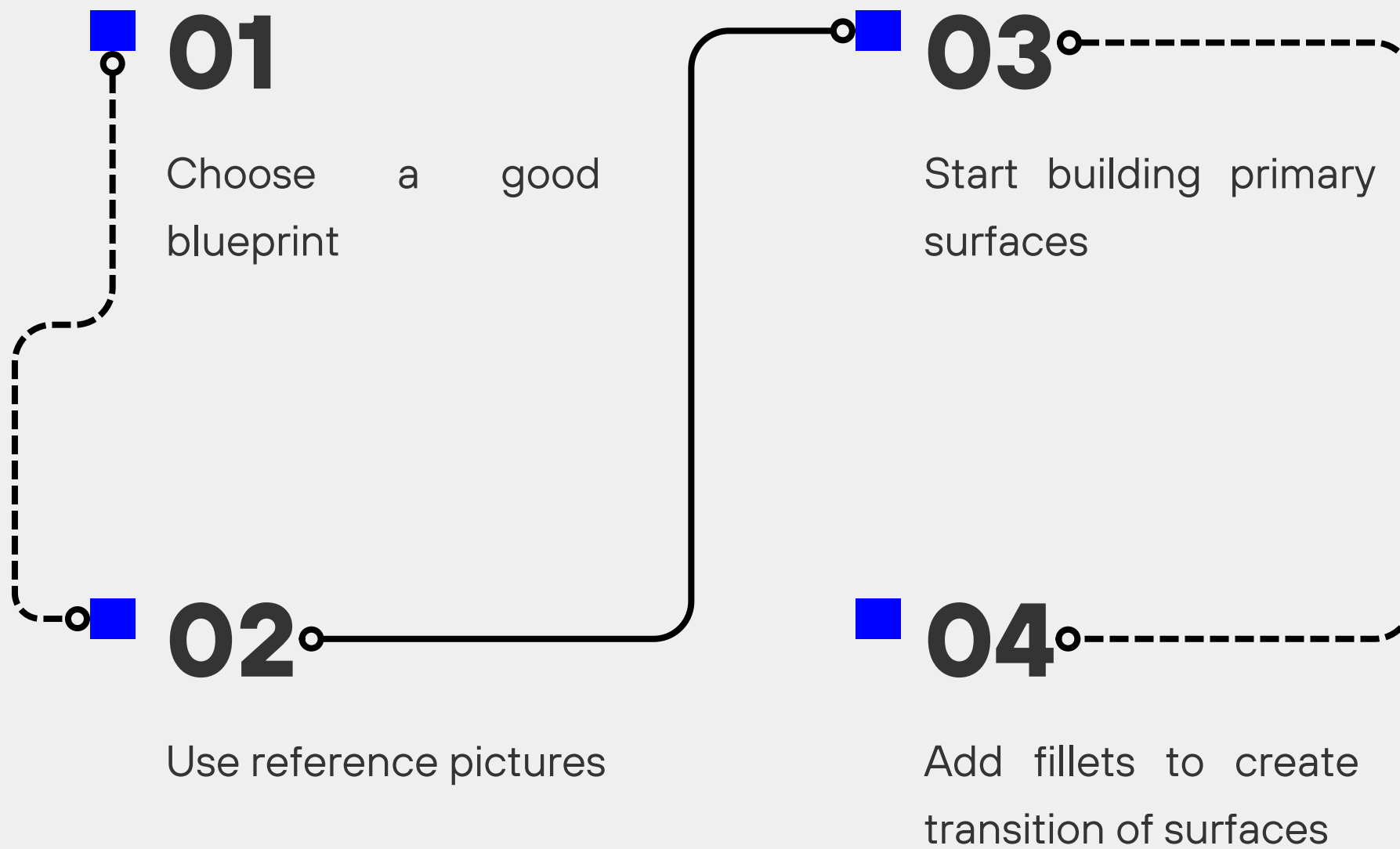
Augusto Fuchs

2026

UNIT: EV-1 (REDACTED)



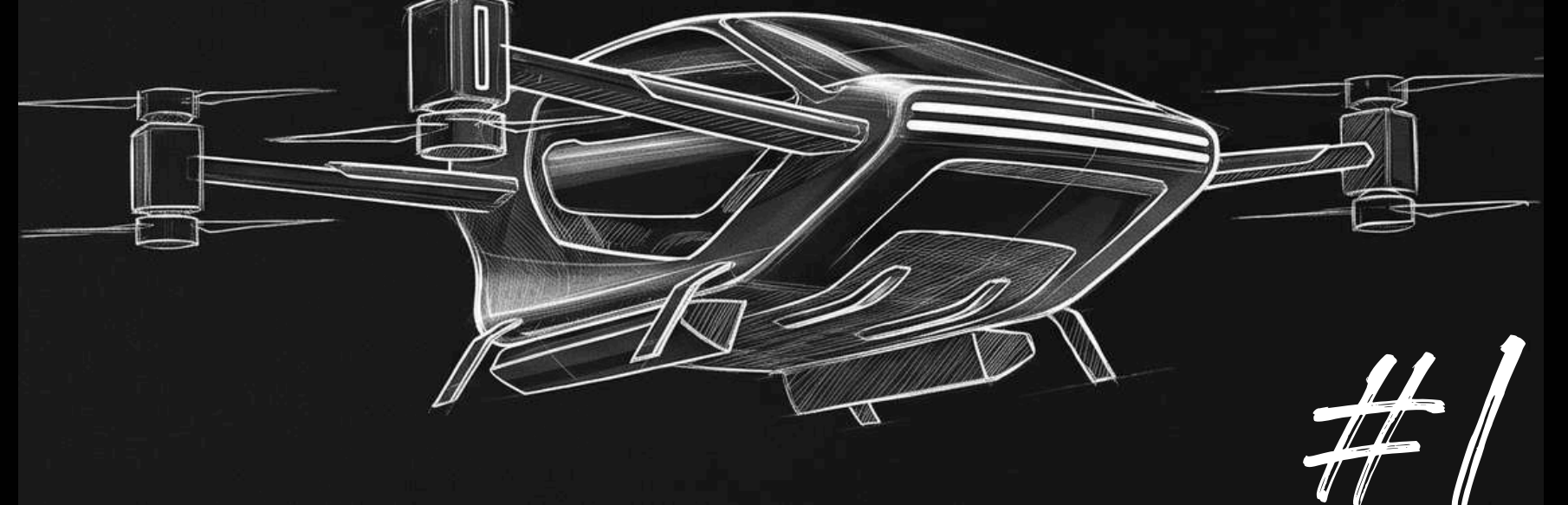
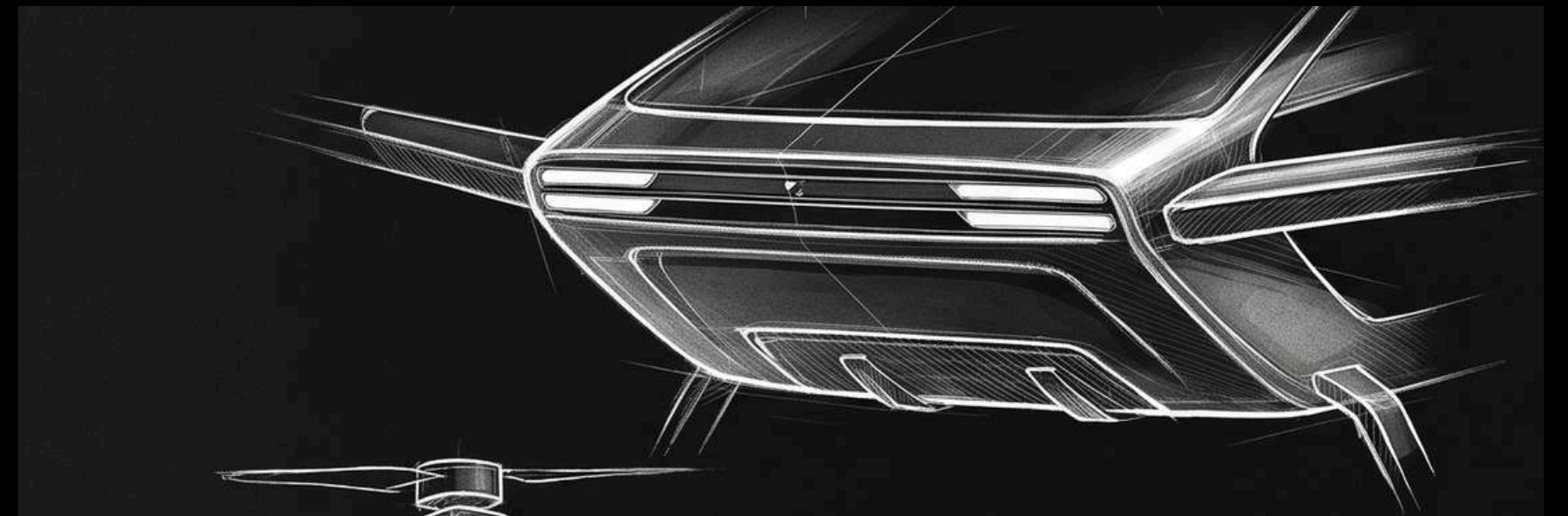
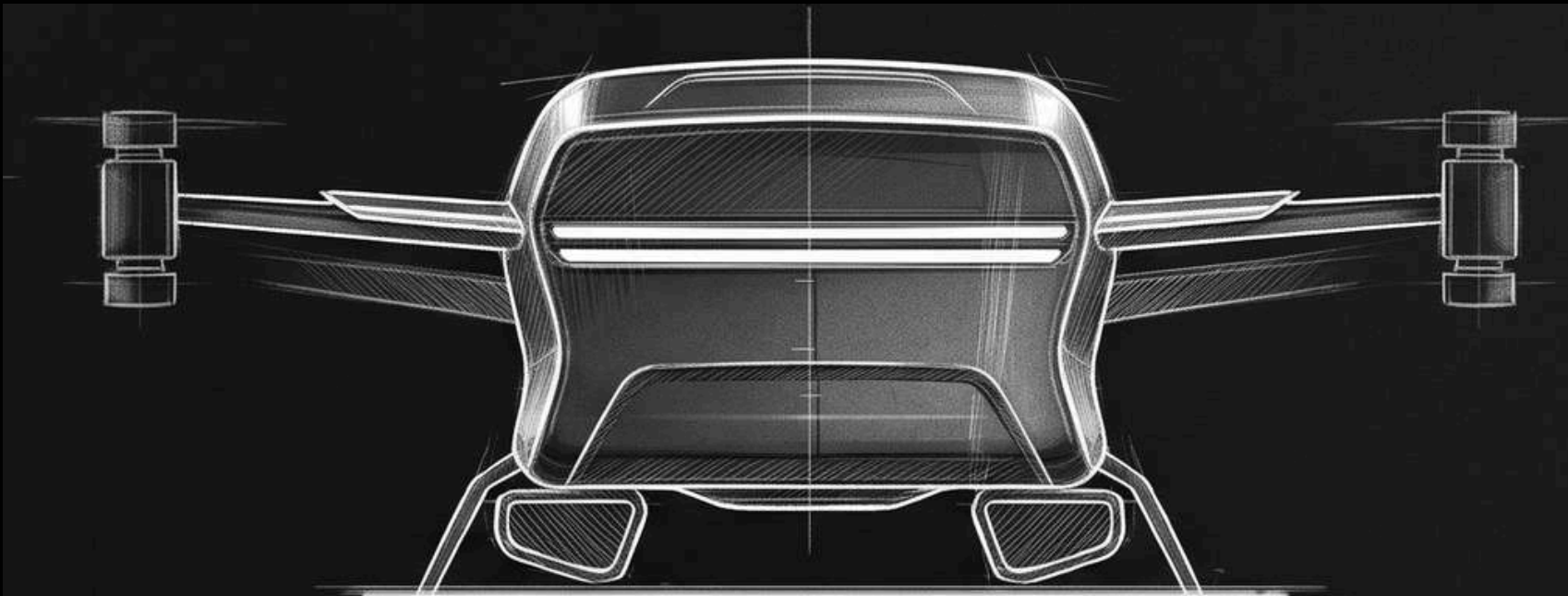
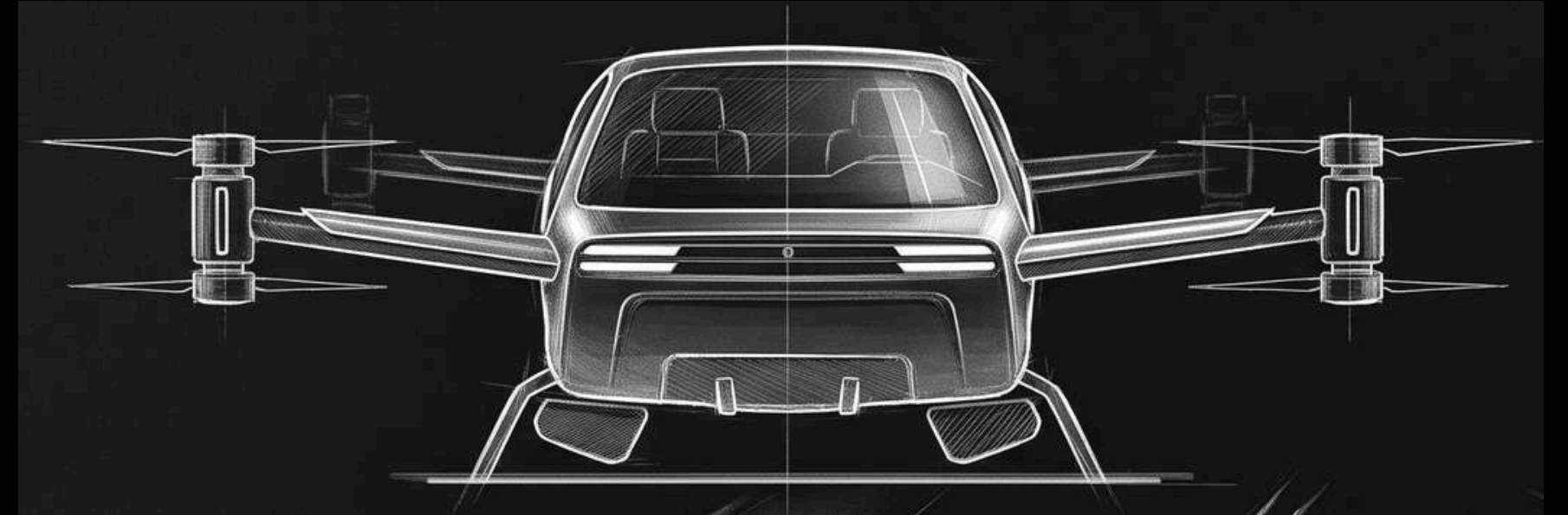
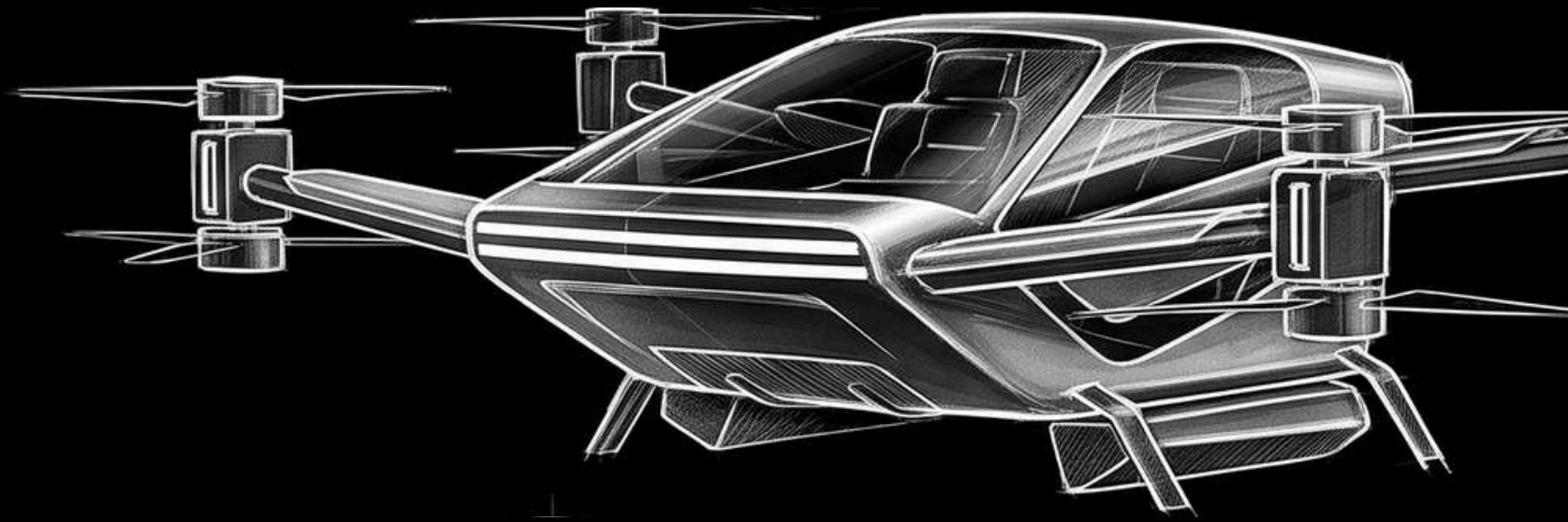
Modeling process



This portfolio presents my work in transportation and flying mobility design, combining concept development with high-quality surface modeling. I focus on translating design intent into precise digital surfaces using Autodesk Alias, bridging creativity and technical accuracy across automotive and eVTOL/flying projects.

EXTERIOR DEVELOPMENT

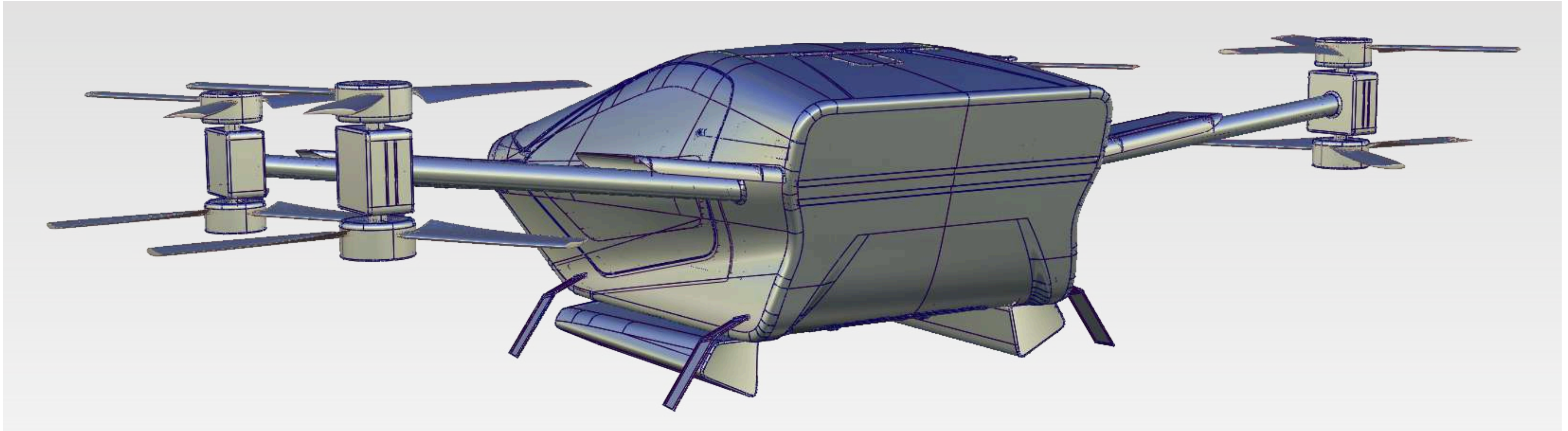
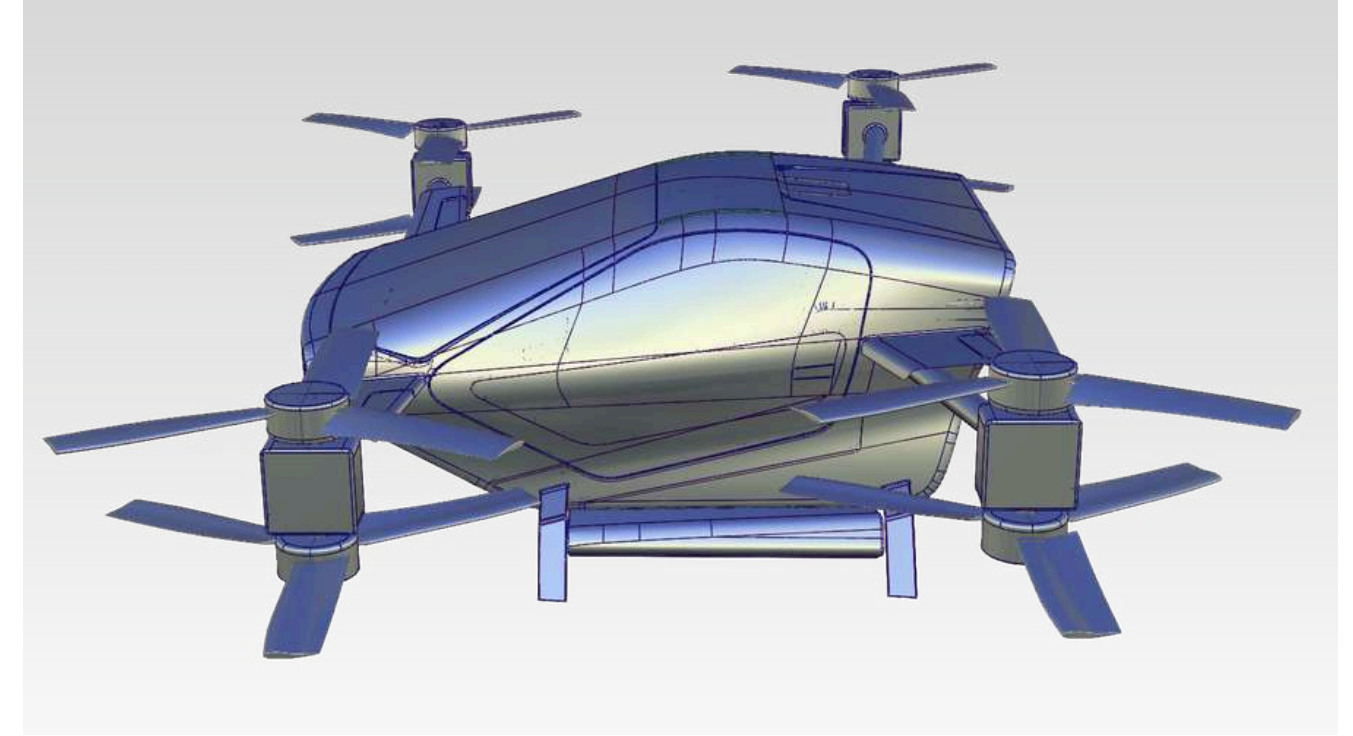
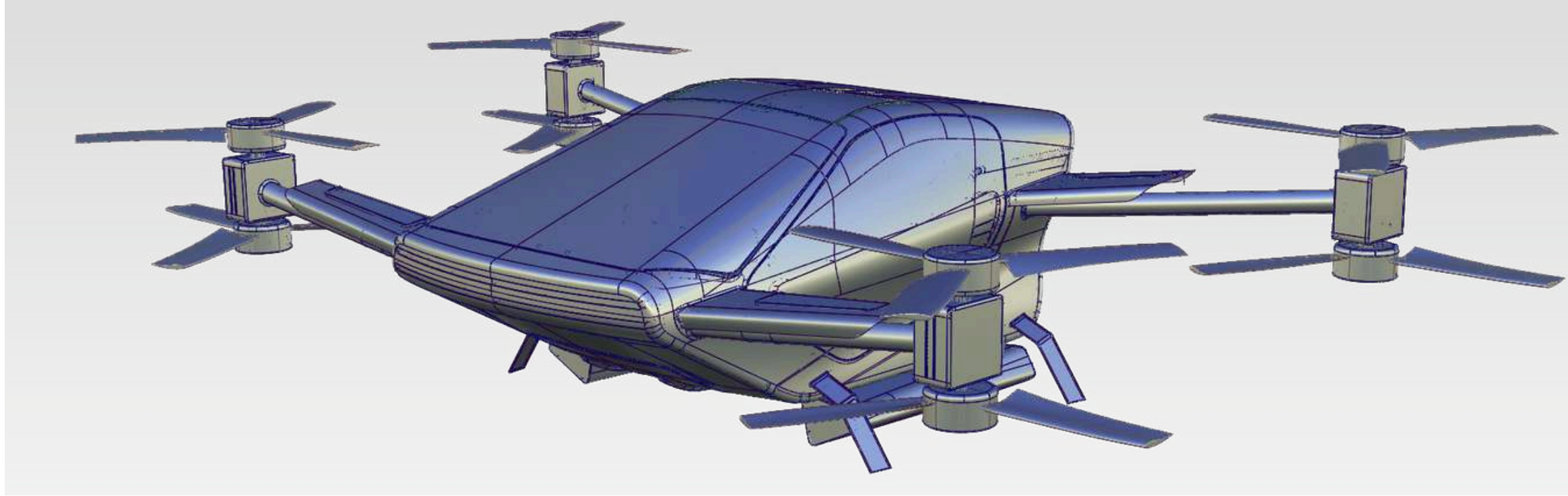
Genesis Aeris



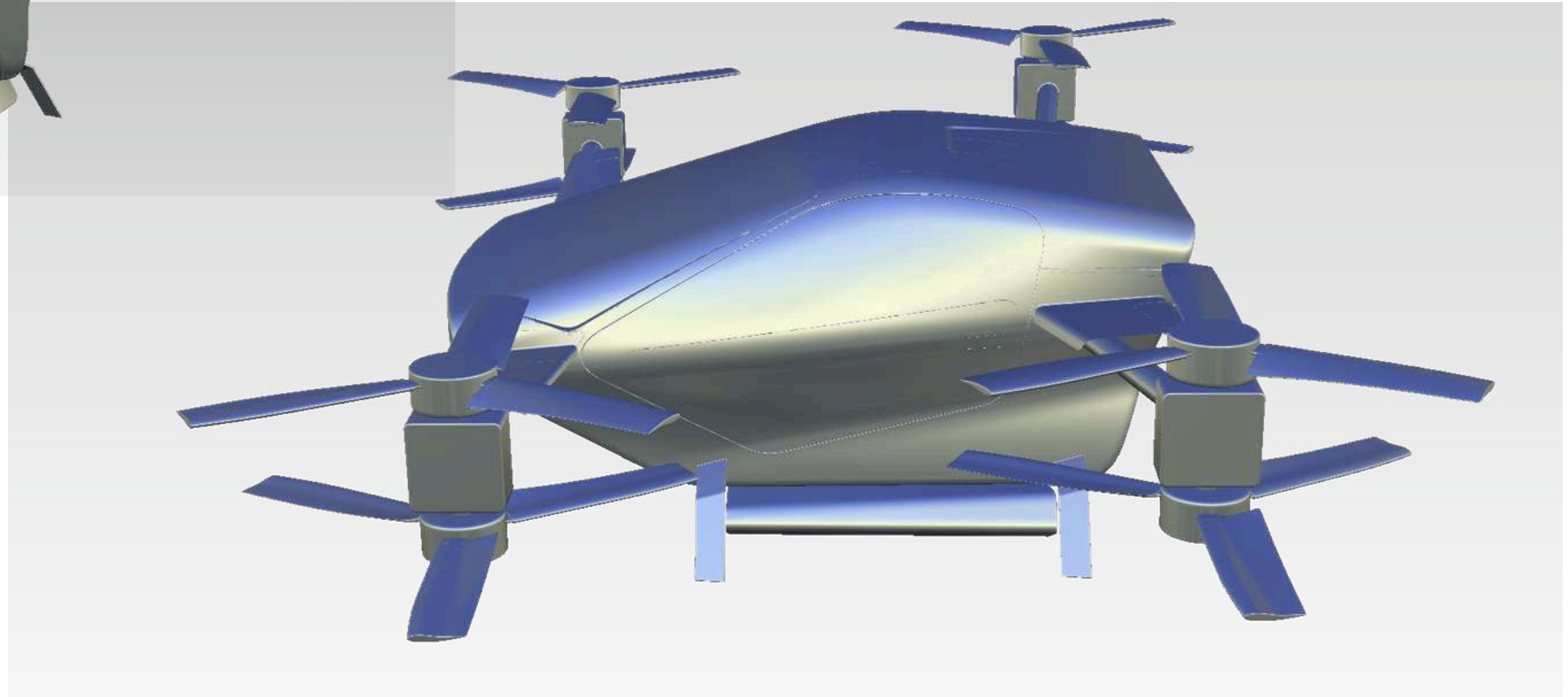
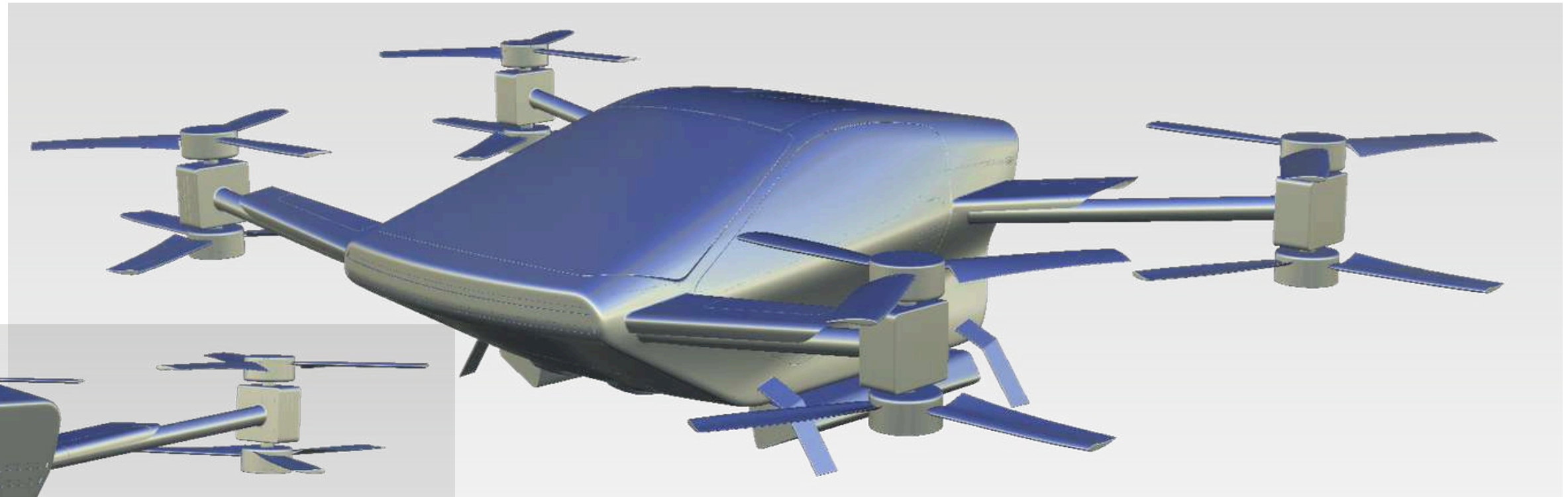
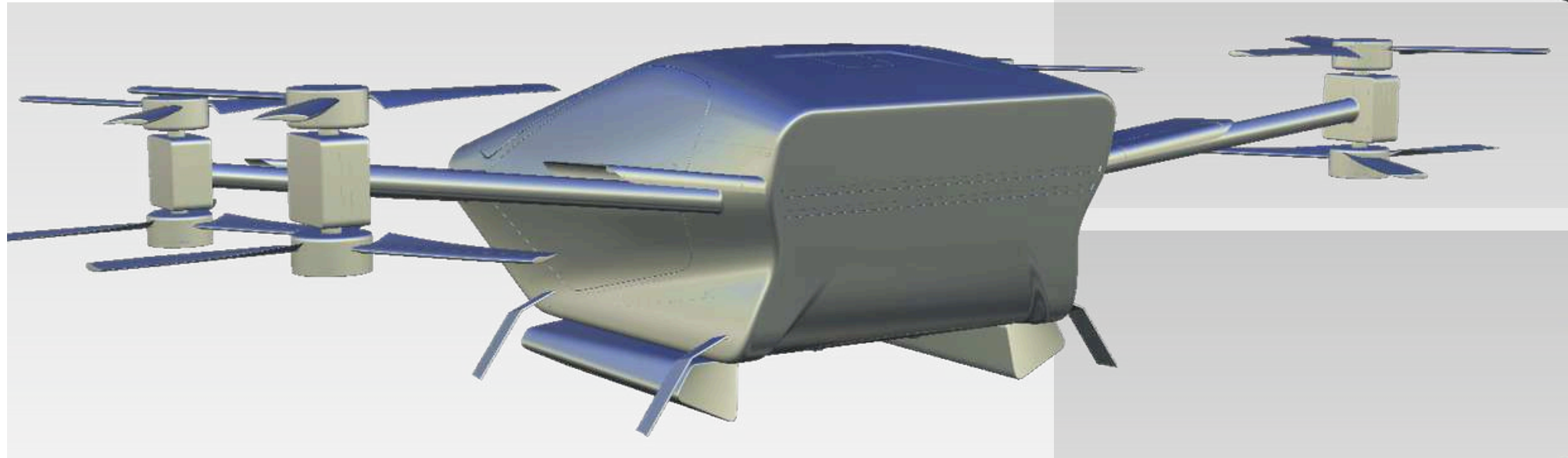
Genesis Aeris sketches translate the brand's **"Athletic Elegance"** into flight, with a clean aerodynamic silhouette and strong, simple proportions. Signature Genesis elements like the two-line lighting and precise surface tension are adapted into a functional aerial form.

The design integrates rotors as part of the architecture, keeping the overall look sculpted and minimal while clearly recognizable as a Genesis Motor future mobility product.

3D MODEL - PATCH CONSTRUCTION

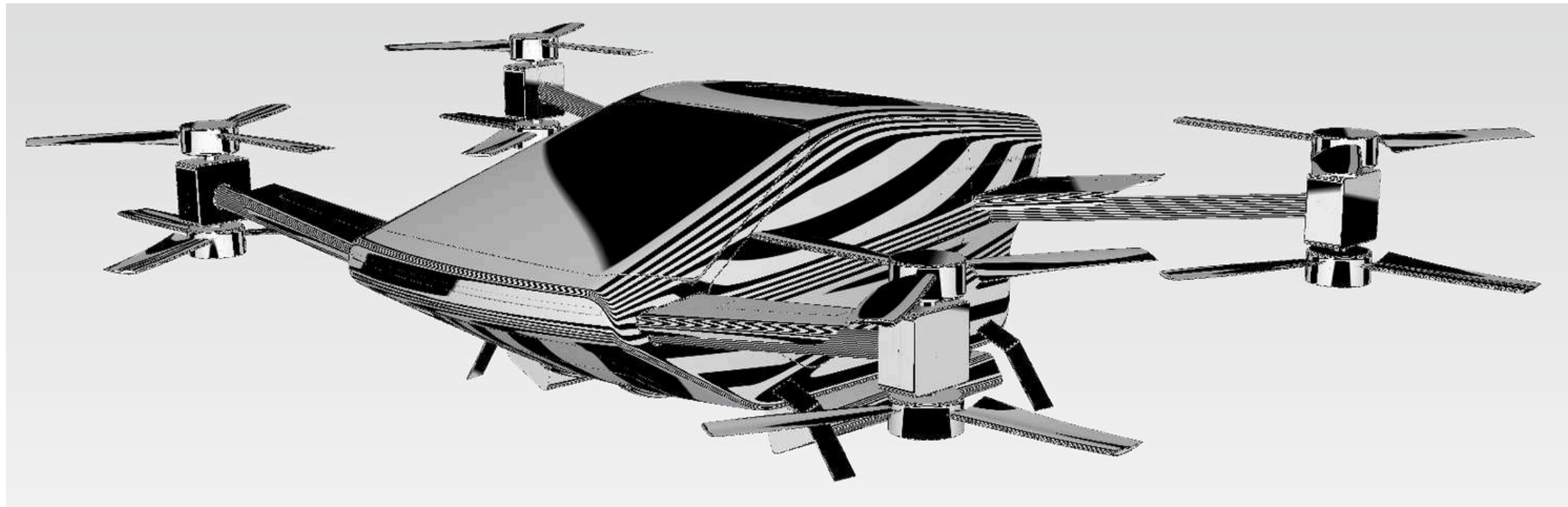


3D MODEL - HIGHLIGHTS



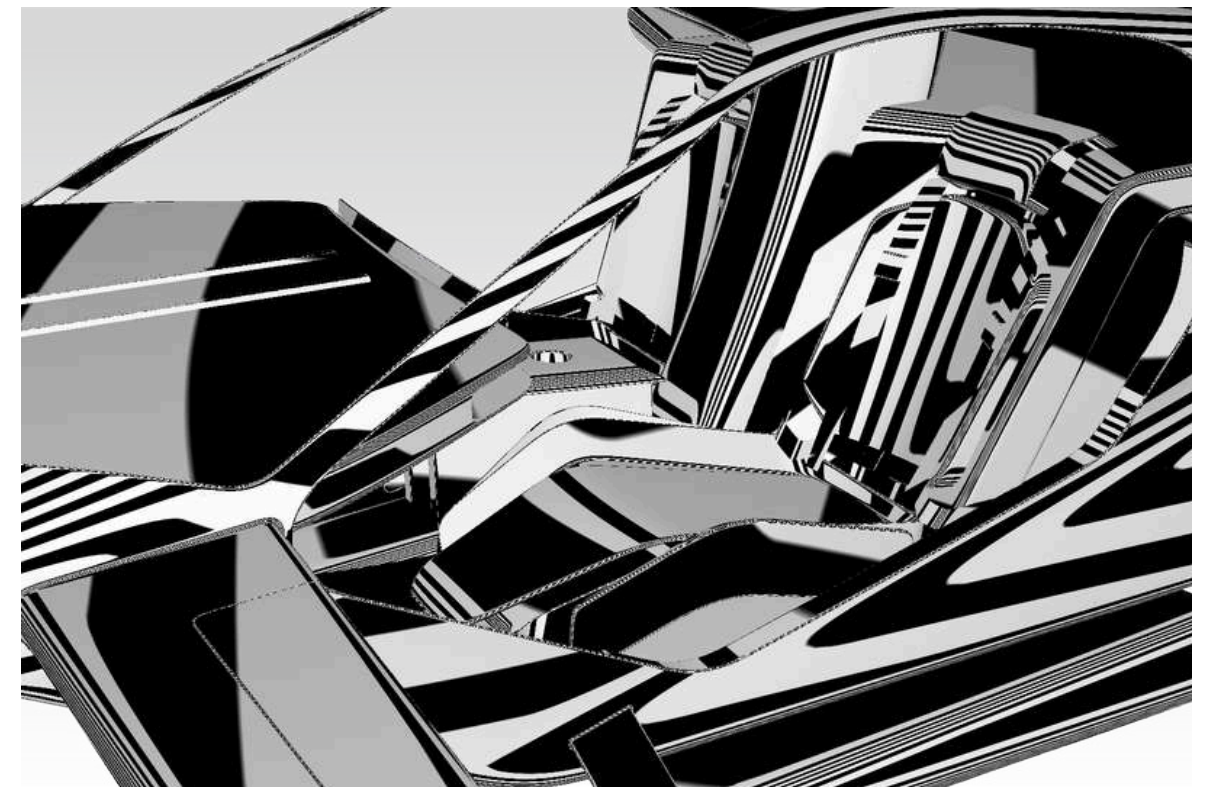
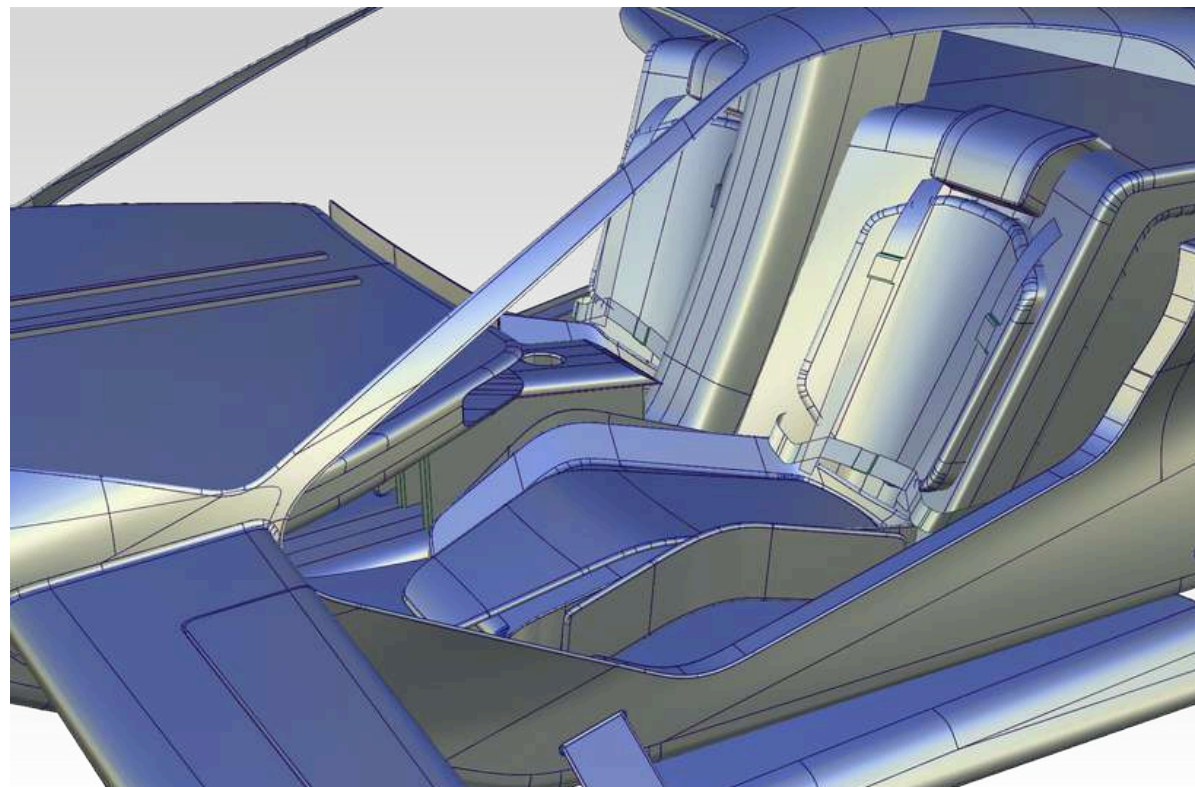
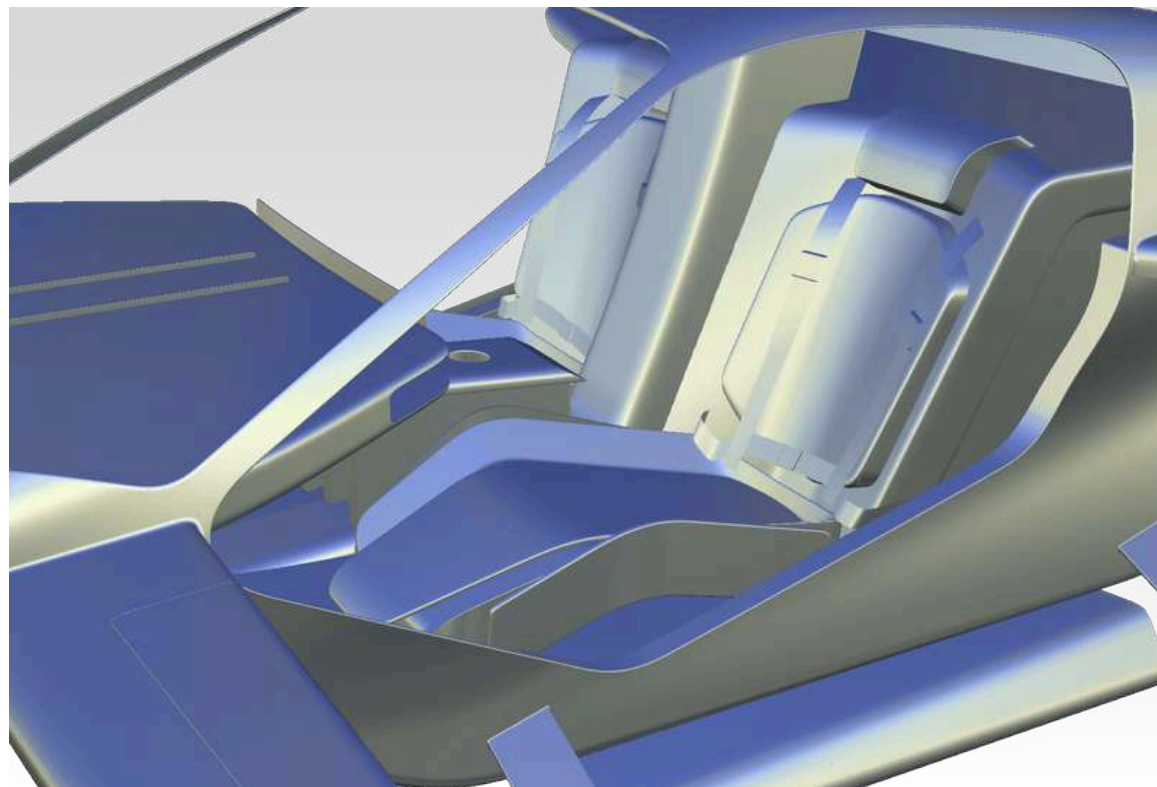
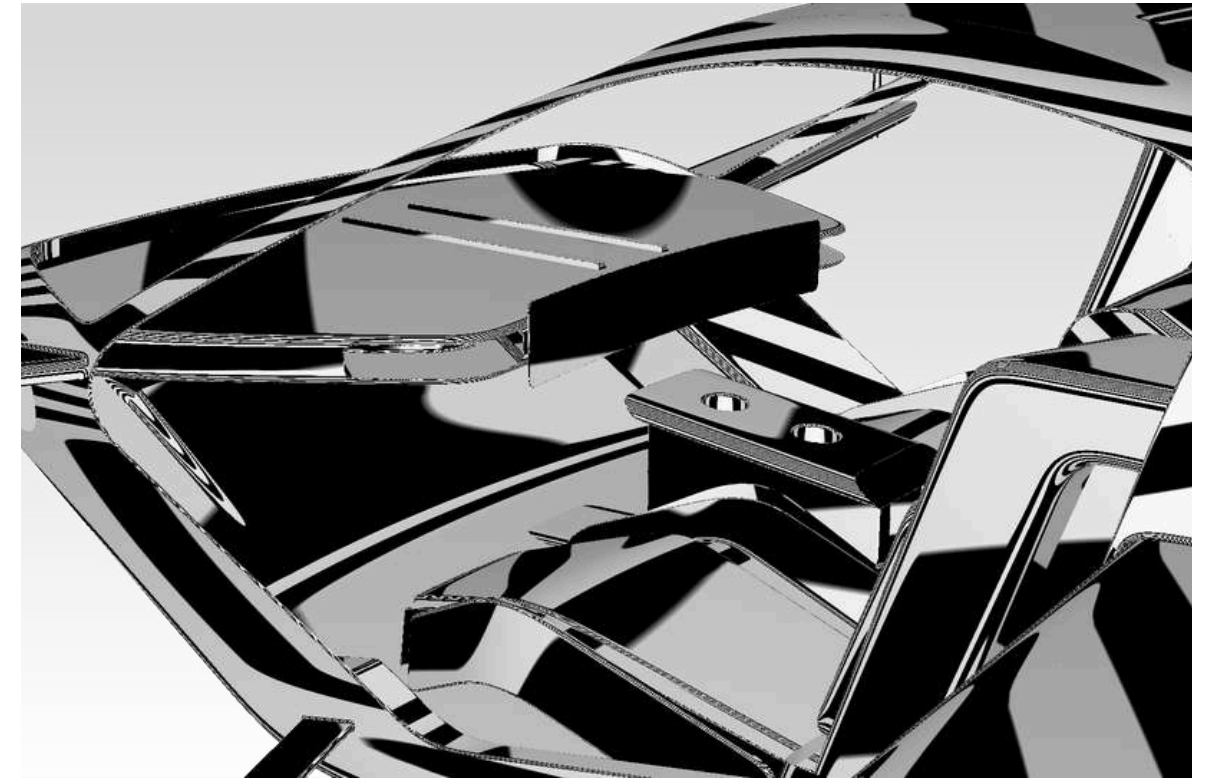
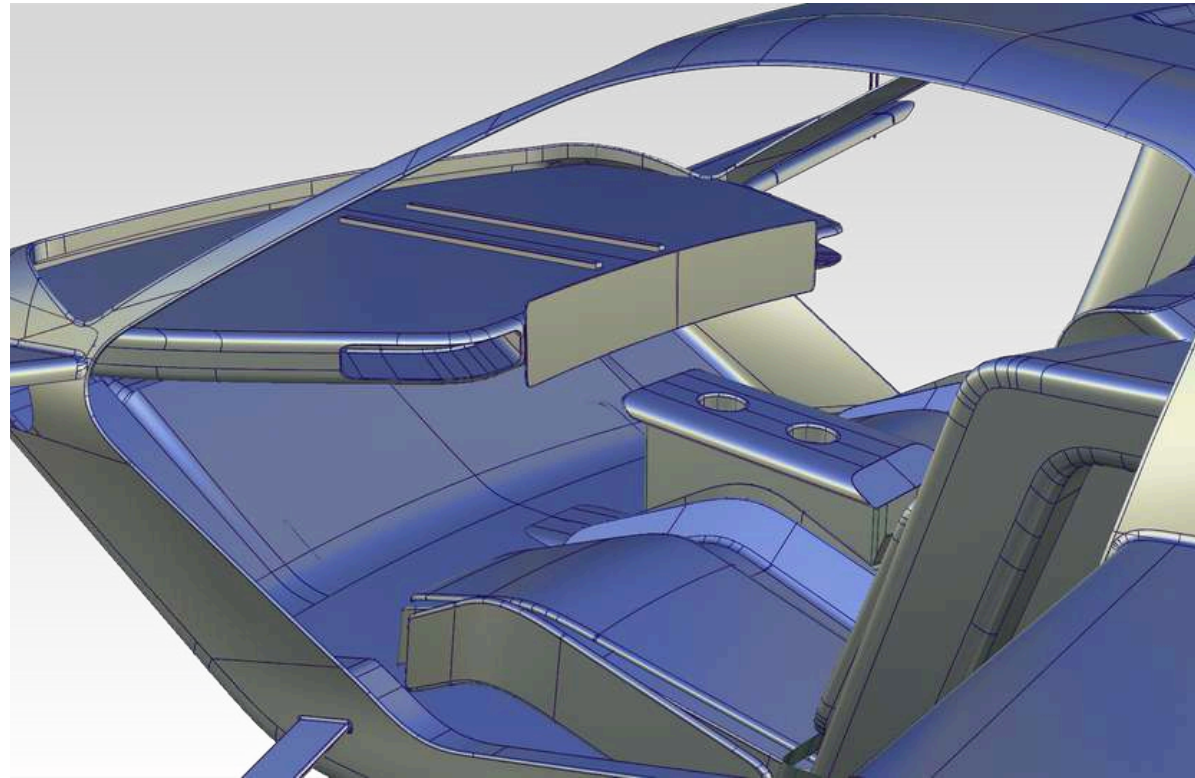
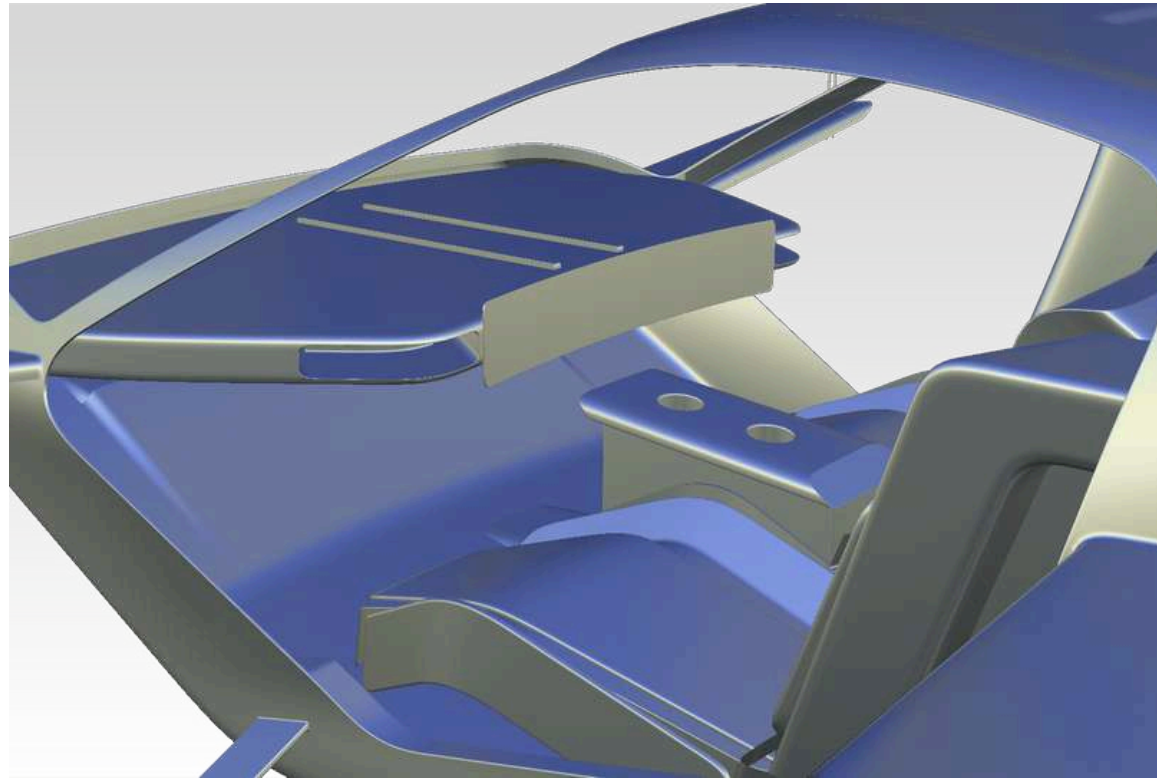
Fully developed eVTOL exterior modeled in Autodesk Alias using high-quality NURBS surfaces, demonstrating an efficient workflow from sketches to a fully resolved 3D digital model, with a strong focus on rapid ideation translation, precise proportions, surface continuity, and production-oriented digital craftsmanship.

3D MODEL - ZEBRA SHADER



The Genesis **Aeris** zebra shading highlights surface continuity and curvature flow across the body, making subtle transitions between aerodynamic surfaces clearly visible. The high-contrast reflection pattern helps reveal any breaks in smoothness, waviness, or inconsistencies during the design development process.

3D MODEL - INTERIOR



RENDERS







RENDERS INTERIOR

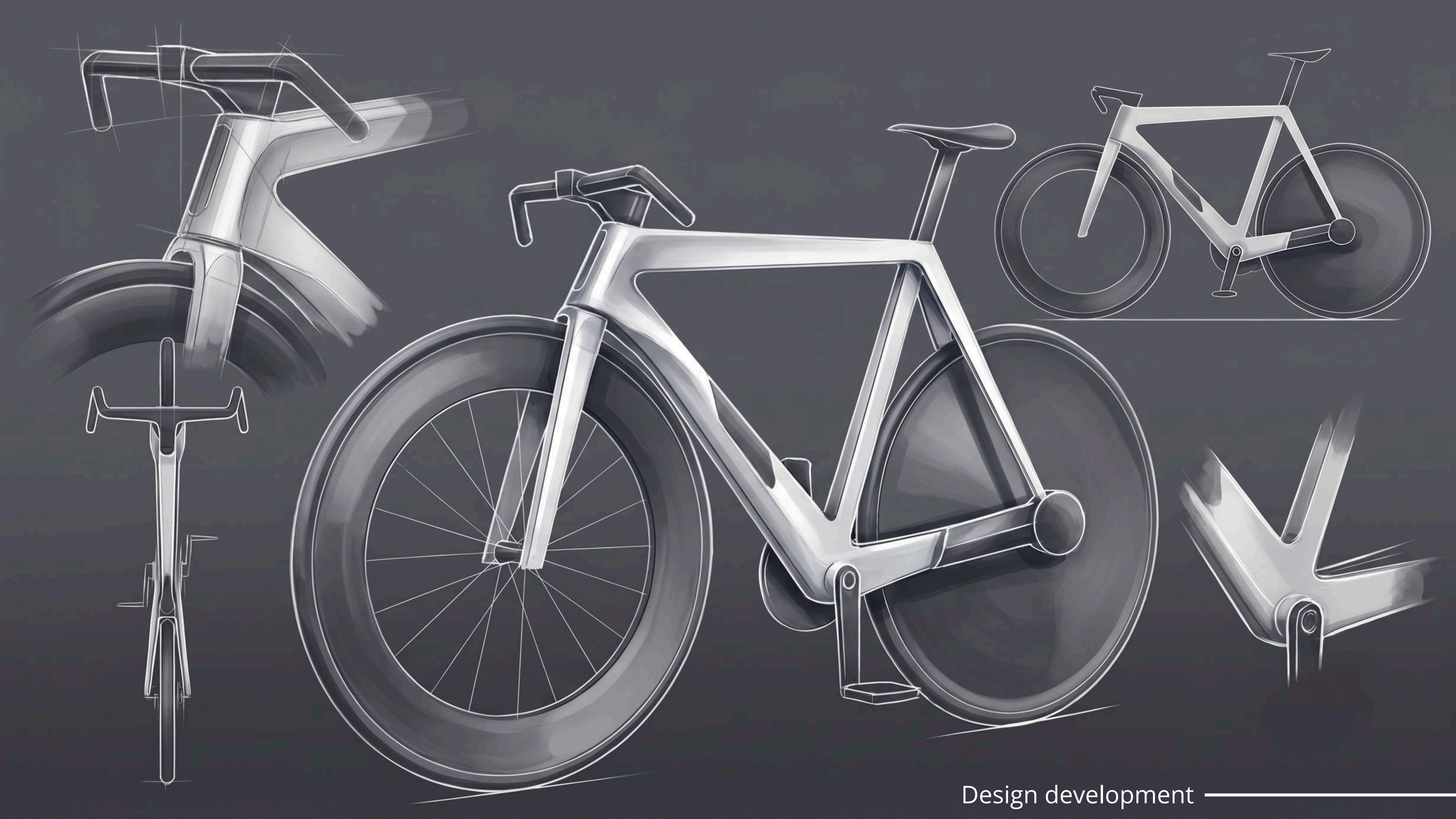


FX SHIFT

#2



I want to ride my / Bicycle, bicycle, bicycle I want to ride my Bicycle, bicycle ...



Design development

3D MODEL - PATCH CONSTRUCTION



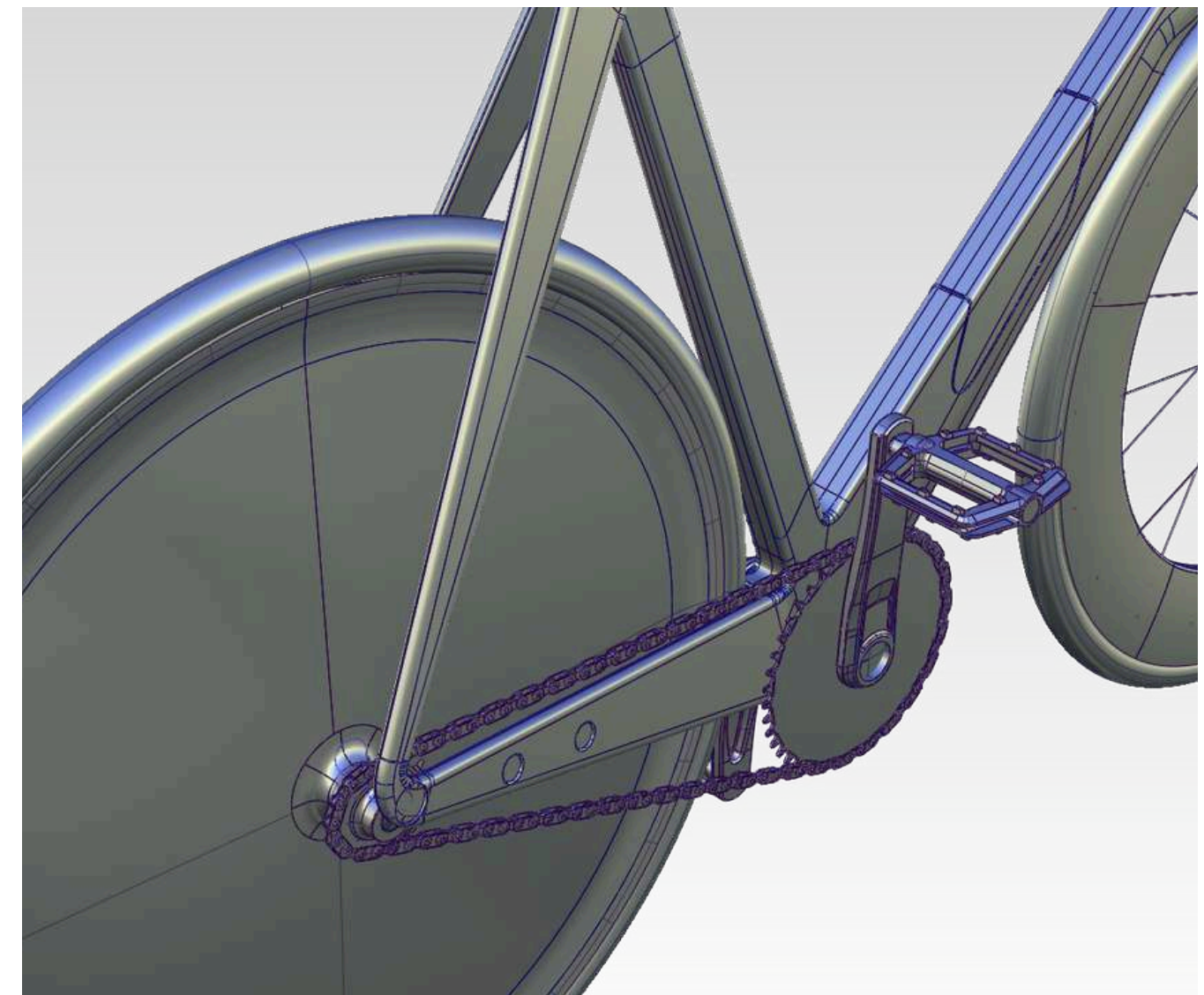
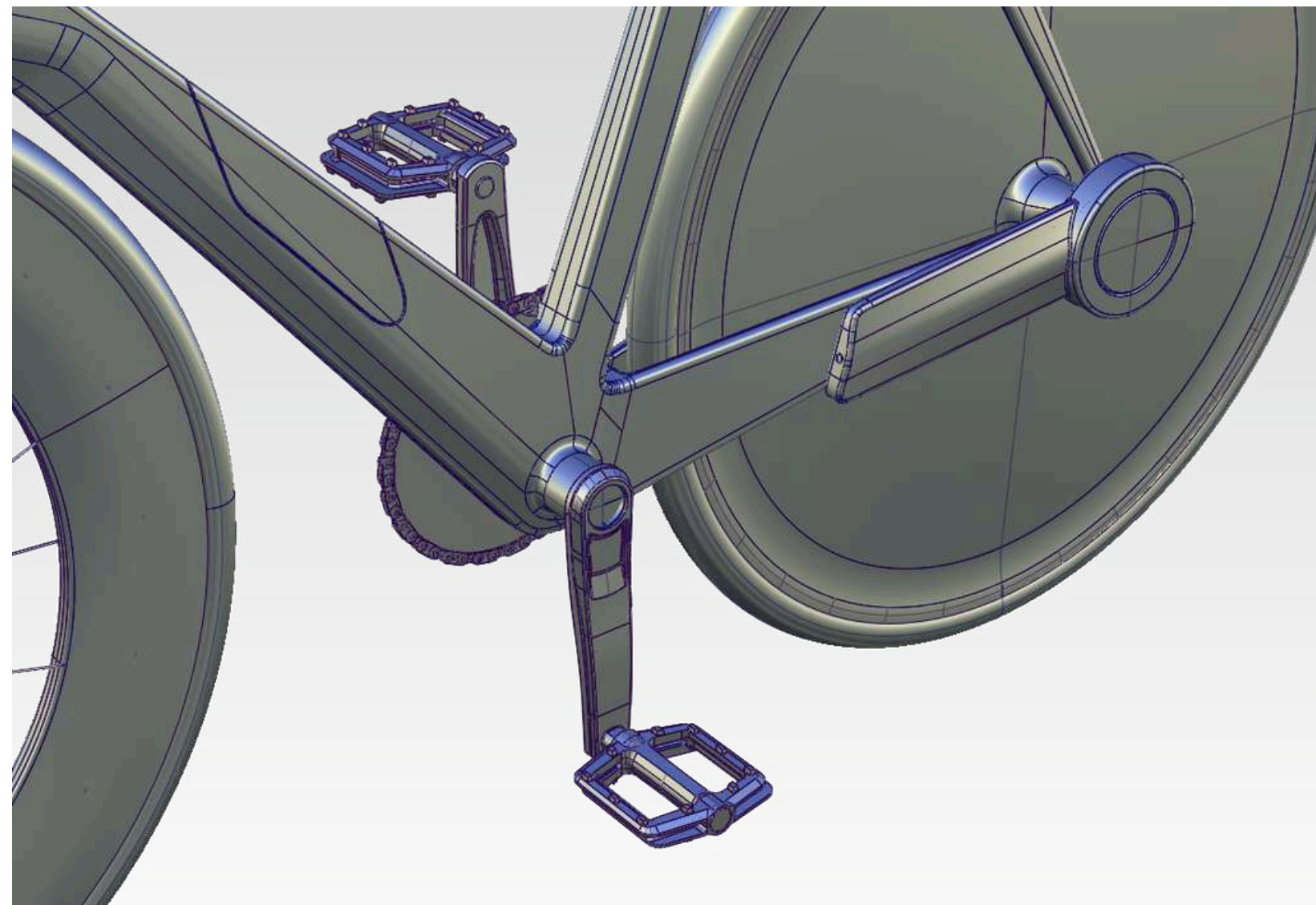
3D MODEL - HIGHLIGHTS



3D MODEL - ZEBRA SHADER



Urban bicycle modeled in Autodesk Alias using NURBS surfacing techniques. Zebra Analysis was used to evaluate **surface continuity** and reflection flow, ensuring smooth transitions, high-quality curvature, and clean production-ready surfaces.



This **bicycle** was fully modeled in Autodesk Alias using high-quality NURBS surfacing, with careful attention to surface continuity, accurate proportions, clean transitions, and fine mechanical details. The model demonstrates precision digital surfacing and production-oriented **design quality**.



CMF



— Renders



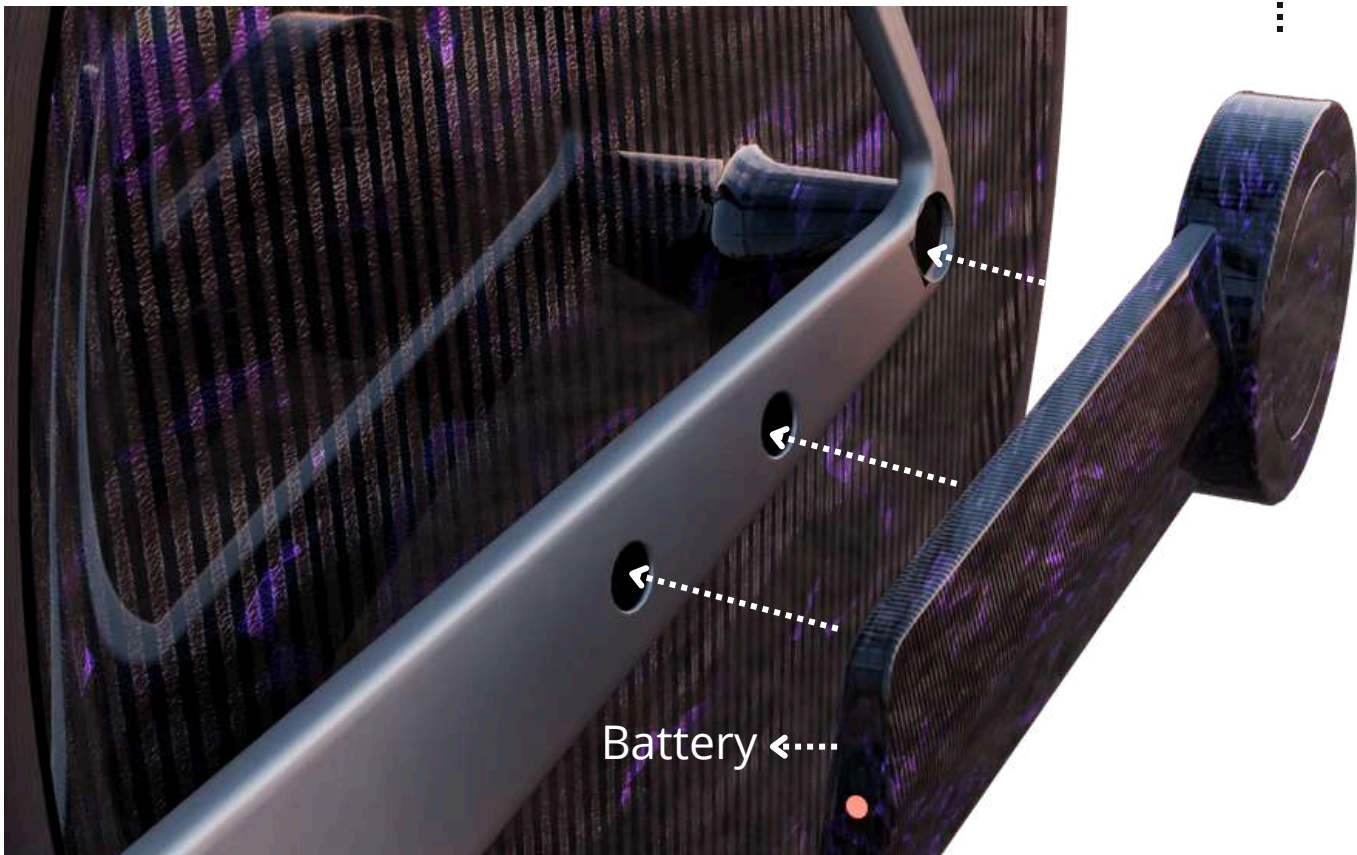
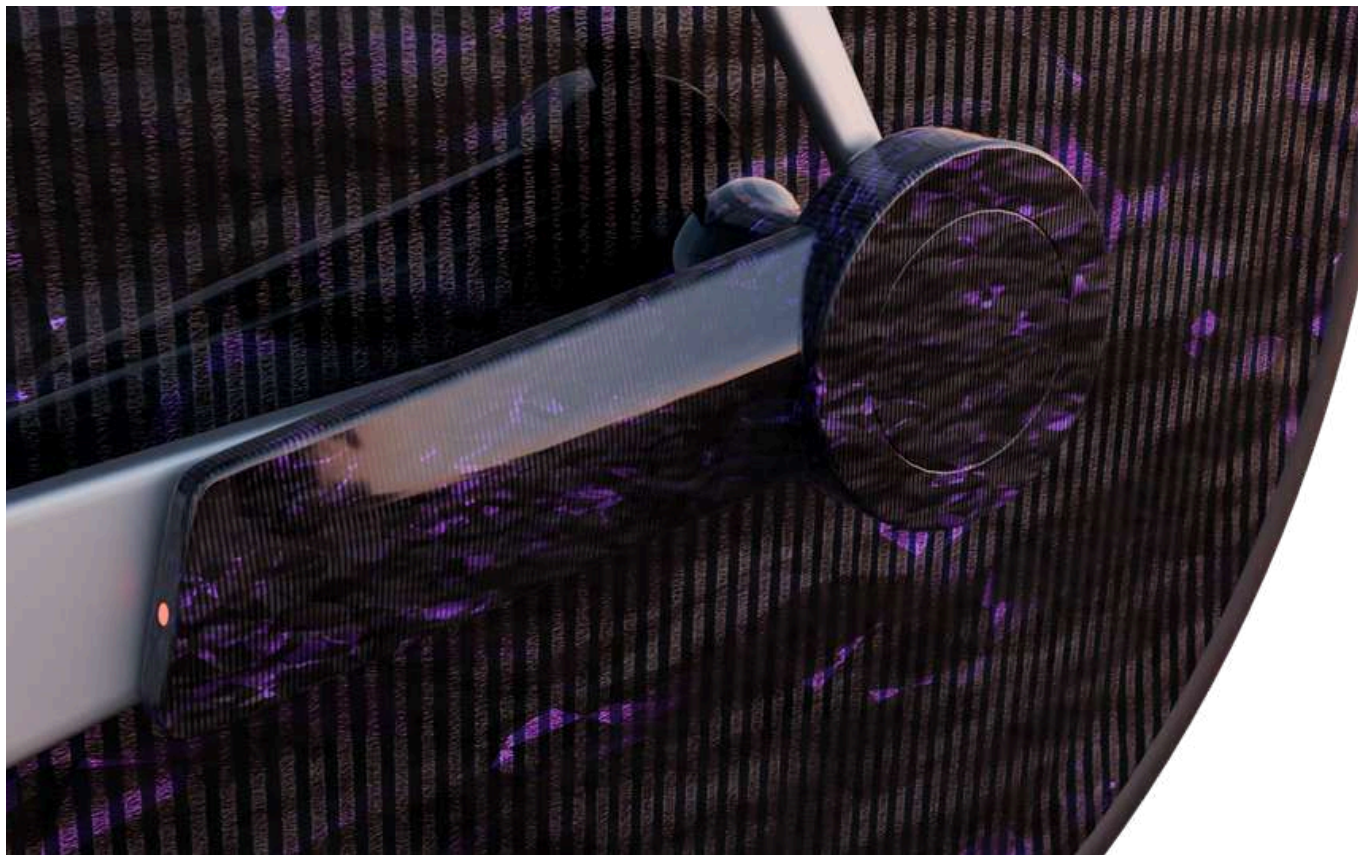
Ever since I was a **child**, I've been fascinated by the bicycle—its simplicity, efficiency, and timeless practicality. That **curiosity** inspired me to imagine how such a straightforward concept could evolve without losing its original character.



This **project** is my interpretation of that evolution: a clean, modern bicycle featuring a detachable battery and motor system that can quickly transform it into an e-bike whenever extra assistance is needed, making uphill rides and longer **journeys effortless** while preserving the simplicity of a **fixie bike**.

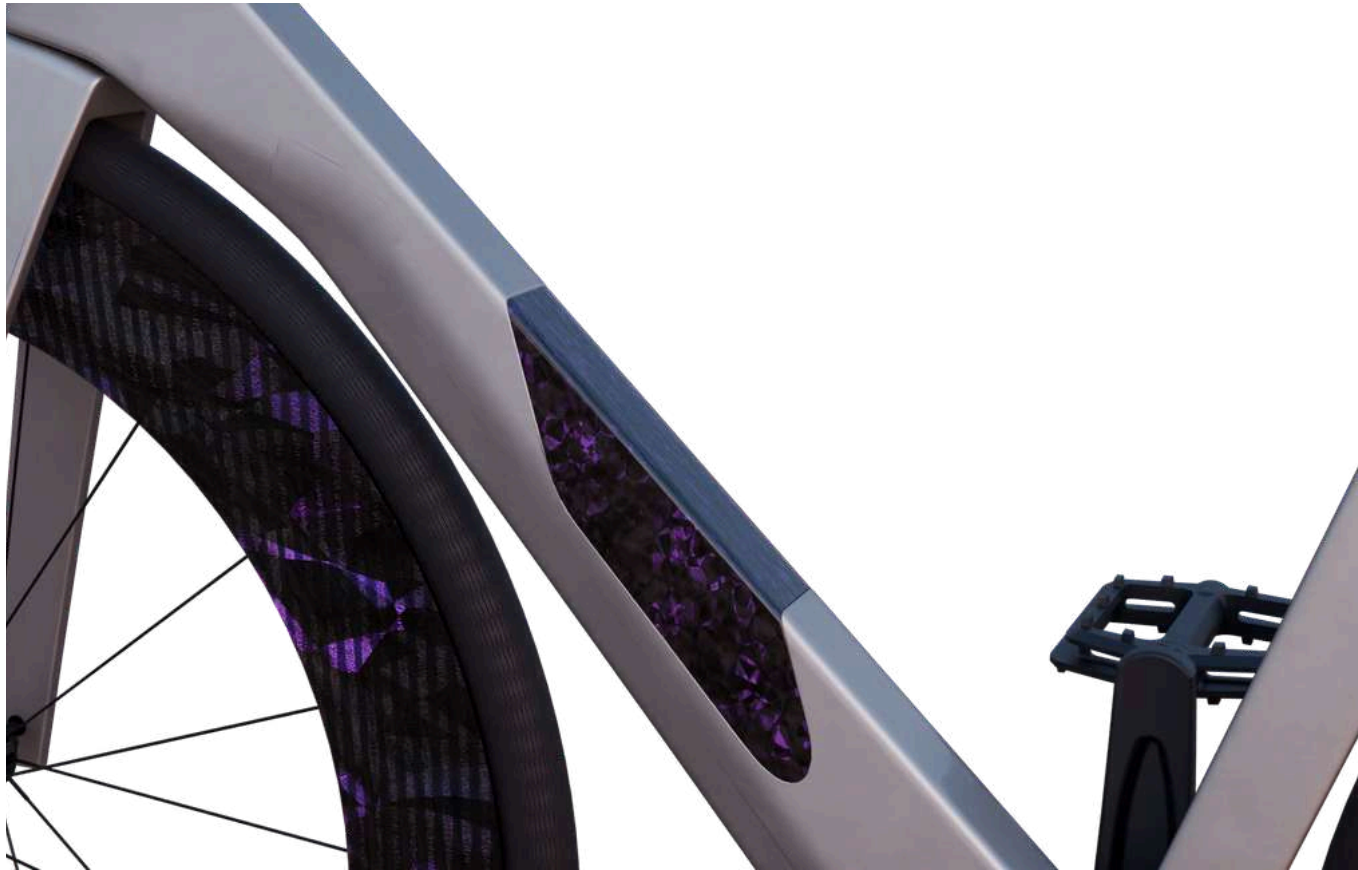


DETAILS



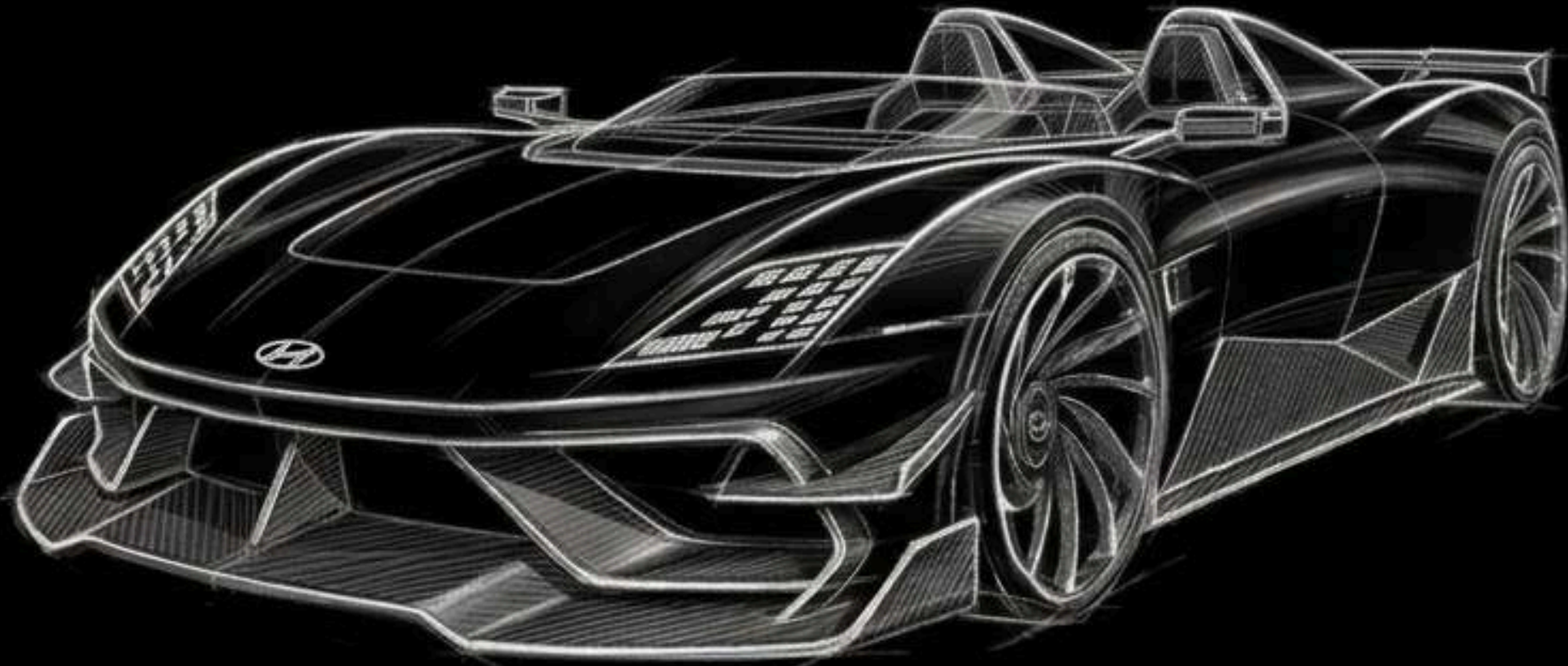
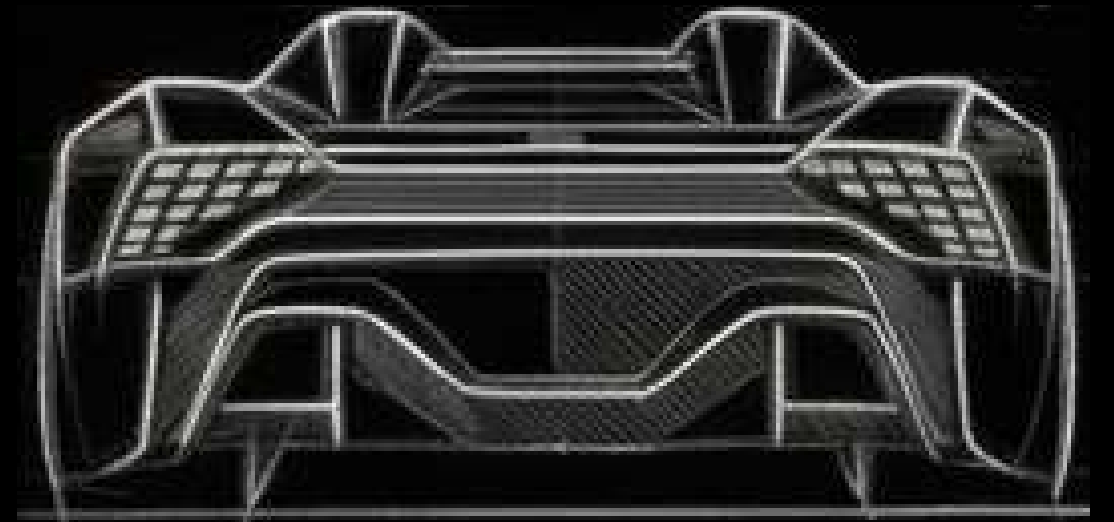
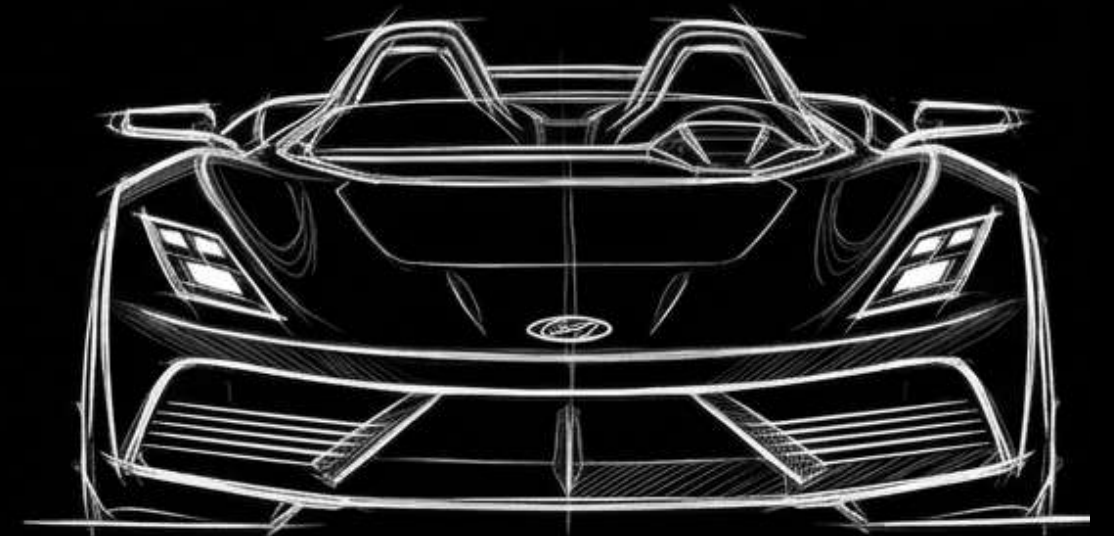
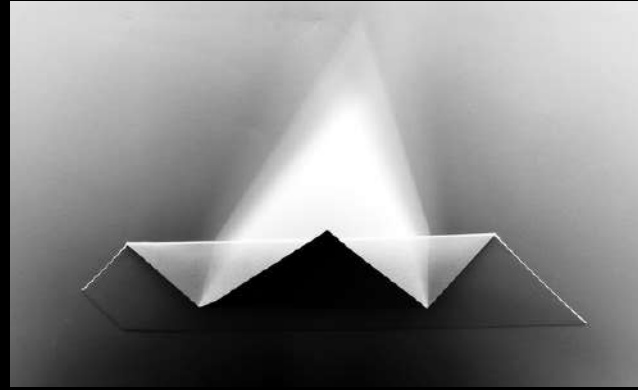
Engine
↑

Battery ←



Additional battery or storage
←

EXTERIOR DEVELOPMENT



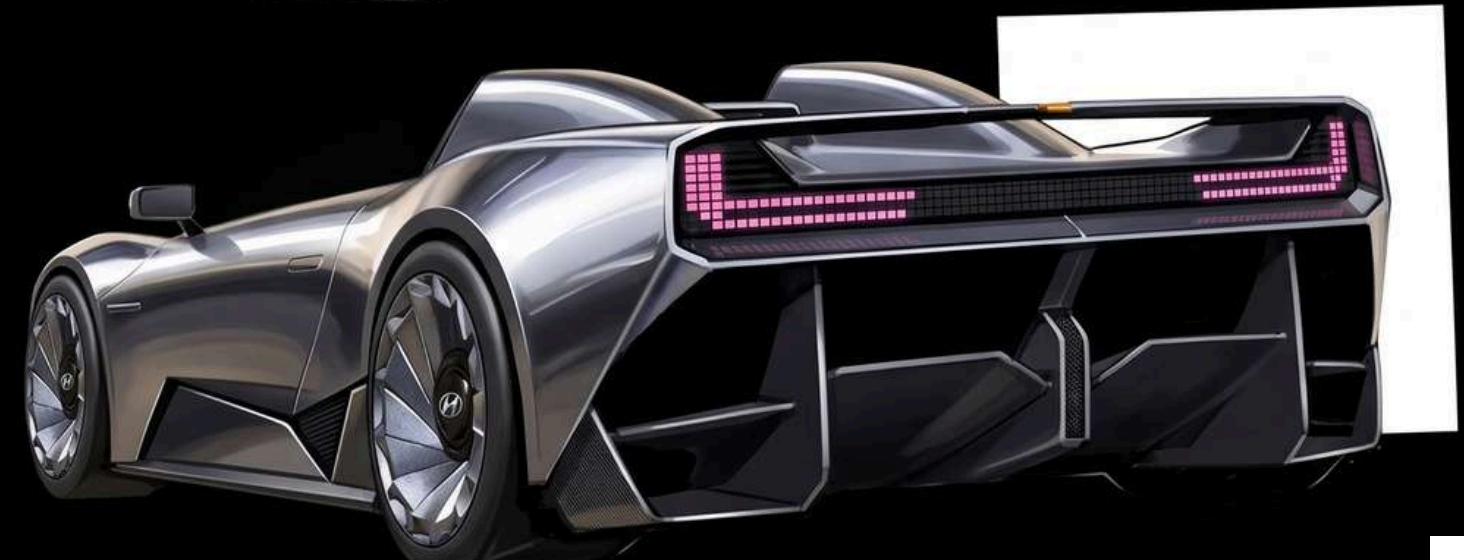
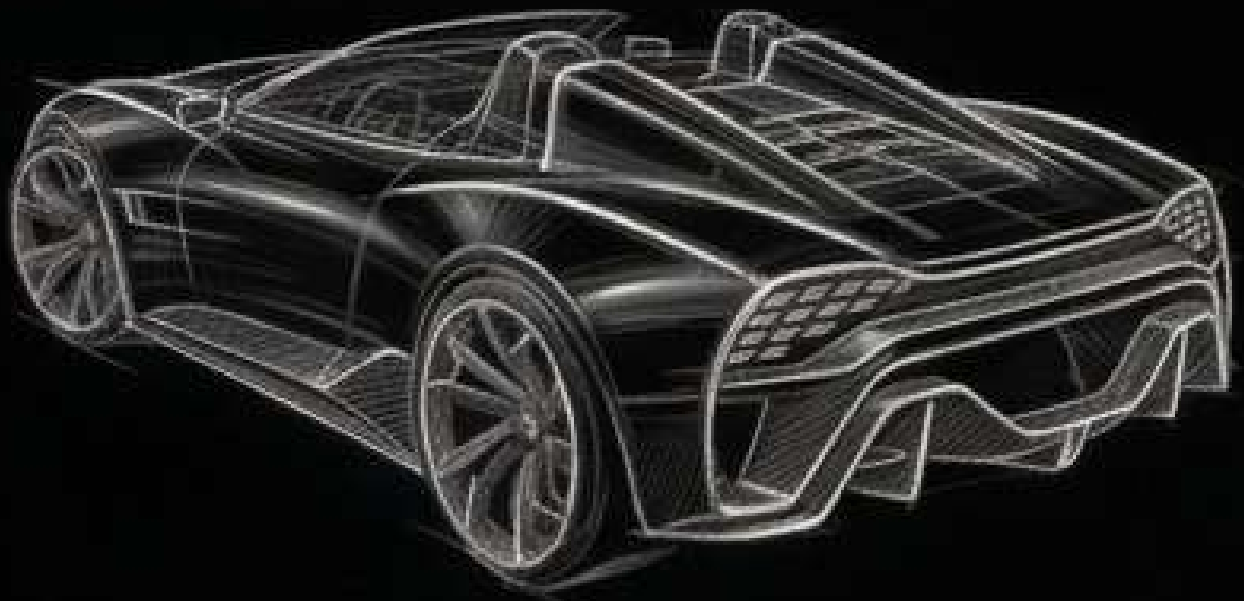
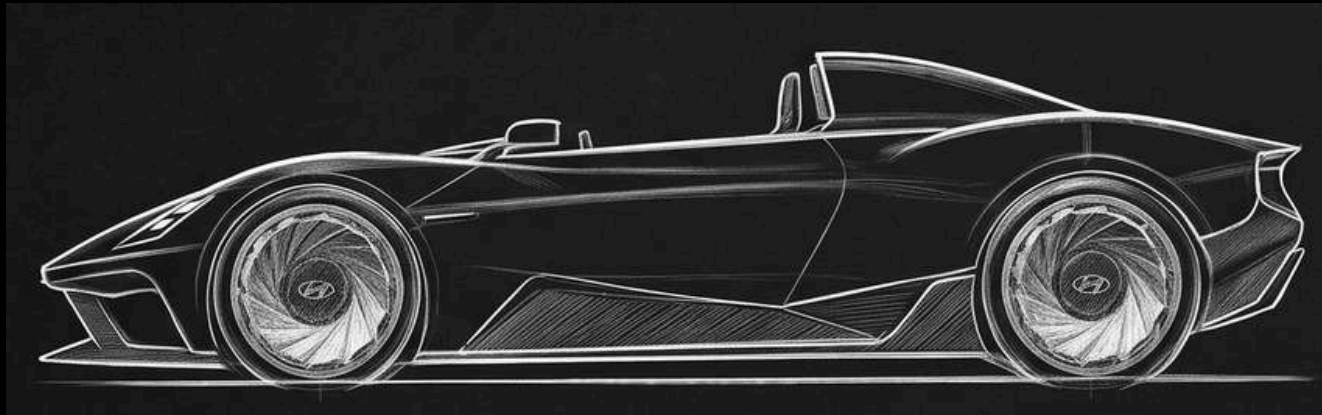
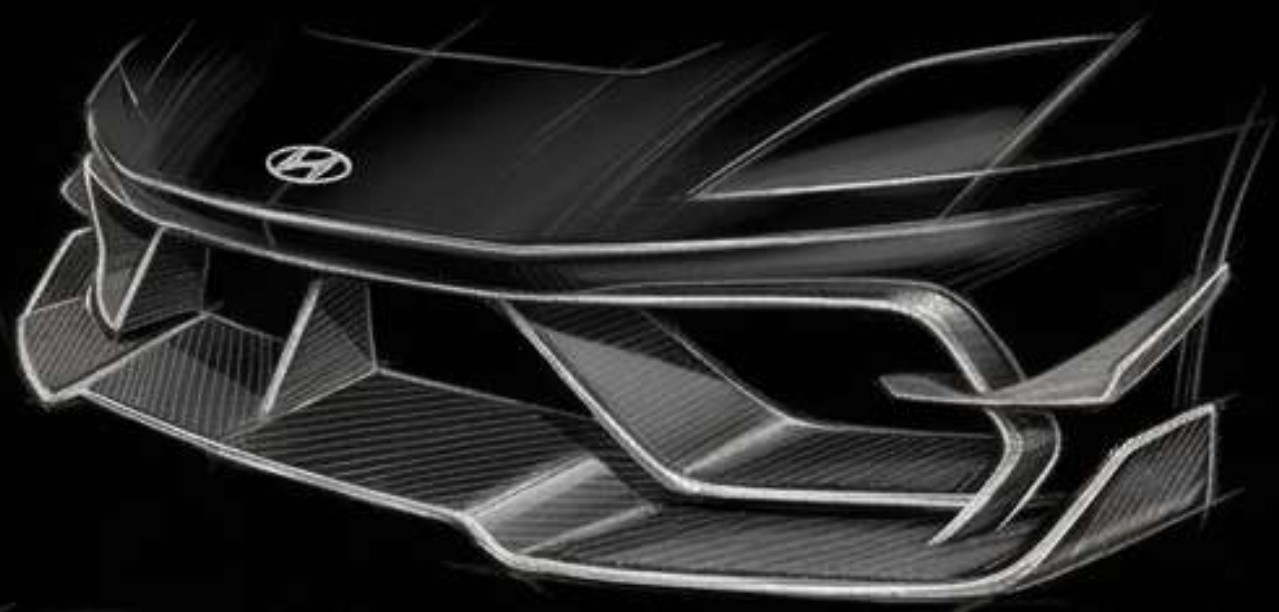
Hyundai Proto-0 is a pure electric 2-seater barchetta explored in its initial sketch development phase, focusing on proportion research, surface tension, and open-top driving purity. The design studies emphasize a lightweight, minimal body architecture with fluid yet aggressive lines, defining the early character of a modern, driver-focused roadster.



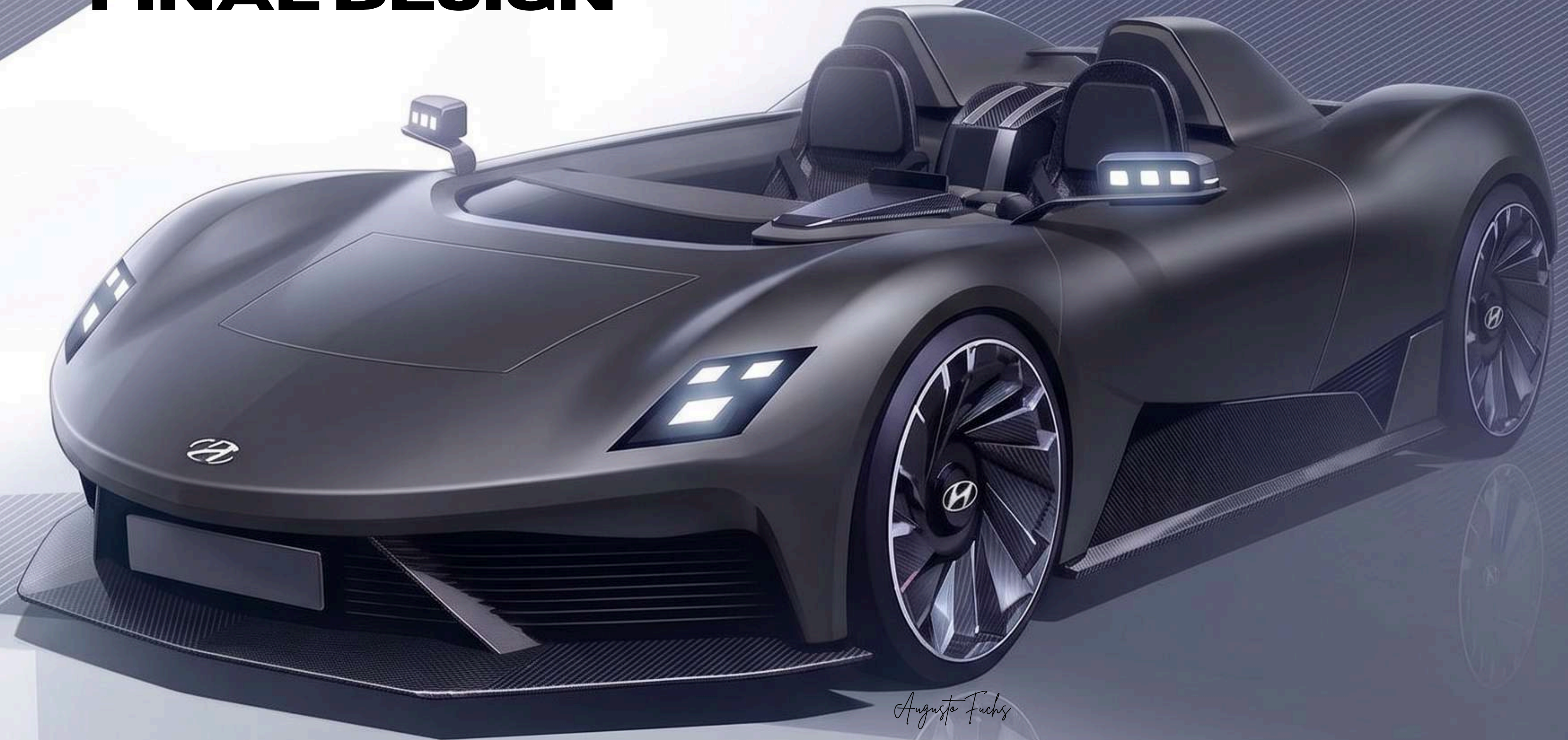
#3

Hyundai Proto-0

EXTERIOR REFINEMENT

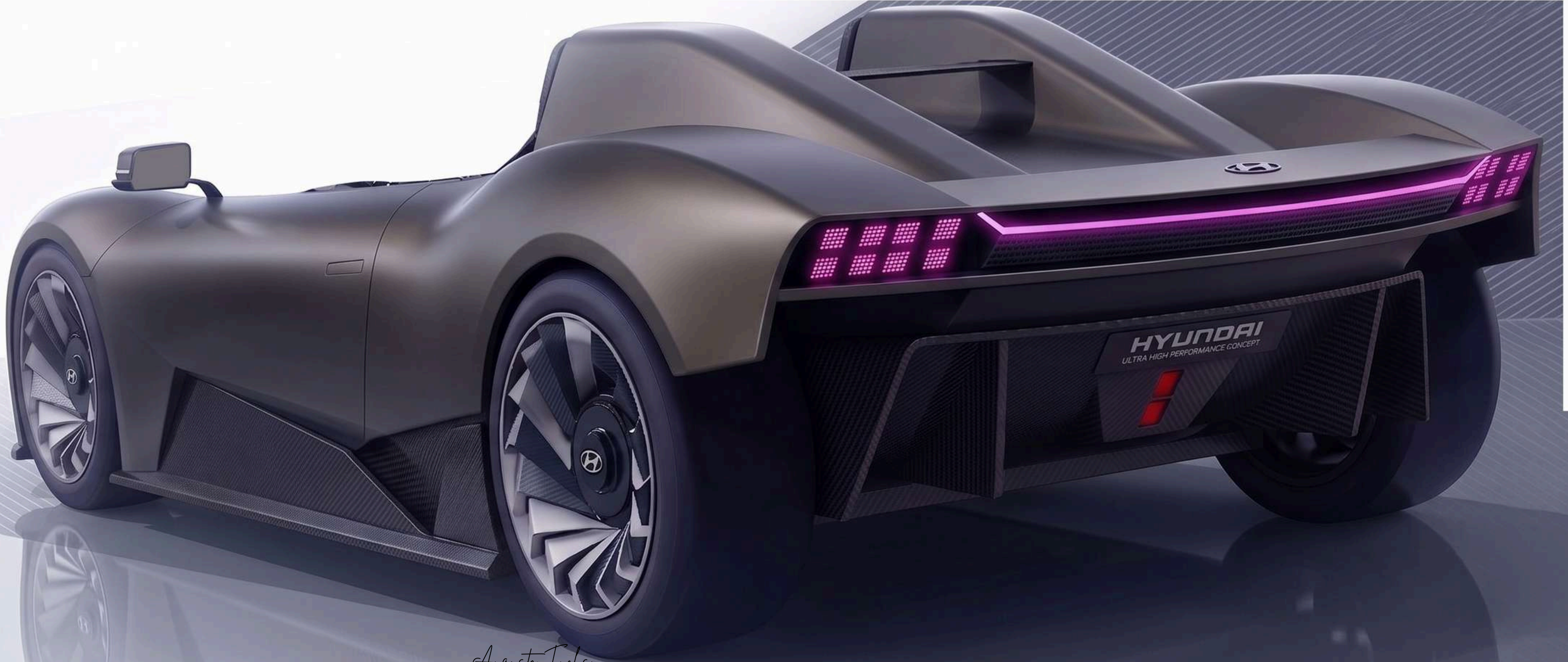


FINAL DESIGN



Augusto Fuchs



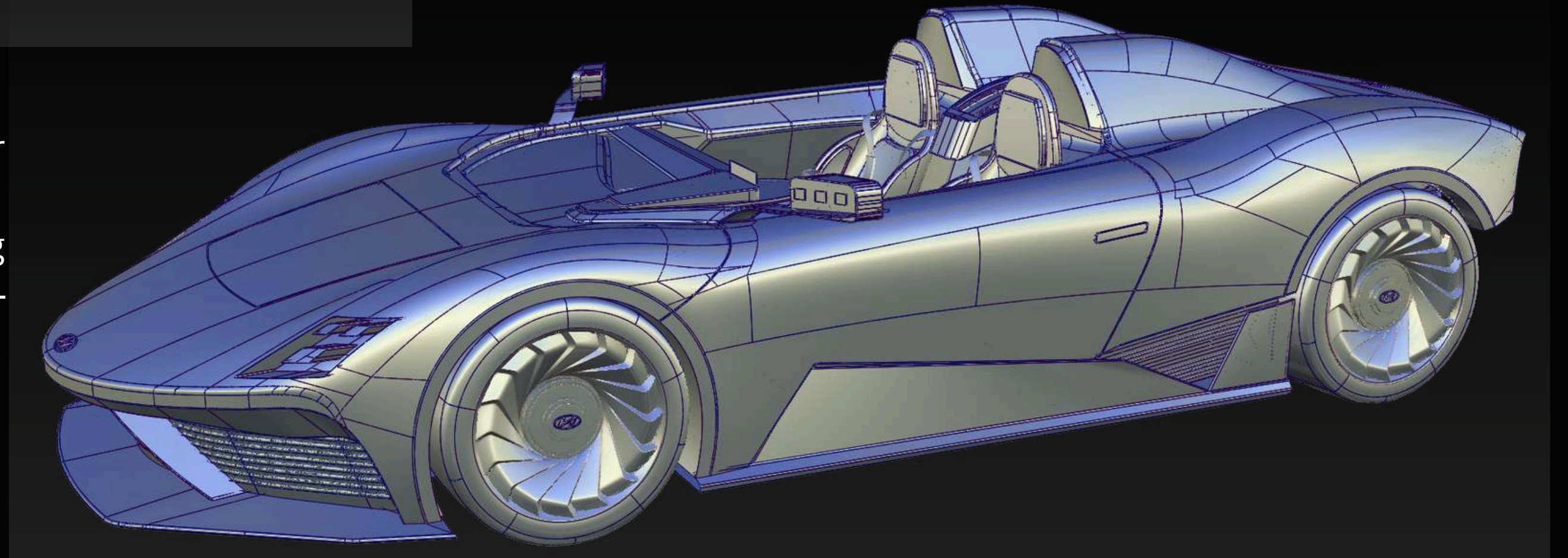
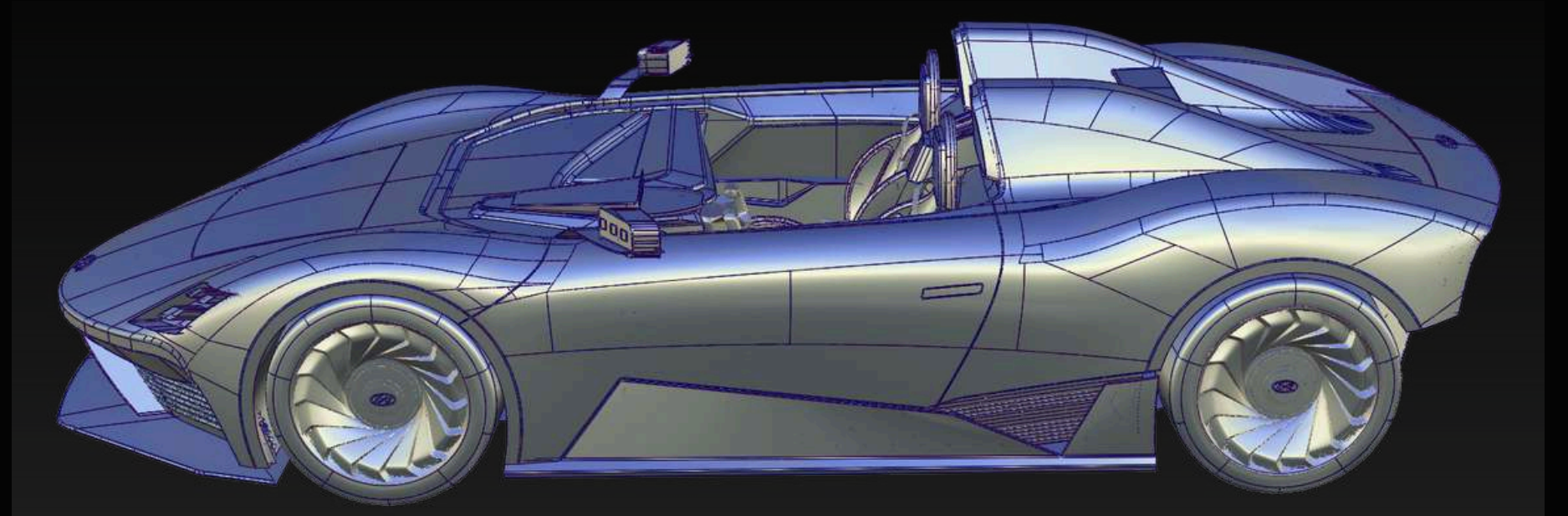
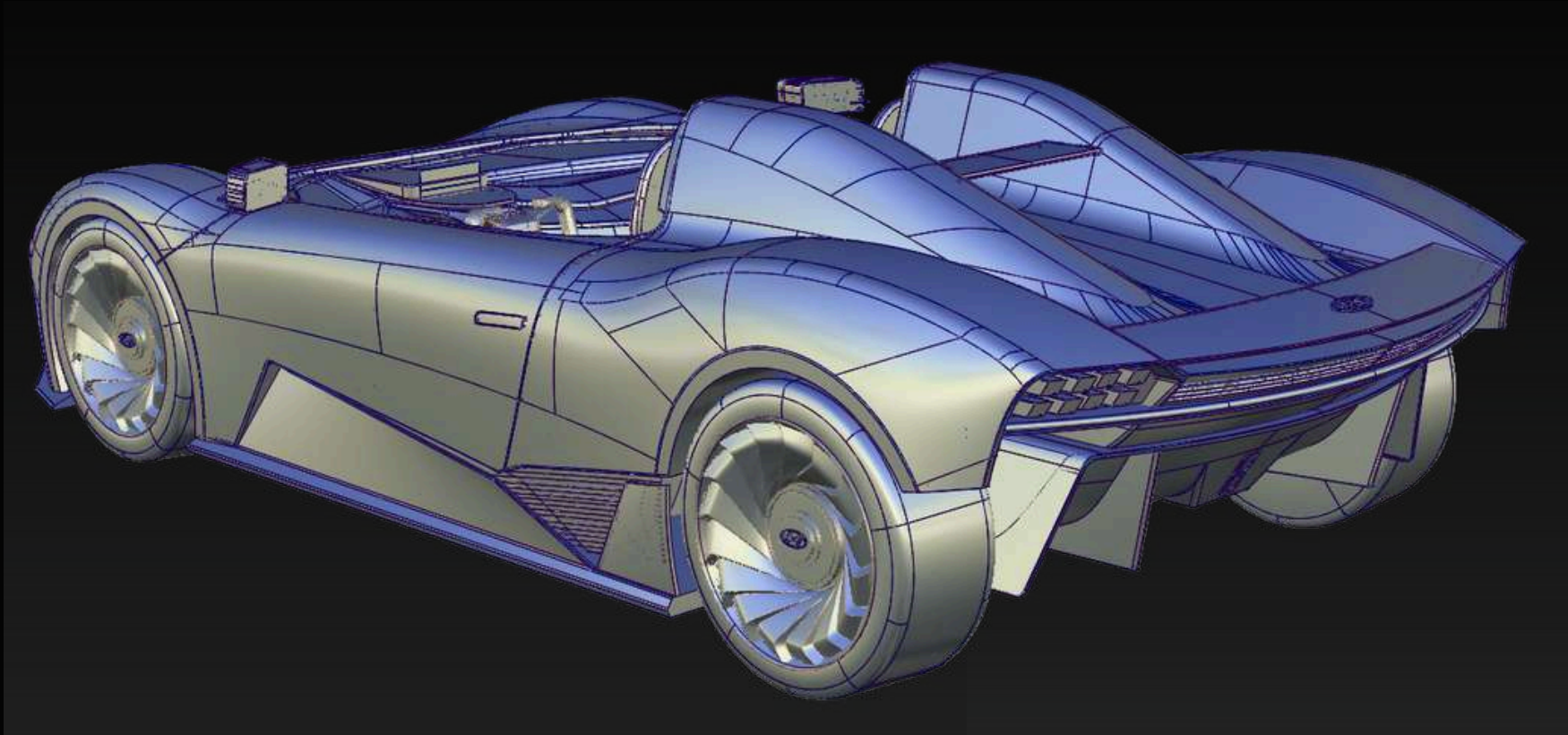


HYUNDAI
ULTRA HIGH PERFORMANCE CONCEPT

Augusto Fuchs

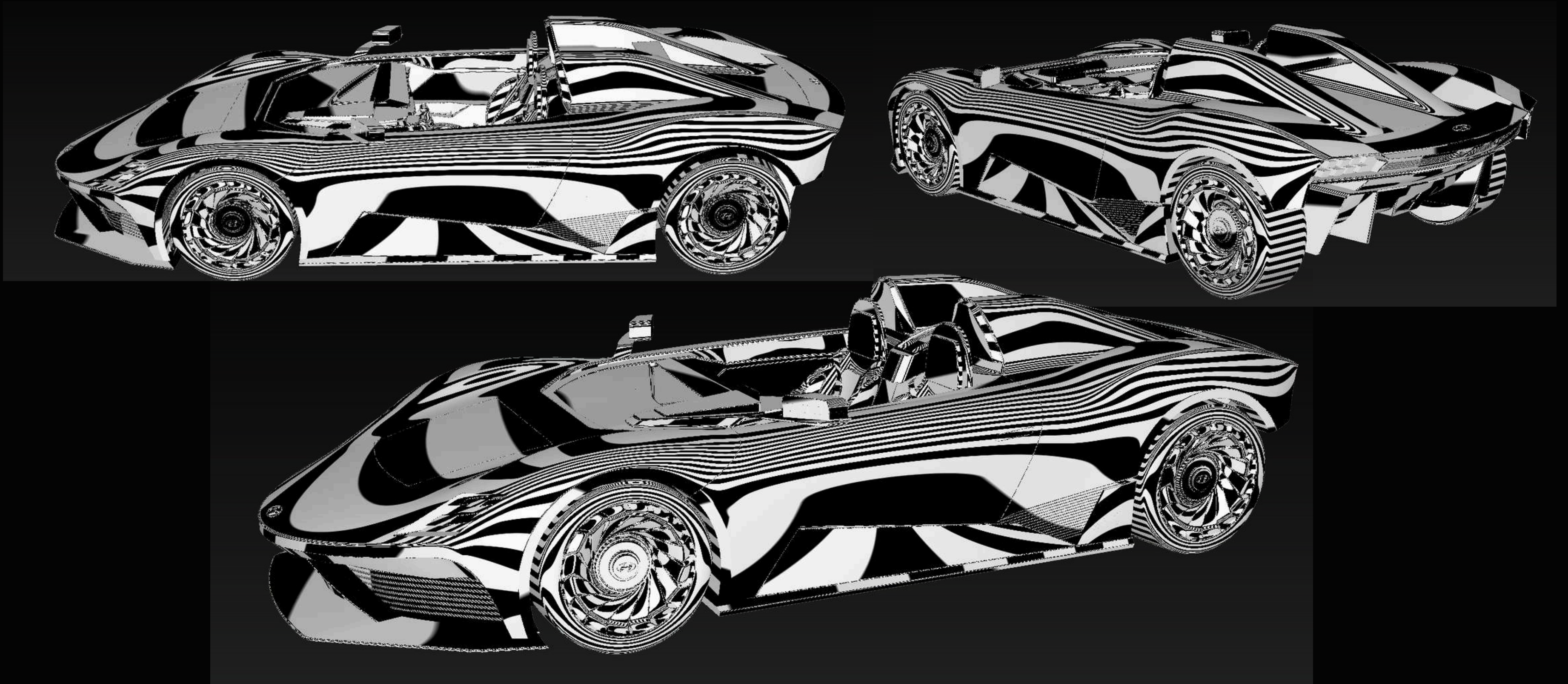


3D MODEL - PATCH CONSTRUCTION

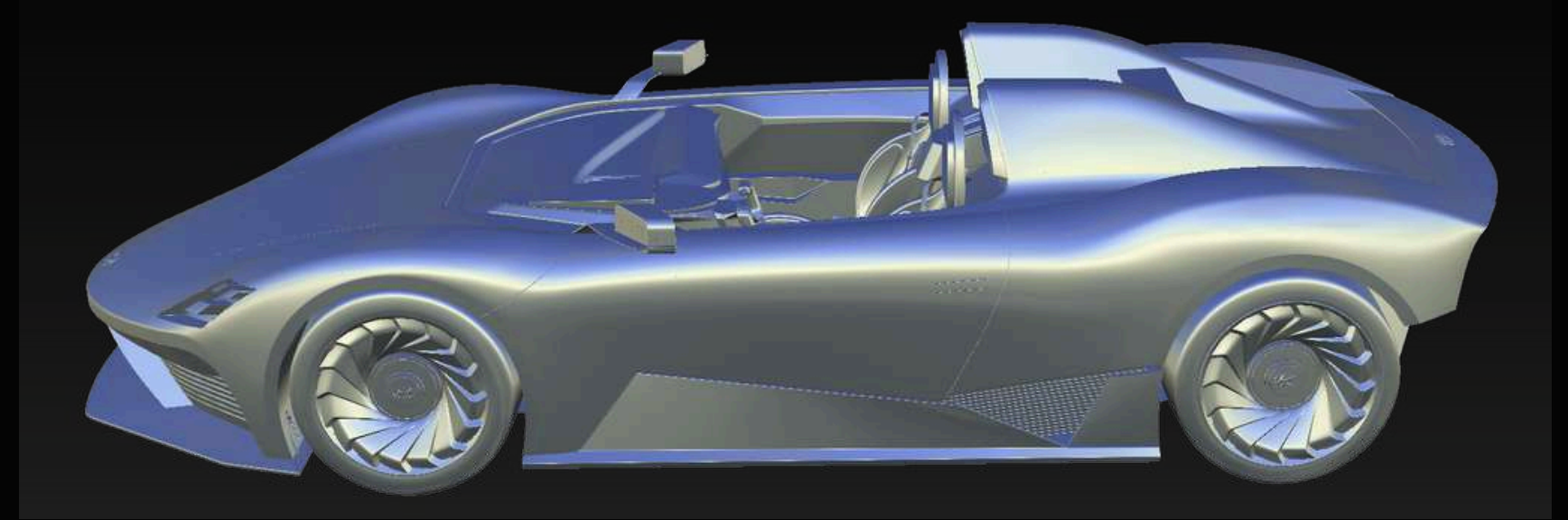
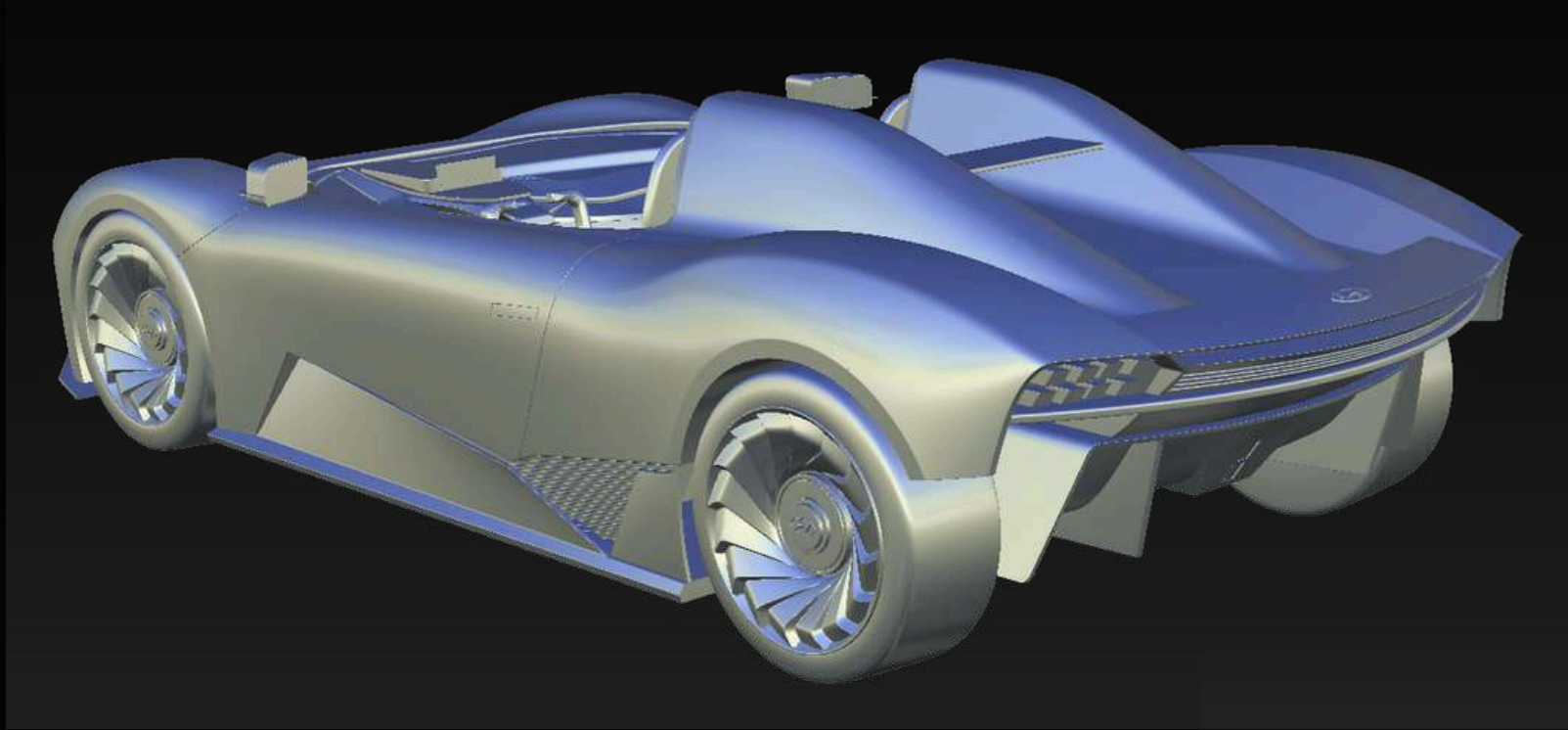


Modeled the complete vehicle exterior and interior in NURBS within 5 days, while selected components—including the wheels, rims, and steering wheel—were developed in Blender over the same timeframe, enabling a parallel and highly efficient end-to-end vehicle design workflow.

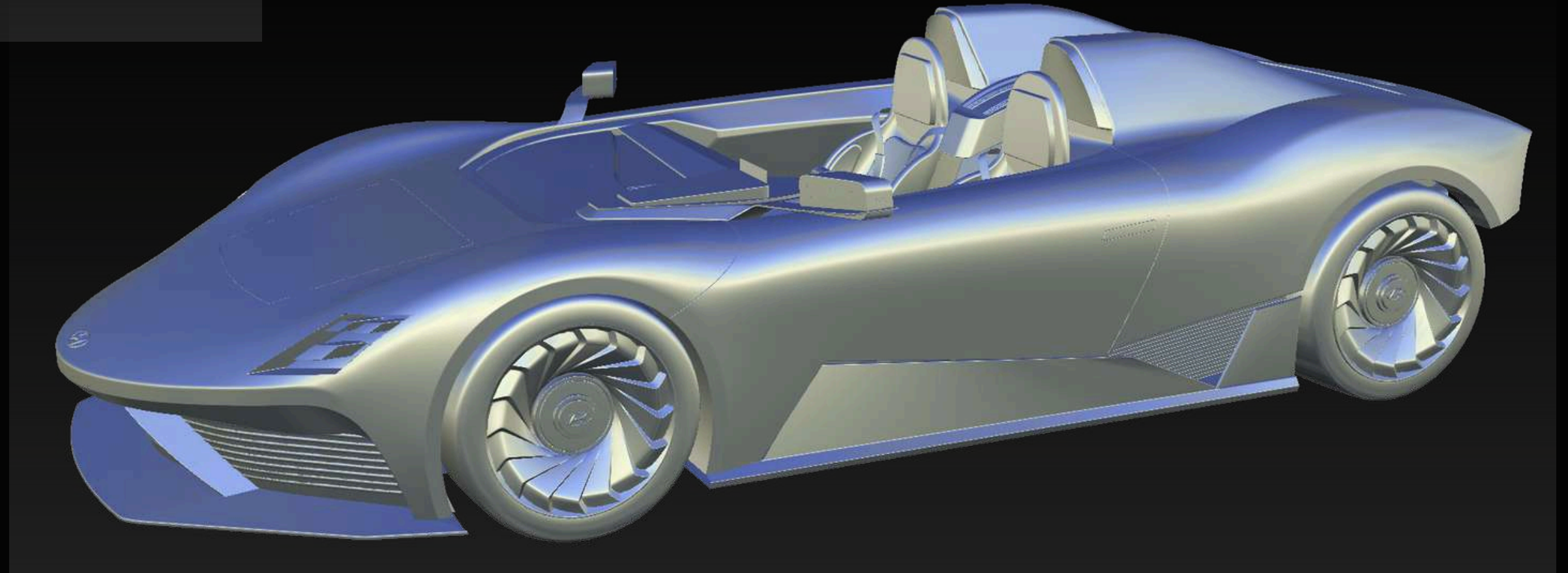
3D MODEL - ZEBRA SHADER



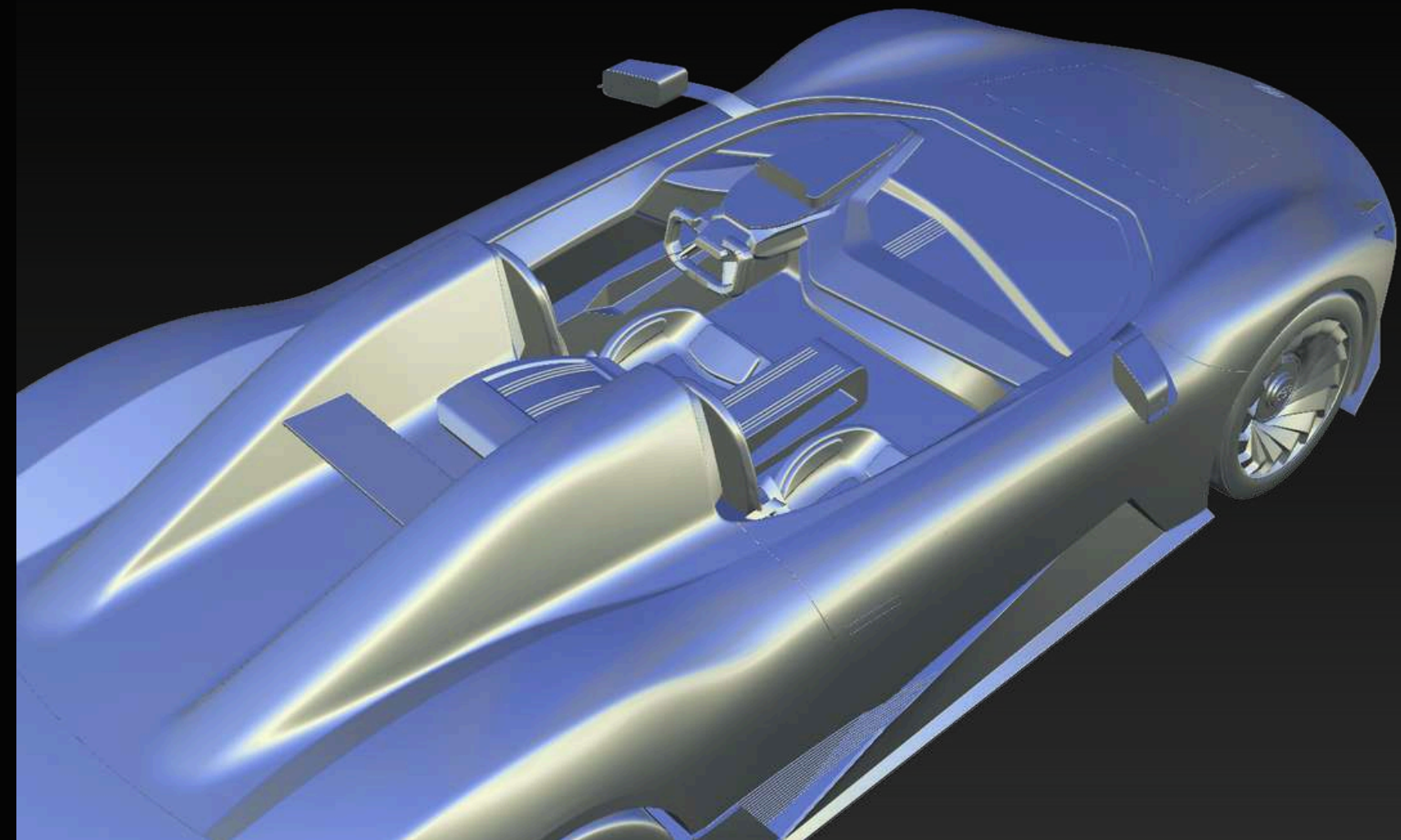
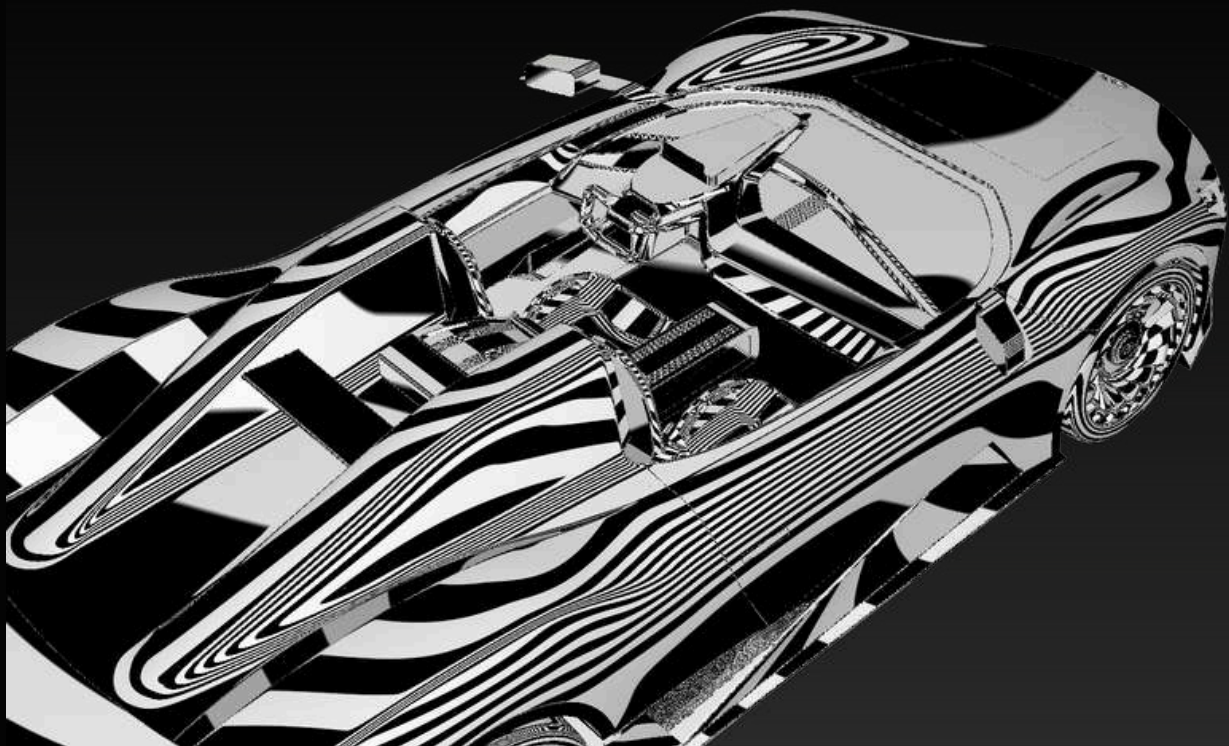
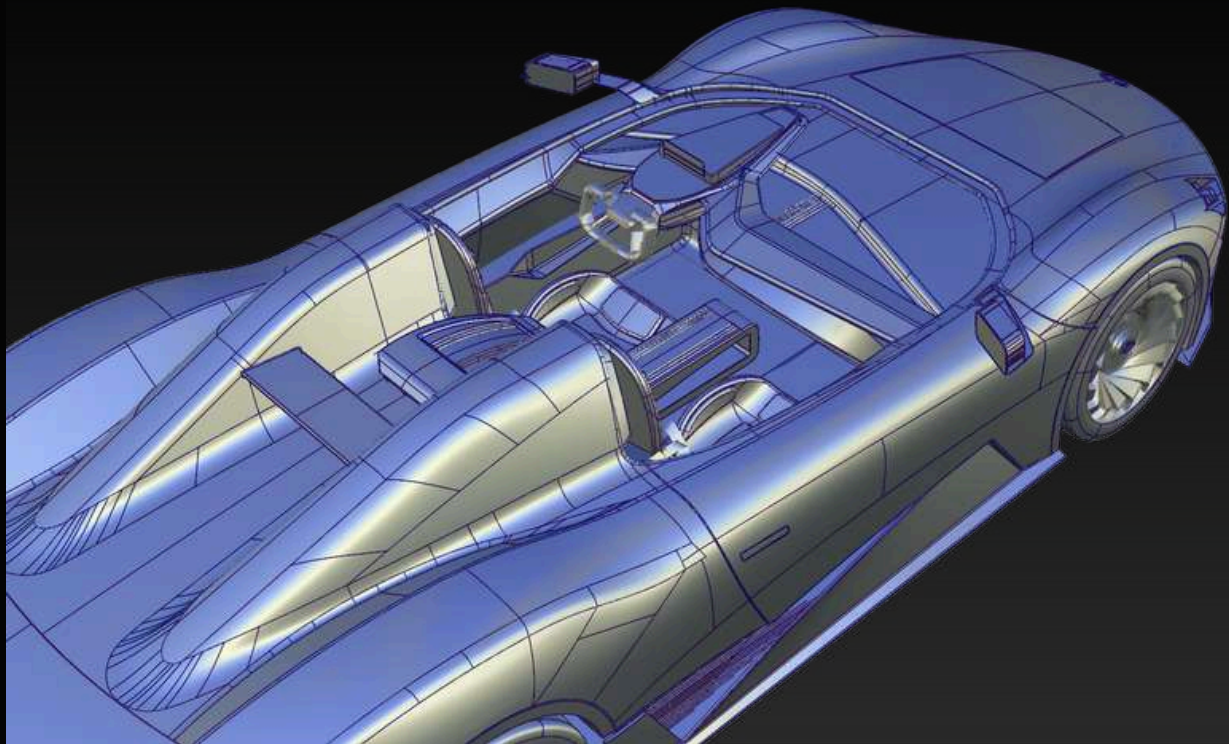
3D MODEL - HIGHLIGHTS



Despite the extremely tight timeline, the project was handled efficiently and in a well-coordinated manner. The workflow between exterior and interior development ran in parallel, allowing to maintain strong design consistency and meet the deadline without compromising quality. Overall, although the time was limited, I managed the process effectively and delivered a cohesive result through clear communication and focused execution.

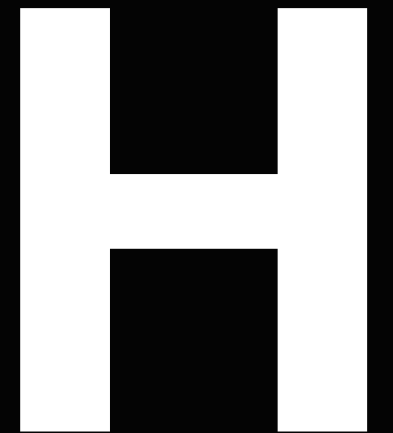
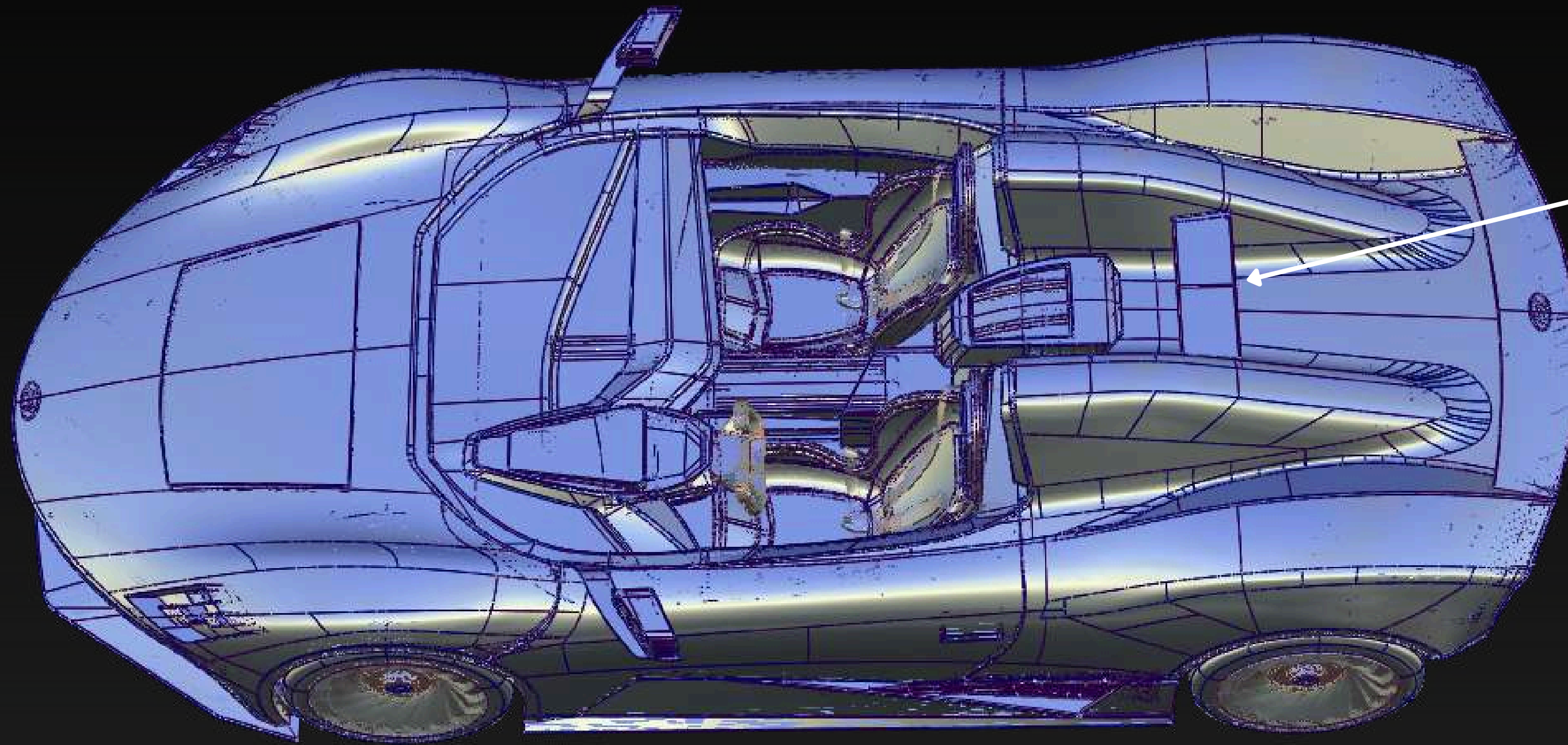


DETAILS EXTERIOR + INTERIOR



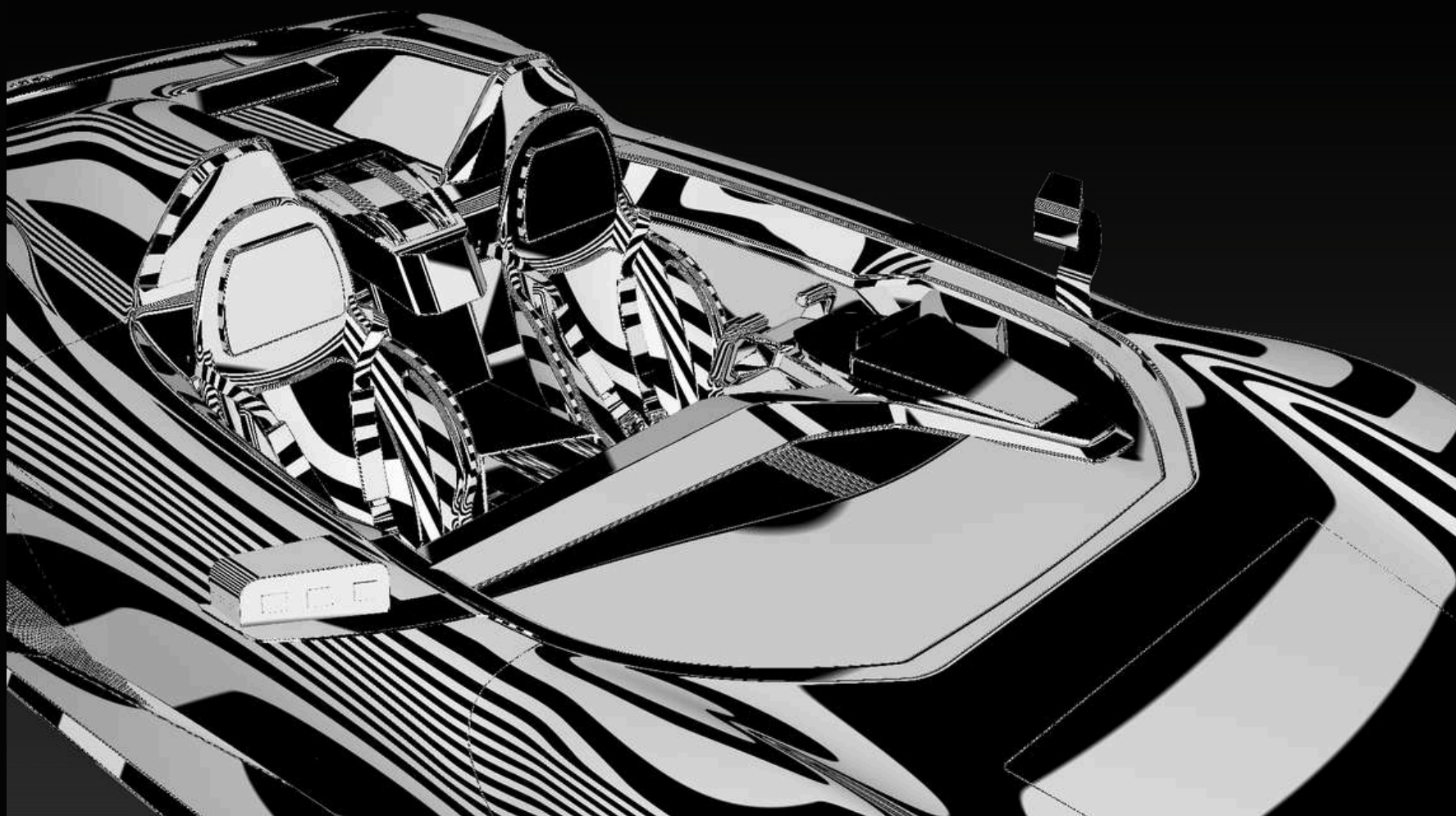
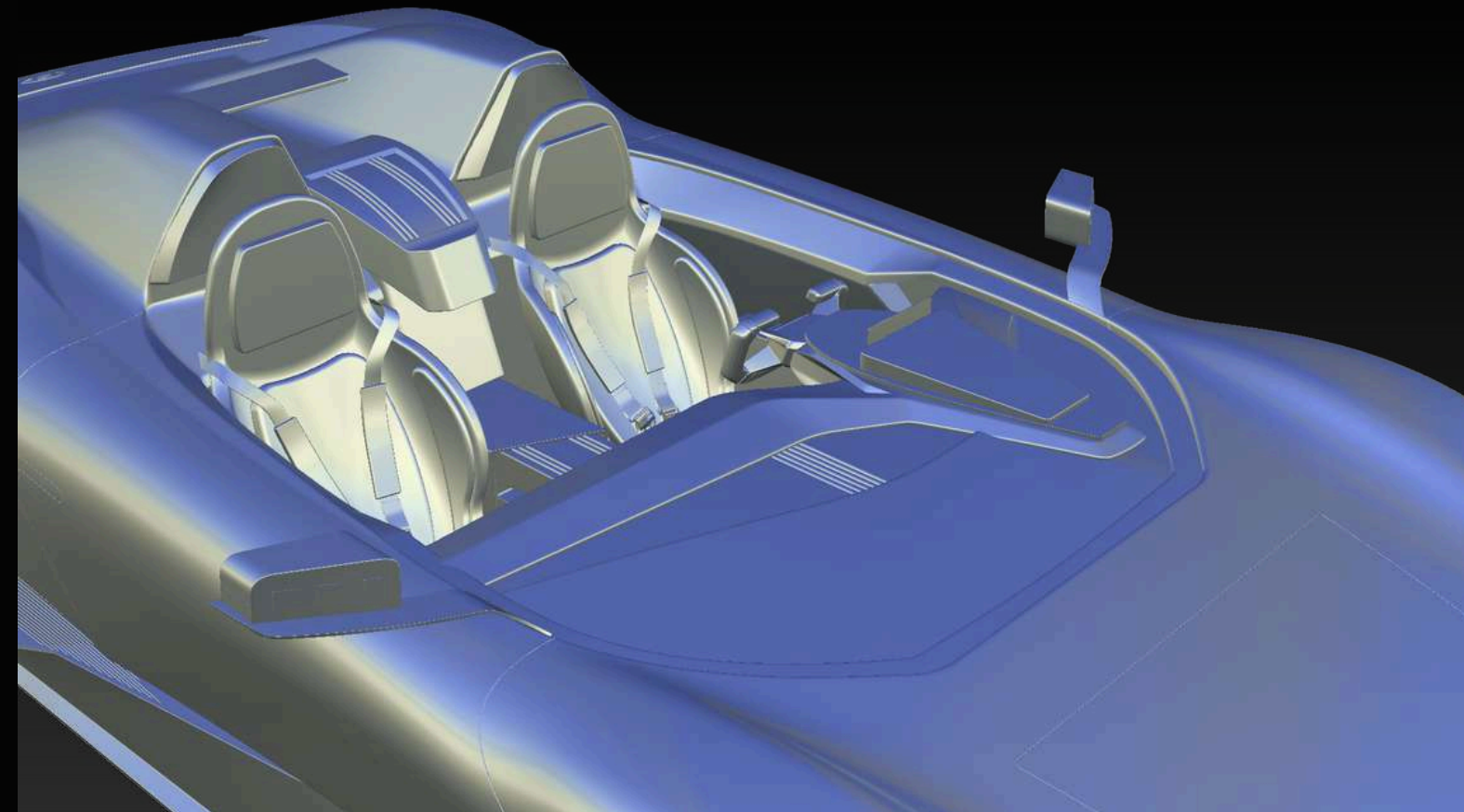
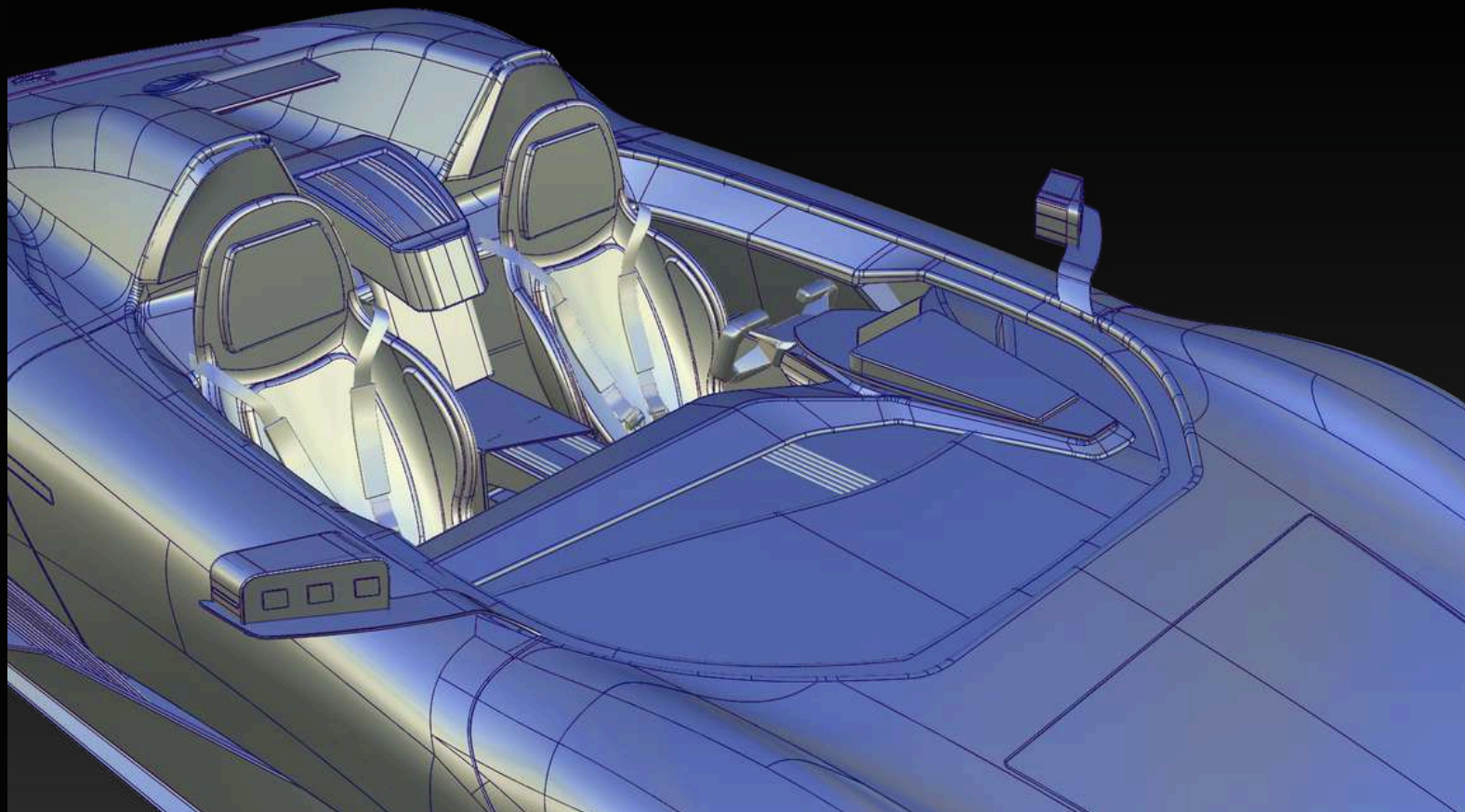
The interior interprets Hyundai's current design language with a timeless, minimal approach. It is closely aligned with the exterior and stripped of unnecessary elements to avoid aging quickly. The focus is on the driving experience, reducing screen distraction and keeping attention on the ride.

PURELY HYUNDAI

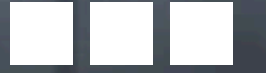


A **key** design element of the project is the “H” motif, which is a strong signature in the most recent Hyundai Motor Company design language. I developed this feature not only as a structural element that adds rigidity to the car, but also as a subtle top-view graphic. When seen from above, the geometry clearly forms an “H”, directly referencing Hyundai’s identity and reinforcing the brand language in a functional and integrated way.





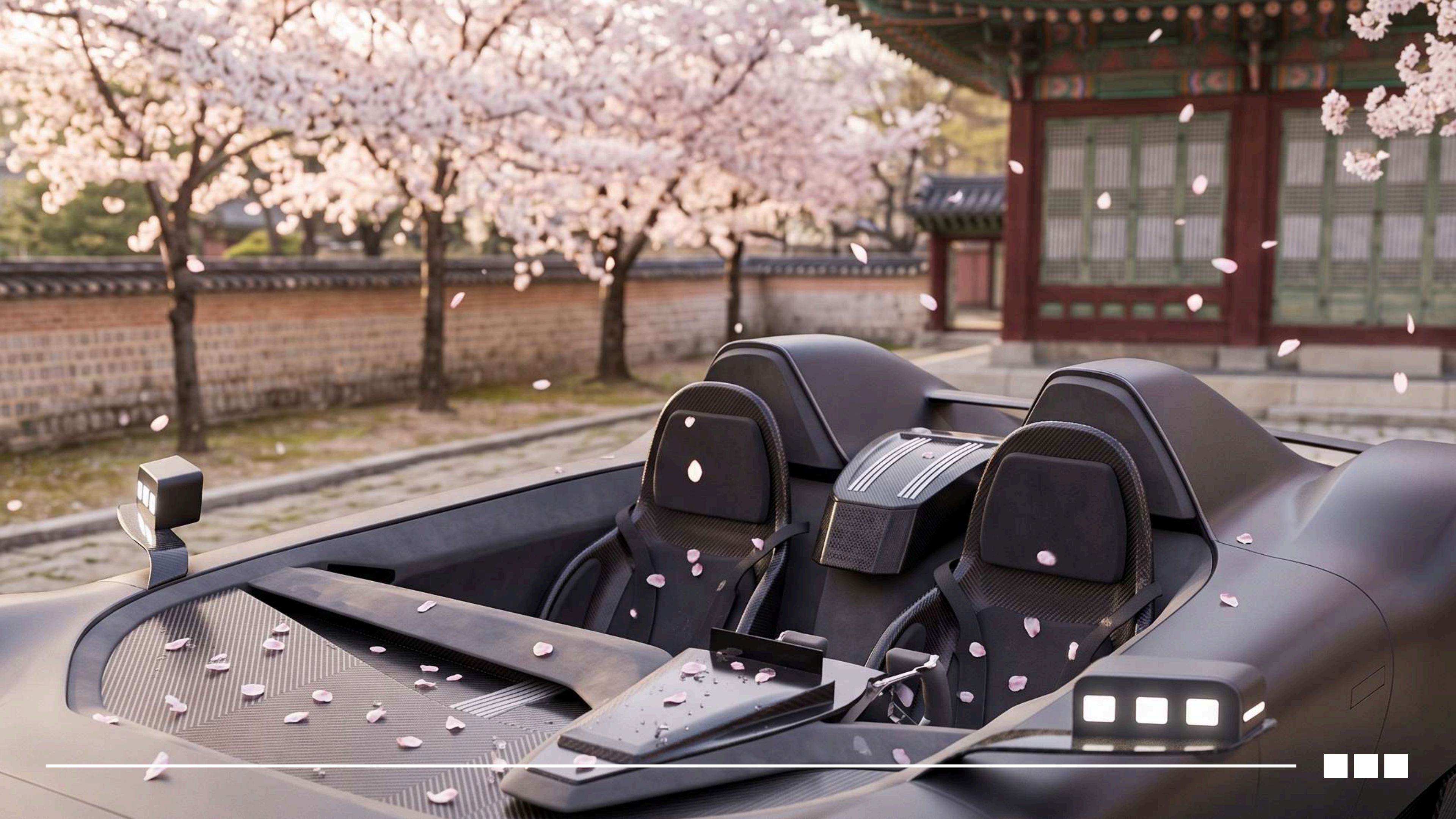
RENDERS EXTERIOR

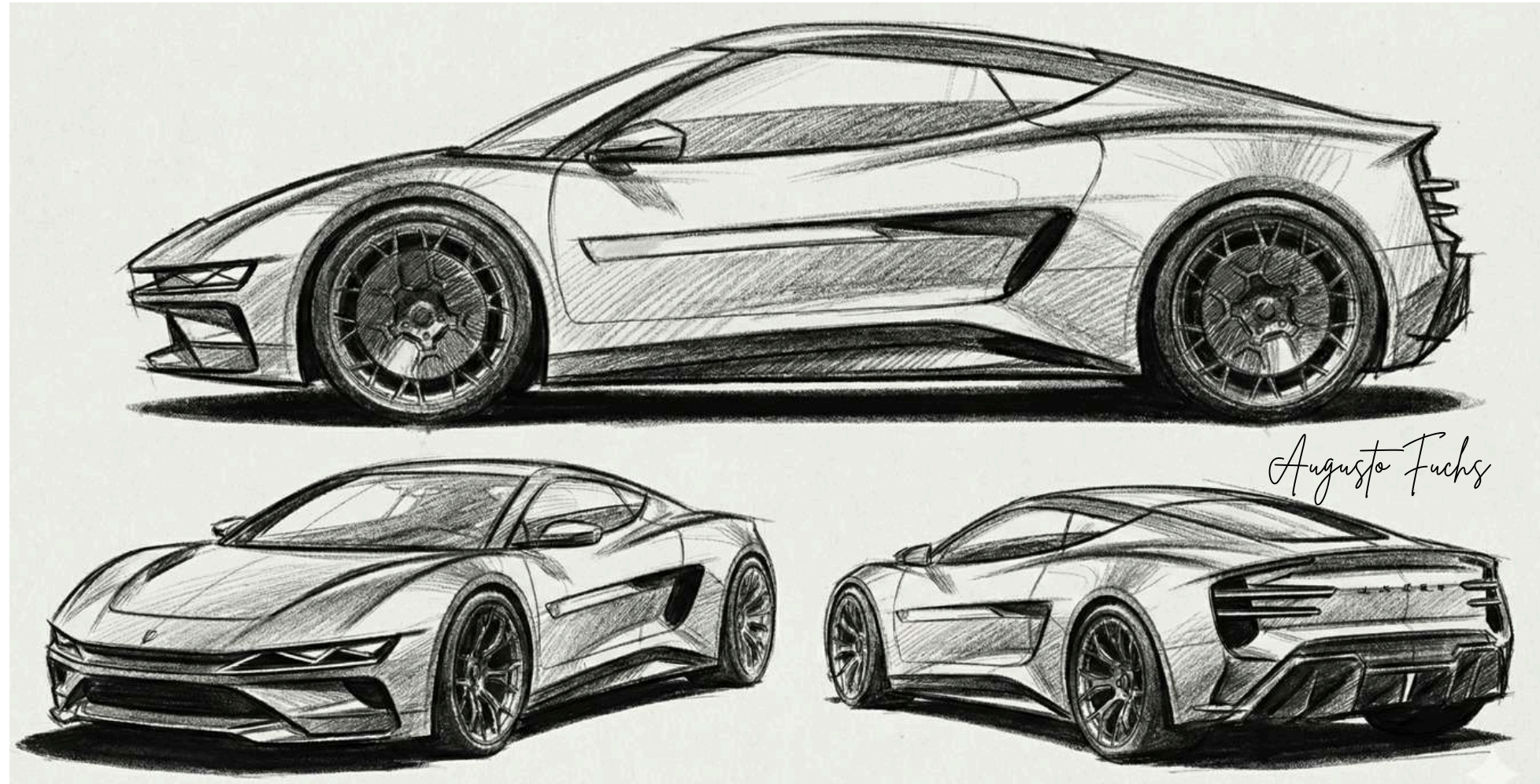




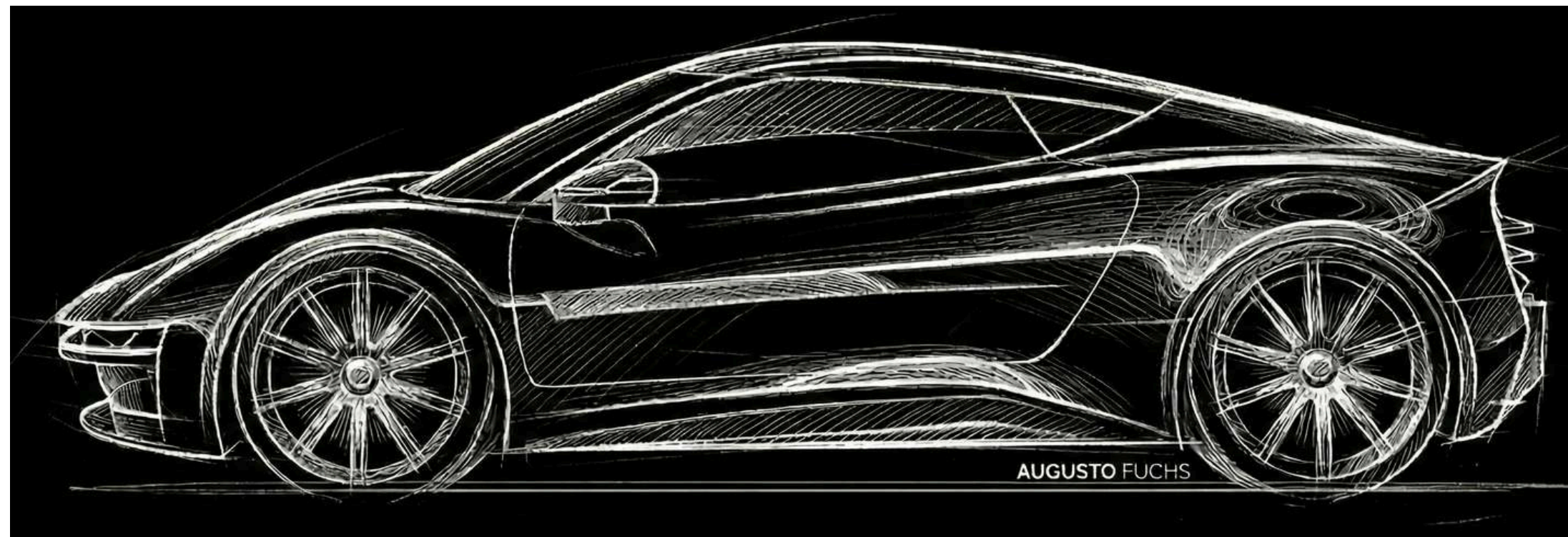






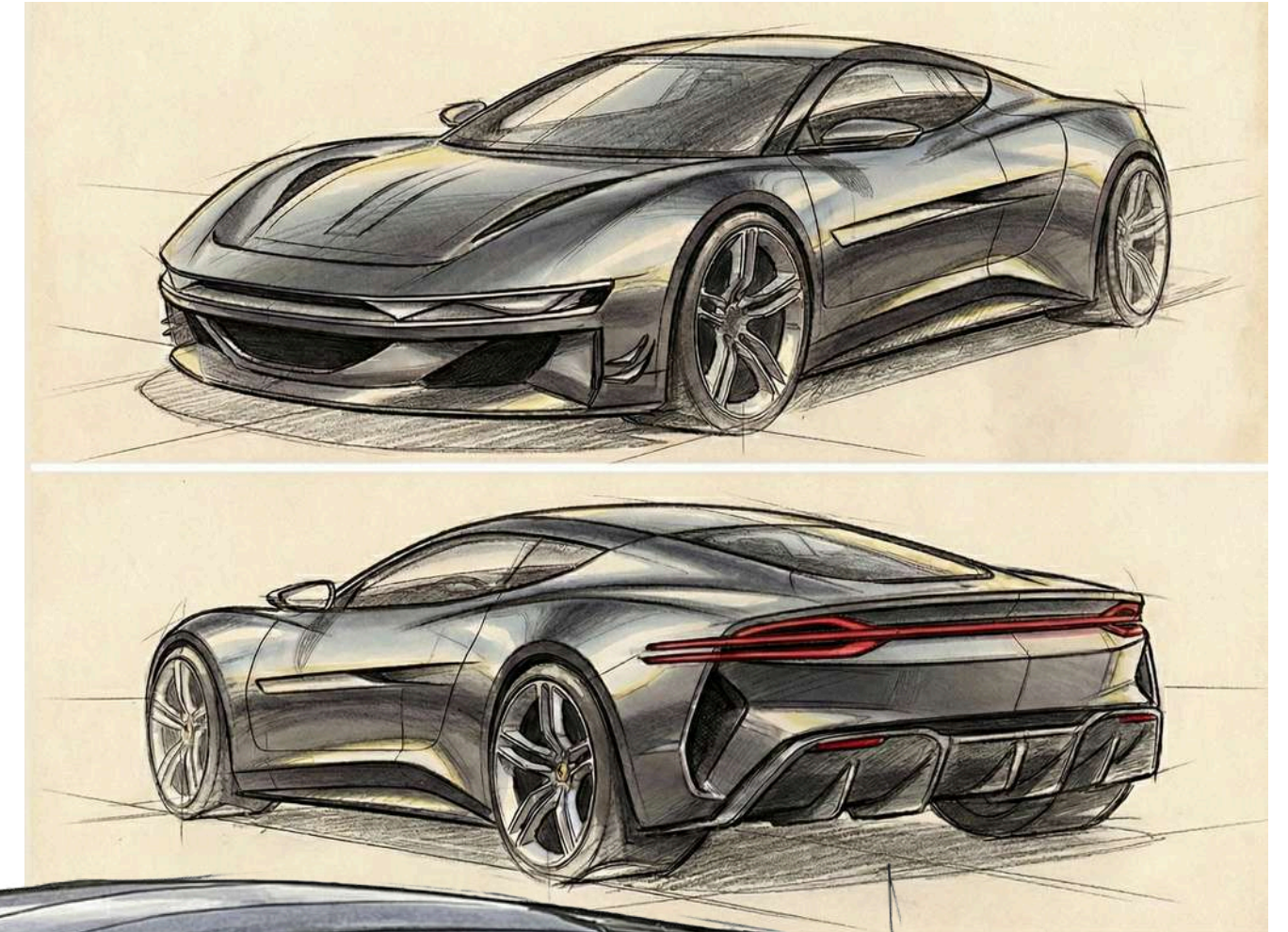
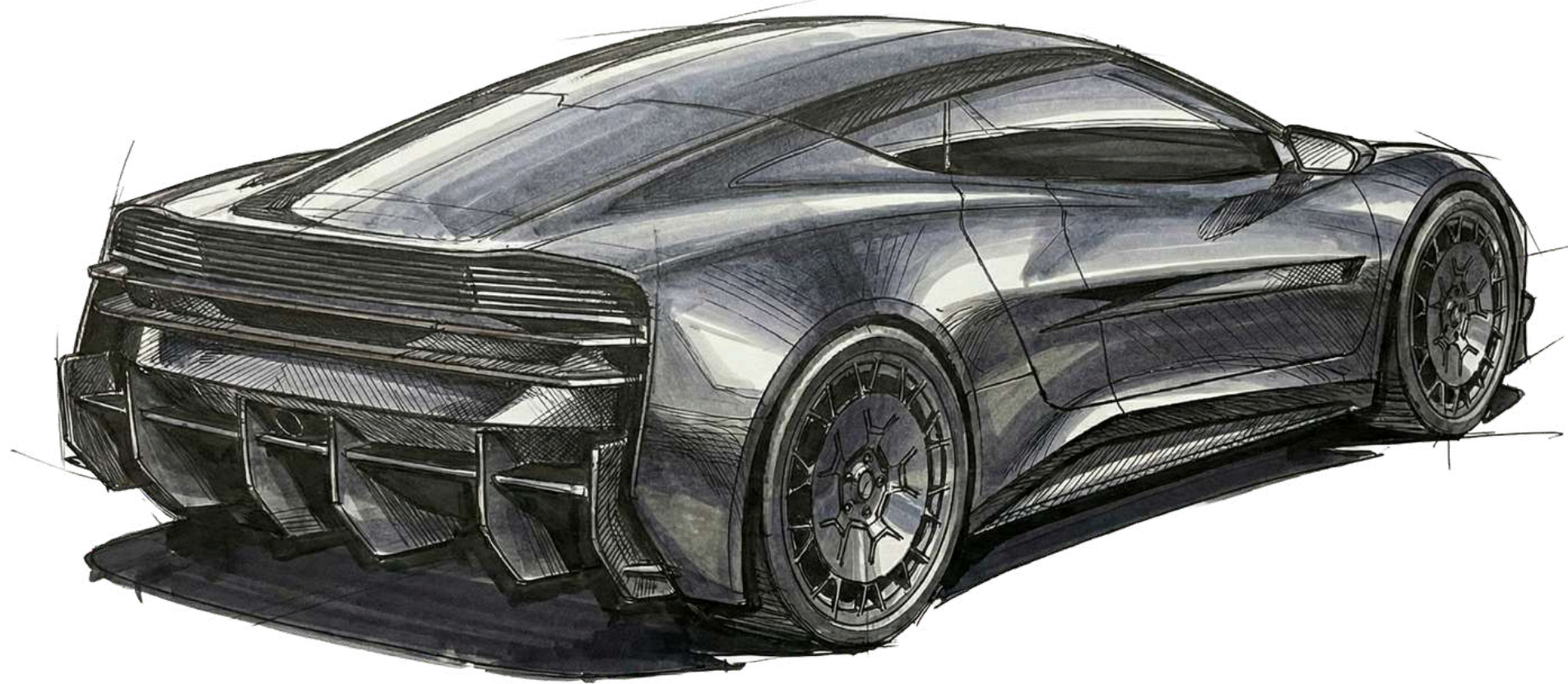


The **Genesis G-Force** concept explores the future of high-performance luxury by reinterpreting Genesis' core design philosophy, **Athletic Elegance**, within a sports car architecture. The research focused on translating signature brand elements such as the Two Lines lighting and Crest Grille into a more aggressive and dynamic performance identity. Inspiration was drawn from aerodynamics, motorsport, and fluid natural forms to express motion, precision, and emotional impact. The project investigates how Genesis could expand into the performance segment while maintaining its refined and technologically advanced design language.



Research sketches

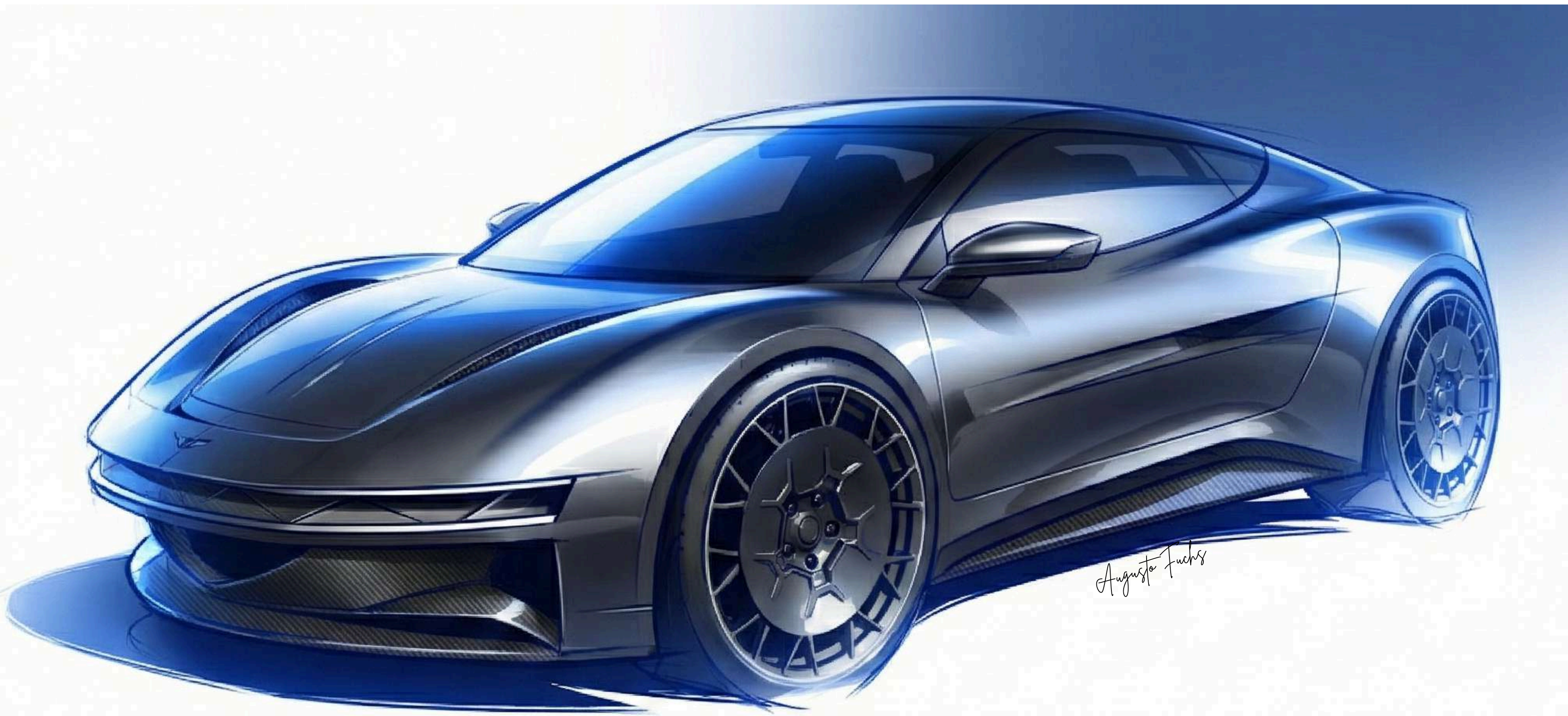
#4



The **Genesis G-Force** Concept originates from design research exploring the future of luxury performance and Genesis brand identity. The project focuses on evolving the “Athletic Elegance” philosophy through aerodynamic studies, advanced lighting, and minimal sculptural surfaces, combining emotional performance with innovative technology.

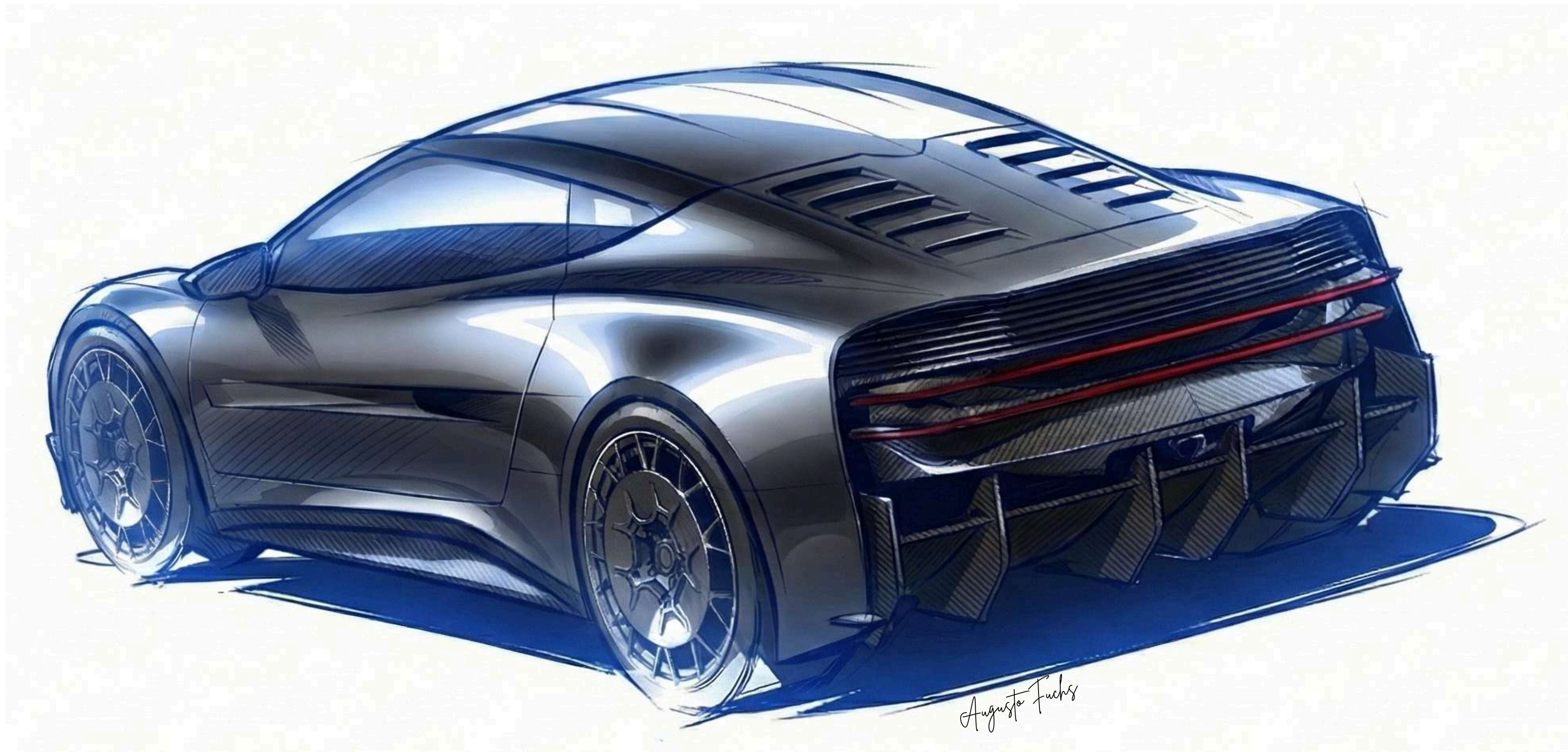


Design refinement

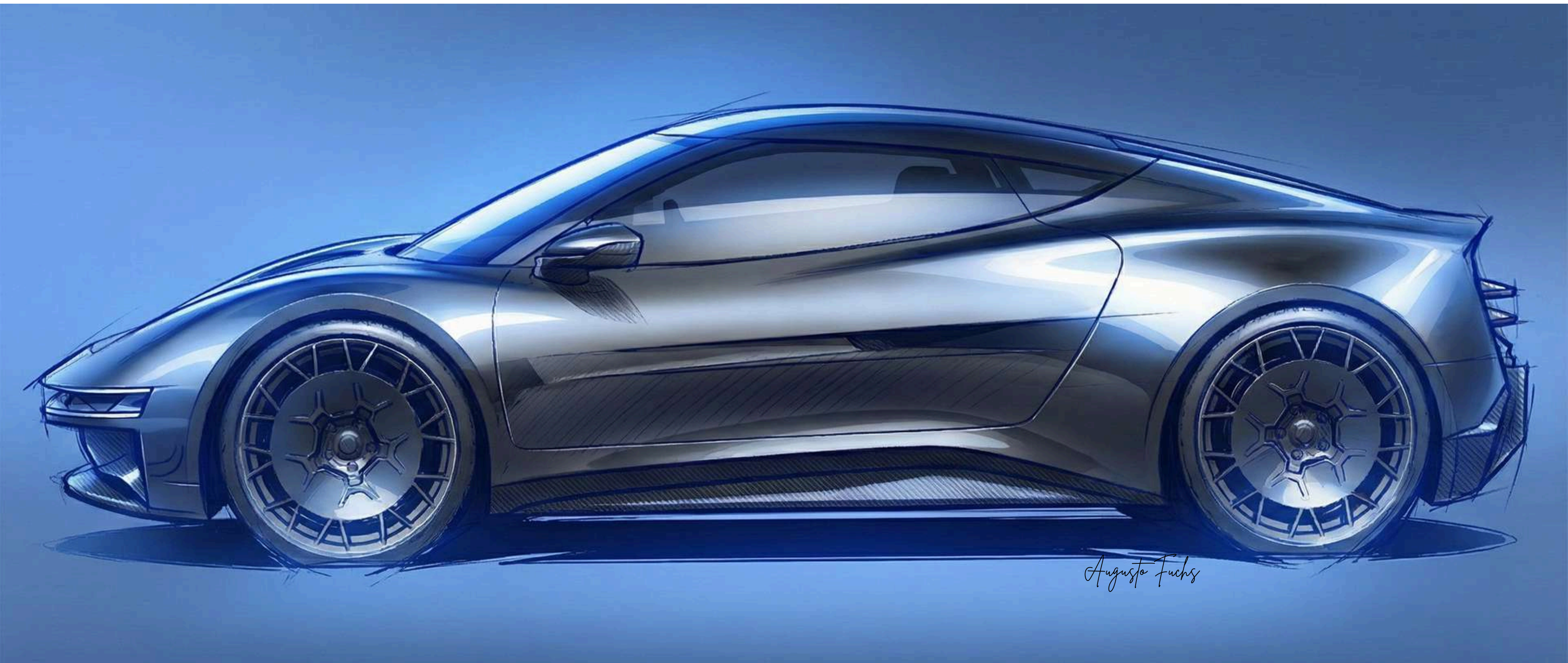


Augusto Fuchs

Official photoshop

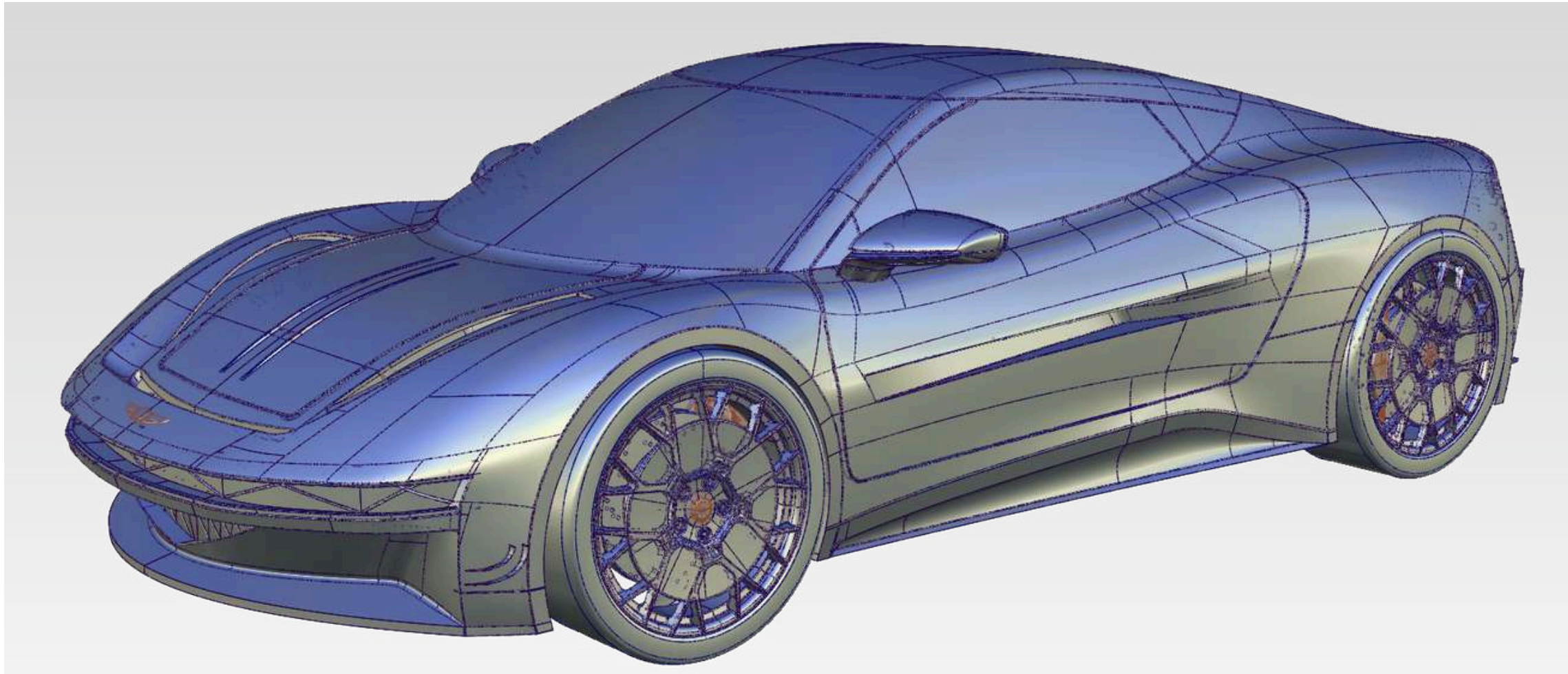
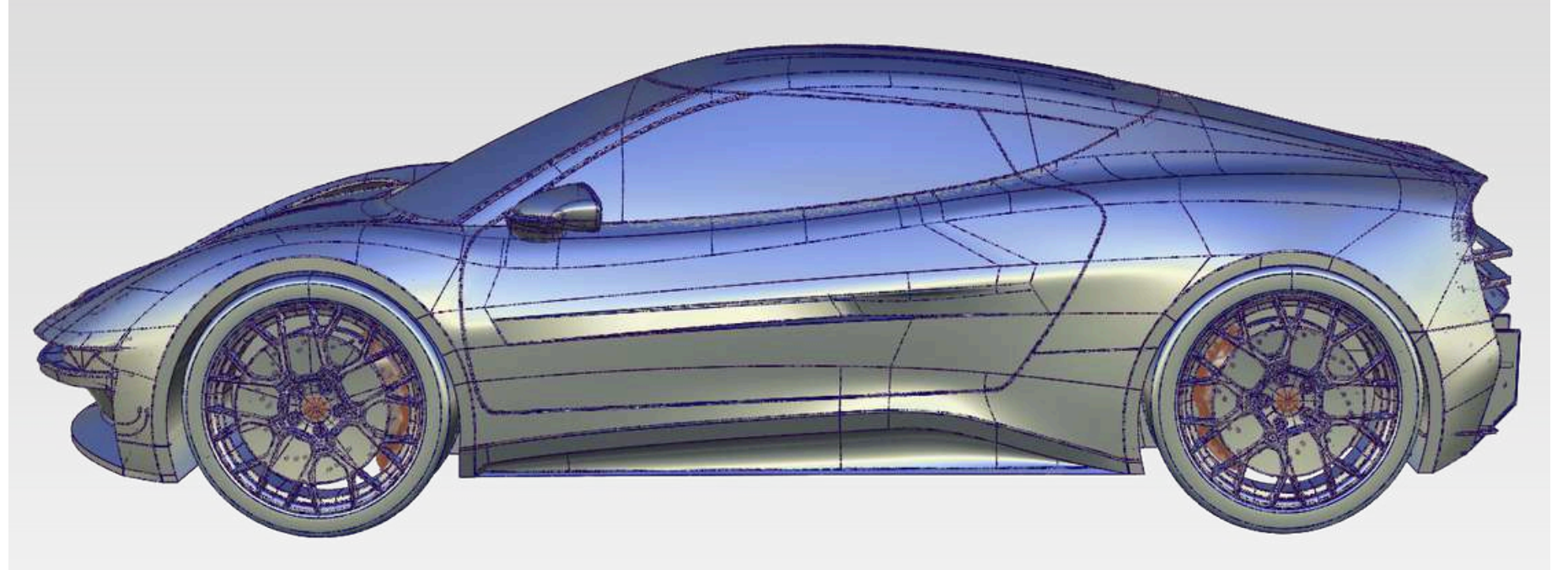
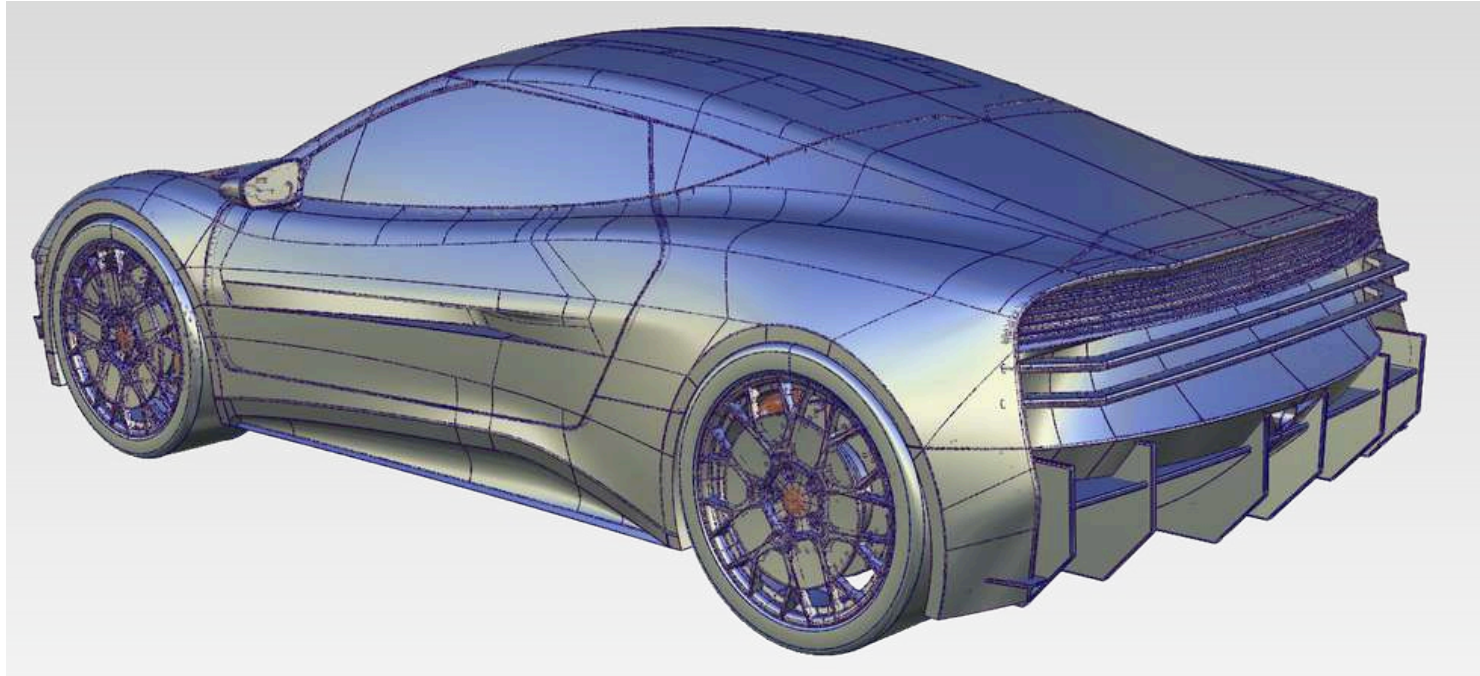


Official photoshop



Official photoshop

Patch construction

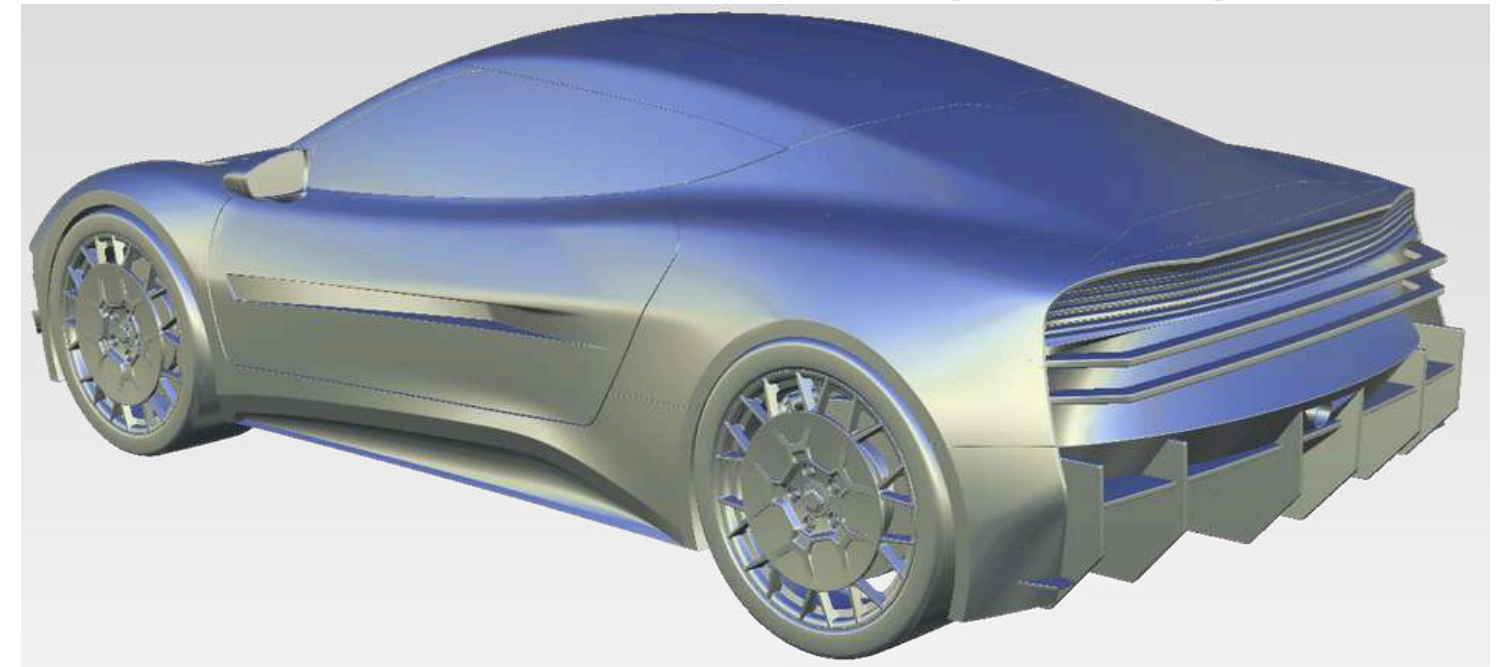
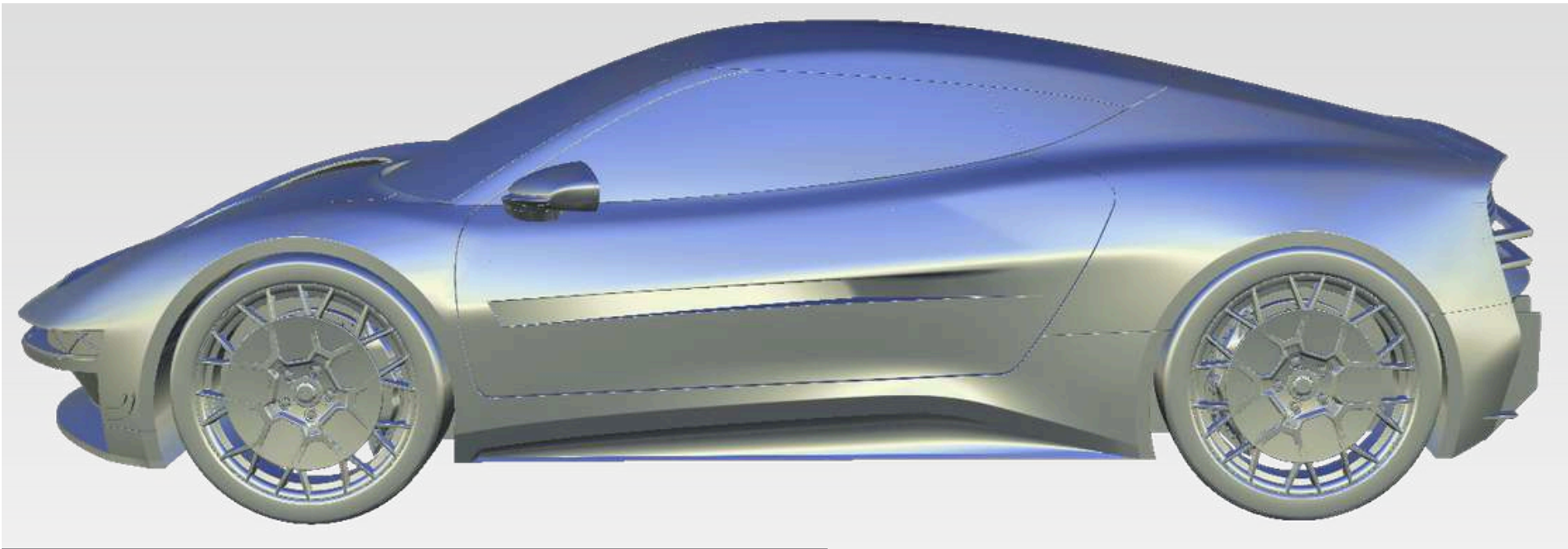


The **Genesis G-Force** Concept was developed through a **one-week** process that translated initial sketches into a **NURBS** surface model using Autodesk Alias. The project explored the future of Genesis luxury performance by evolving the brand's Athletic Elegance philosophy through aerodynamic form, advanced lighting, and minimal sculptural surfaces. Selected sketches were used as underlays to establish proportions and key design lines, followed by the creation of NURBS curves to define the vehicle's main volumes. These curves were then developed into refined surfaces, focusing on continuity, reflection quality, and brand identity. The final model demonstrates a rapid transition from sketch ideation to a cohesive digital concept surface.

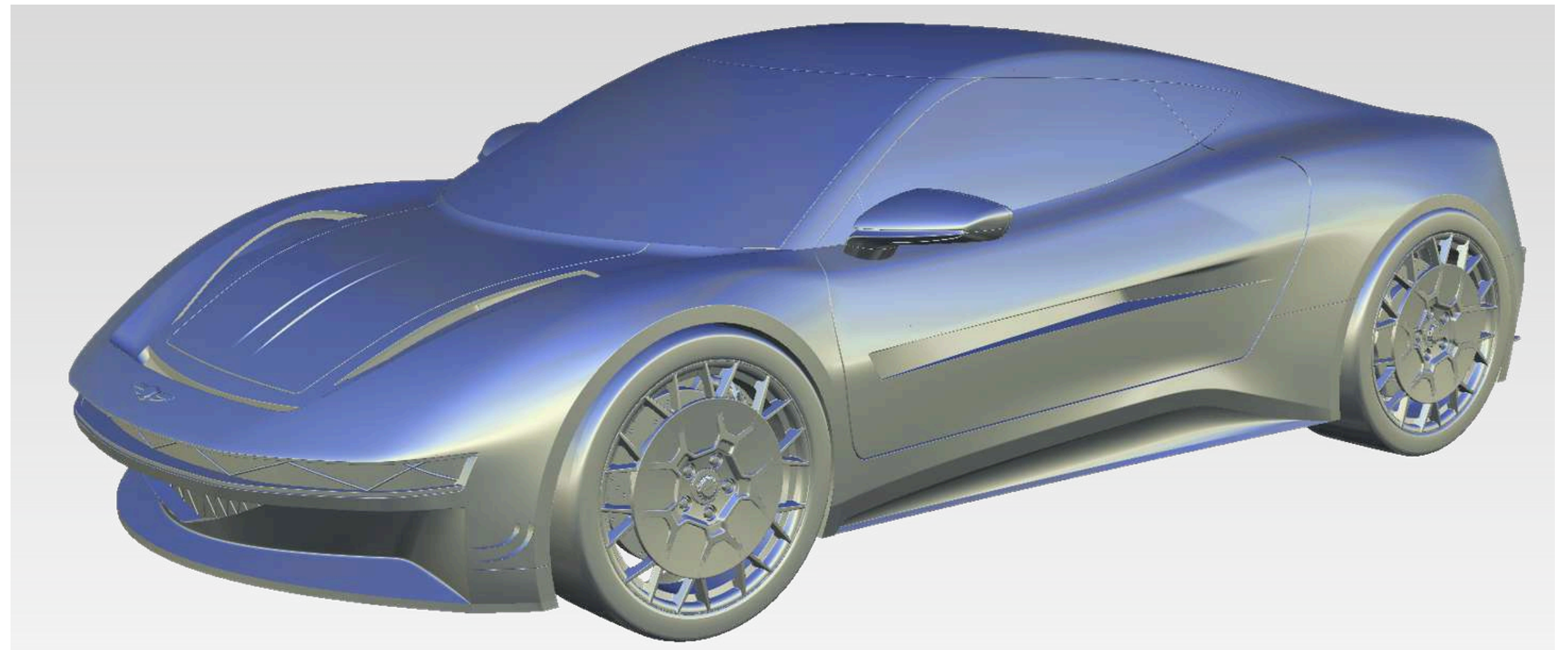


The complete car was modeled in 1 week on my free time

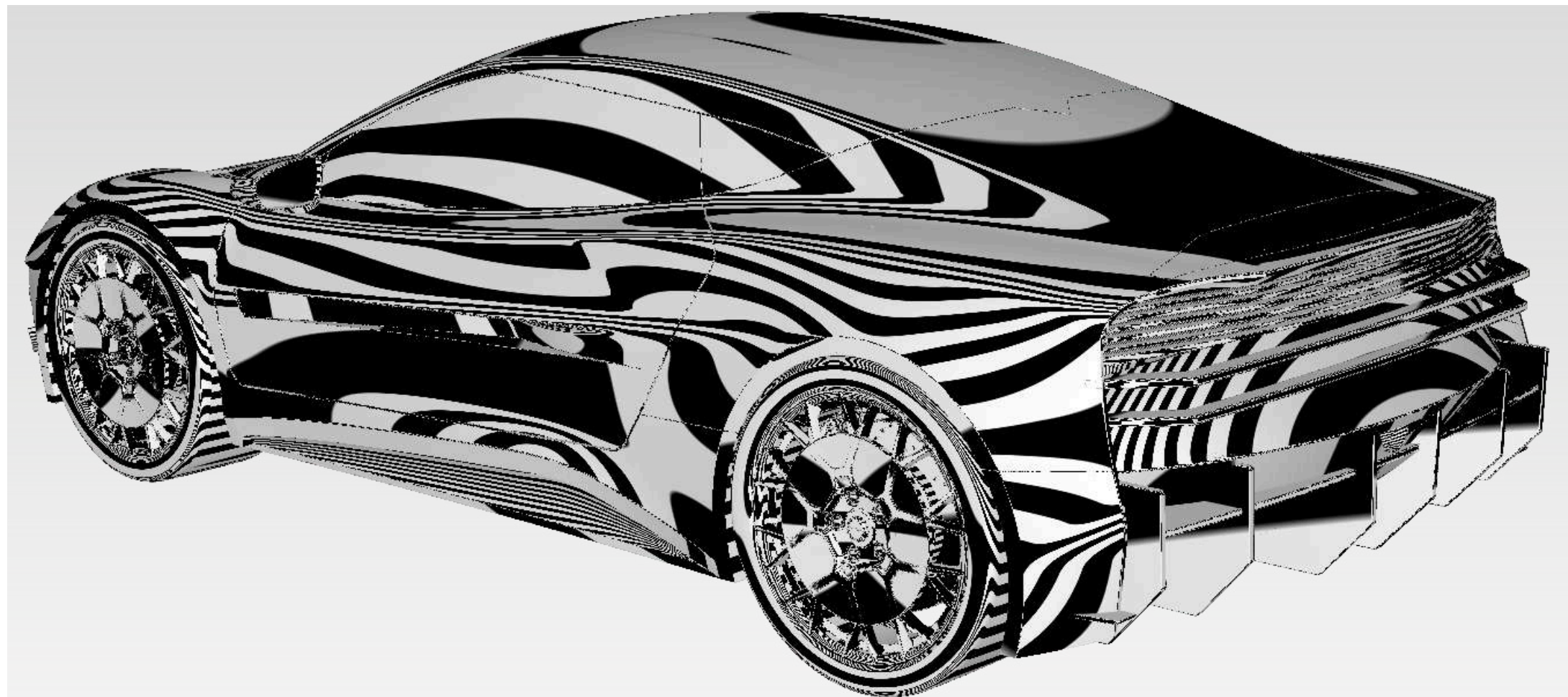
Highlights



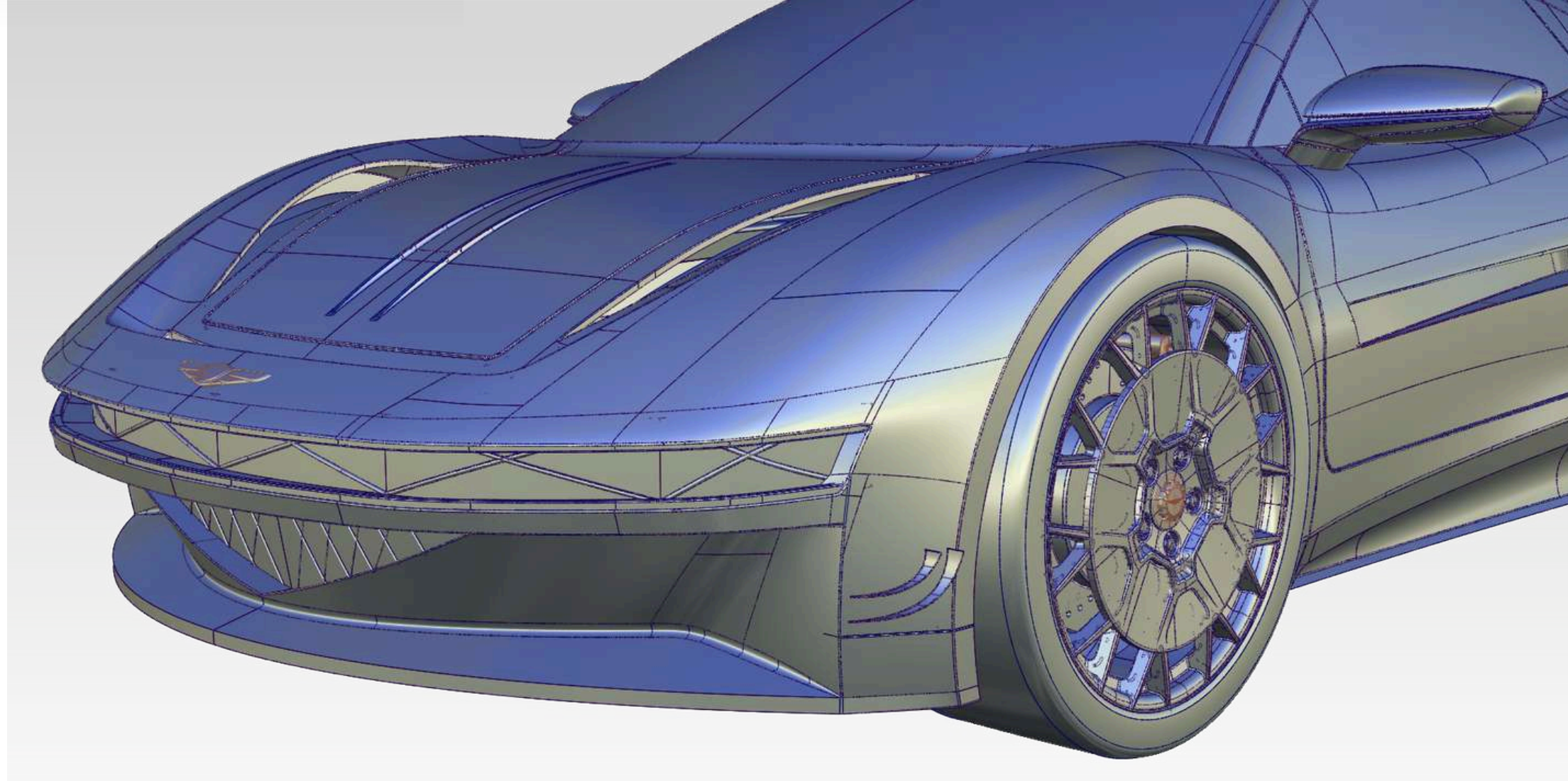
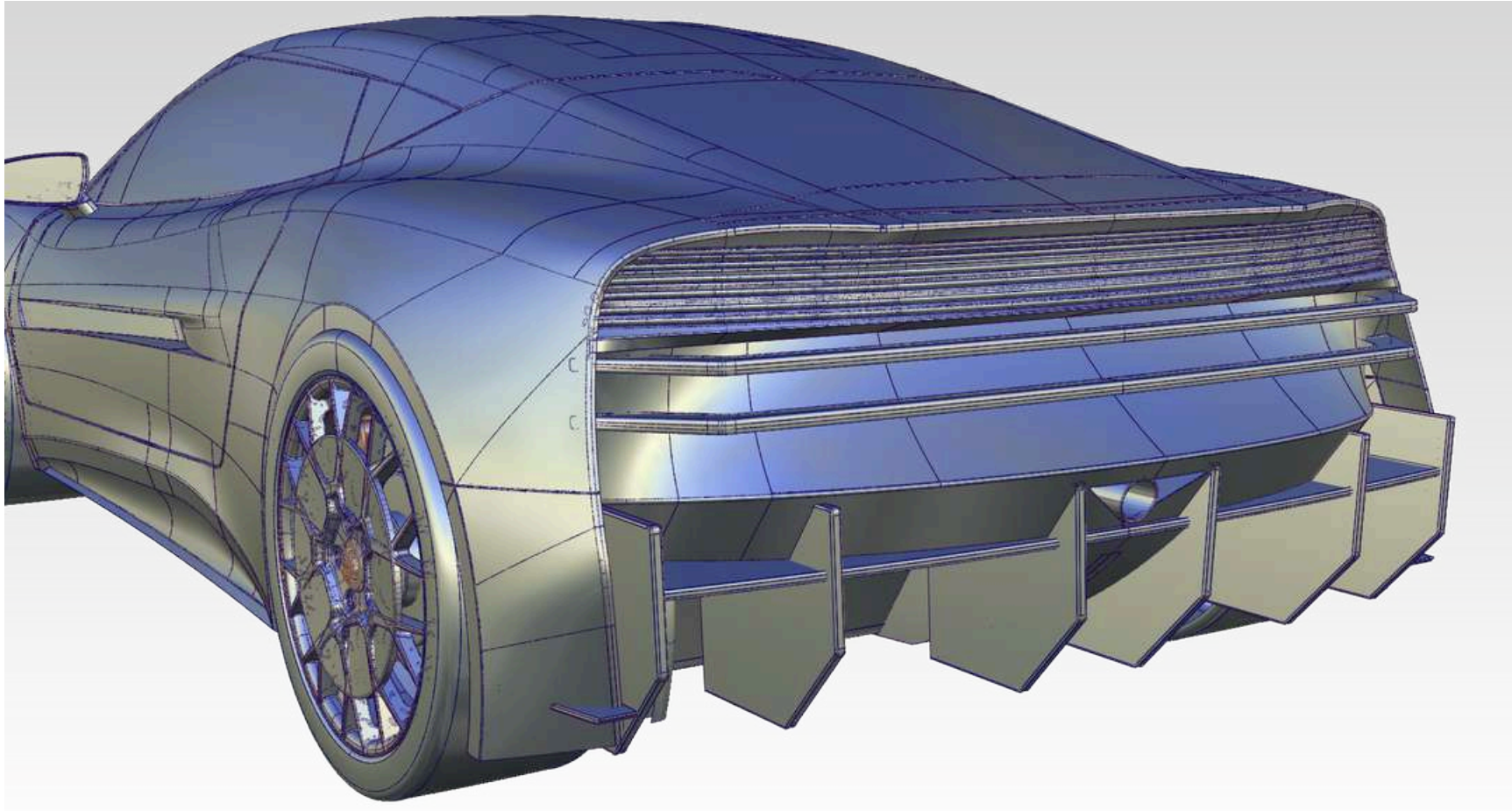
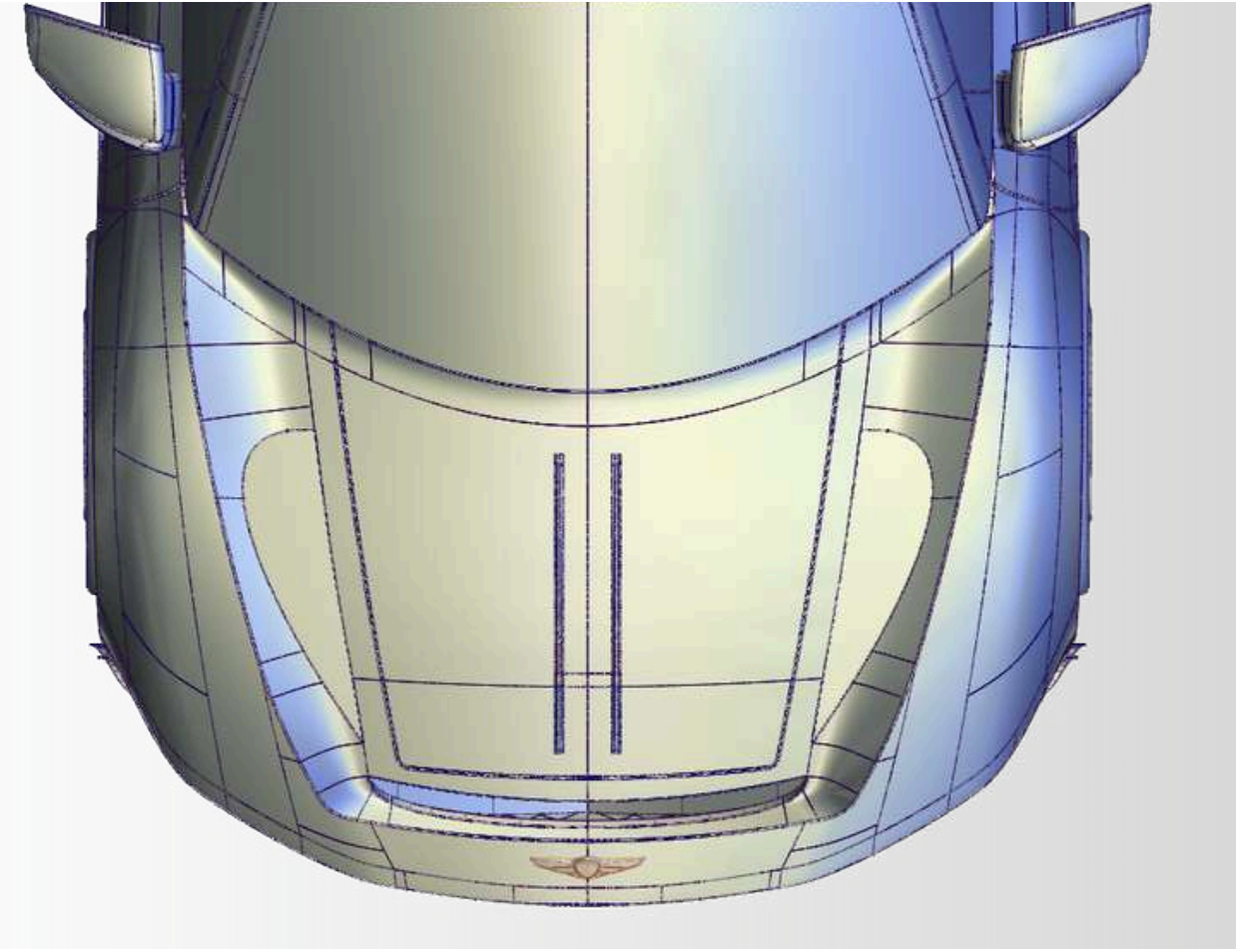
Highlight control played a critical role in refining the **Genesis G-Force** Concept, ensuring surface quality and visual precision throughout the **NURBS** modeling process. Using Autodesk Alias evaluation tools such as zebra stripes, environment reflections, and surface analysis, highlights were carefully monitored to maintain smooth light flow across the body panels. Adjustments were made to curve tension, surface transitions, and continuity to eliminate unwanted distortions or breaks in reflections. This process helped reinforce the vehicle's clean, minimal sculptural language while enhancing perceived quality and strengthening the Athletic Elegance design identity.



Zebra shader



The zebra shader was used as a primary evaluation tool during the surface refinement of the **Genesis G-Force** Concept to analyze highlight continuity and surface quality. In Autodesk Alias, **zebra** stripes were applied across the **NURBS** surfaces to visually detect inconsistencies, waviness, or breaks in reflection flow. By studying the stripe behavior across panel transitions and curvature changes, adjustments were made to curve alignment, surface tension, and continuity levels. This process ensured smooth, controlled highlight movement across the body, reinforcing the concept's clean sculptural surfaces and maintaining the refined visual quality expected within the Genesis Athletic Elegance design language.



Details





..... Renders



..... Renders



..... Renders

MAGMA



..... Renders

Process

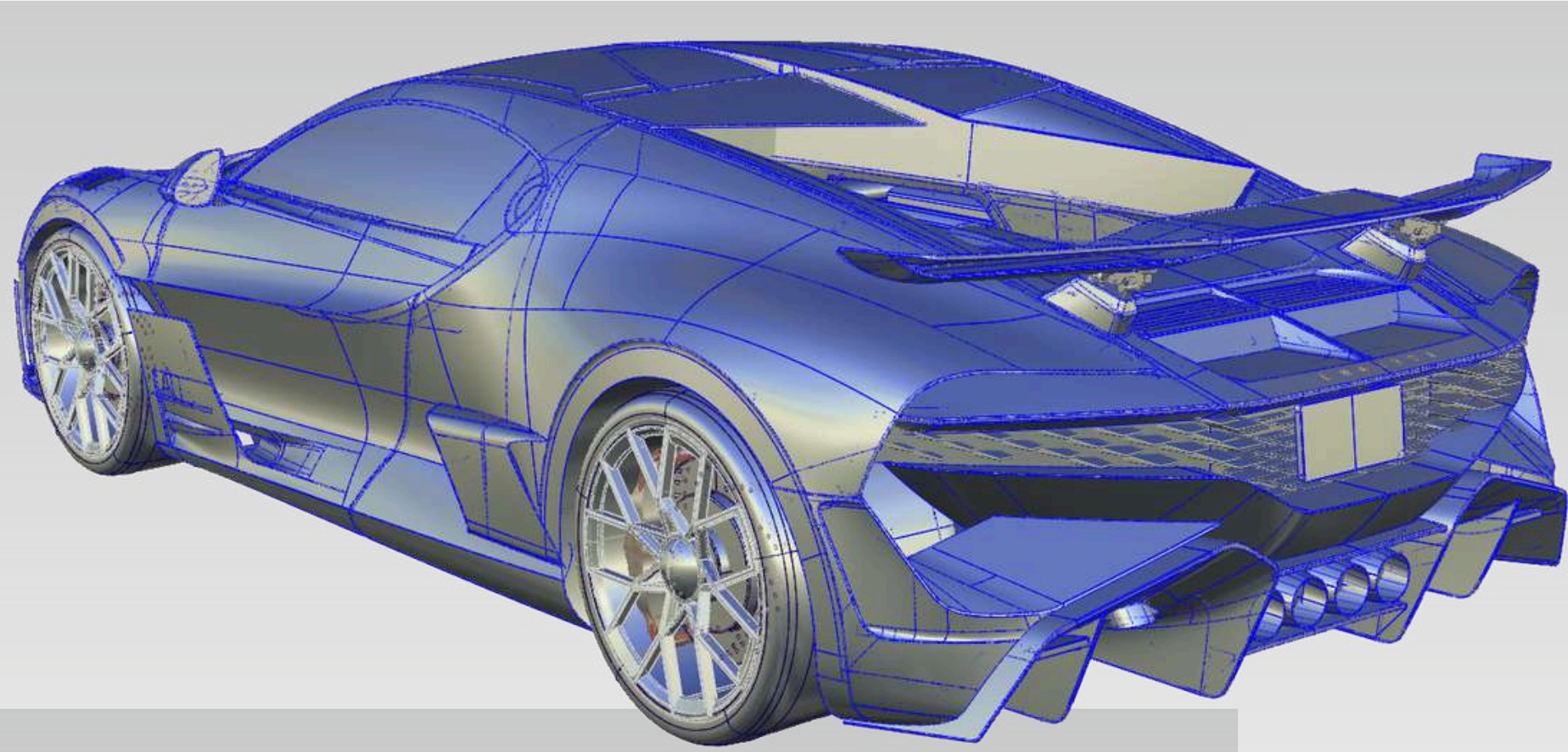
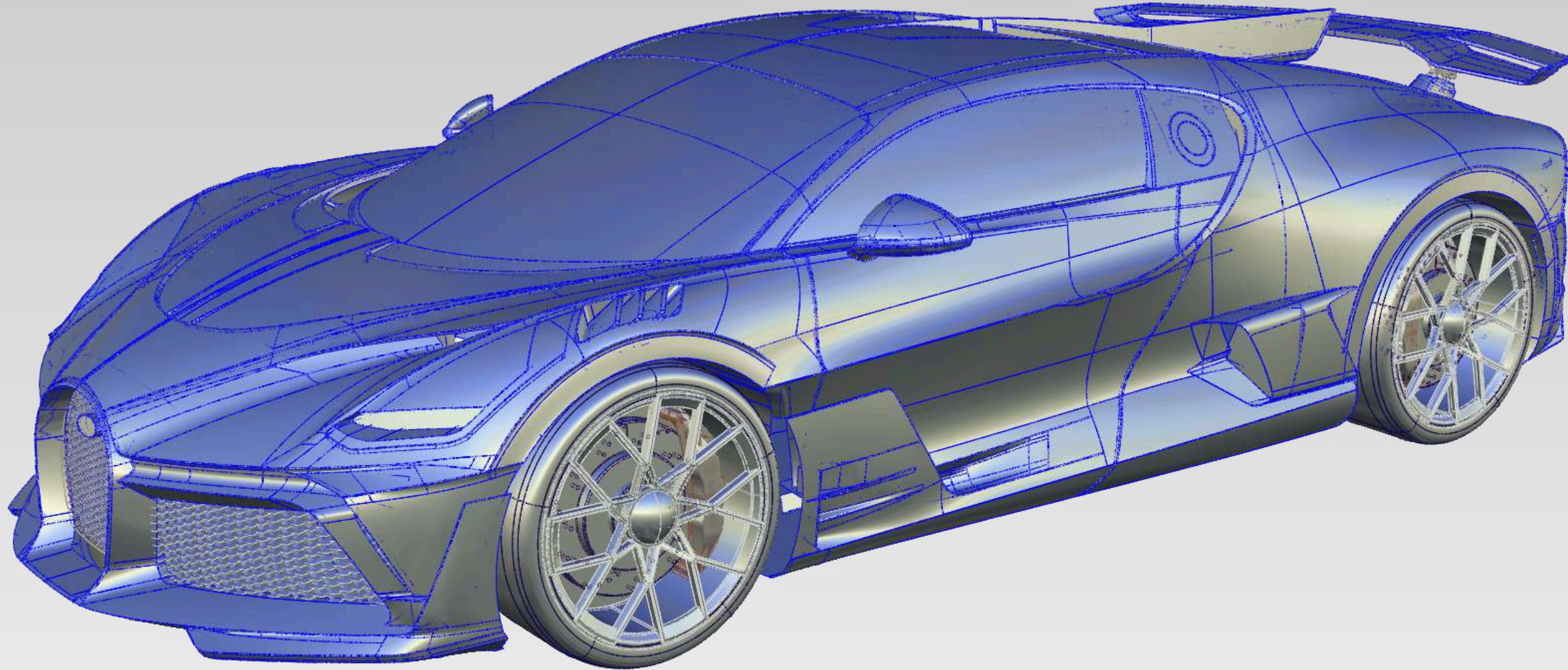
Official images from Netcarshow

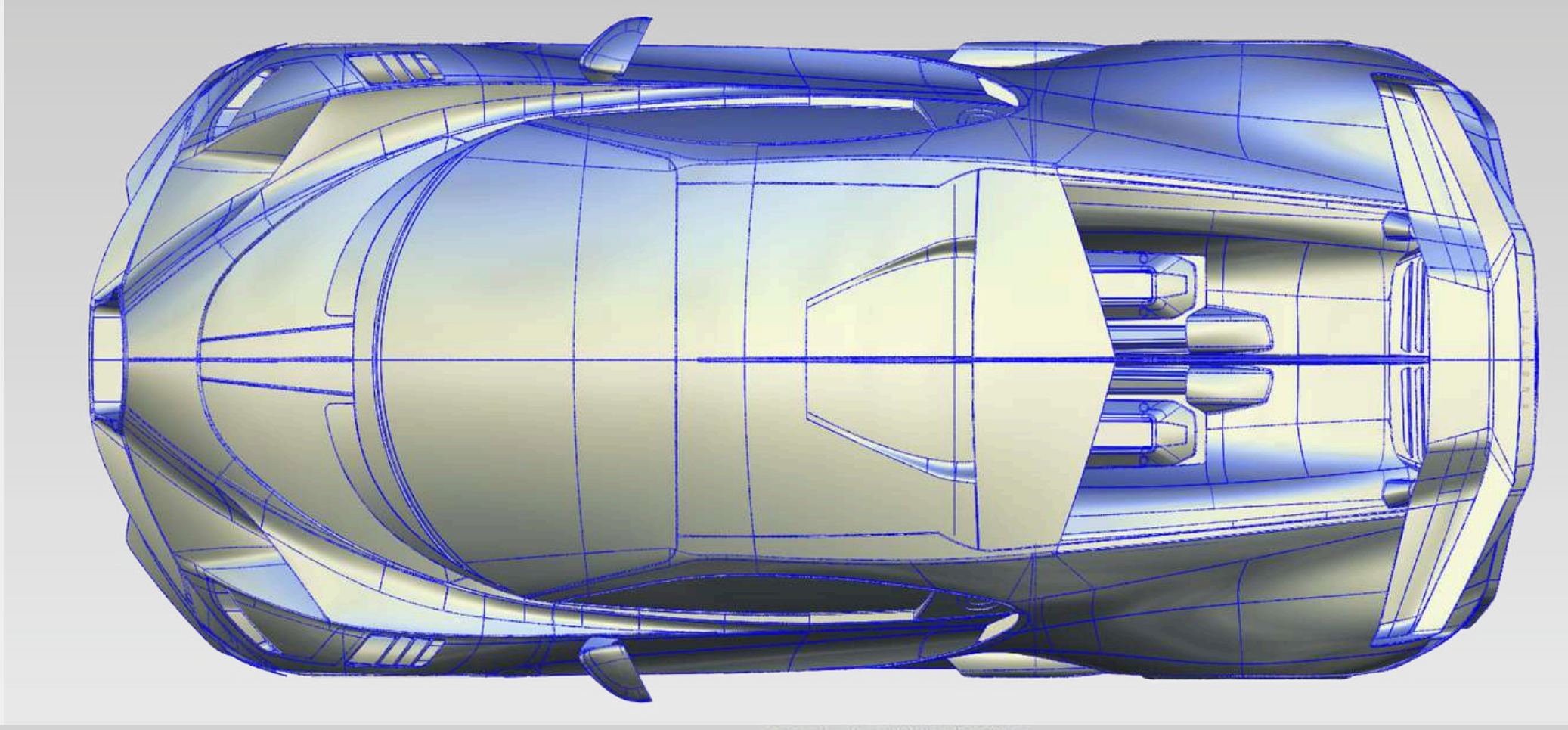
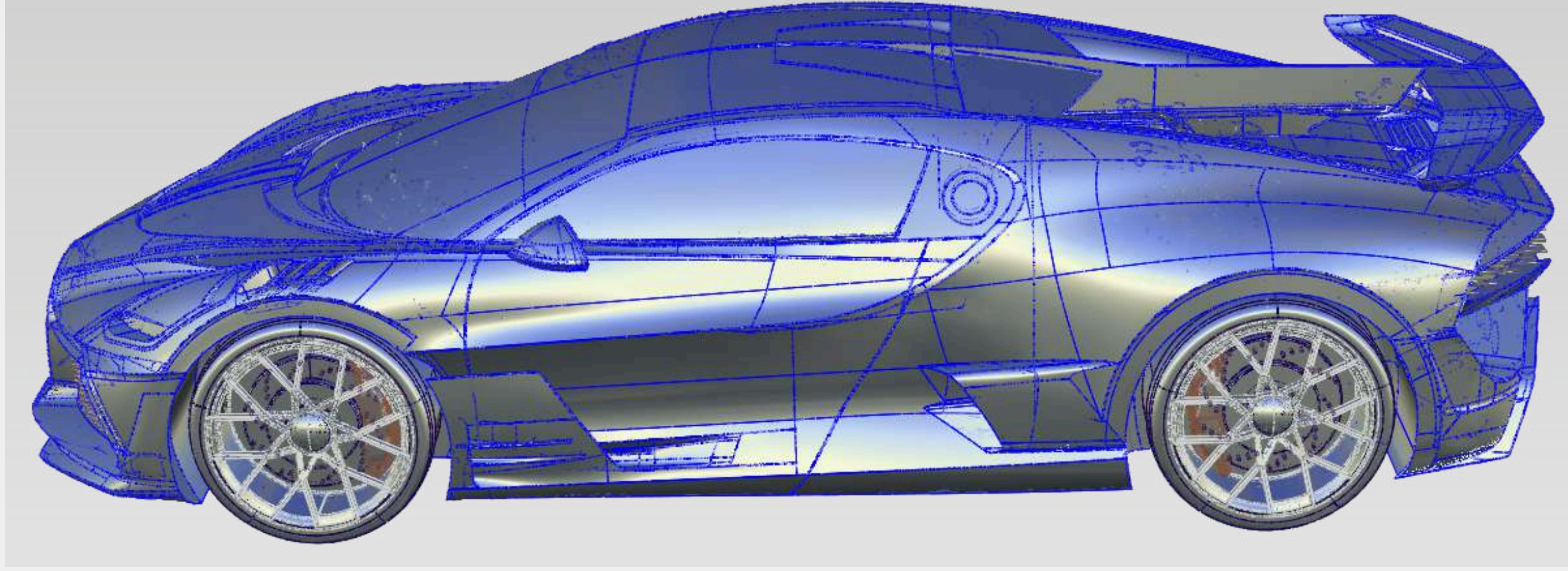


I started by analyzing high-quality official images of the Bugatti Divo to understand its proportions and design language. Then, I built the main volumes with clean curves and developed the surfaces, focusing on sharp lines, continuity, and precise reflections to capture its aggressive character.

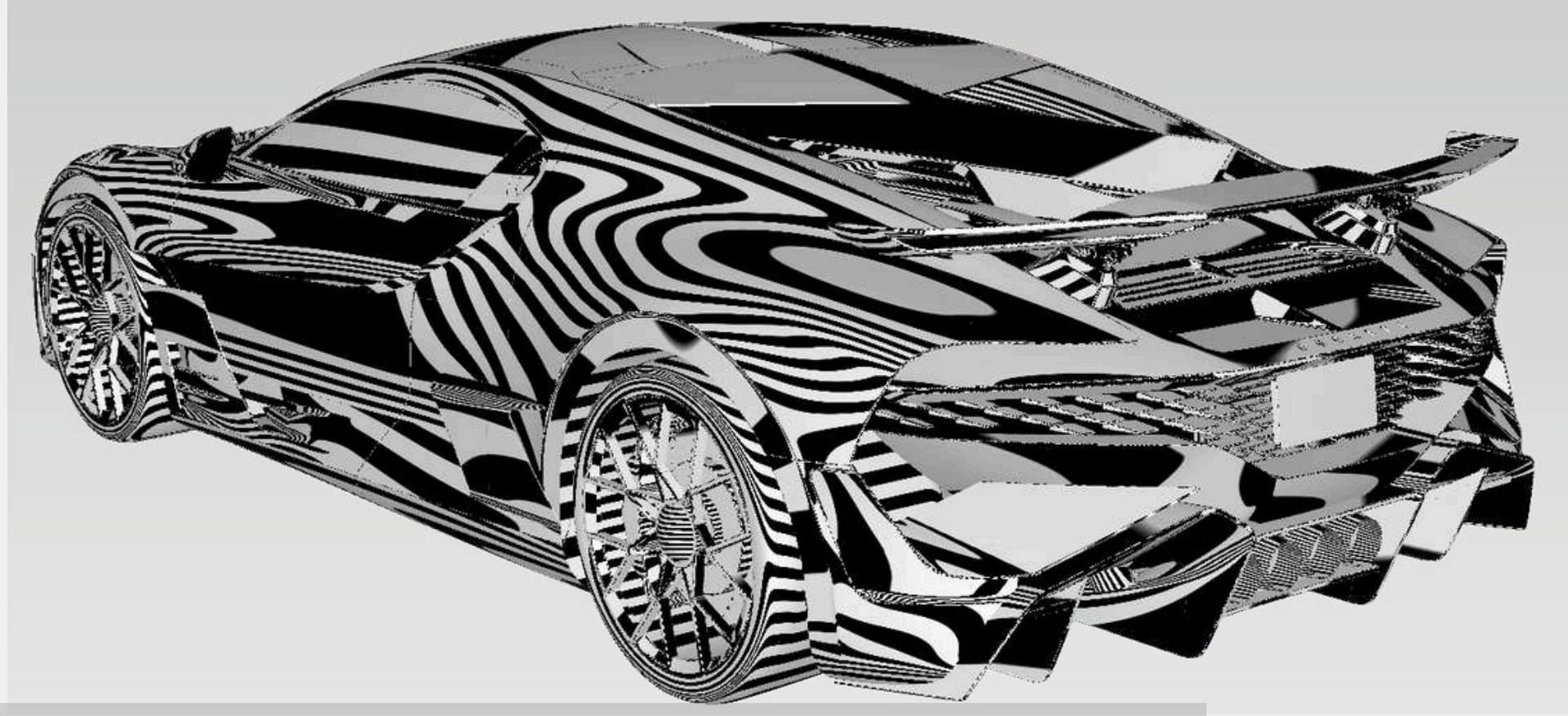
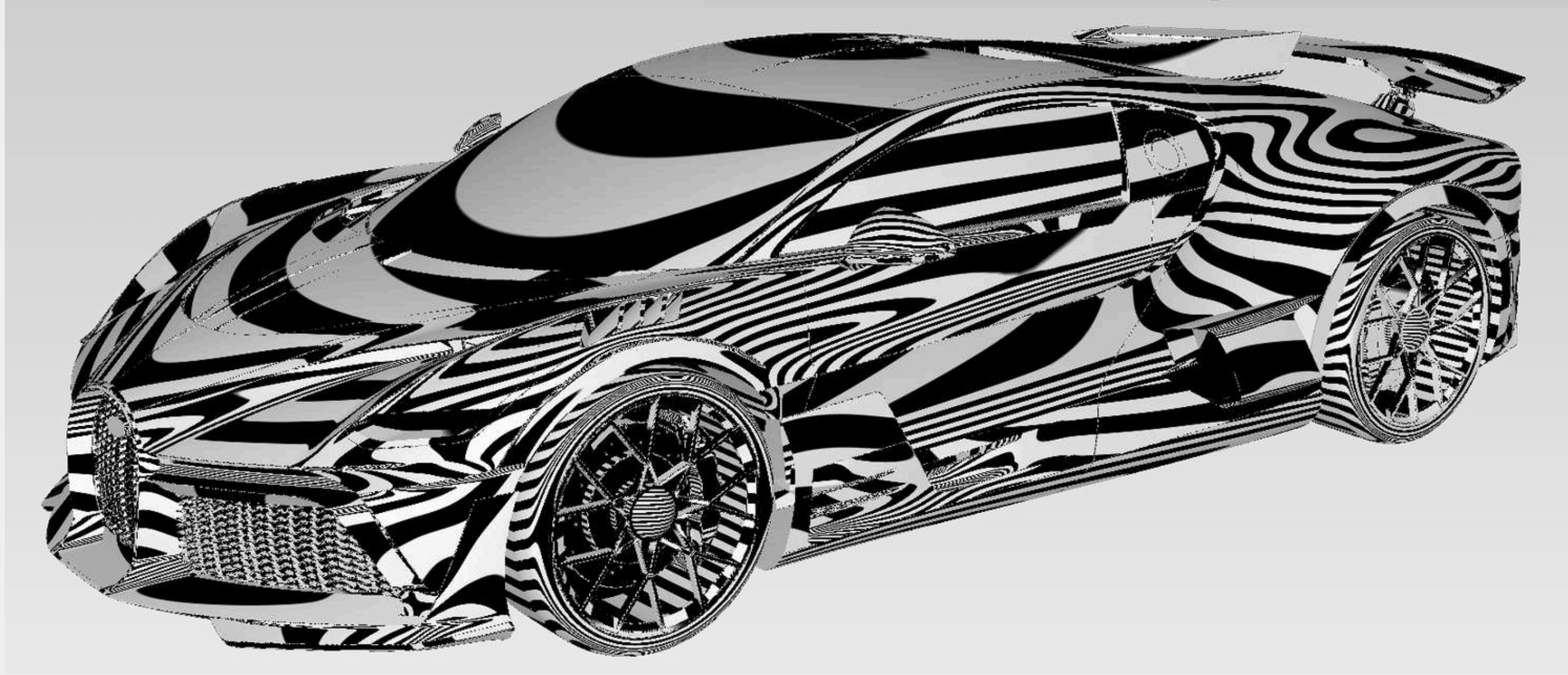
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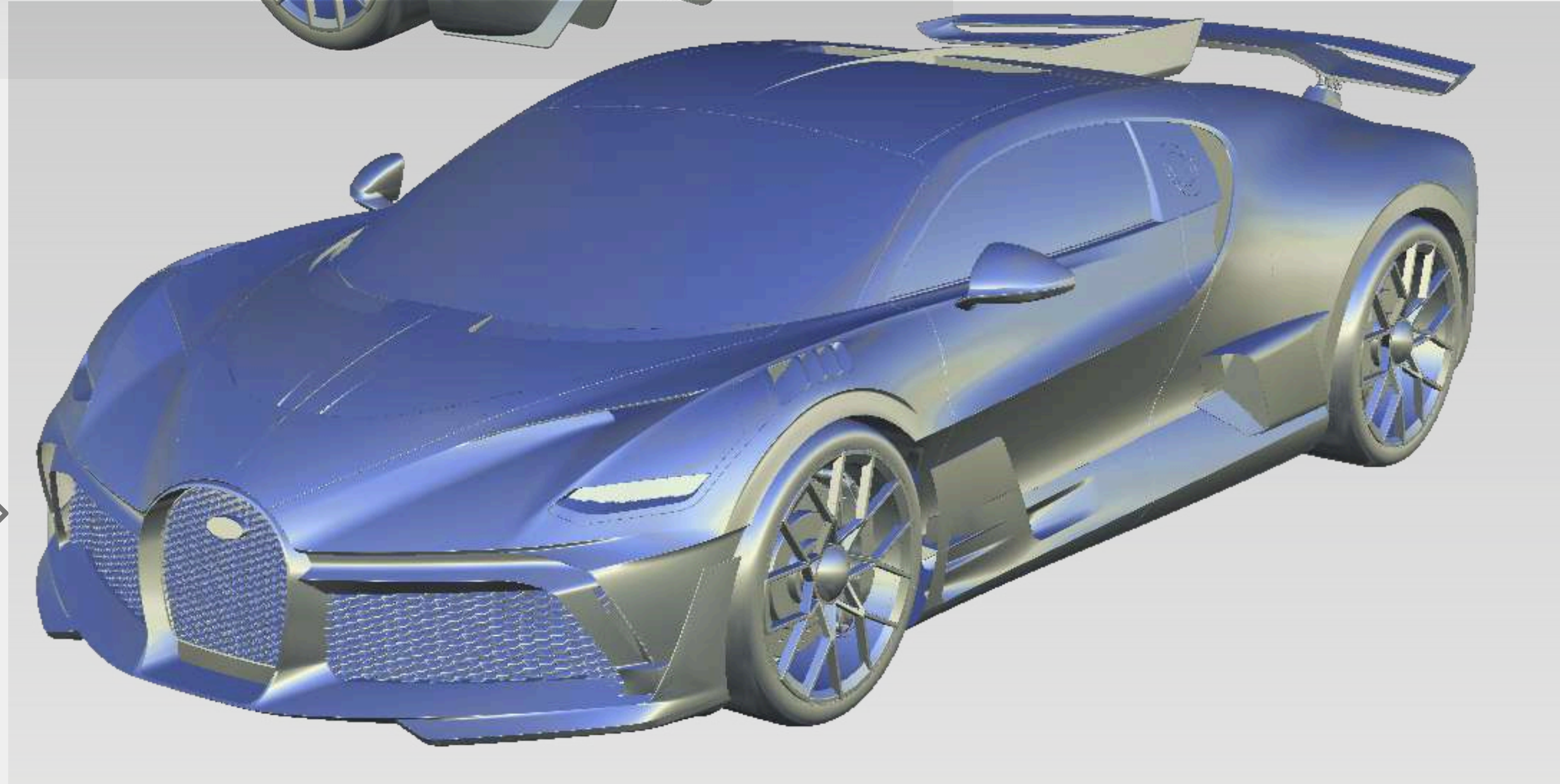
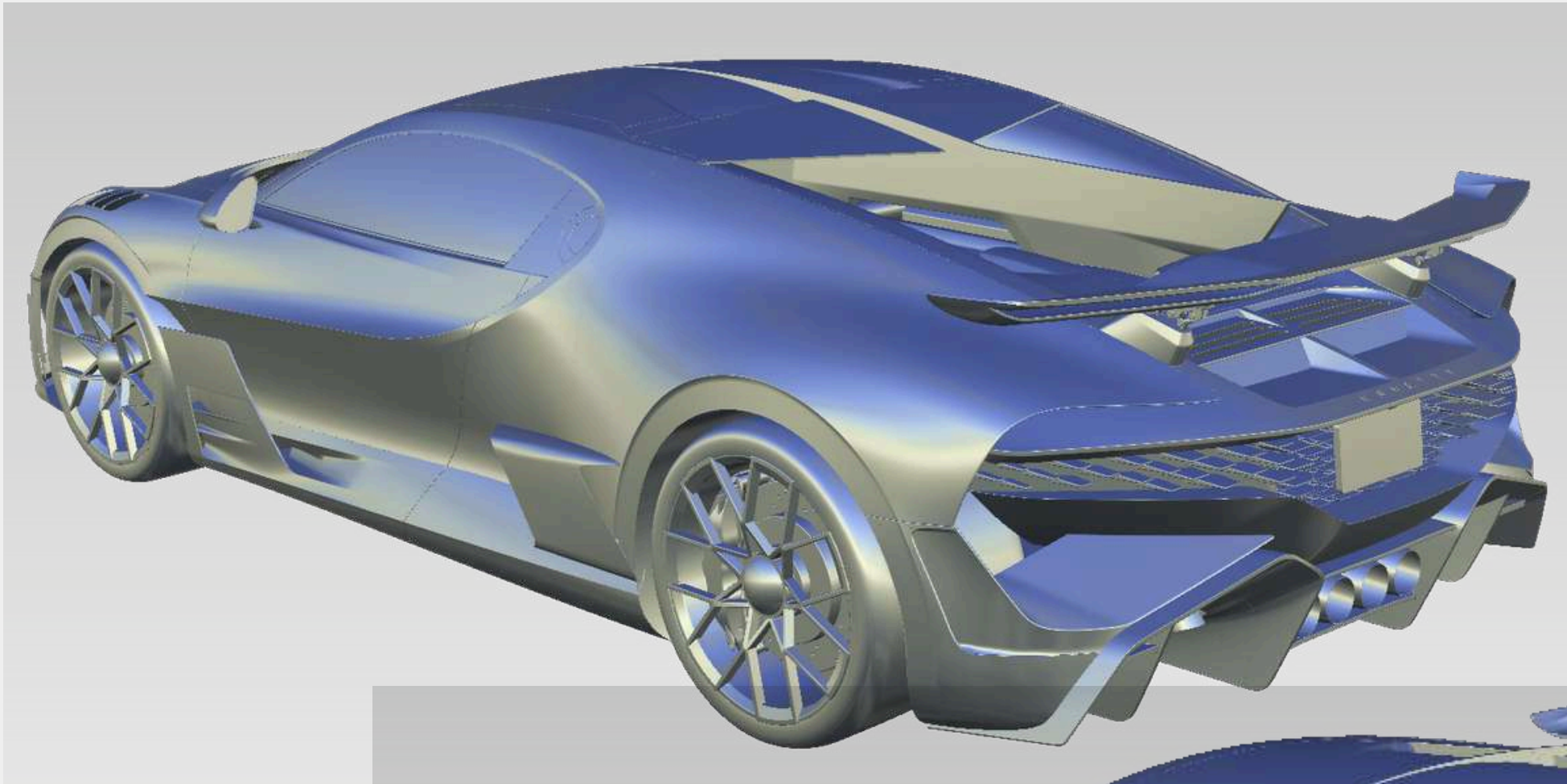
Patch construction





Zebra shader

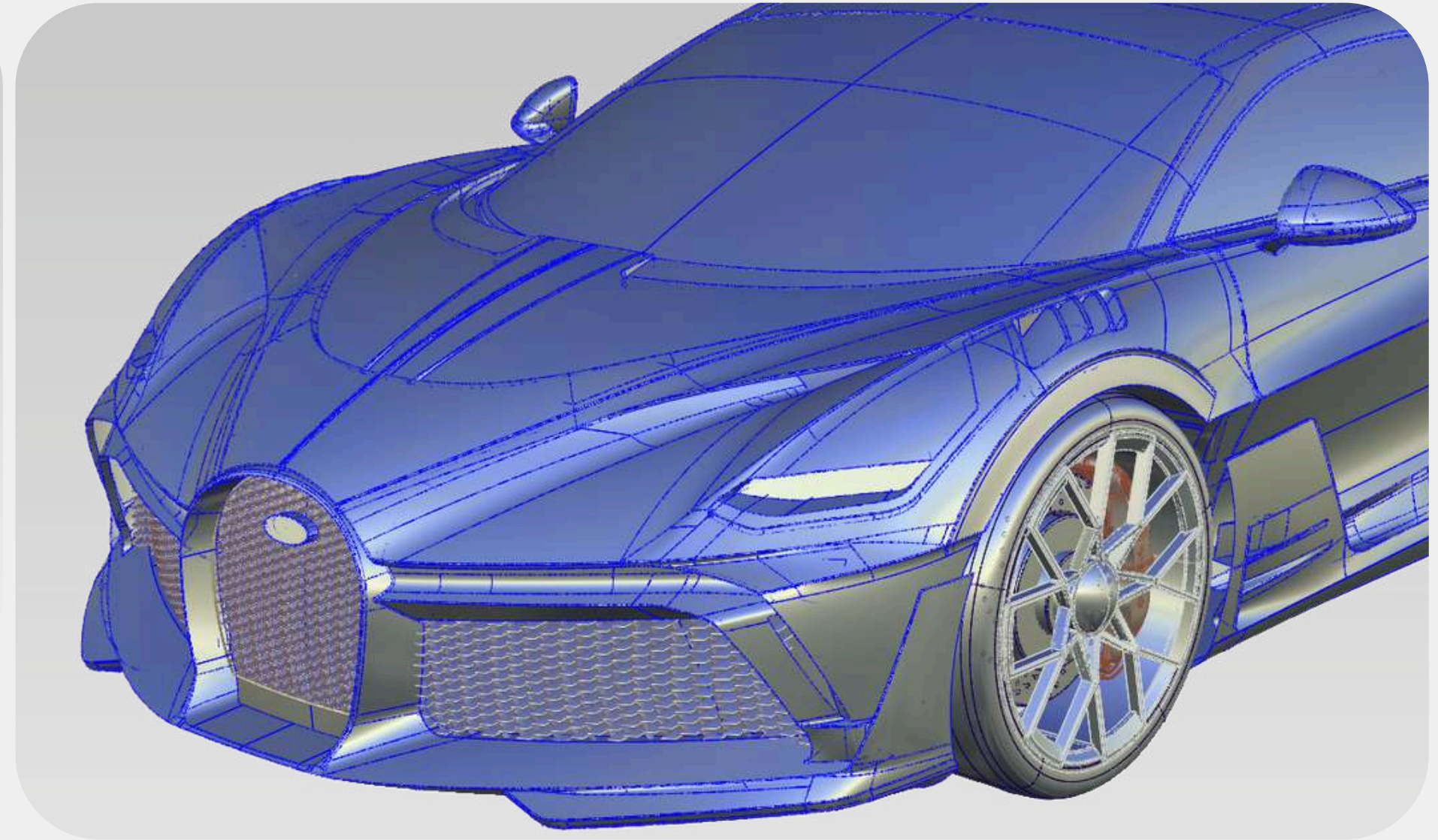
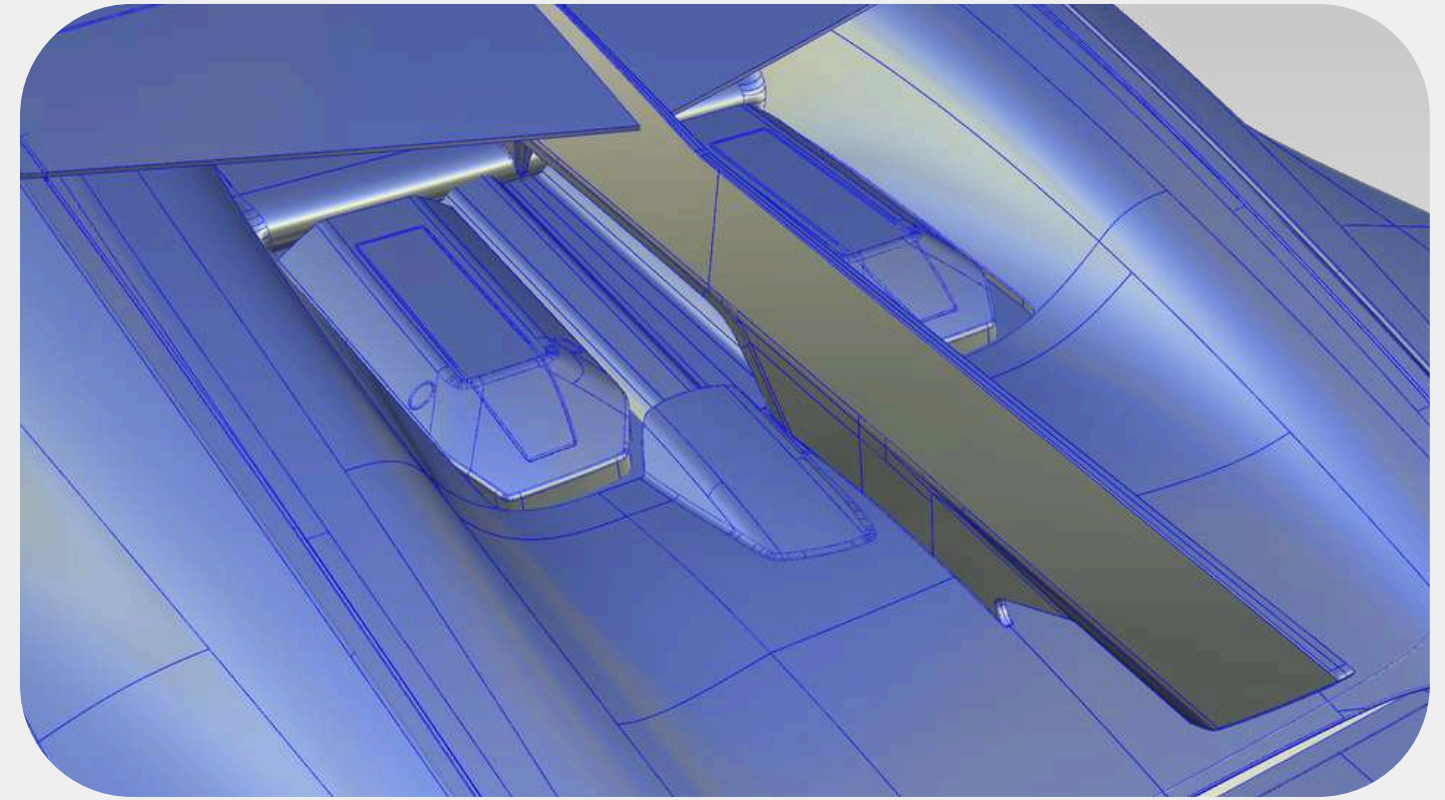
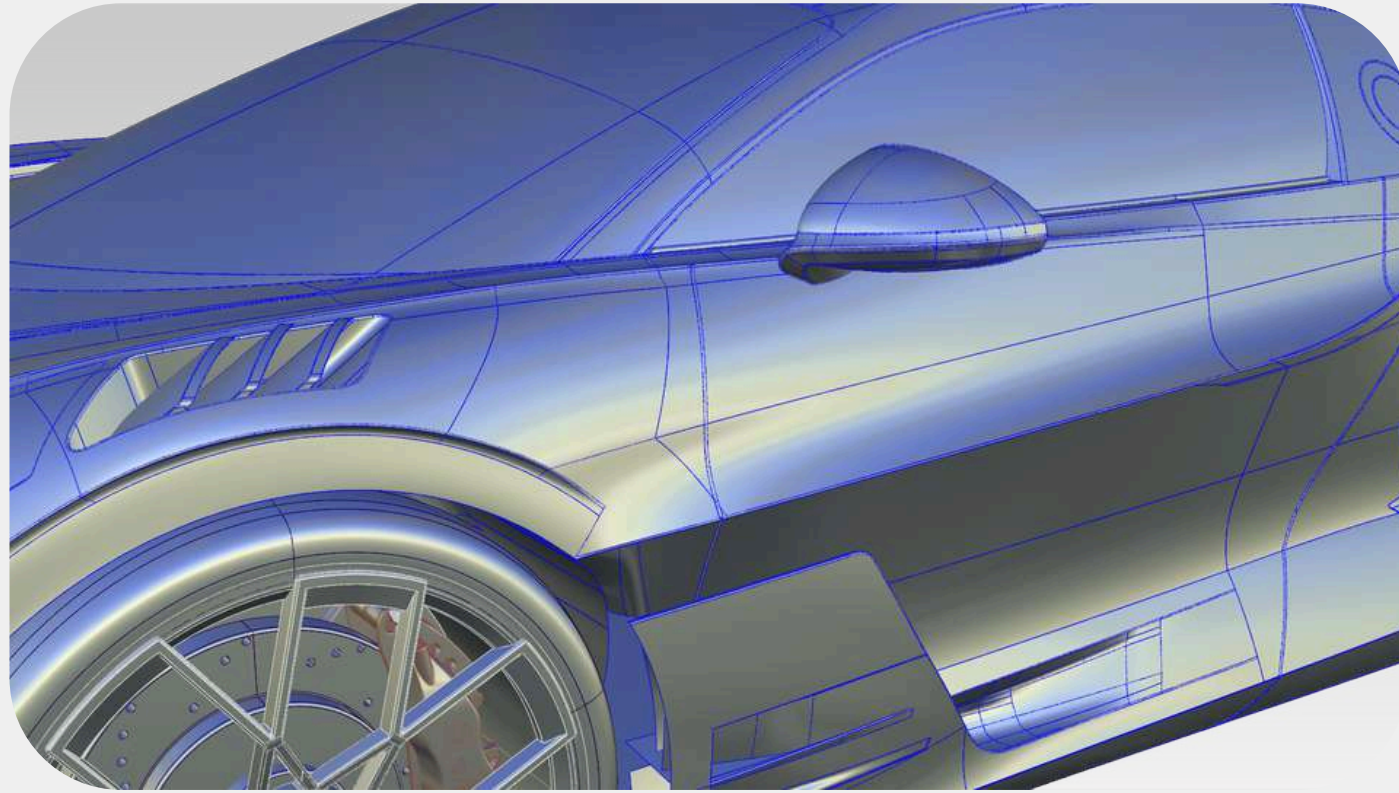
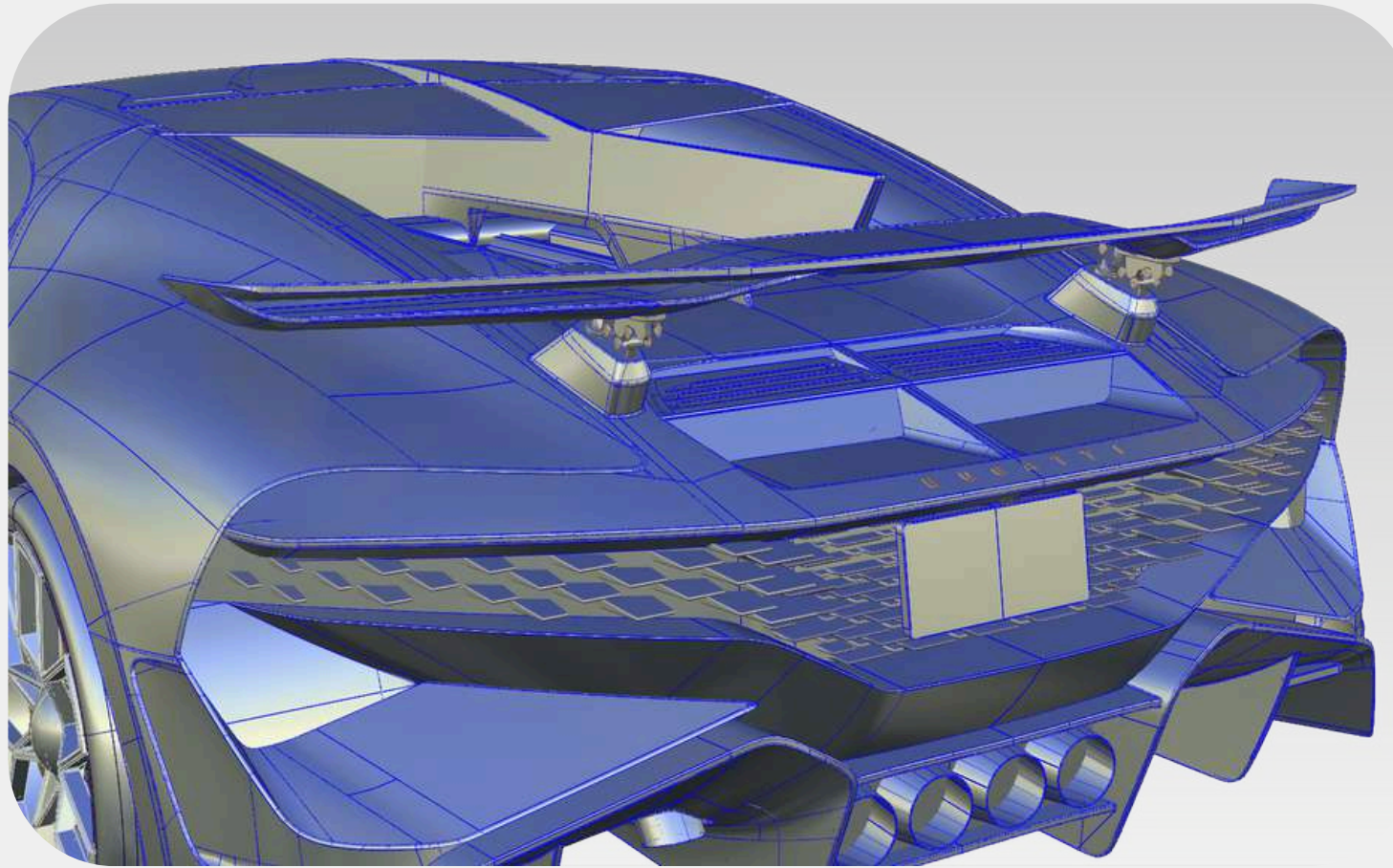




Highlights

The **Bugatti Divo** in Autodesk Alias focused on managing sharp, performance-driven surfaces with precise highlight control. The goal was to balance crisp edges and smooth transitions, guiding reflections to emphasize speed and aerodynamic intent.

Each surface was refined for **clean** continuity while preserving the car's **aggressive**, track-focused character.



Details



..... Renders





..... Renders



..... Renders

Process

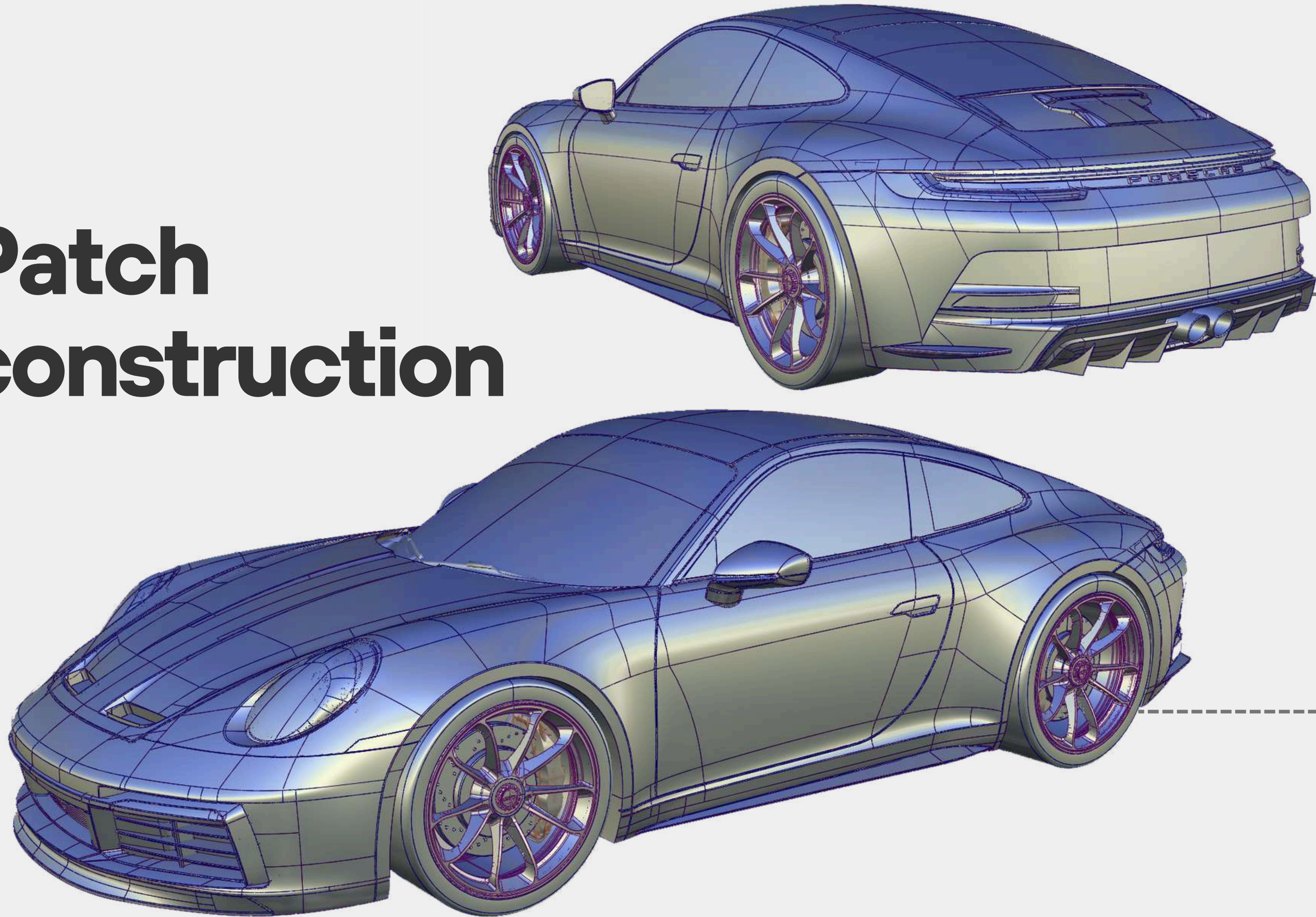


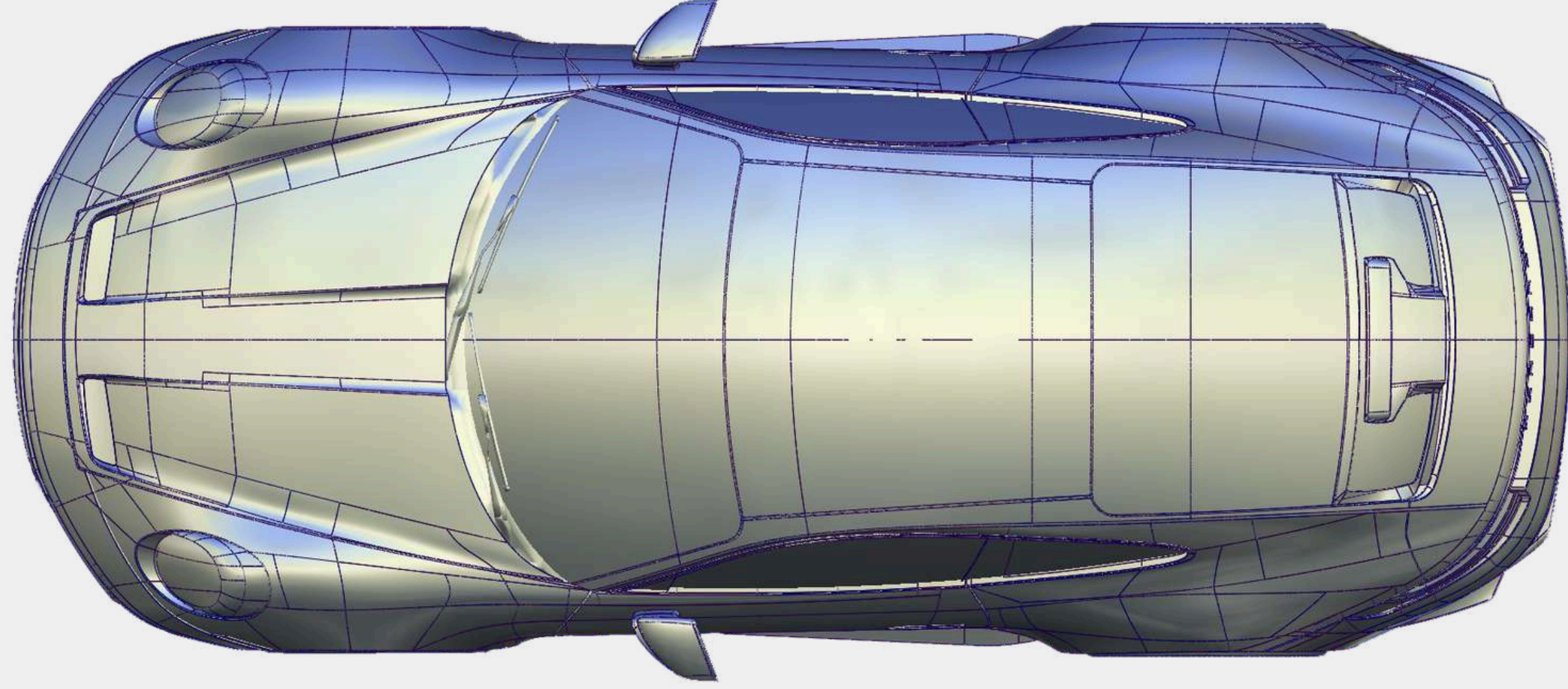
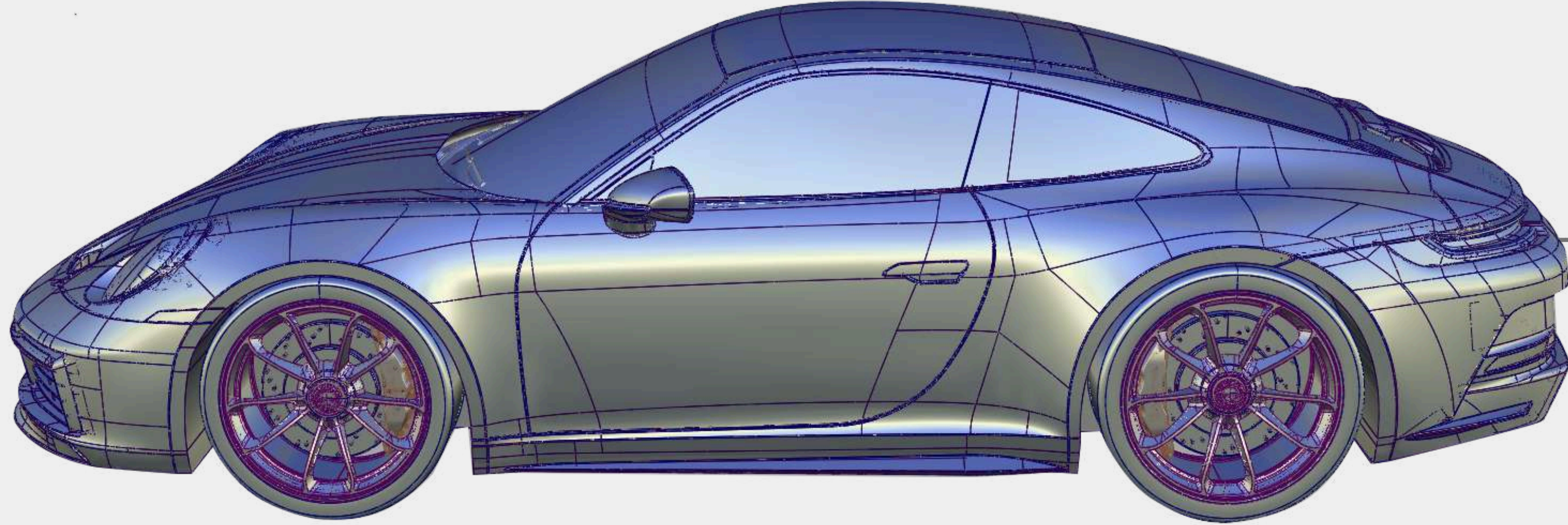
Design Process – Porsche 911

This project explores the balance between heritage and precision that defines the Porsche 911. The process focused on understanding the car's iconic proportions, surfacing logic, and light behavior. Through continuous refinement of primary volumes and surface transitions, the model was developed to achieve clean highlights, tension, and visual clarity—staying faithful to the 911's timeless character while pushing for absolute surface quality.

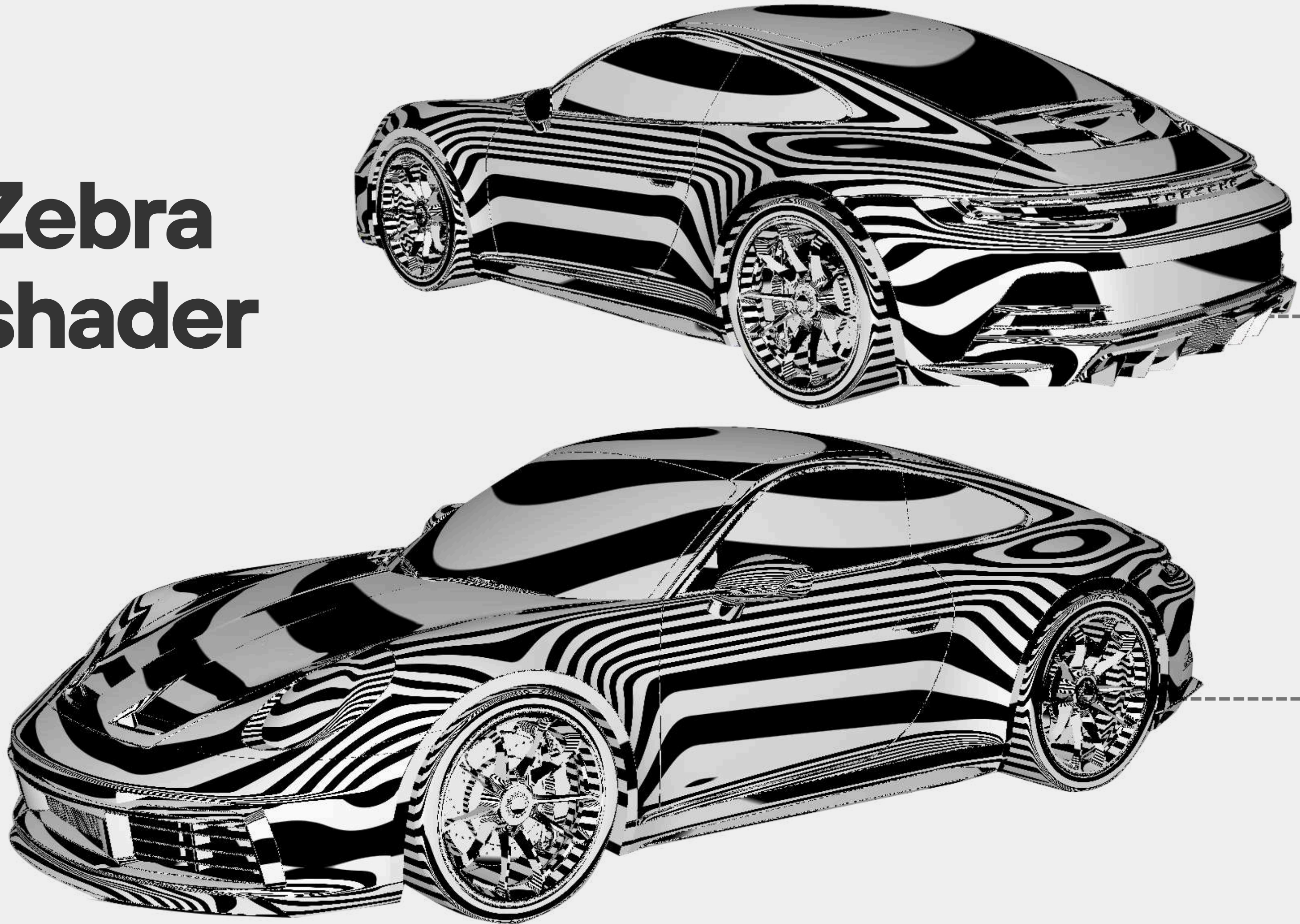
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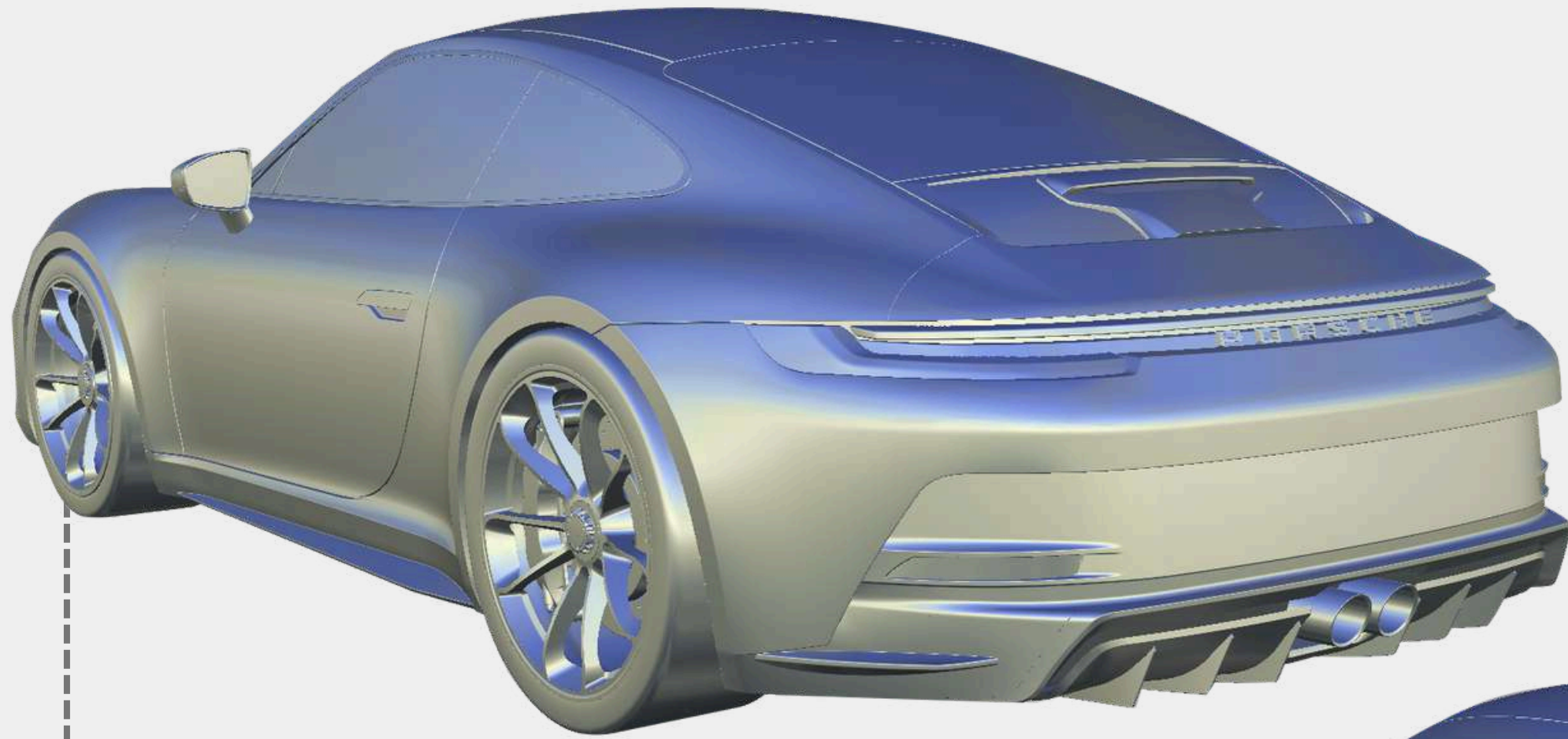
Patch construction





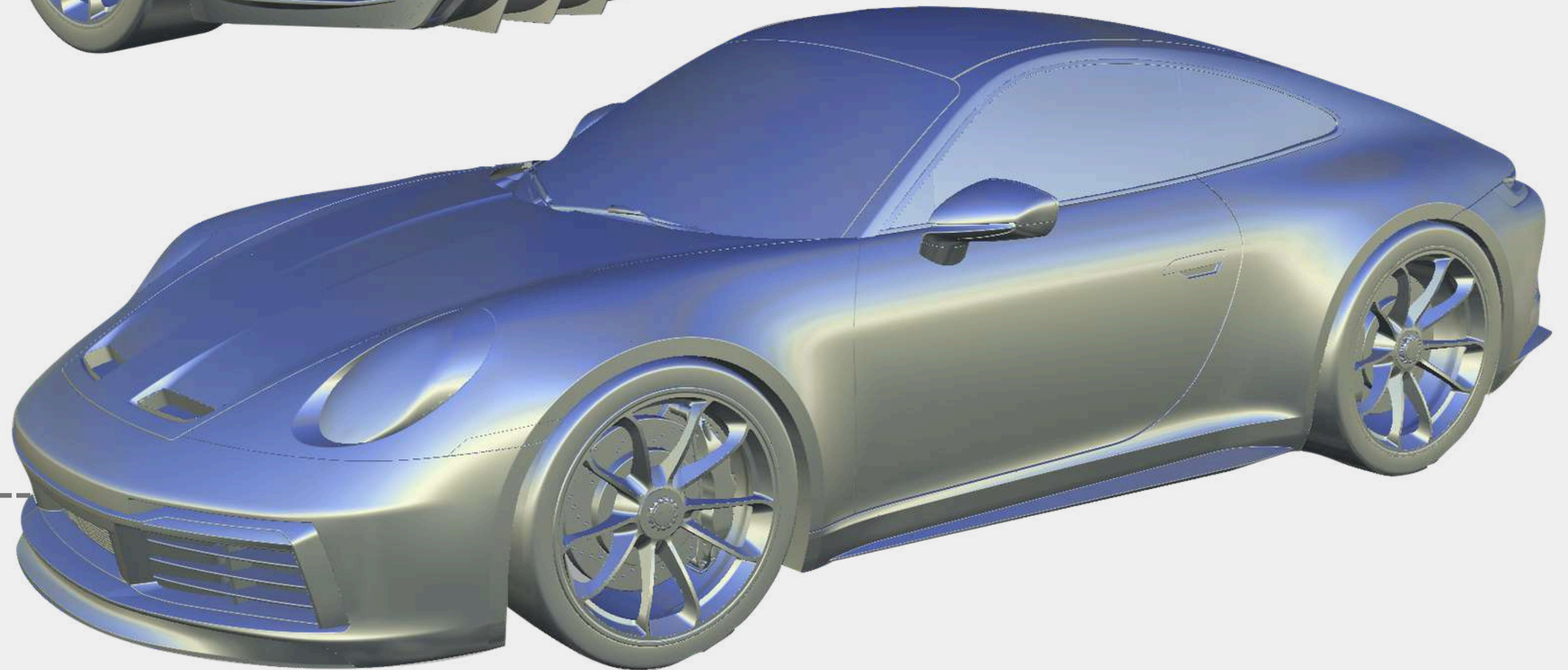
Zebra shader

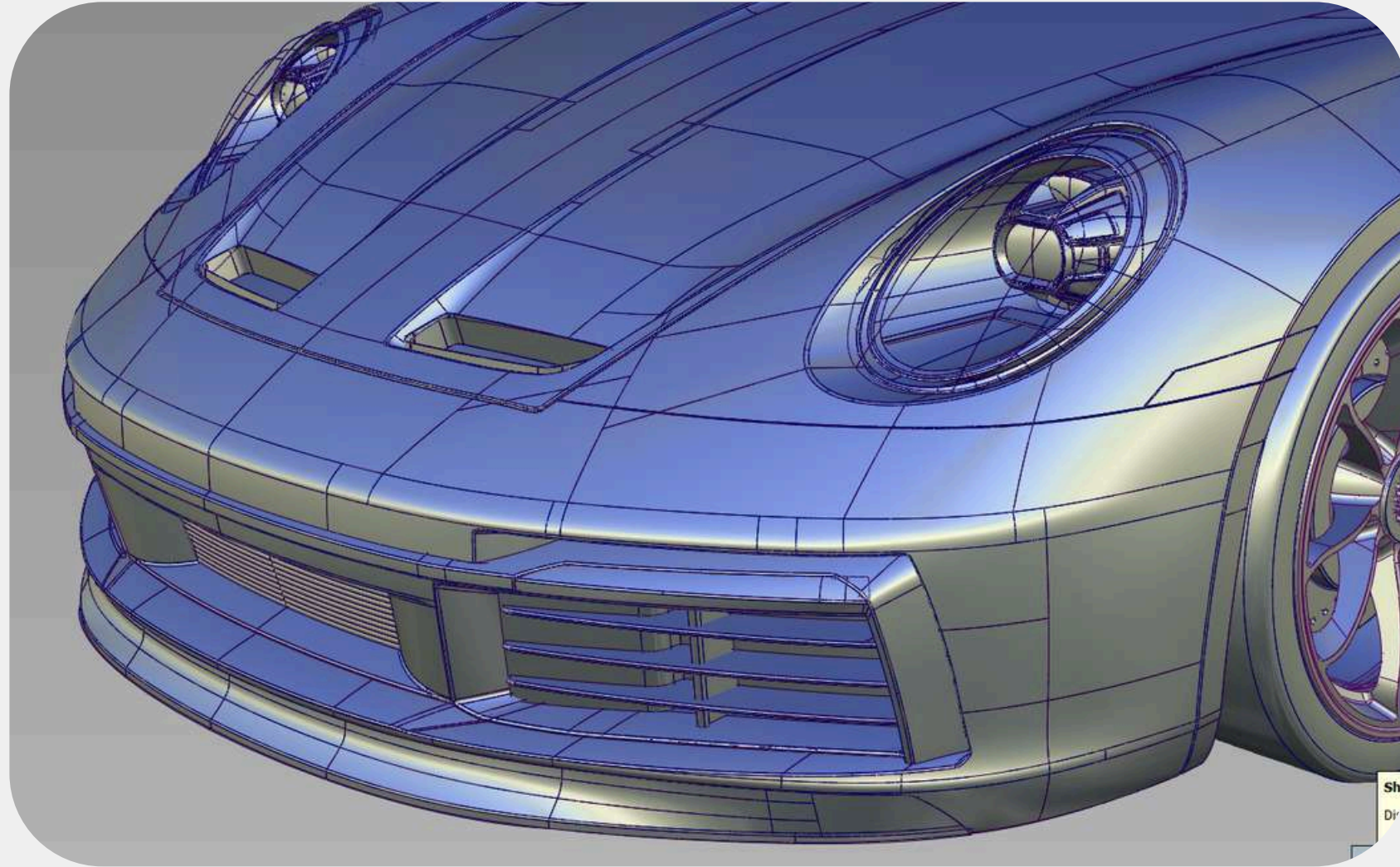
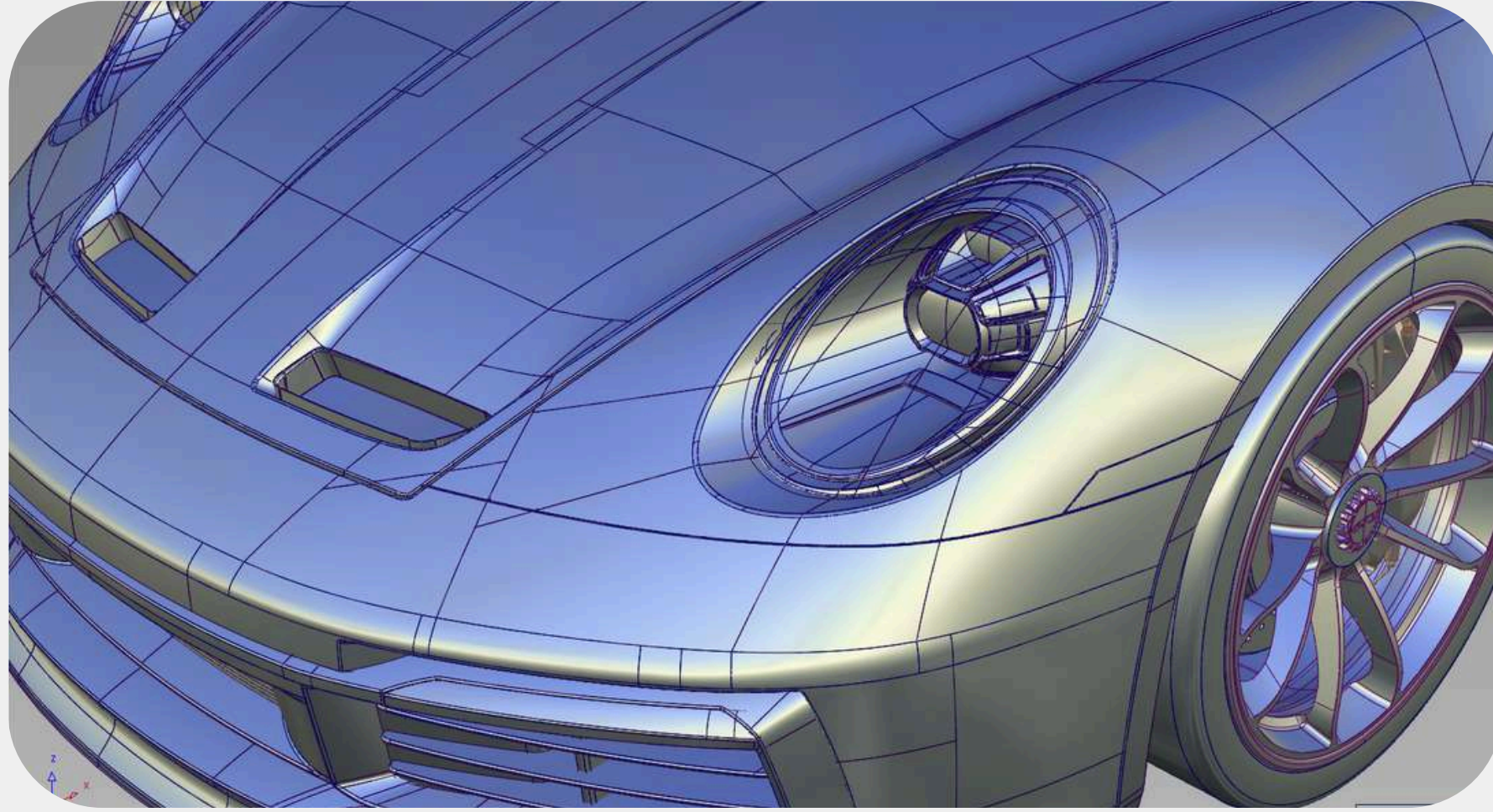




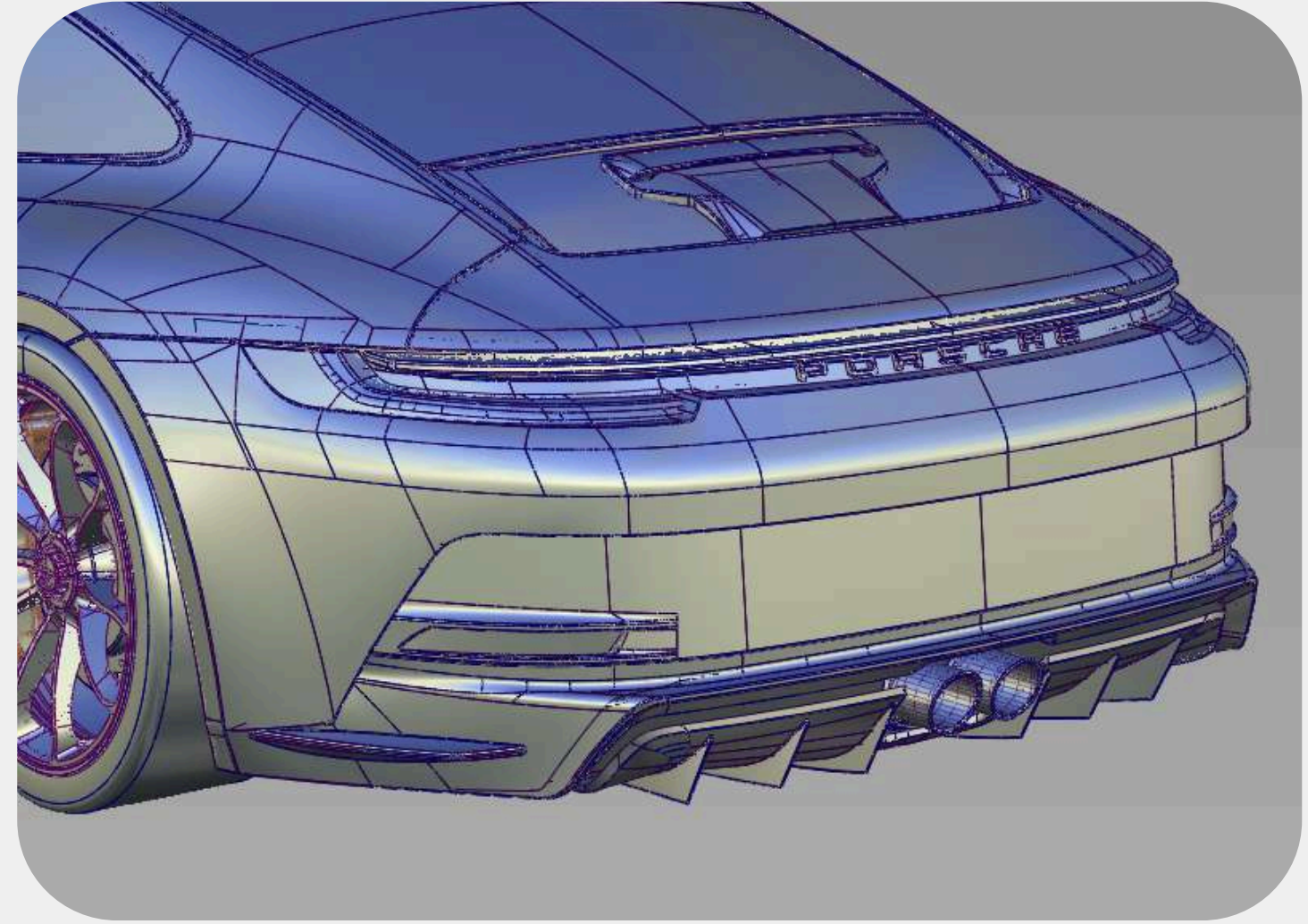
Highlights

Getting clean and consistent highlights on my **Porsche 911** model was one of the most challenging parts of the project. Every surface transition had to flow perfectly to reflect light naturally, revealing the car's curves and design tension exactly as in the real model. It's all about precision, patience, and the eye for **perfect reflections**.





Details





..... Renders



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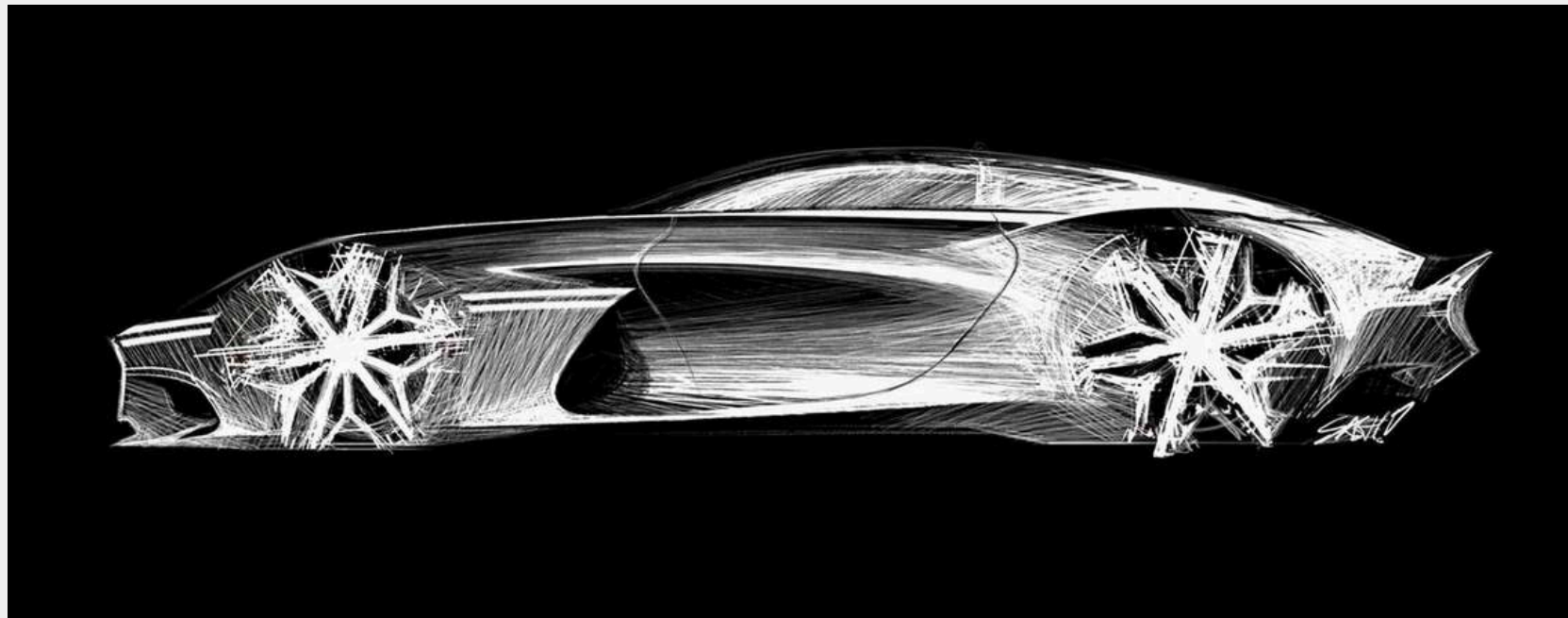


..... Renders



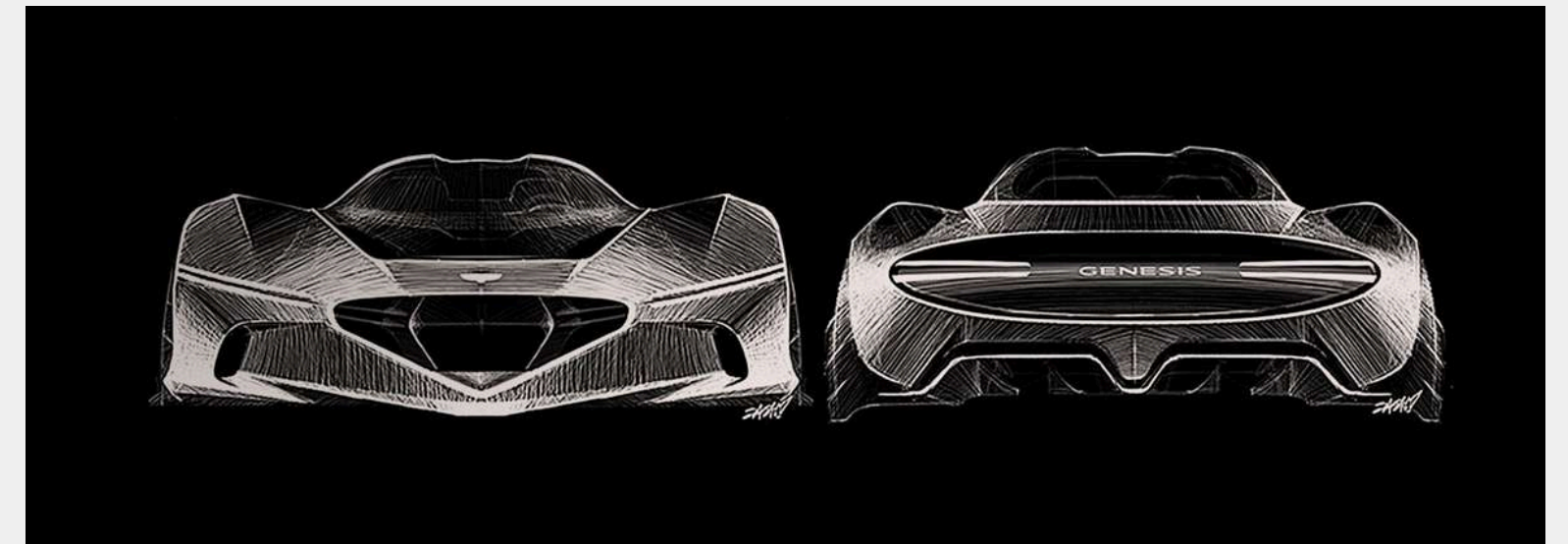
..... Renders

Process



This model was shaped through close interpretation of **official Genesis Design Studio sketches**, using them as a visual blueprint rather than strict technical reference. The focus was on capturing the emotion, stance, and flow suggested by the drawings.

By translating the sketches into three dimensions, the project aims to preserve the original design spirit, emphasizing sculptural surfaces, balanced proportions, and a cohesive overall form.



Official sketches used as reference

#7

Process

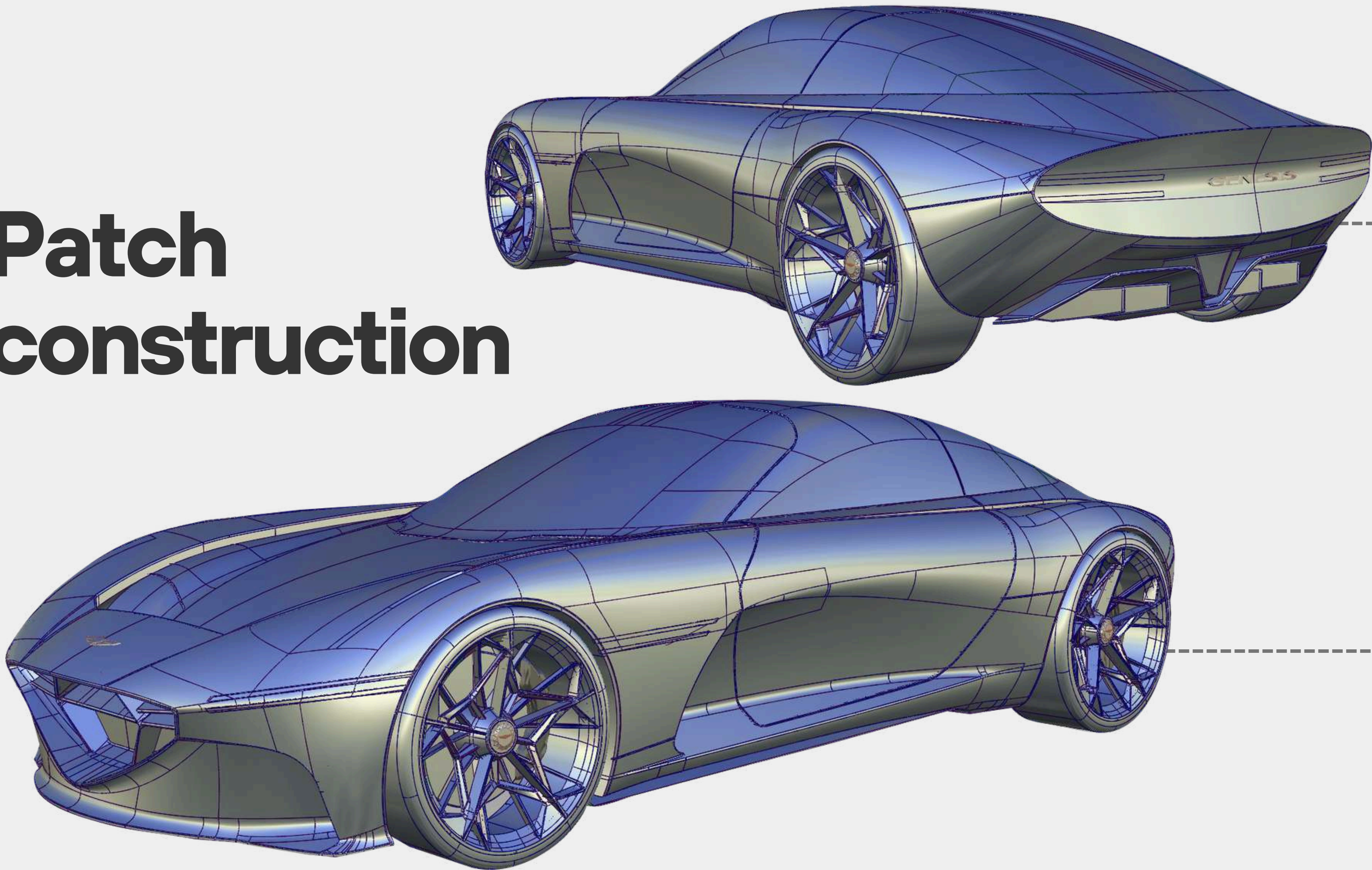


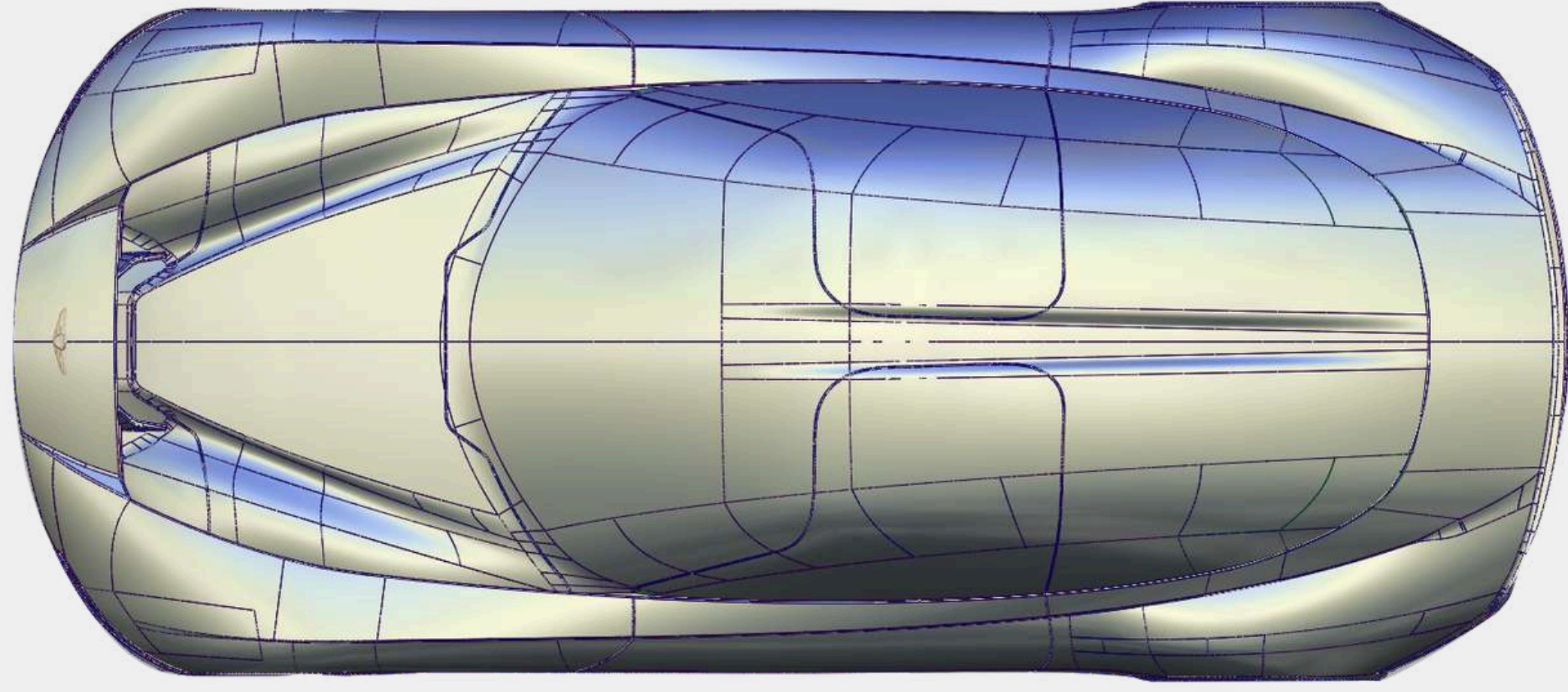
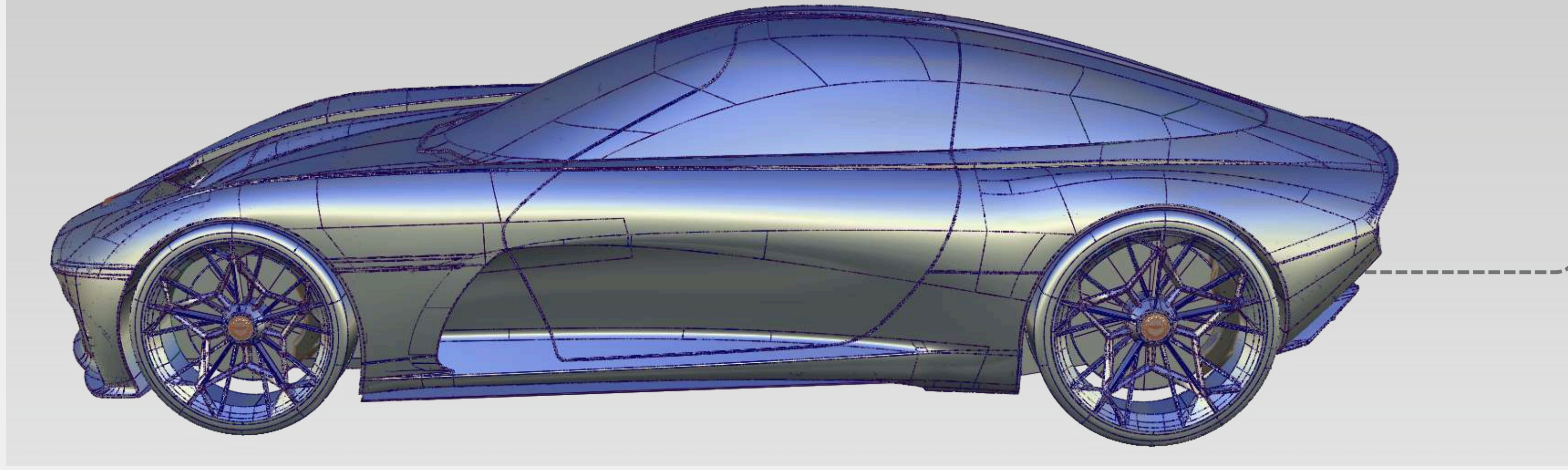
Using **official sketches from Genesis Design Studio** as the primary inspiration, I analyzed the proportions, surfacing language, and key design elements of the Genesis Essentia Concept. I gathered additional reference from official Genesis images to better understand form, details, and material behavior.

With limited technical data available, the model was developed through careful visual analysis, translating 2D concept imagery into a cohesive and accurate 3D form. The focus was placed on capturing the overall design intent, clean surfaces, and refined proportions.

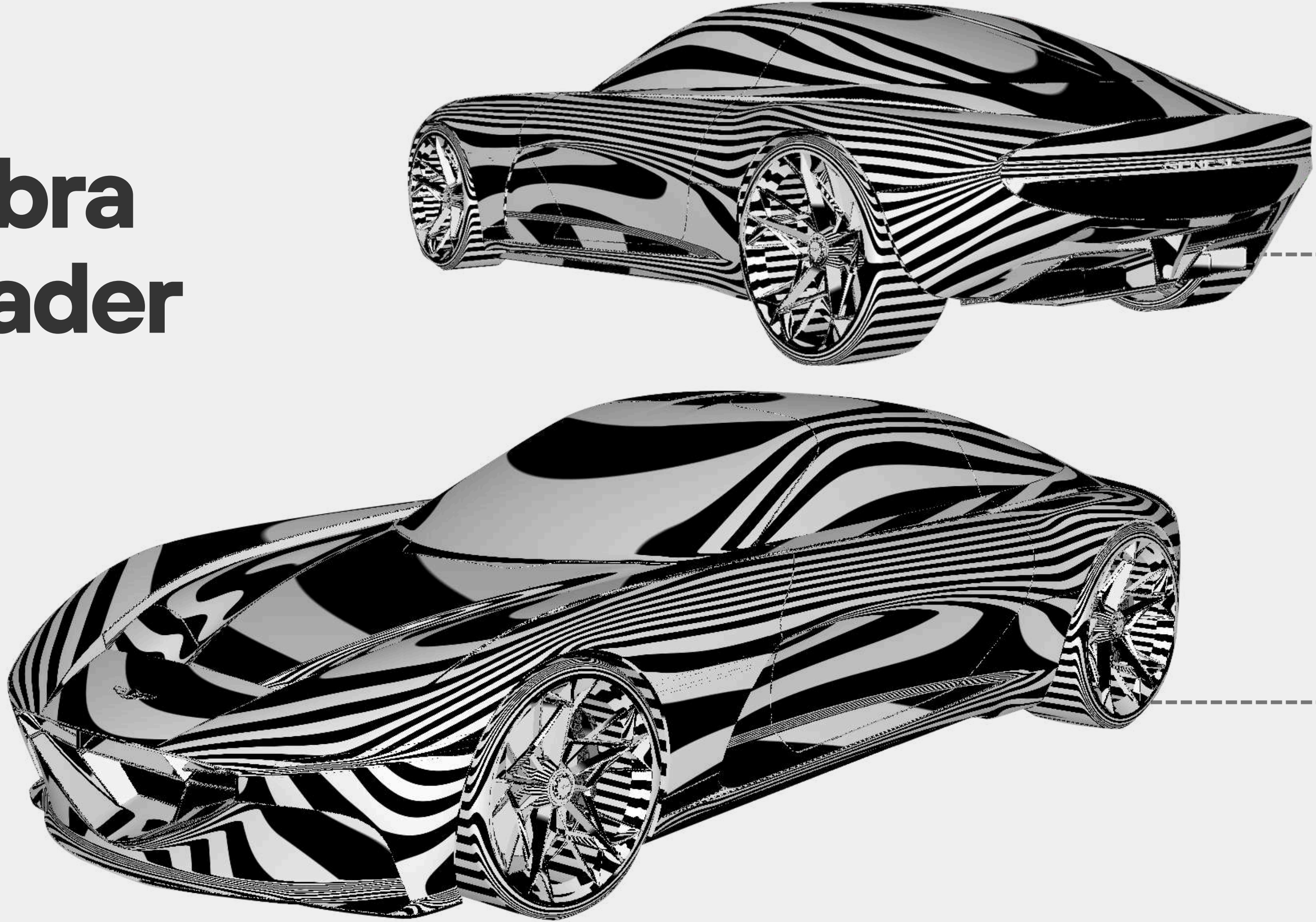


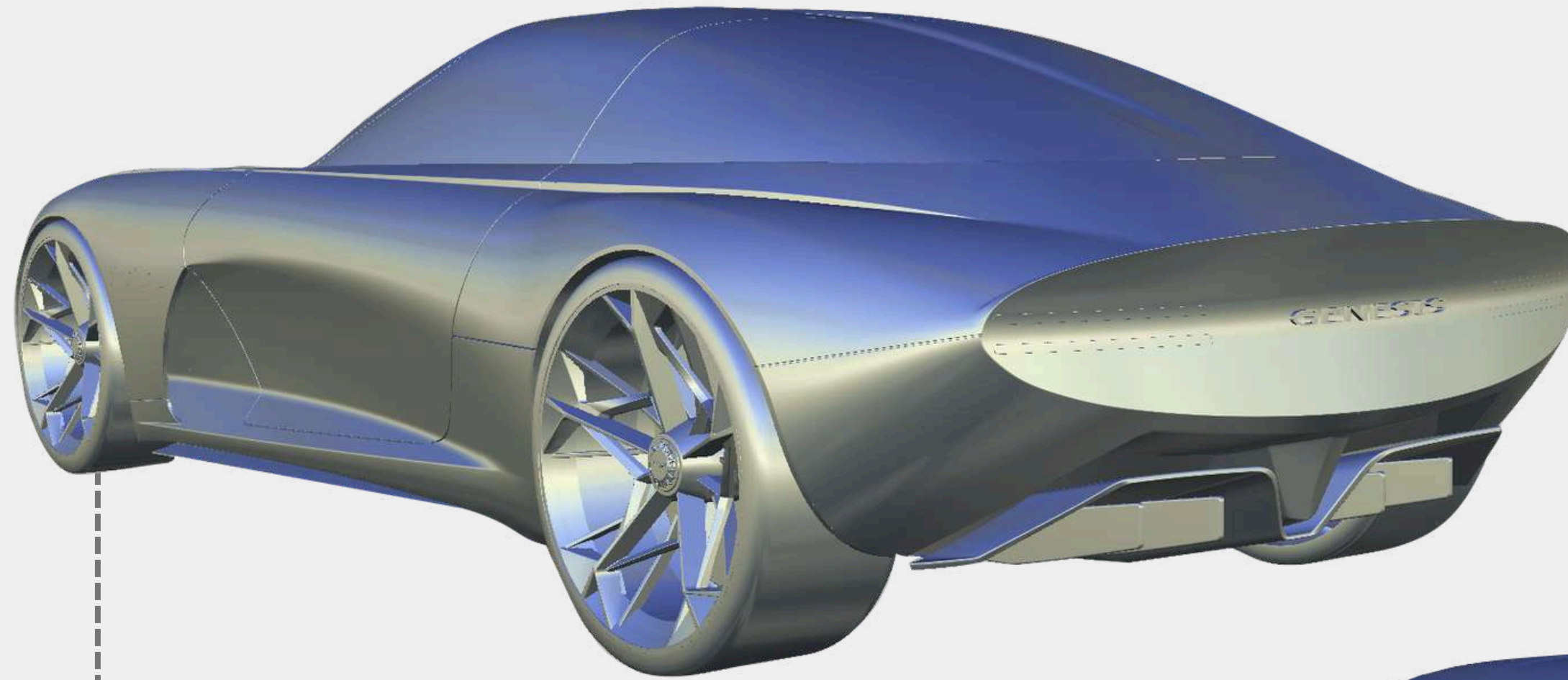
Patch construction





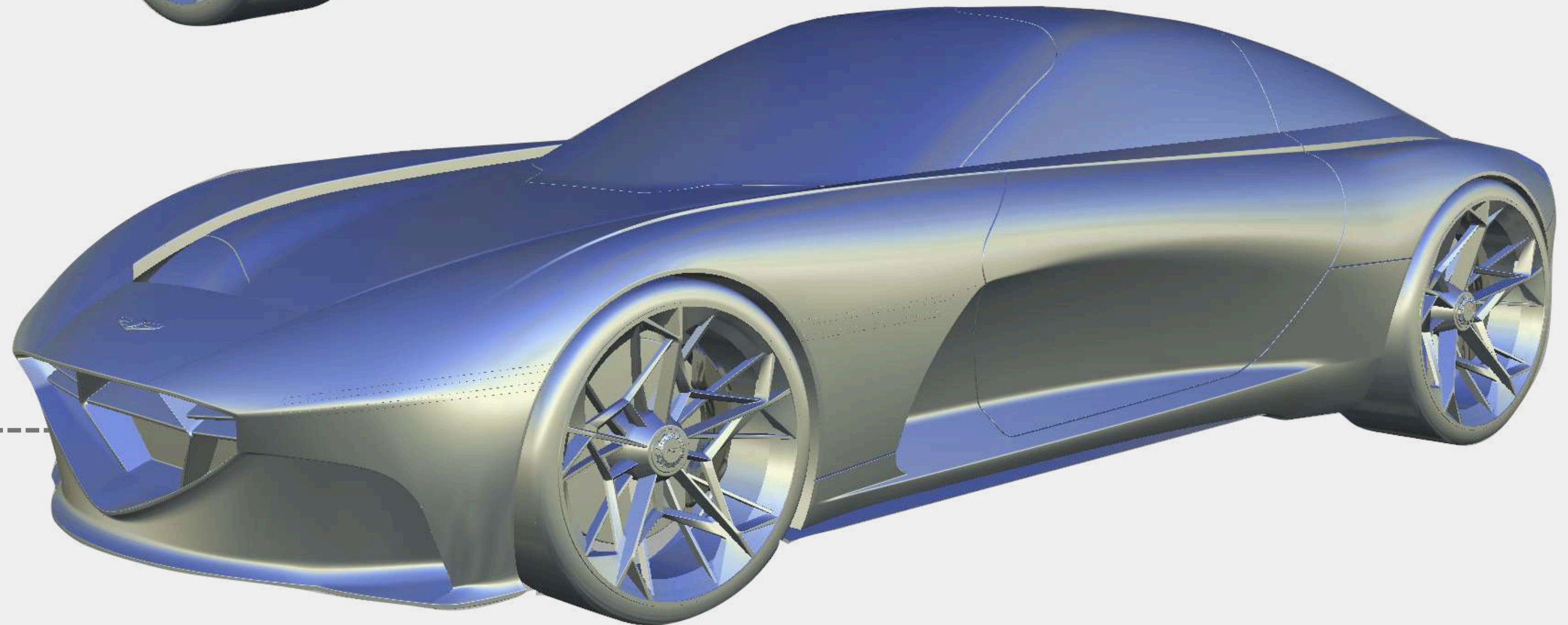
Zebra shader



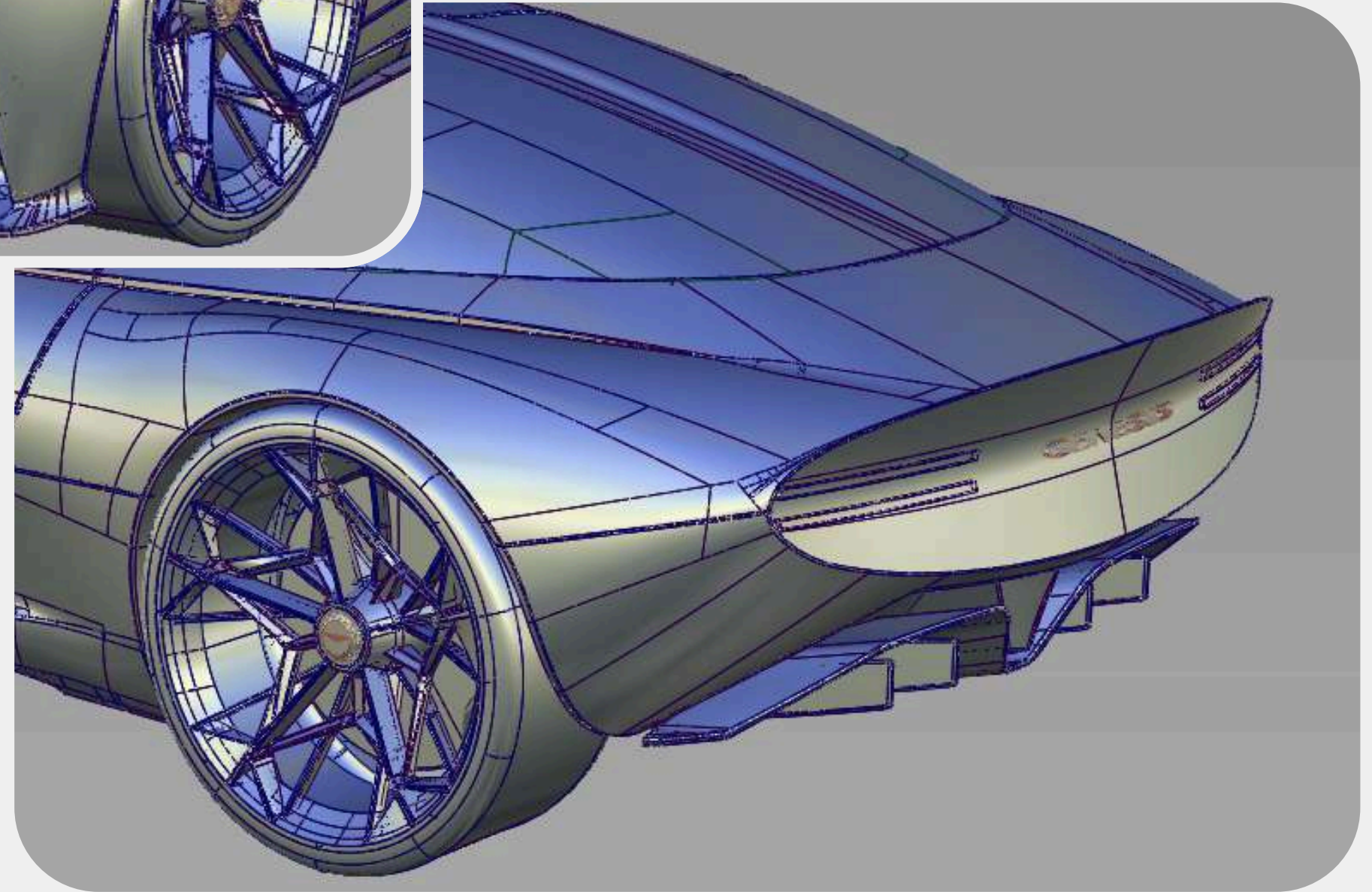
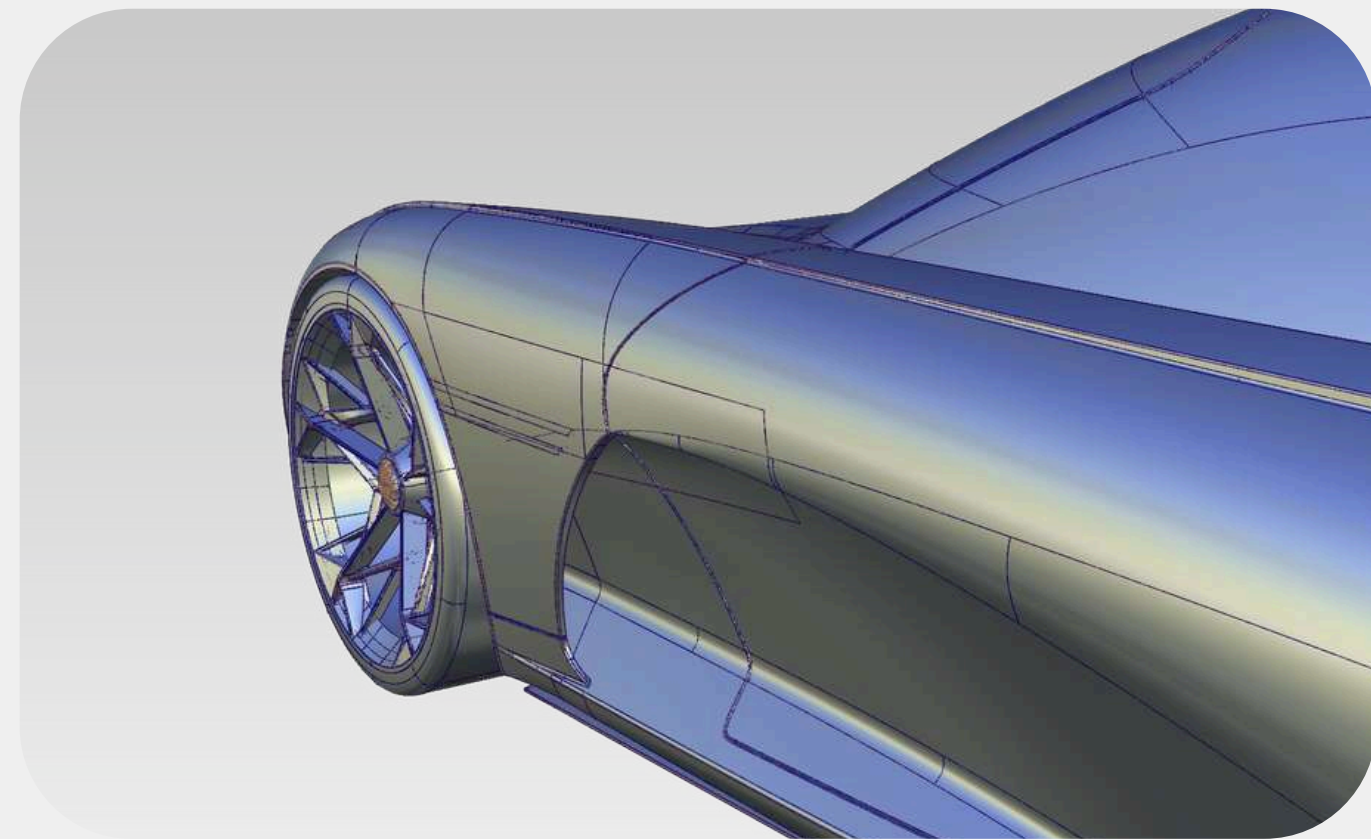
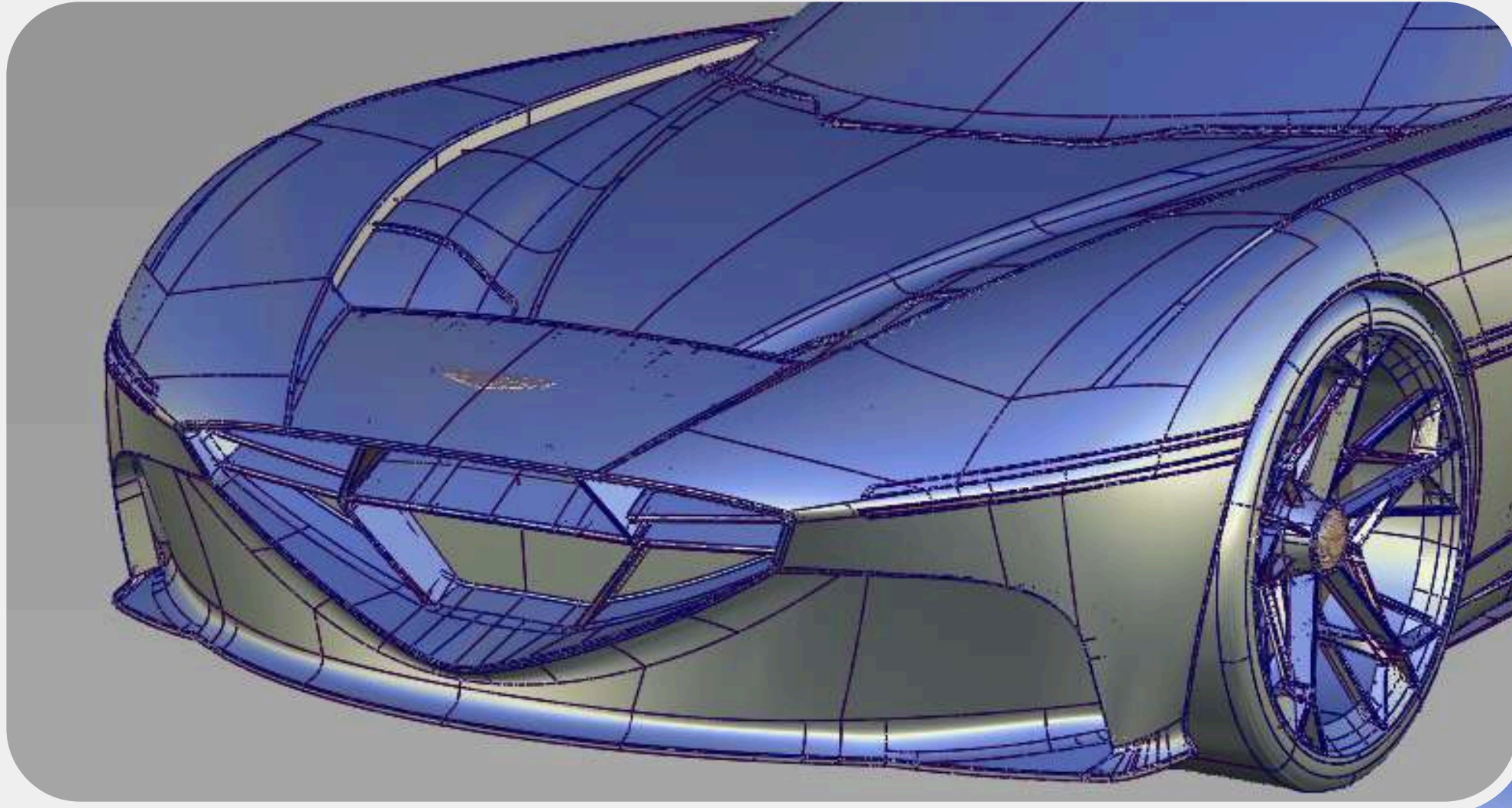


Highlights

The **Genesis Essentia Concept** was all about capturing elegance through light. Unlike traditional surfaces, its design plays with tension and fluidity, making highlight control a delicate balance between precision and **emotion**. Each curve needed to breathe — reflecting not just light, but the character of the car itself.



Details





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Process



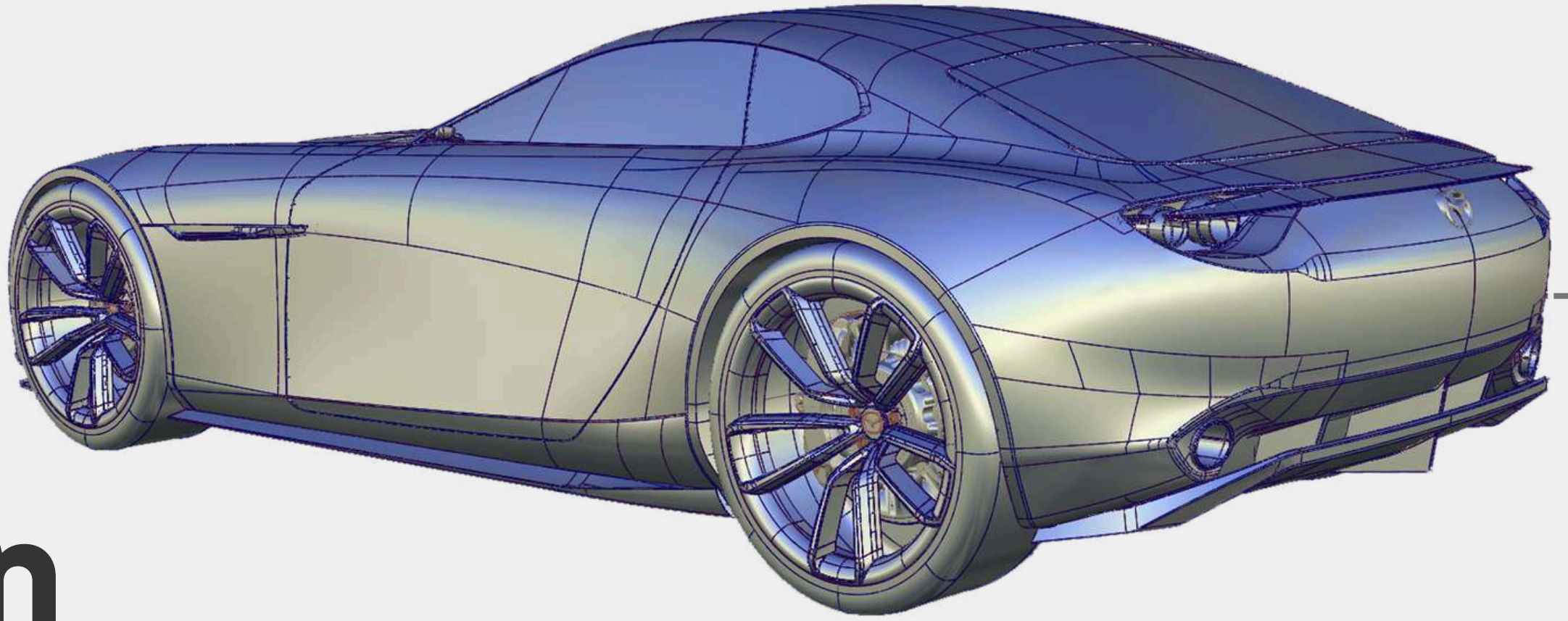
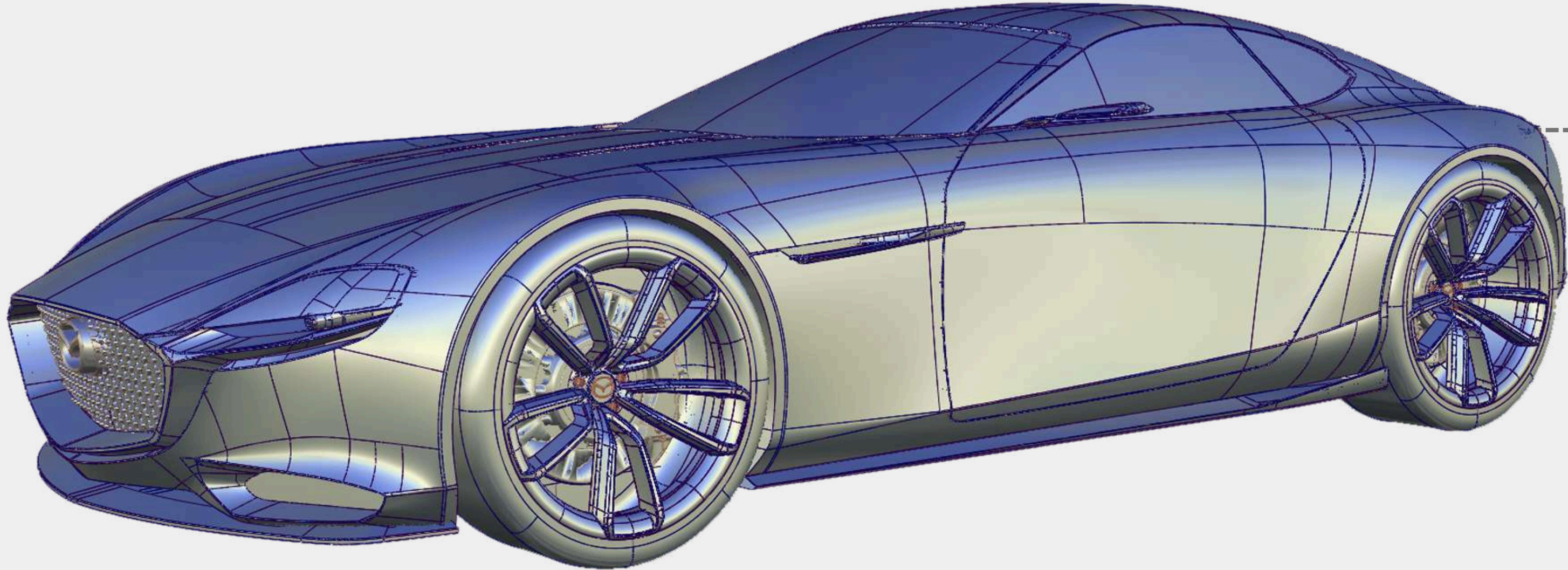
I started my 3D model of the **Mazda RX-Vision** by collecting sketches and concept images as references. Using them, I blocked out the car's basic shapes, then gradually refined the details, focusing on the curves and lines that define its unique design.

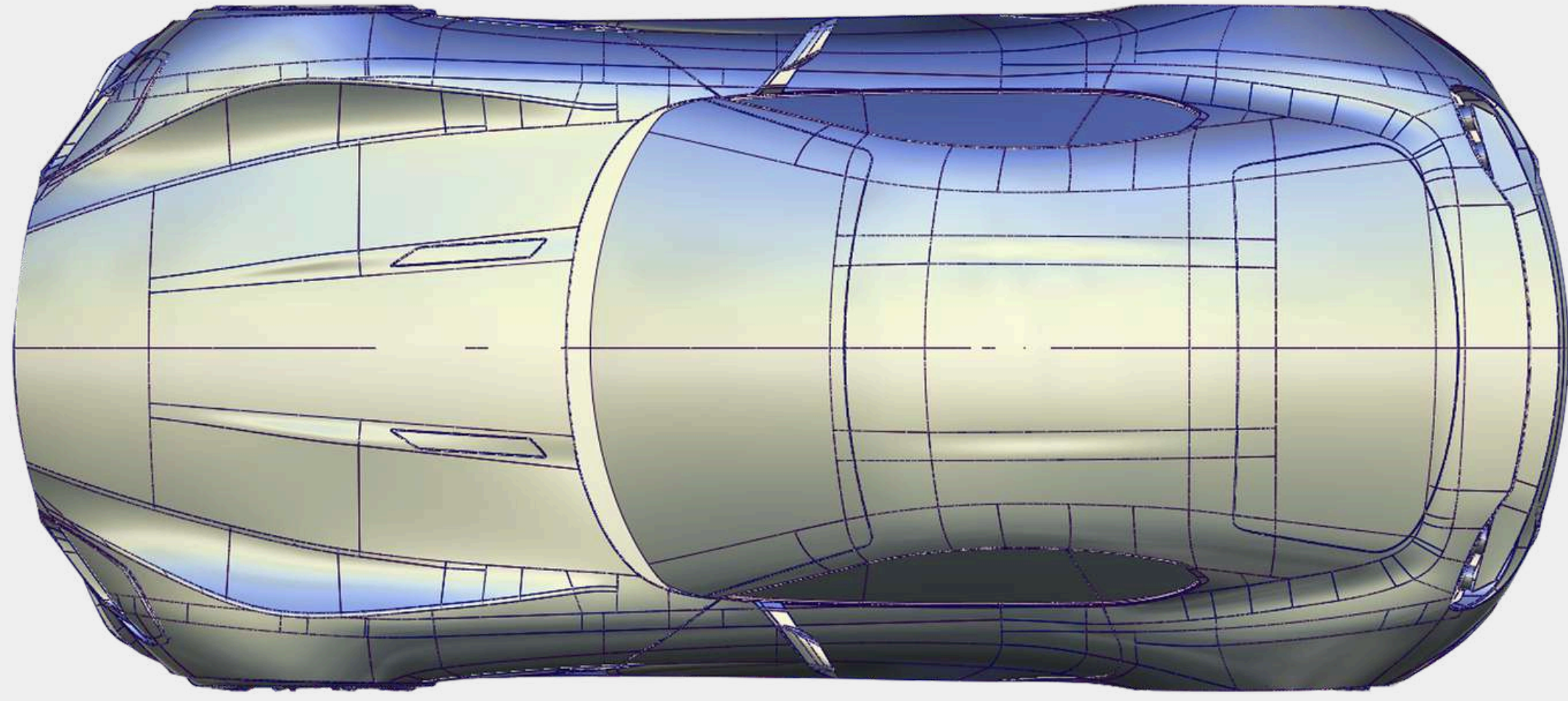
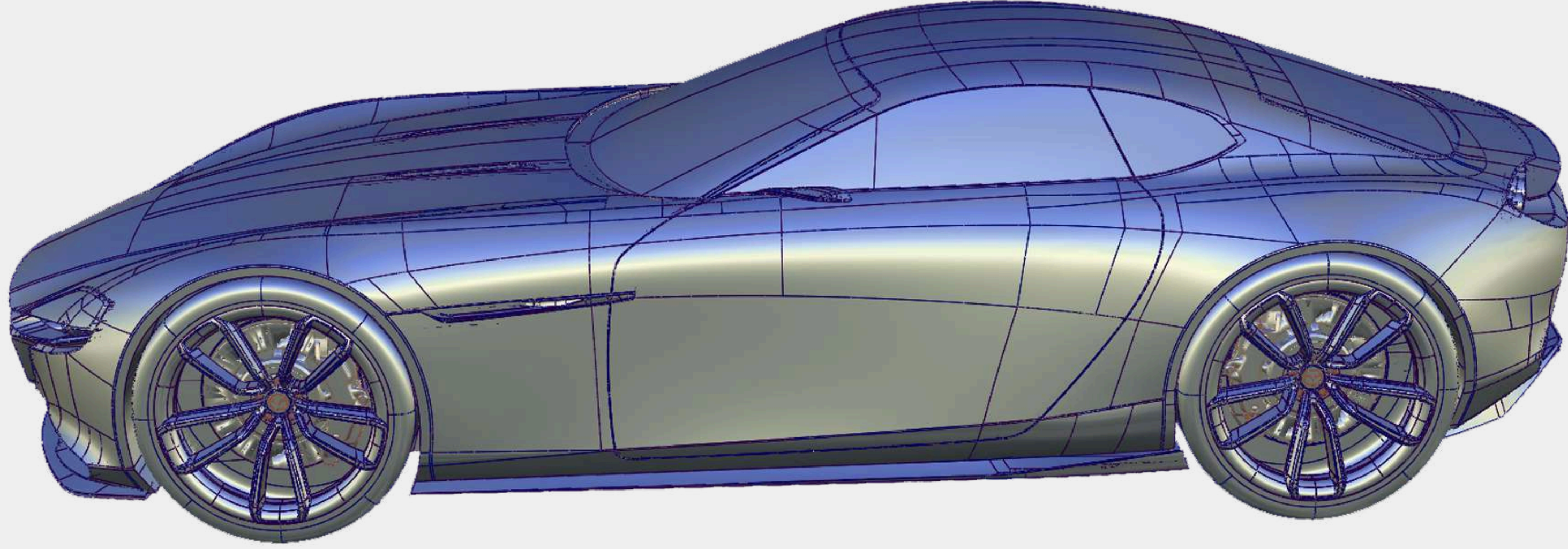


Official sketches and images used as reference

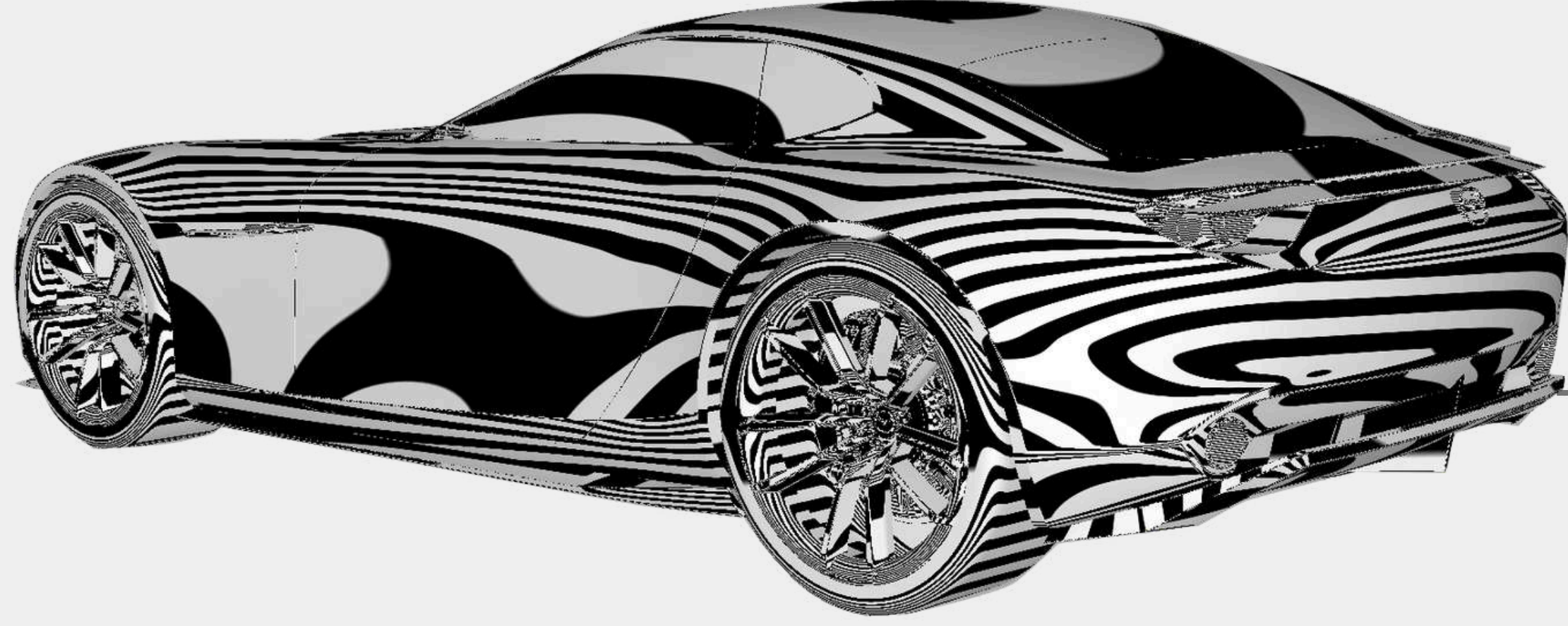
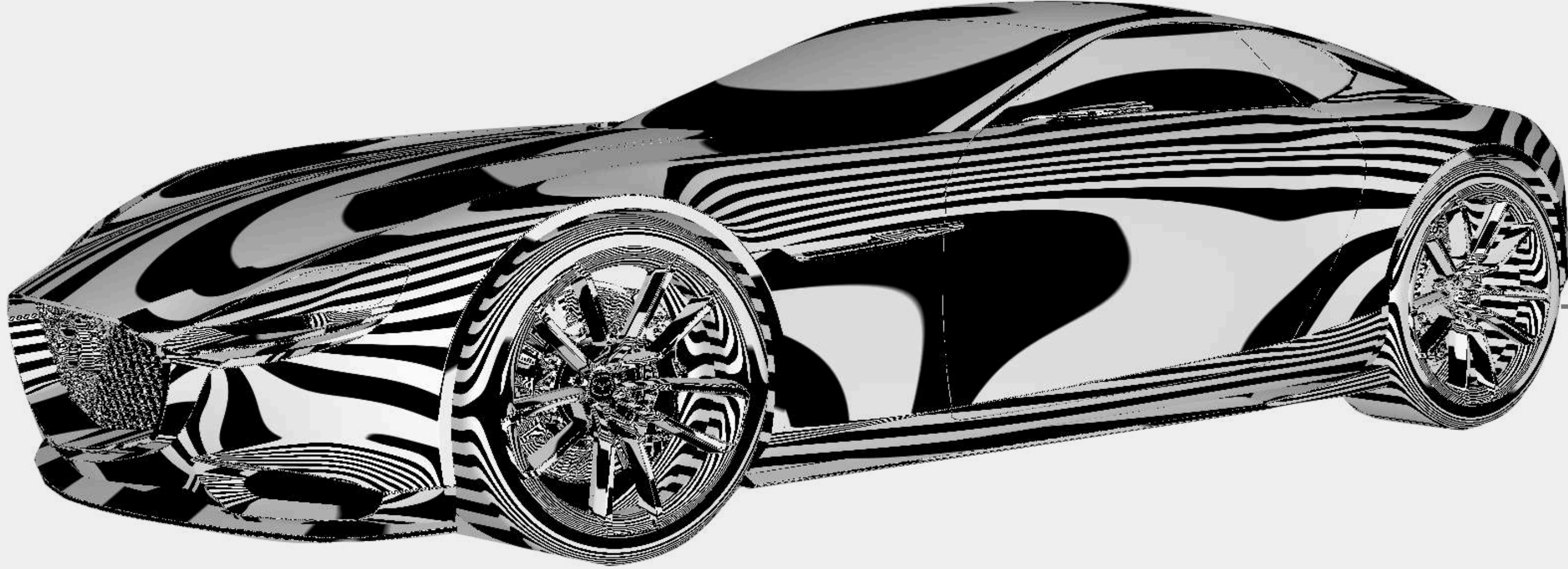
#8

Patch construction



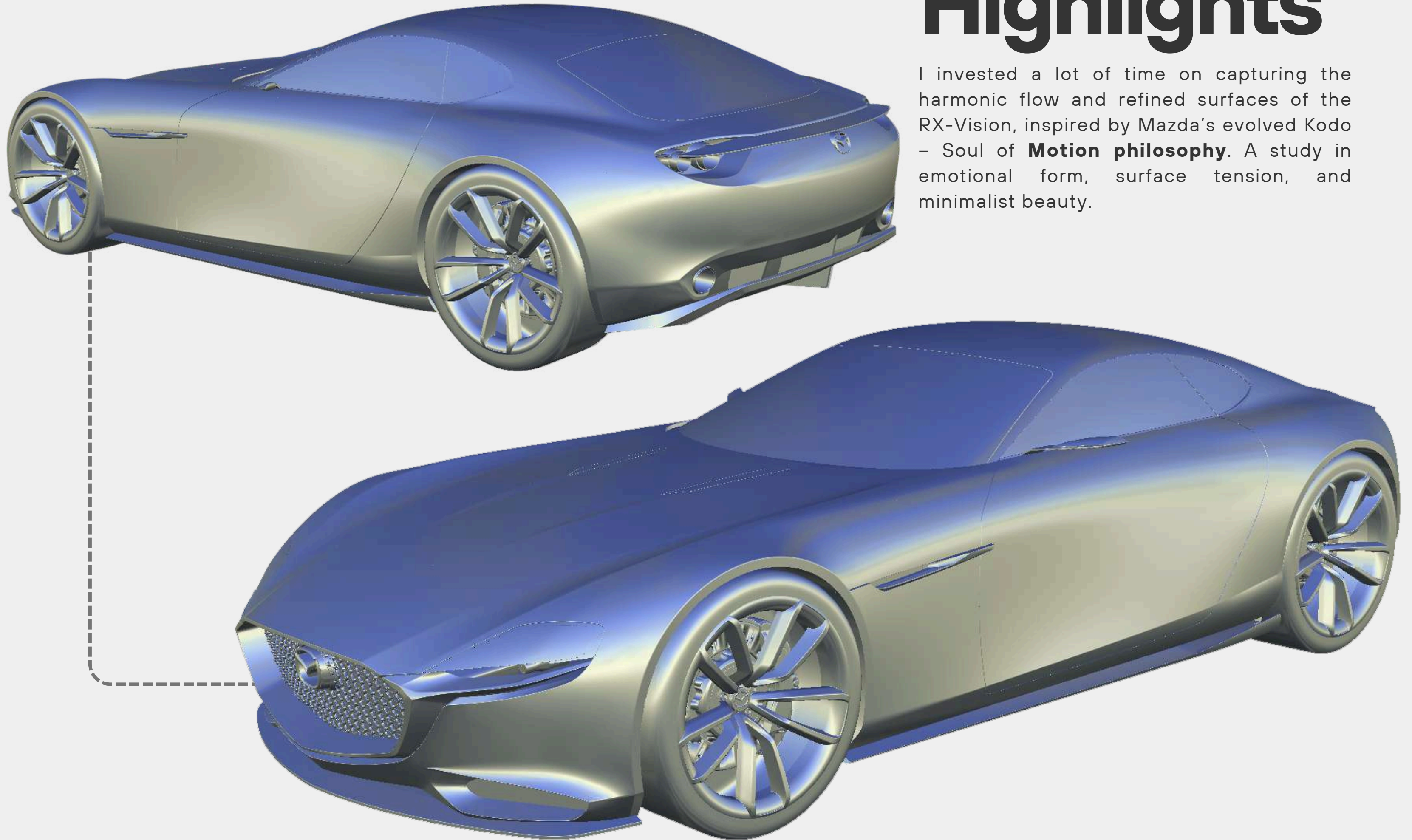


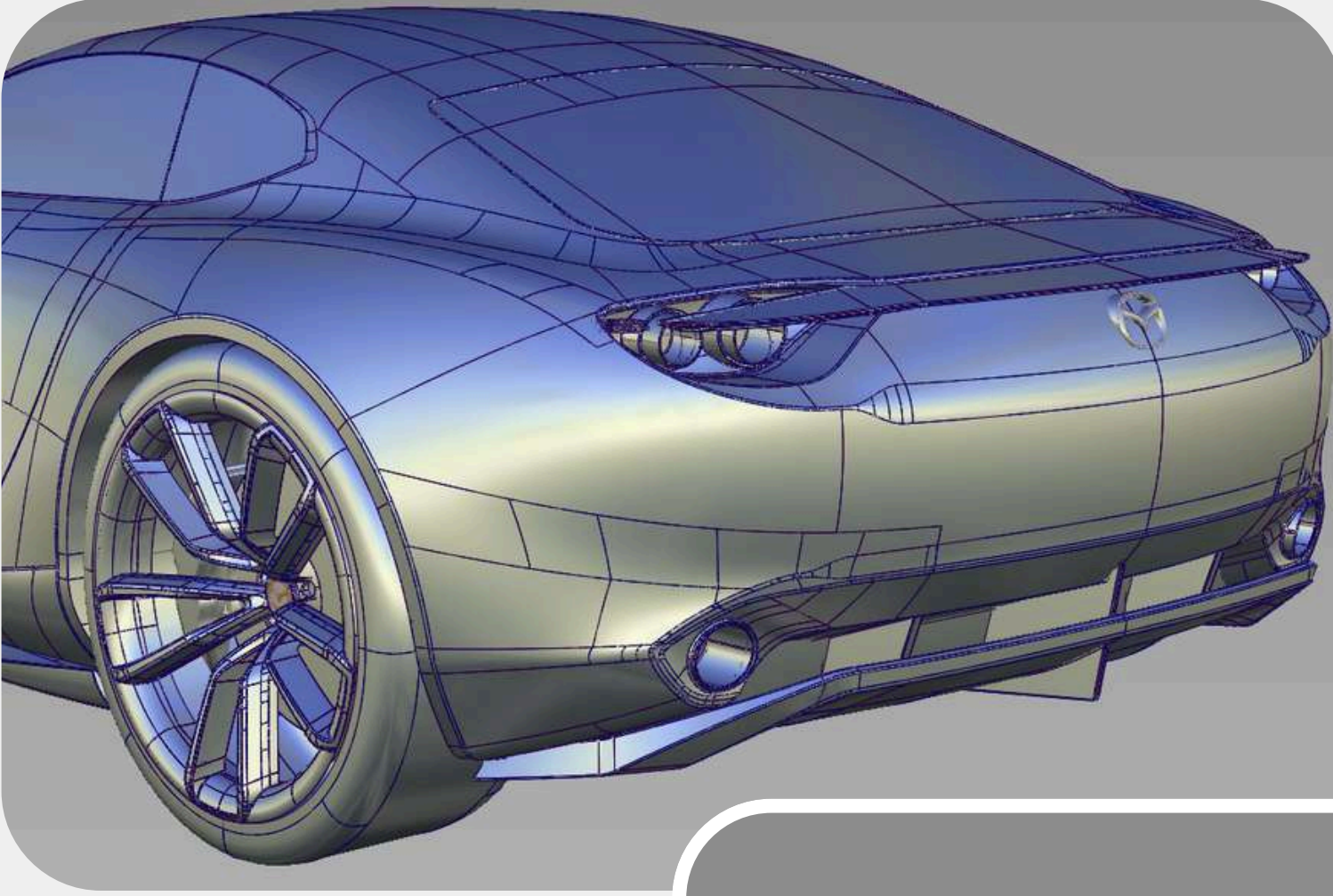
Zebra shader



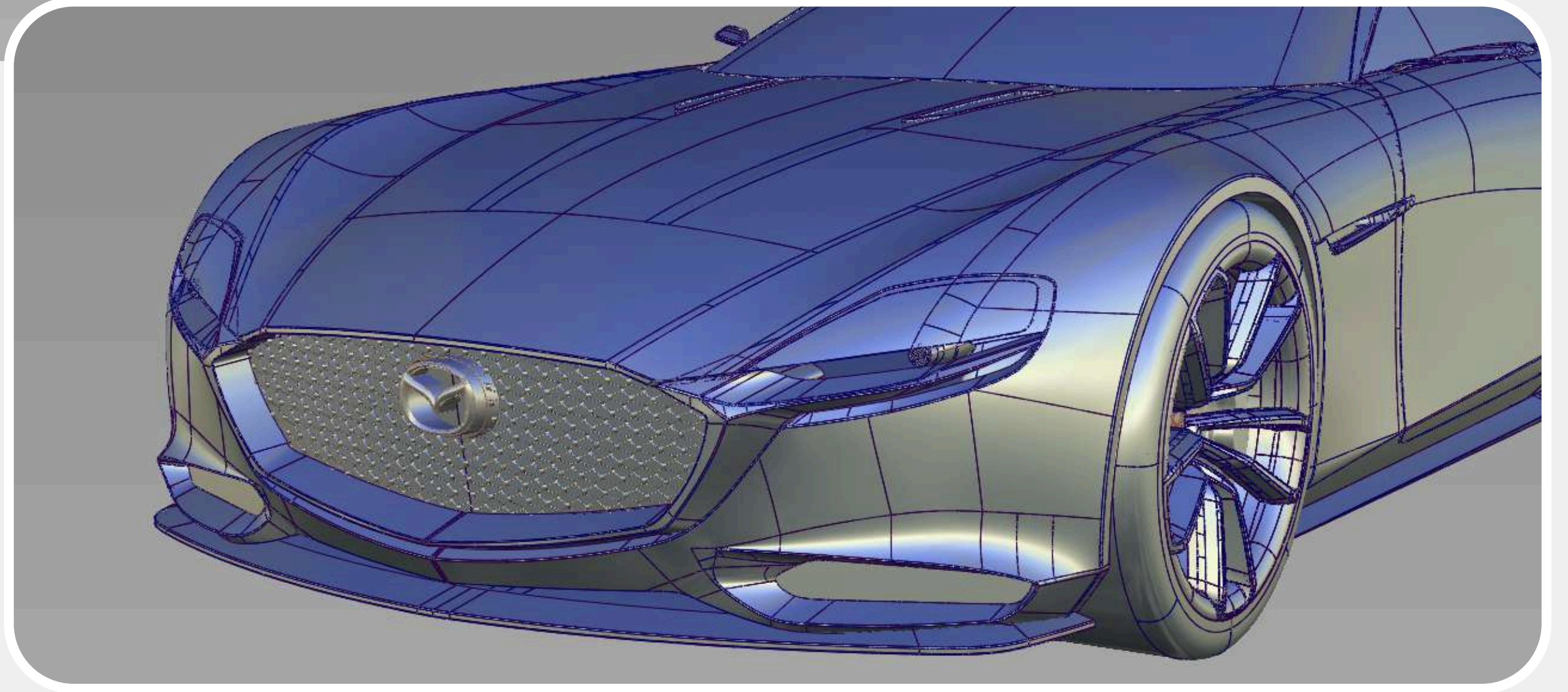
Highlights

I invested a lot of time on capturing the harmonic flow and refined surfaces of the RX-Vision, inspired by Mazda's evolved Kodo – Soul of **Motion philosophy**. A study in emotional form, surface tension, and minimalist beauty.





Details





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..... Renders



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..... Renders