

**Byeongmin Kim** 2025  
Portfolio





# Byeongmin Kim

Industrial Designer

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Email : kbm89791@gmail.com

## Education

**College for Creative Studies** in Transportation Design

Bachelor of Fine Arts, graduated in May, 2025

FALL 2022, Detroit, MI

**Pukyong National University** in Industrial Design

2019, Busan, Korea

**Kyungsung University** in Economics and Logistics

2017 - 2018 Busan, Korea

## Projects

### GM Dream Racer

2025, Detroit, MI

This is GM Sponsor Studio's 2040 performance car project. It is a next-generation racing concept designed for a future race track equipped with wireless charging and a rail system. The car allows drivers to experience both GT mode and MIDSHIP mode simultaneously, and enhances the driving excitement with a virtual booster effect.

### Nissan Zen-Mobility

2025, Detroit, MI

This is a two-week mobility design study, envisioned for the year 2040 in the dense urban context of Tokyo. It explores an autonomous ride-sharing system designed to alleviate the stress caused by crowded public transportation and polluted air, while ensuring accessibility for busy workers and vulnerable groups such as pregnant women, the elderly.

### Jeep Huntington

2024, Detroit, MI

This project is designed for younger couples who want to enjoy sunbathing and surfing anytime, without the need for preparation. The vehicle features a flexible roof system with rails—it functions as a roof while driving and transforms into a comfortable sunbed at the beach. It also includes a lightweight surfboard that doubles as a door in driving mode. This Jeep is always ready for an adventure under the sun, whenever you are.

### Alfa romeo Hydrogenic

2024, Detroit, MI

This is the 2040 Alfa Romeo three-seater performance vehicle powered by hydrogen and solar energy. It features a compact battery and an integrated solar panel, contributing to reduced weight and enhancing the exotic driving experience.

### Bentley Aurora

2024, Detroit, MI

A 2045 electric boat project inspired by the aurora—an exclusive phenomenon limited by time and place. Its flowing, organic forms are expressed in both exterior and interior, enhancing a sense of refined luxury.

## Skills

### 2D (Visual Communication)

- Sketching / Marker Rendering / Adobe Photoshop / Adobe Illustrator / Adobe Premier

### 3D (Modeling)

- Autodesk Alias (Sub D) / Blender / Unreal / Clay Modeling

## Work Experience

- General Motors Design Sponsored Studio

2025, Detroit, MI

- American Chemistry Council Sponsored Clay modeling Studio

2024, Detroit, MI

- Republic of Korea Army Truck and Bus Driver & Car Maintenance Soldier

2015 - 2016, Gyeryong, Korea

## Language

- Korean / English / German

## Interests

-Listening Music / Traveling / Driving / Traveling / Communication

# Contents

01

**Jeep**<sup>®</sup>

Huntington

02



Aurora

03



Dream Racer

04



Zen Mobility



# Jeep | Huntington

2040 Sunbathing Dating on your Jeep





1. Name : Jessica (26) / Brandon (31)
2. Location : Huntington beach, California
3. Job : Physical Therapy Assistant / Certified CrossFit Trainer
4. Pain Point : As an active couple who enjoys sunbathing, surfing, and off-road adventures, they often find that preparing for outdoor activities takes too much time and effort—packing gear, planning routes, and setting up once they arrive.



## Enjoy Outdoor Adventure without Preparation!



Concept Explanation : Designed for young couples, this vehicle enables carefree beach drives and sunbathing anytime, with no preparation needed. While most leisure activities require extra spending, this leisure-optimized vehicle offers worry-free enjoyment without added costs.



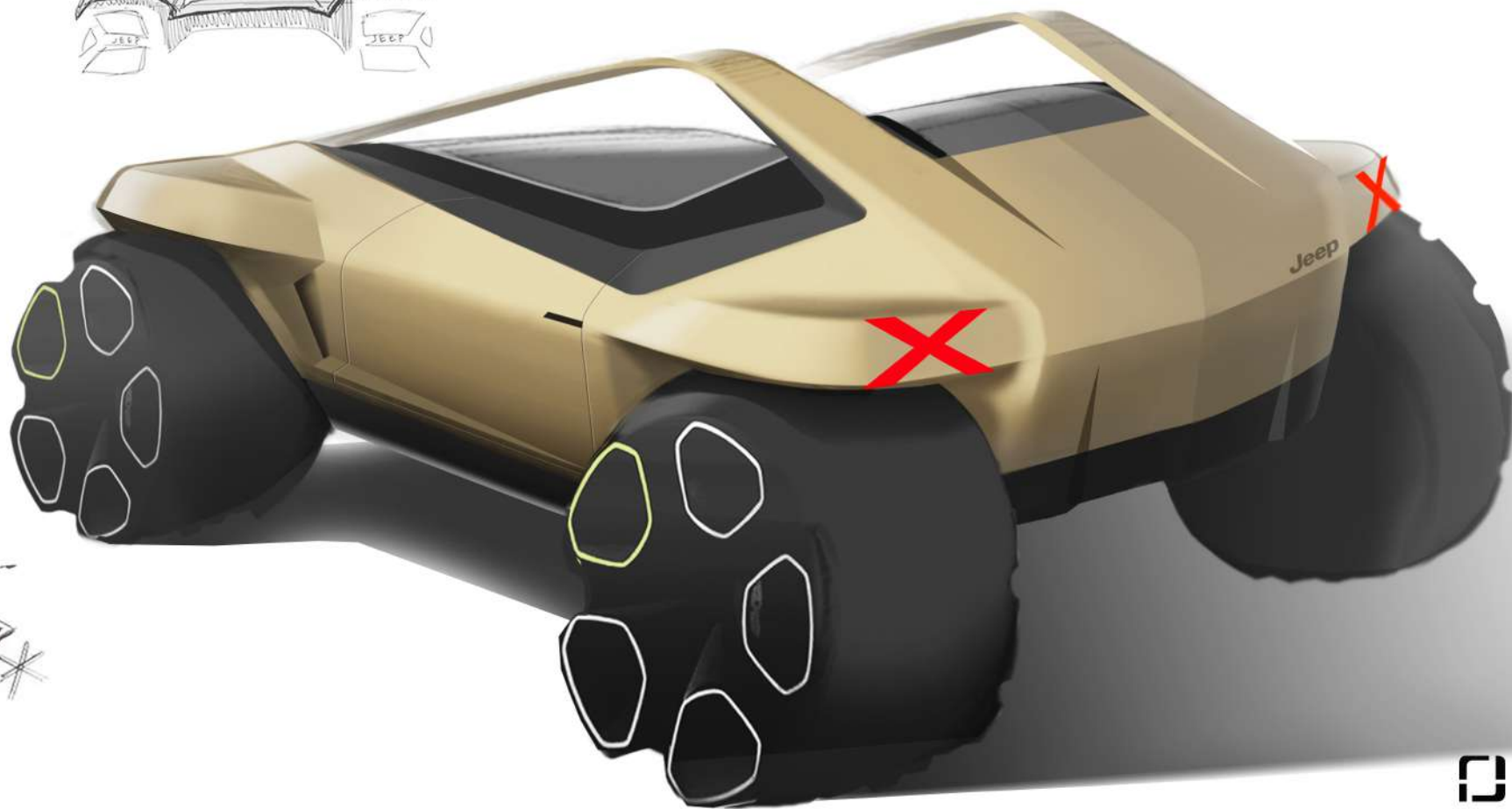
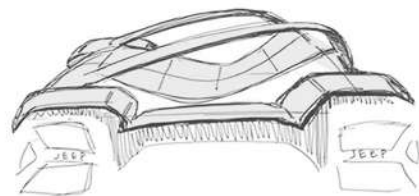
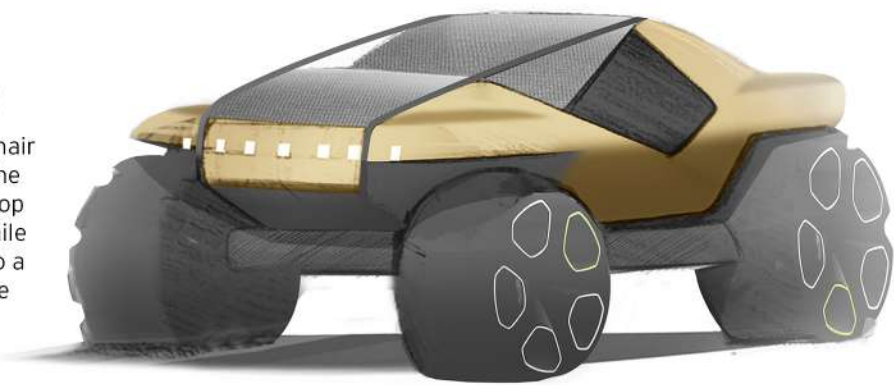
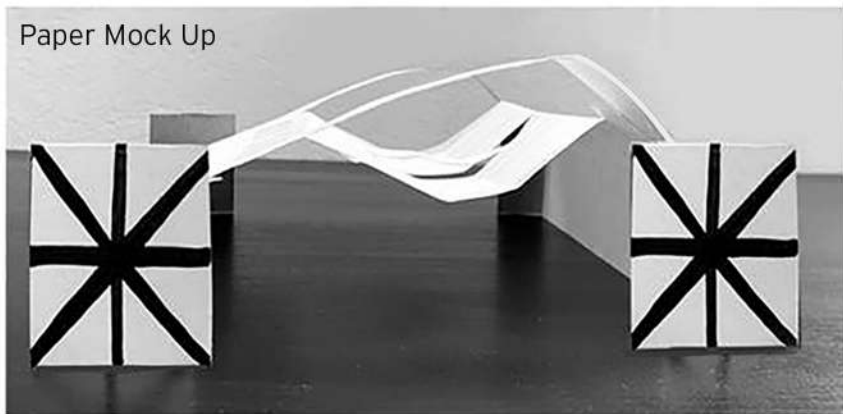
# Jeep®

## Huntington

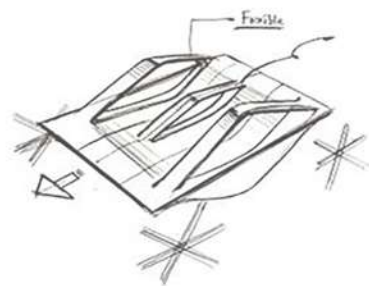
Inspired by a lightweight chair designed for sunbathing, the vehicle features a canvas top that functions as a roof while driving and transforms into a sunbed when parked on the beach.



Paper Mock Up



■ Ideation A (Windshield to Sunbed)



# Jeep®

## Huntington

Inspired by beach items such as surfboards and beach towels, the elevating rooftop made of canvas fabric offers users a comfortable and enjoyable sunbathing experience.

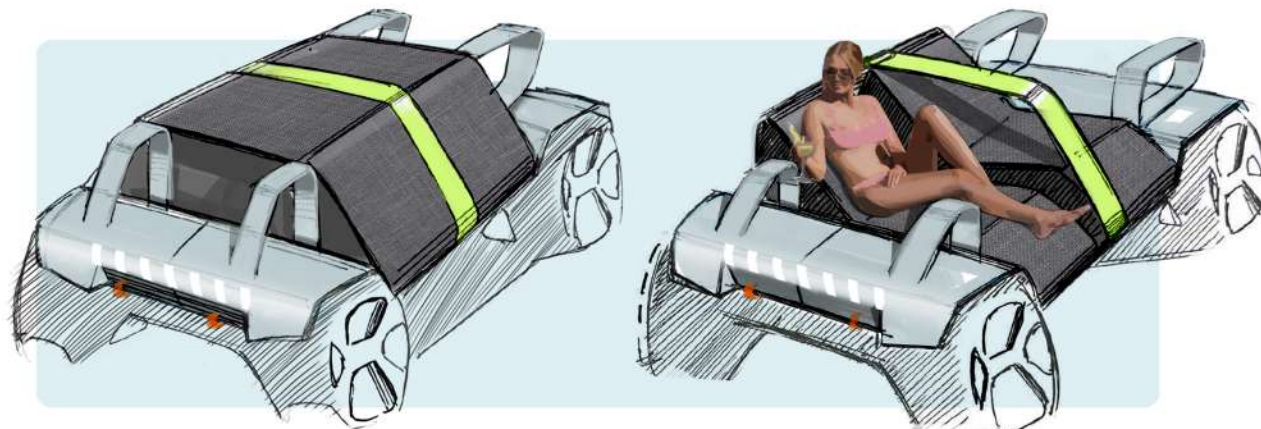
■ Ideation B (Elevating type Sunbed)



# Jeep®

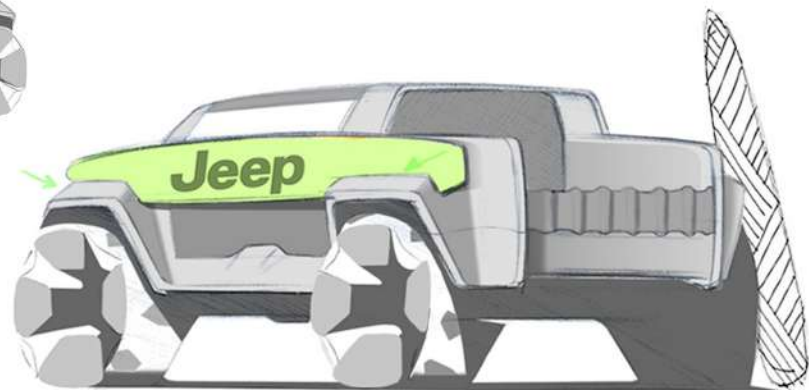
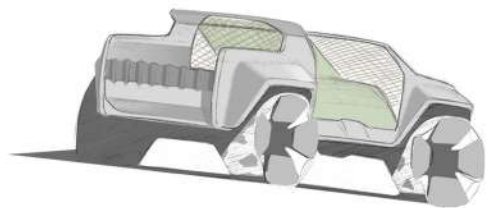
## Huntington

The main point of this page is that the directions for driving and sunbathing are different.

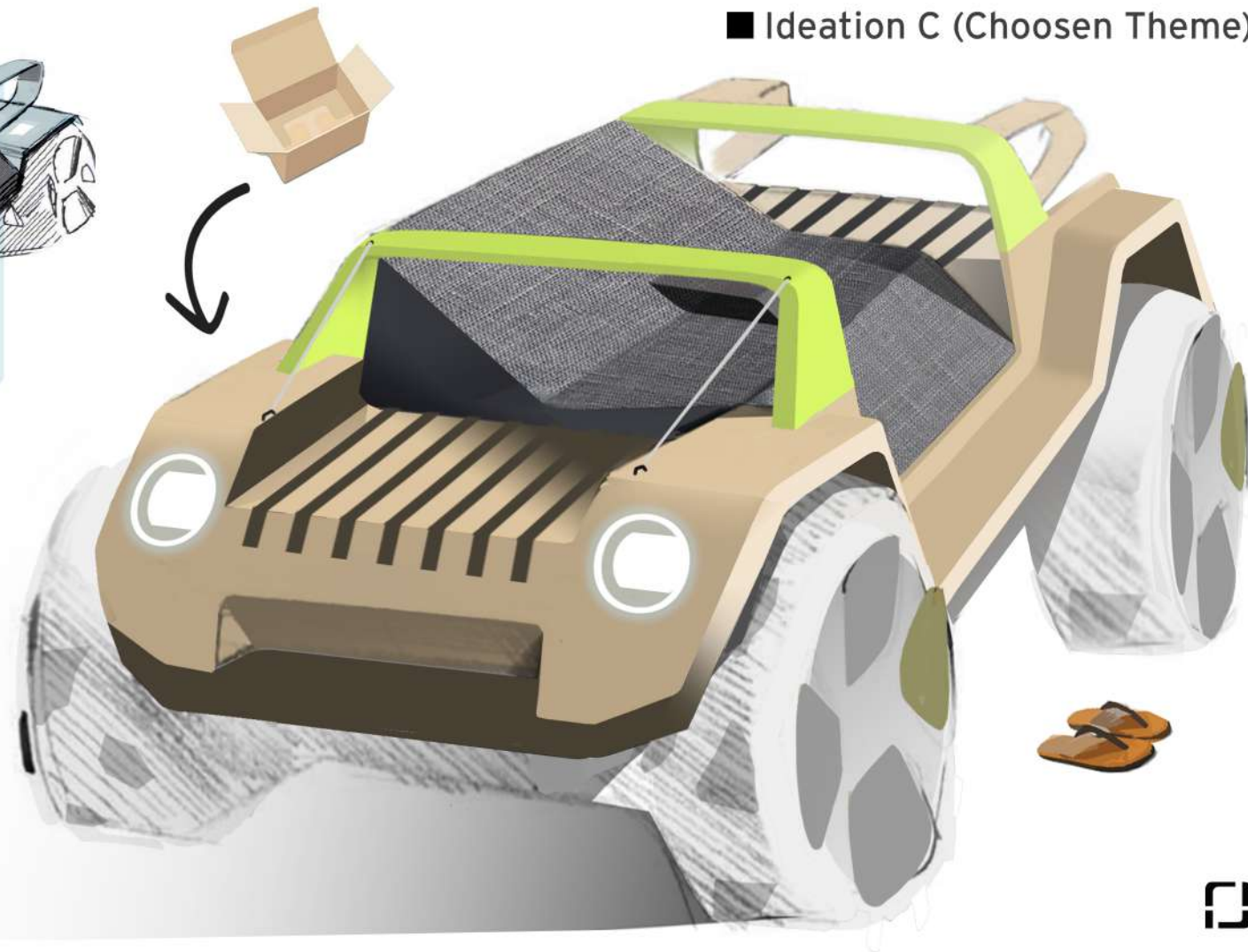


Driving Mode

Sunbathing mode



■ Ideation C (Chosen Theme)



# Jeep

## Huntington

These development sketches show how sunbed concepts are incorporated into the vehicle's design.



■ Design Development

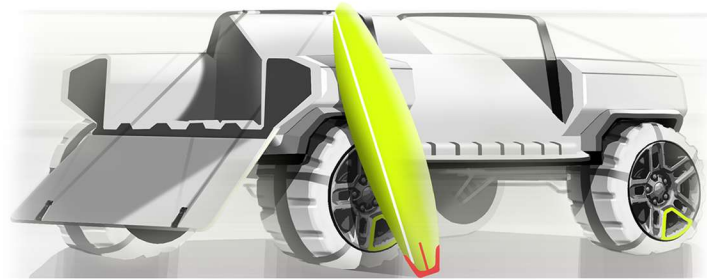


# Jeep®

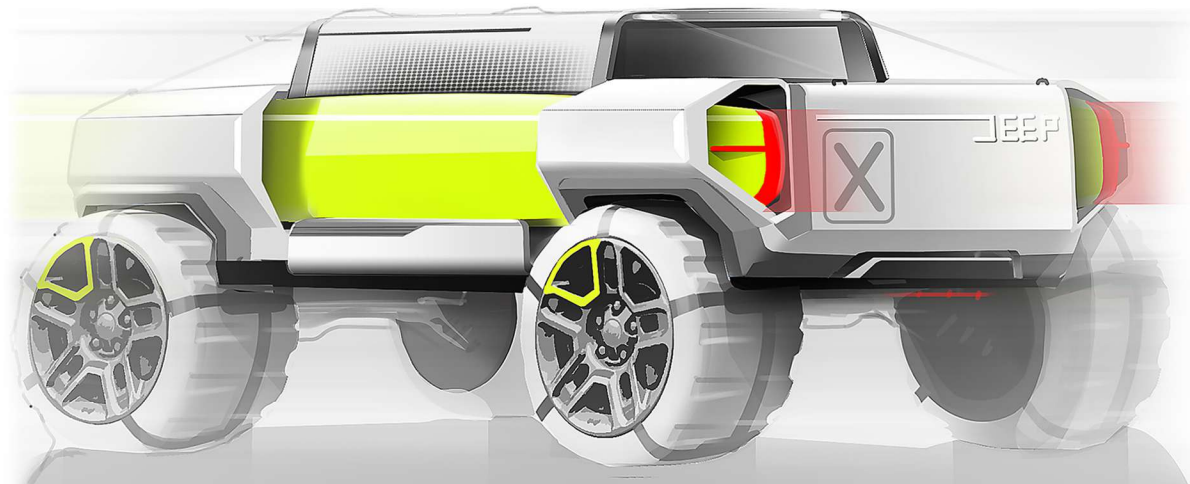
## Huntington

Various design ideas are developed around the concept of combining driving and sunbathing experiences.

1. Sunbathing Mode  
The flexible rooftop transforms into a sunbed.



2. Driving Mode  
Surfboards are mounted on both sides of the vehicle and become integrated into the body when driving.



■ Design Refinement



**Jeep**  
| Huntington

Final Design



# Jeep®

## Huntington

Dimension

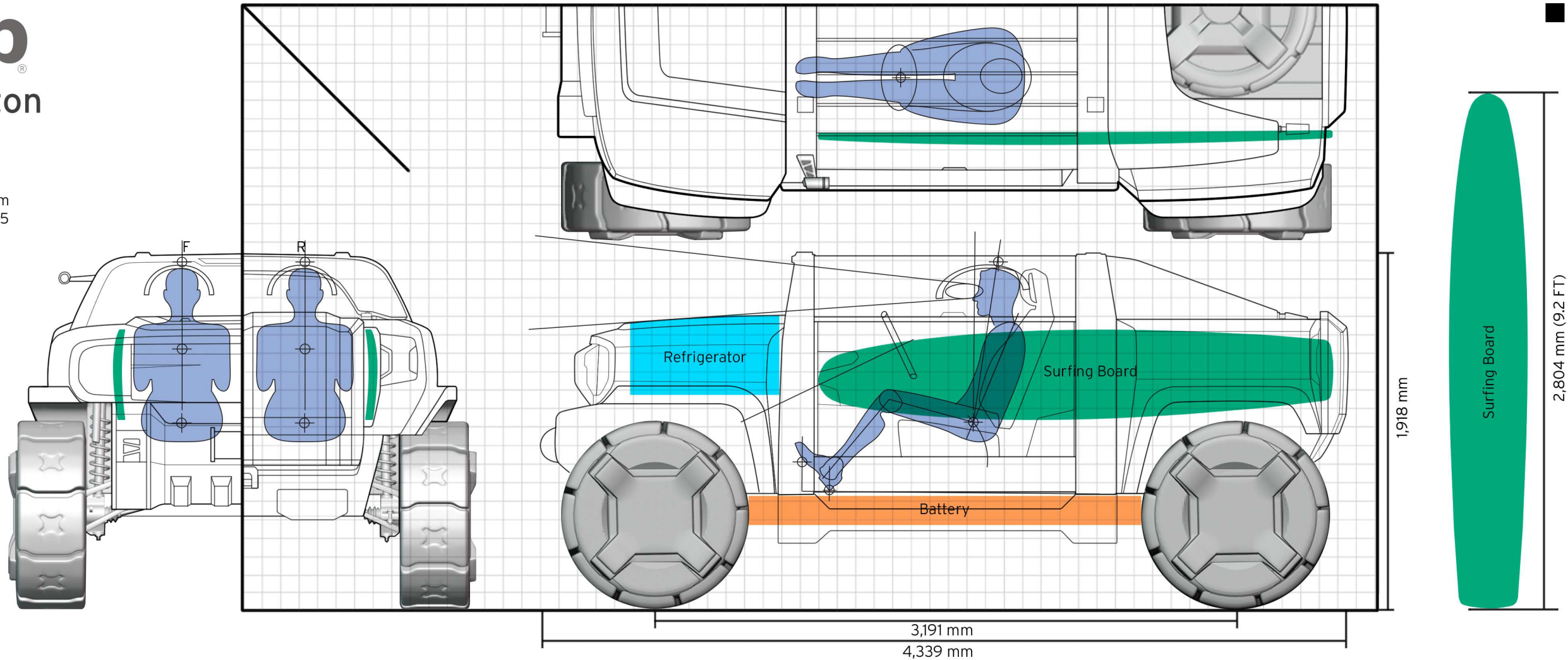
Length : 4,325 mm

Width : 2,327 mm

Height : 1,951 mm

Wheelbase : 3,192 mm

Autonomous Level : 5





## Sunbathing Mode

On the beach, User can make the flexible canvas top as a sunbed for enjoying sunbathing and take the surfing board from the side part for surfing.



# Jeep

I Huntington



## Terrain Mode

More than just a vehicle for on-road driving and sunbathing, it also excels at rock crawling and off-road performance.

■ Final Design



Surfing board  
Storage





Air-Conditioner

Wide Curved Shape Monitor

Digital Side mirror Camera

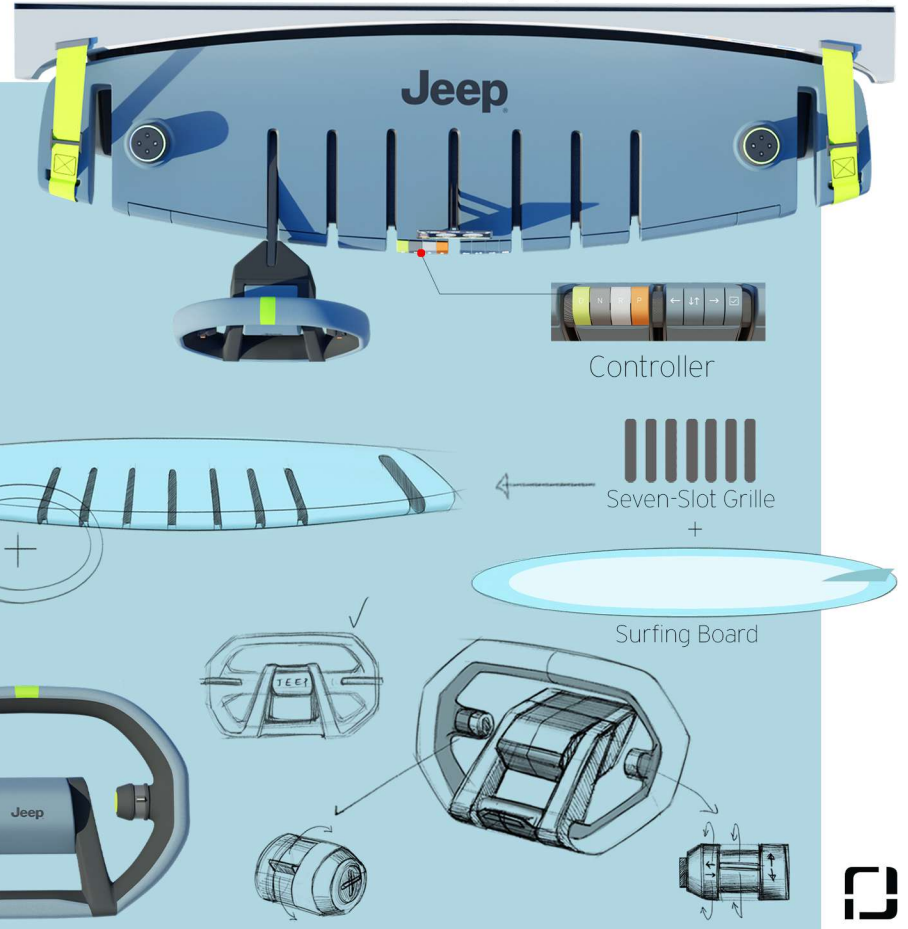
Detachable Bluetooth Speaker

Roof-Rail

Glove Box & Surfing Board Holder

## Interior Design

Inspired by surfboards, Jeep's seven-slot grille, this dashboard features a simple yet practical and iconic design.



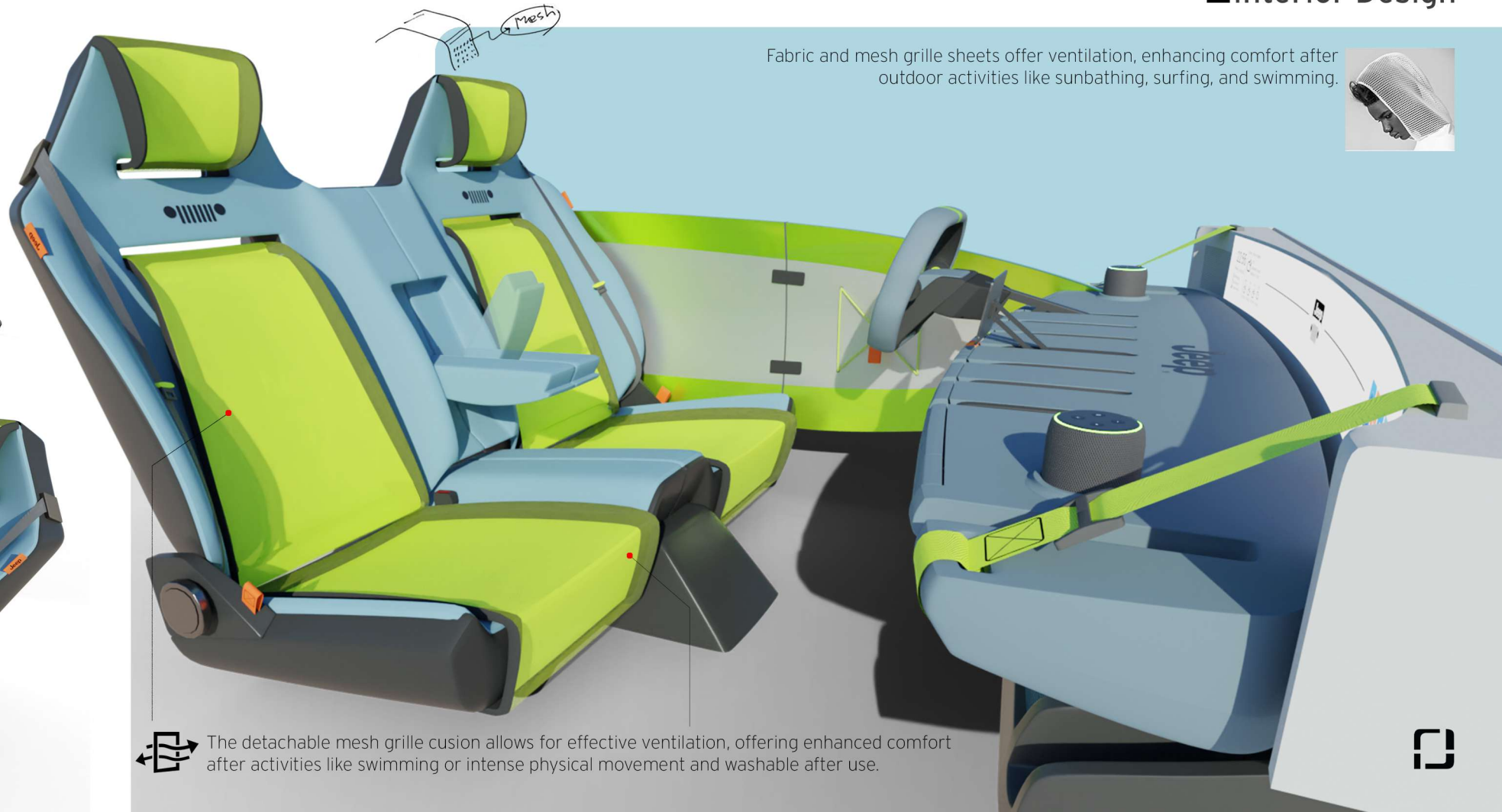
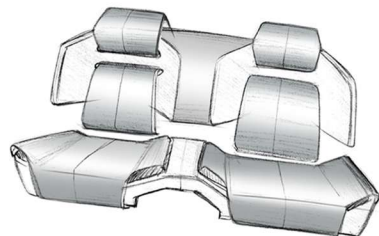
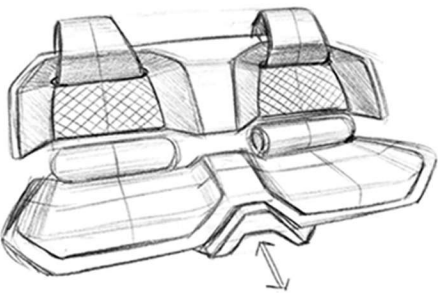
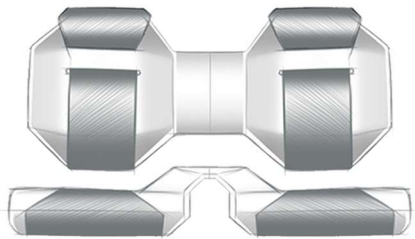
Controller

Seven-Slot Grille

Surfing Board



# Jeep® Huntington



## Interior Design

Fabric and mesh grille sheets offer ventilation, enhancing comfort after outdoor activities like sunbathing, surfing, and swimming.



The detachable mesh grille cushion allows for effective ventilation, offering enhanced comfort after activities like swimming or intense physical movement and washable after use.



# Jeep

## Huntington

For passengers who enjoy sunbathing in the vehicle, features like refrigerators and steering wheel hangers add essential comfort and convenience.

■ Function



1. Front Refrigerator



2. Hanger for Steering Wheel & Bags



# Jeep®

## Huntington

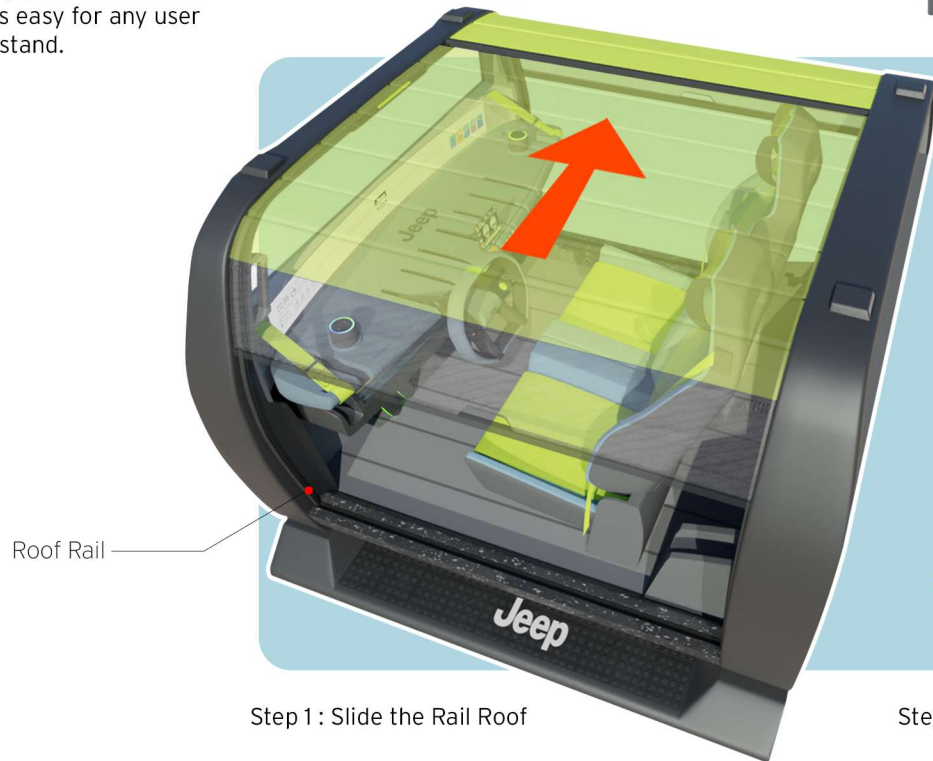
The transition from a simple and intuitive three-step process to a sunbed is easy for any user to understand.

■ Sunbathing Mode

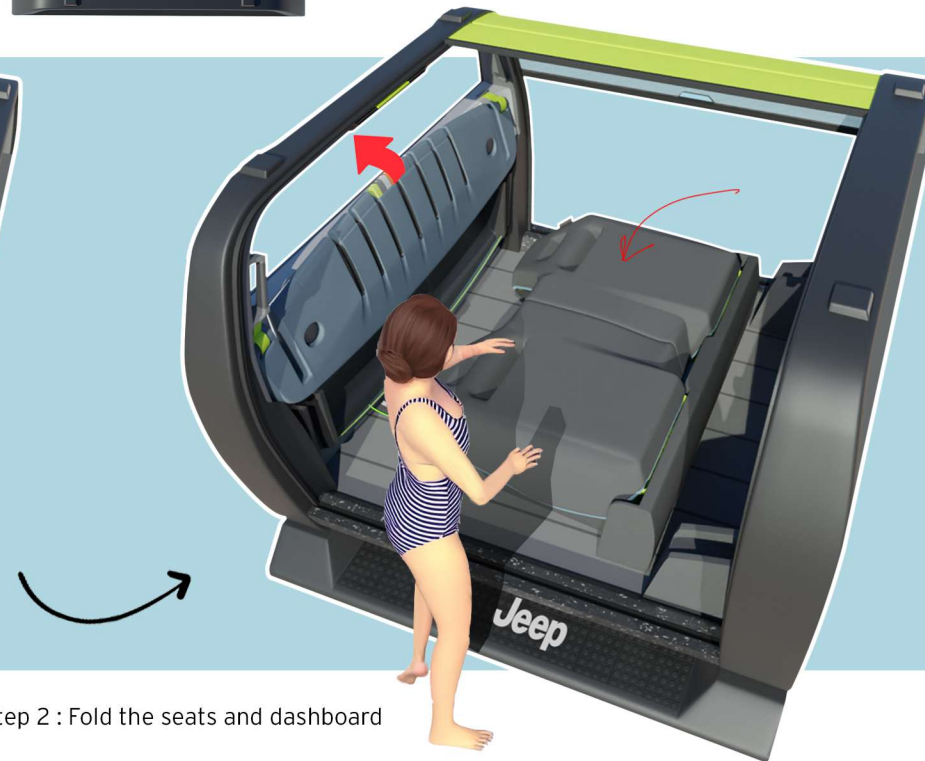
Sliding-Type Rail roof System



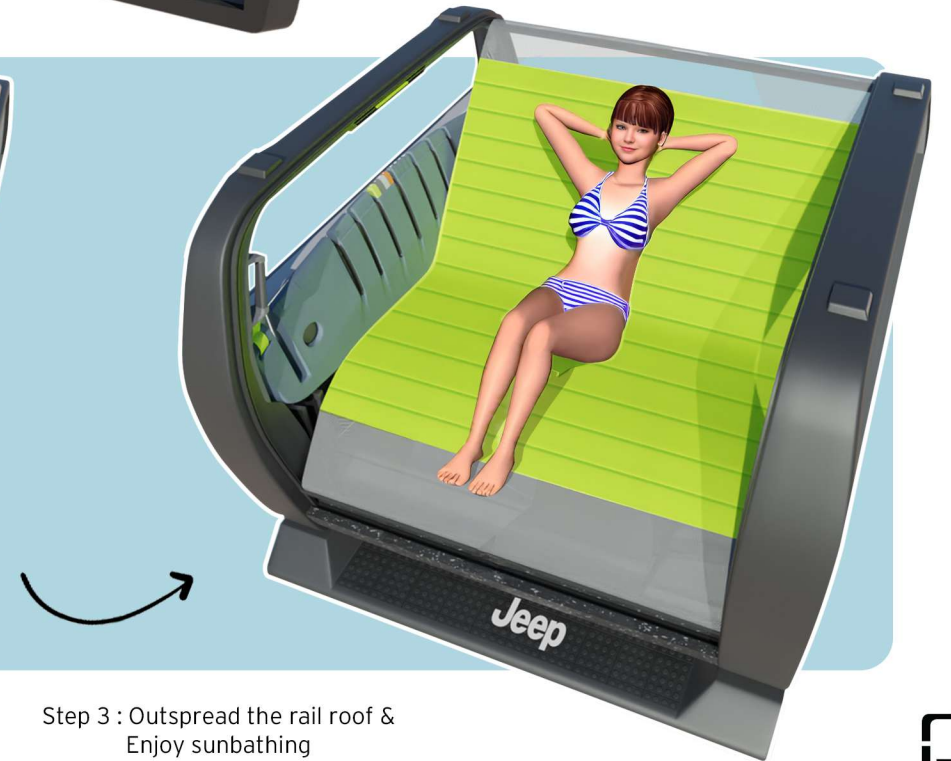
+



Step 1 : Slide the Rail Roof



Step 2 : Fold the seats and dashboard



Step 3 : Outspread the rail roof & Enjoy sunbathing



# Jeep®

## Huntington

In driving mode, the foldable surfboard serves as a vehicle door, and when detached, it can be used for surfing in the sea.



Function Idea Inspired by a girl running with a SurfBoard on the beach



This surfboard is made with high-strength materials and secure fixtures, ensuring reliable folding and full functionality as a surfboard.

■ Driving Mode

Thank you so Much

Jeep





BENTLEY

# Aurora

2045 The new 'Clean-Luxury' Electric Boat Project





# Aurora



Name: Richard M.

Age: 46

Occupation: High-end Restaurant Owner

Location: London, UK

Lifestyle: Sophisticated, busy, success-driven, enjoys exclusive experiences

Needs : He is looking for a luxury boat that reflects his success and refined taste. He desires a private space where he can escape his busy daily life and unwind. He values premium materials, and a sensory experience that connects harmoniously with nature.

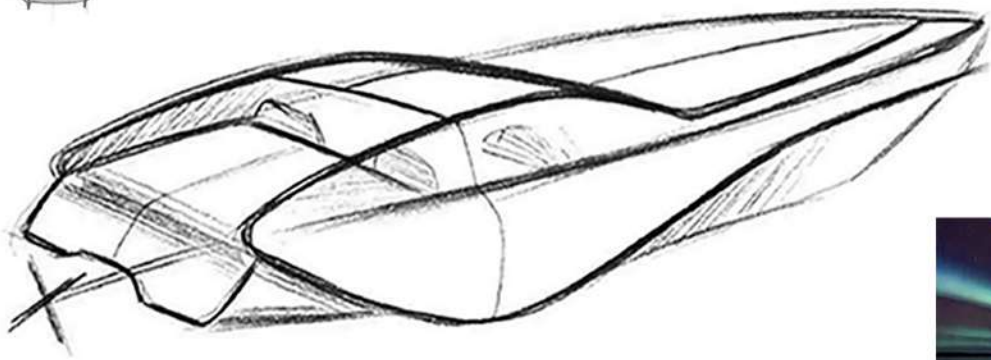


Target Customer



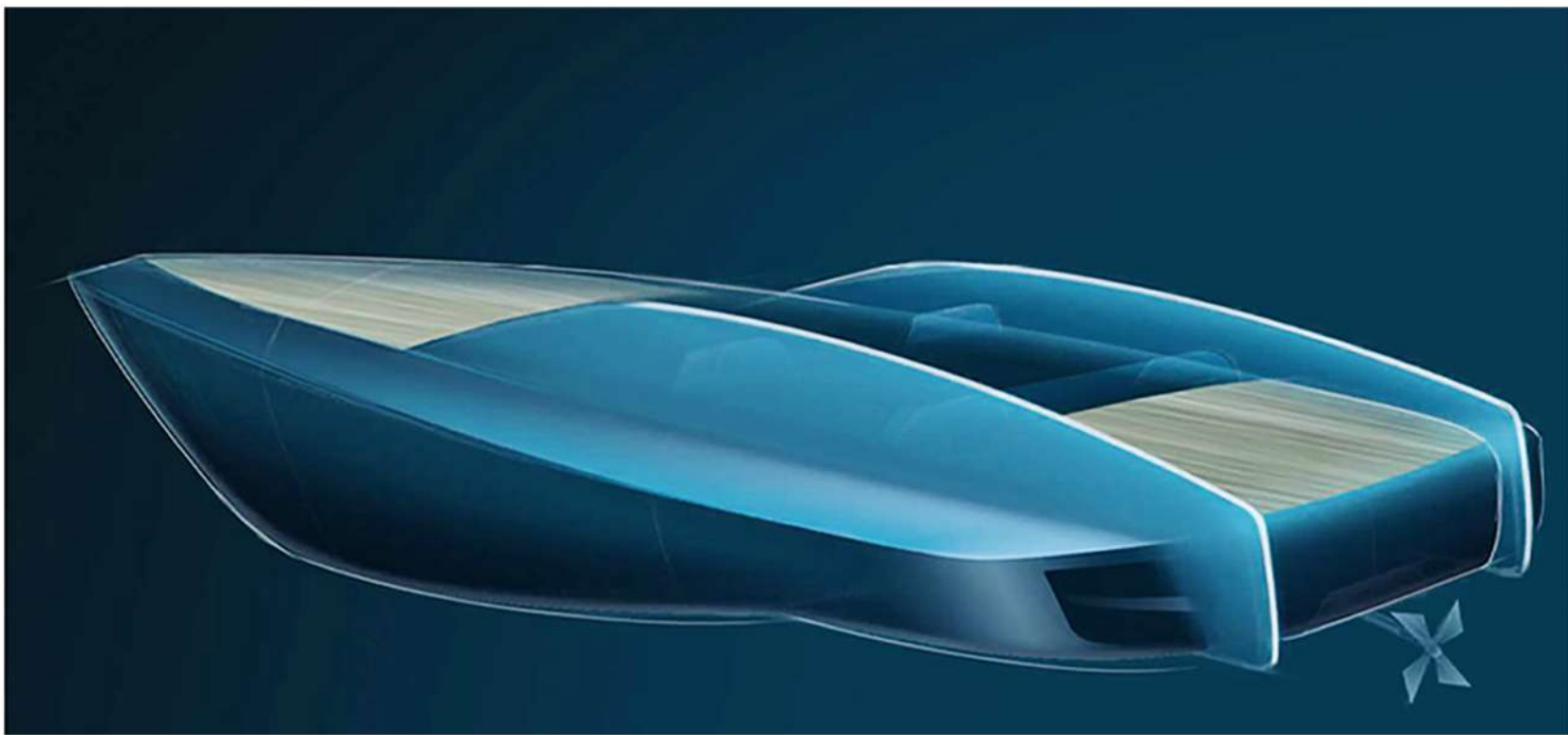


# Aurora



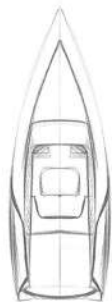
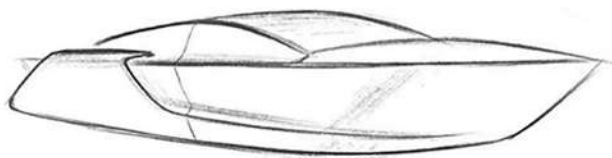
## Ext Ideations

Aurora graces only the chosen with its presence—just like luxury. Fleeting, elusive, and unforgettable. This boat captures that same spirit.





## Aurora



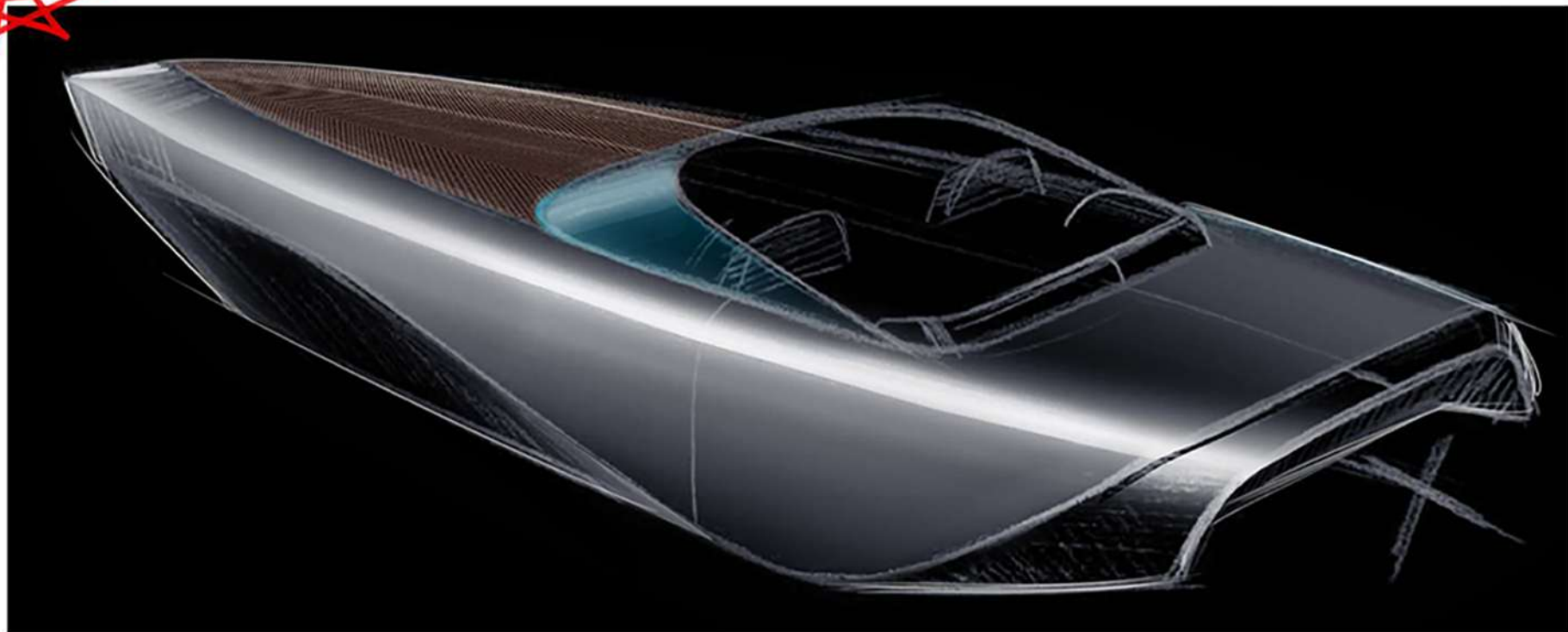
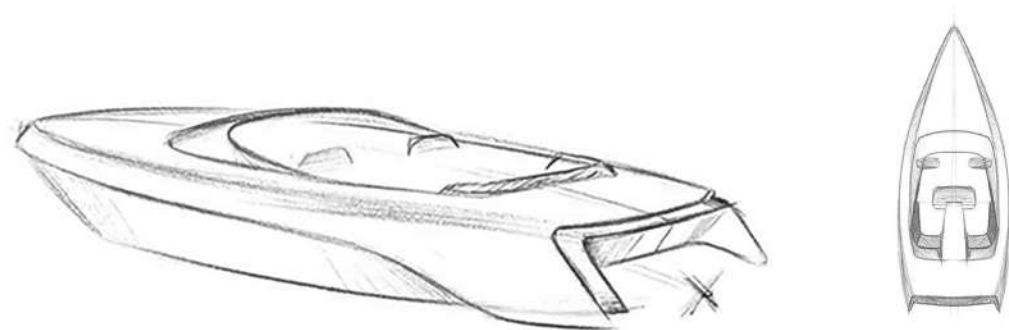
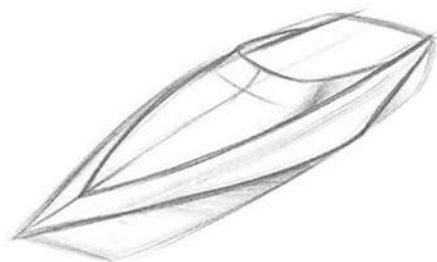
## Ext Ideations

Just as the Aurora appears only under the perfect conditions, this boat offers a rare and refined luxury, available only to the few who seek something extraordinary.





# Aurora



## Key Sketches

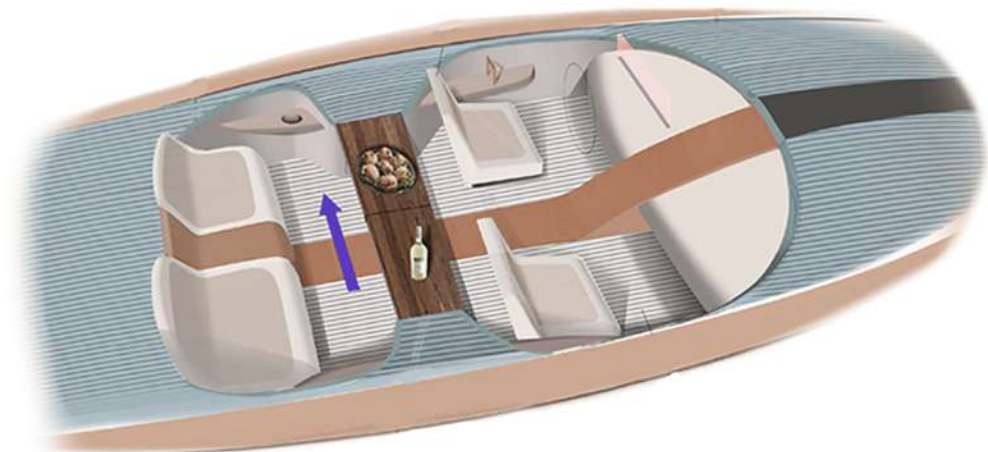
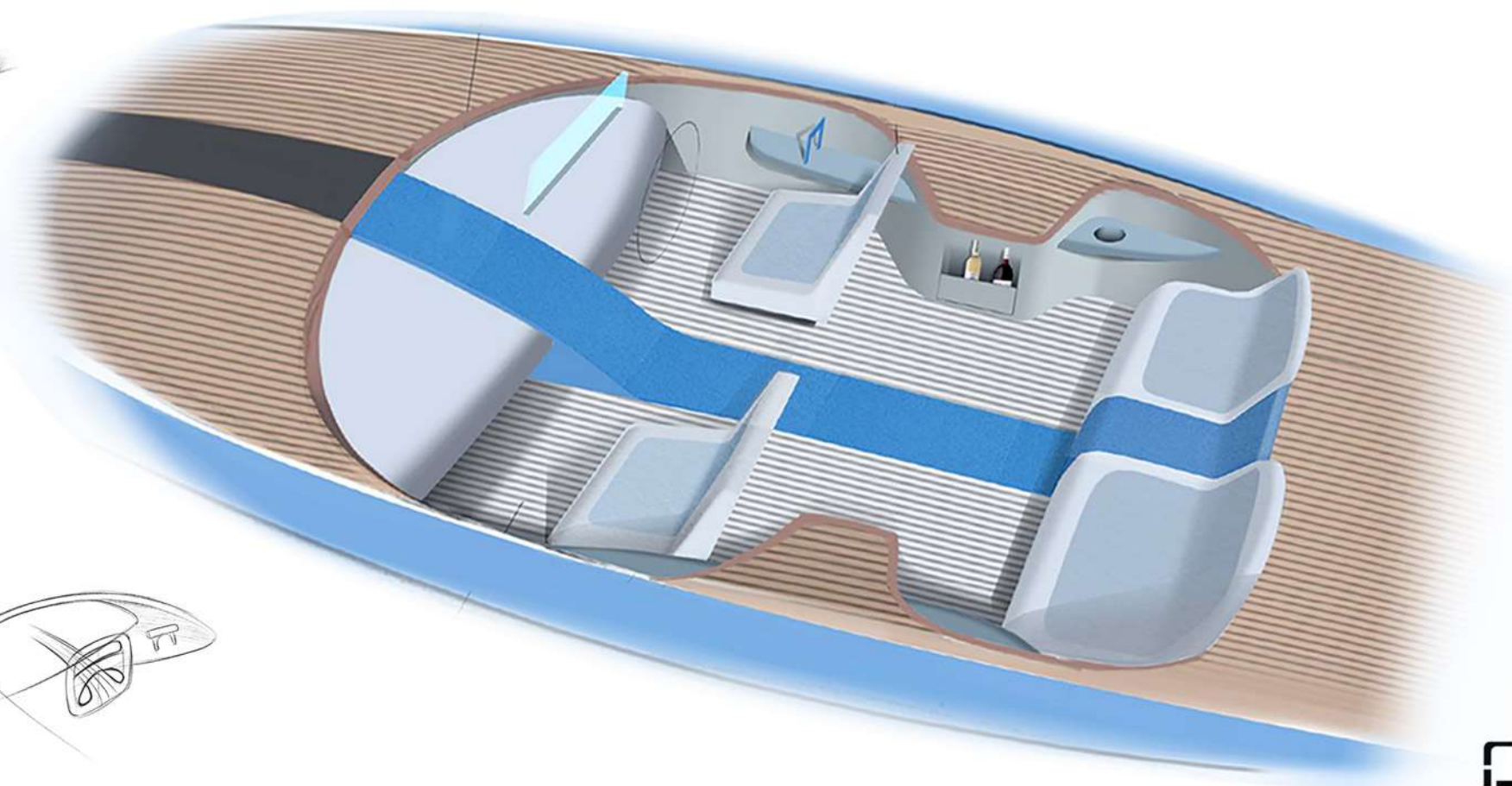
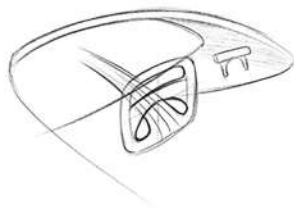
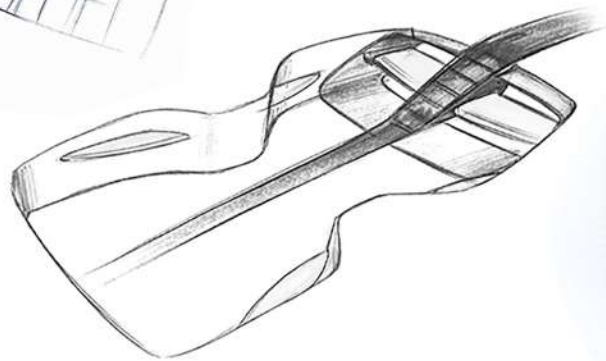
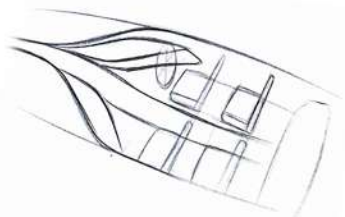
As the Aurora dances across the sky, the boat glides across the water—both timeless, both unforgettable.





# Aurora

Interior Design inspired by the form of several lines leading into one shape.





## Aurora

Inspired by the Aurora, the soft and fluid line from the stern flows seamlessly into the windshield, forming a single continuous gesture.



■ Ext Development

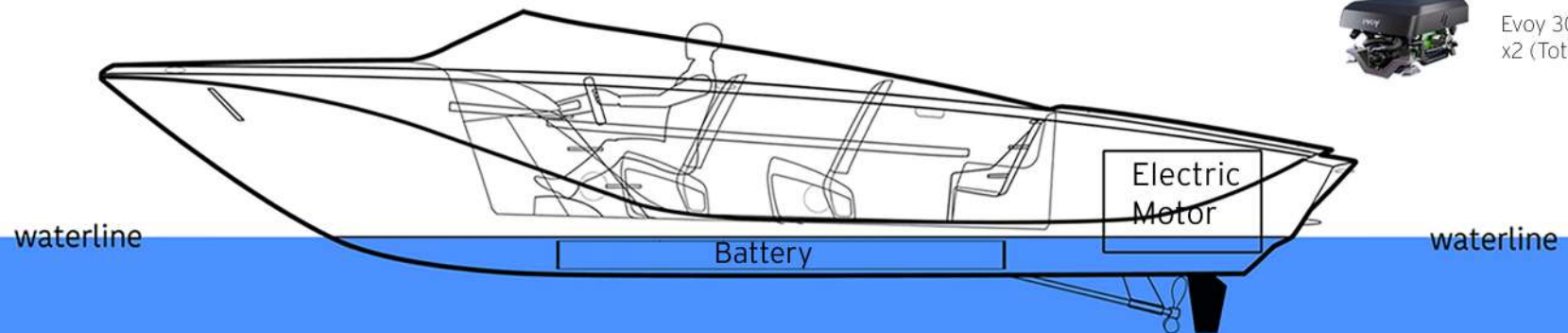
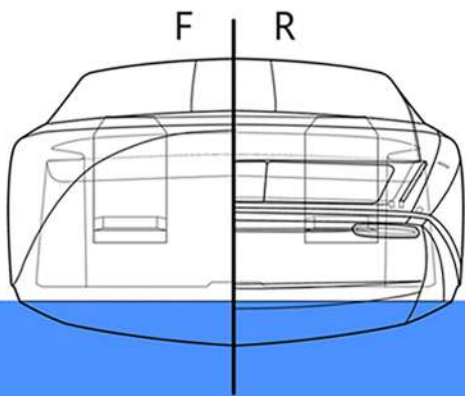
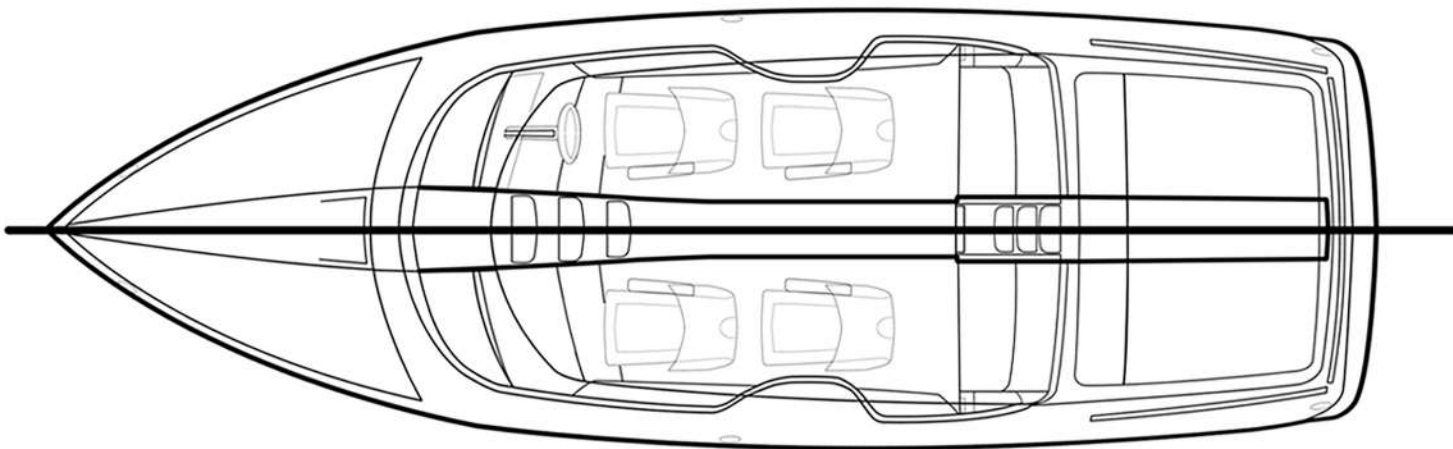




# Aurora

LOA : 28 FT  
BEAM : 9.5 FT  
HEIGHT : 6 FT  
DRAFT : 2.25 FT (27 IN)  
ENGINE : ELECTRIC MOTOR  
SHAFT TYPE : V-SHAFT  
HELL : DEEP V / FIGERGLASS  
GUESTS : 6

## Dimension



Evoy 300+Hp Electric Motor  
x2 (Total 600Hp)





# Aurora

Crafted with next-generation materials, this 2040 luxury boat offers a refined tactile experience that redefines how luxury is felt.



## Material Details





## Aurora

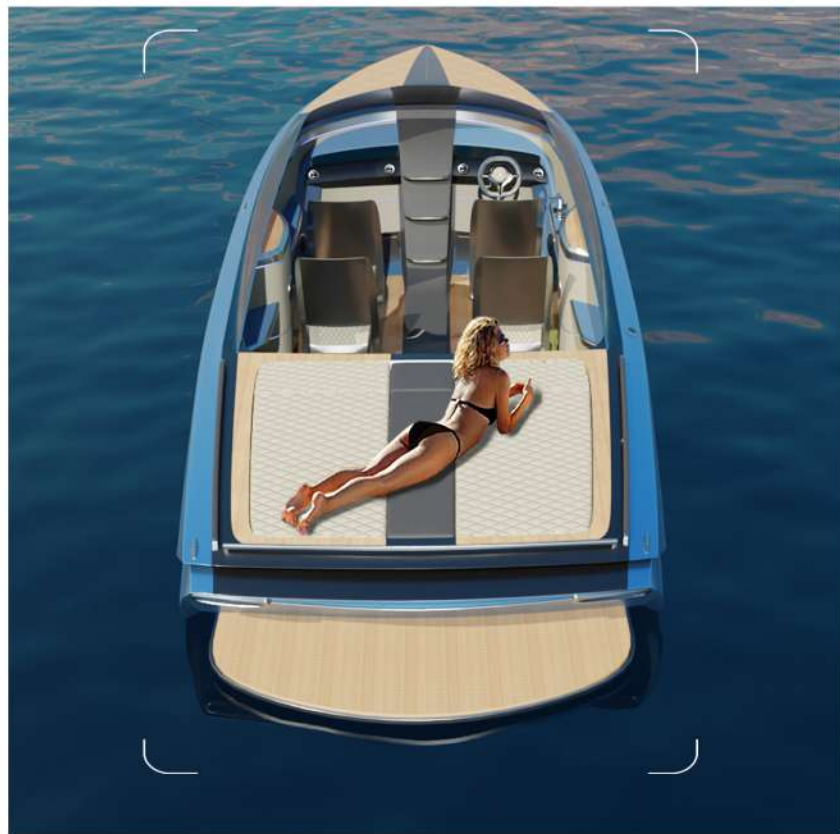
Inspired by the Aurora, the soft and fluid line from the stern flows seamlessly into the windshield, forming a single continuous gesture.

Final Ext Design





## ■ Aurora



## ■ Final Ext Design

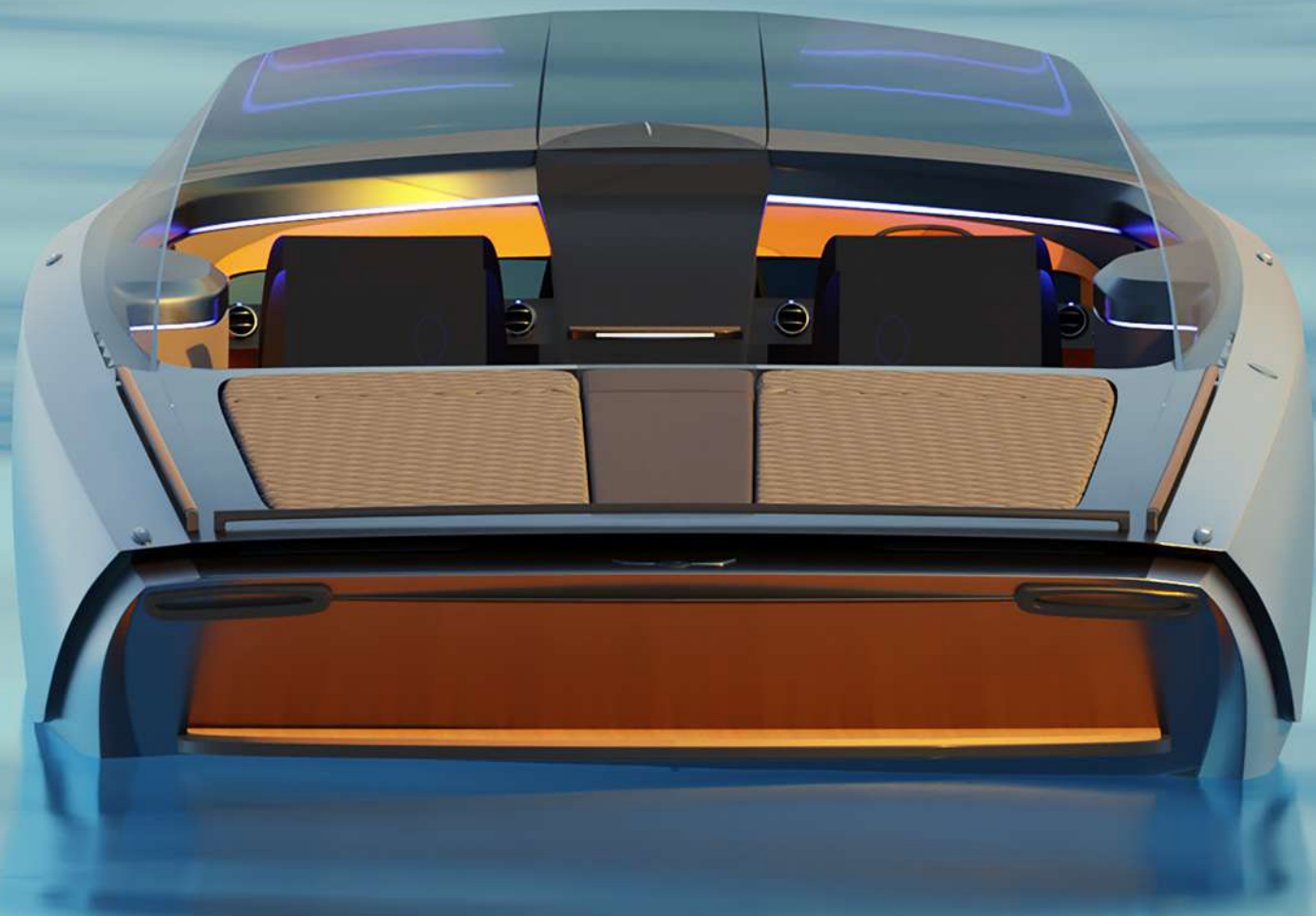
The central line that runs from front to rear unifies the exterior and interior, creating a cohesive and harmonious design.





## Aurora

The layered lines of the Aurora are also applied to the rear of the hull, creating a distinctive design that sets this boat apart from conventional models.





# Aurora

Inspired by Bentley's GT model, the interior evokes the brand's signature luxury and high performance—reminding us that this is more than just a boat.



Steering Wheel inspired by Aurora

Foldable Sunbed



Slide-type Wine bar



## Int Ideations





| Aurora



Thank you so Much



 general motors

# Dream Racer

2040 Shared track racing car





## Dream Racer



Name : Lucas

Age : 34

Income : \$ 200.000 / Year

Location: San Jose, California, U.S

Wants :

Lucas is a software developer who spends most of his weekdays in the office. He is now trying to balance his work and personal life.

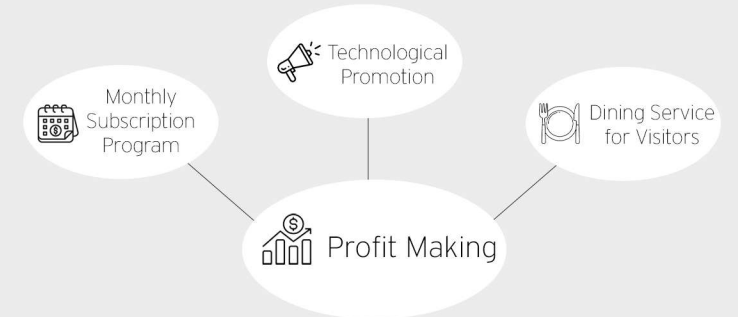
**Customer's Problem :** Lucas recently became interested in car racing and wants to experience it, but he's hesitant due to strict traffic laws, limited driving skills, and the high cost of vehicles and maintenance.



GM Racing Experience Center in 2040

## ■ Problem & Solution

**Solution :** In 2040, General Motors operates a **Racing Experience Center** that allows users like Lucas to enjoy car racing through a monthly subscription, without having to purchase expensive racing cars. By showcasing the company's advanced technology, GM promotes its brand and generates revenue through subscription fees and various additional services. AI-equipped racing cars enhance the exotic racing experience while minimizing the risk of accidents.





# Dream Racer

## Lucas's Journey Map



**1. Start Racing**  
It's his first time trying a car race, and since he's unfamiliar with the track.



**7. Finish Successful Racing**  
After enjoying his first race, Lucas is looking forward to his next exciting race.



**2. Support Driving**  
The AI-based UX/UI system supports and guides Lucas during his driving on the circuit.



**3. Wireless EV Charging**  
The wireless battery charging system frees the driver from manual charging and contributes to a lighter vehicle, enhancing the exotic driving experience.

**4. Entertainment**  
The UX/UI system provides entertainment features, such as 'competitor' and 'chaser' modes, making the racing experience on the circuit feel more like a video game.



**5. Driver Customized Setting**  
This car offers customizable settings, such as GT mode and Midship mode. The driver can select and adjust these settings based on personal preference.

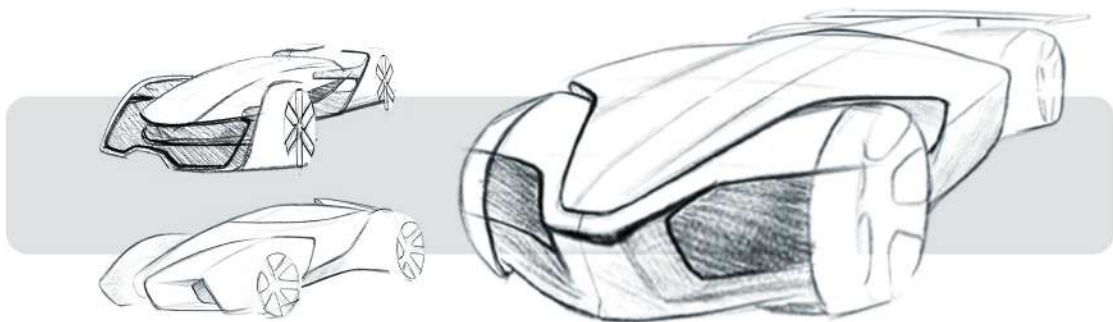
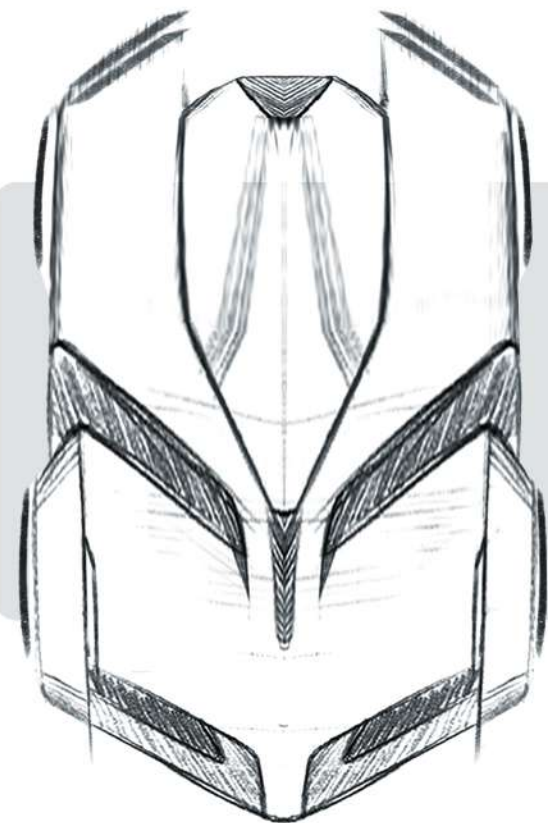
**6. Maximize Exotic Racing**  
The booster effect provides explosive acceleration, maximizing the driver's exotic racing experience on the circuit.





Dream Racer

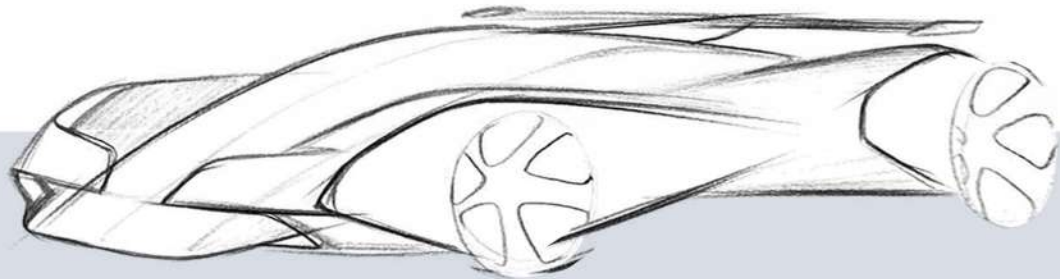
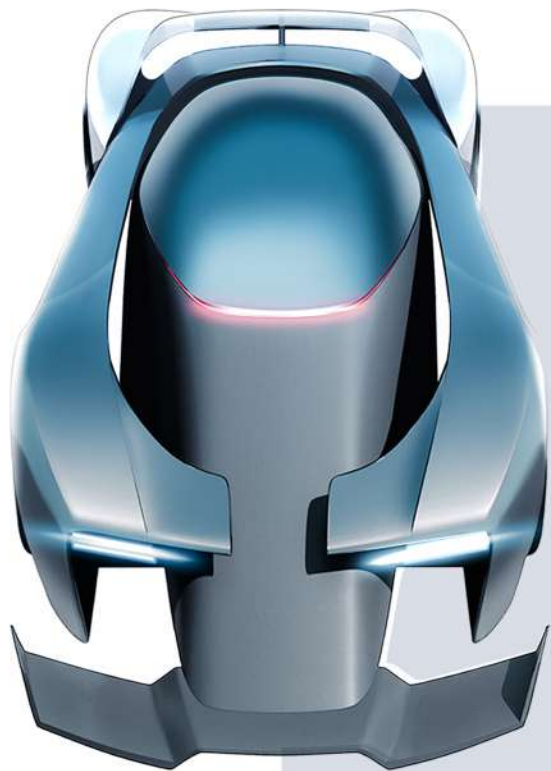
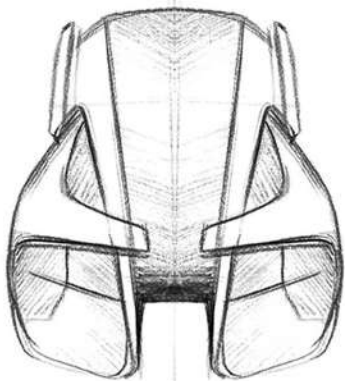
Dynamic Interaction





# Dream Racer

Geometric Boldness is a design language that expresses three core elements of American design: simplicity, modernity, and straightforwardness.



## ■ Geometric Boldness

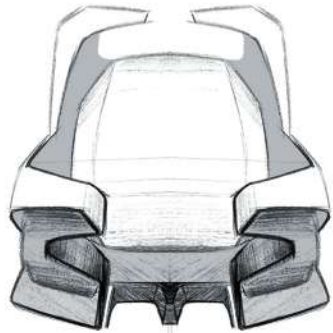
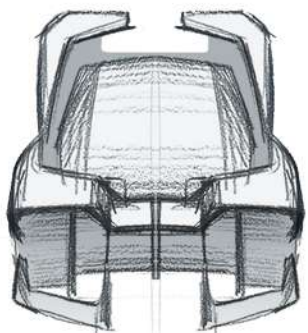
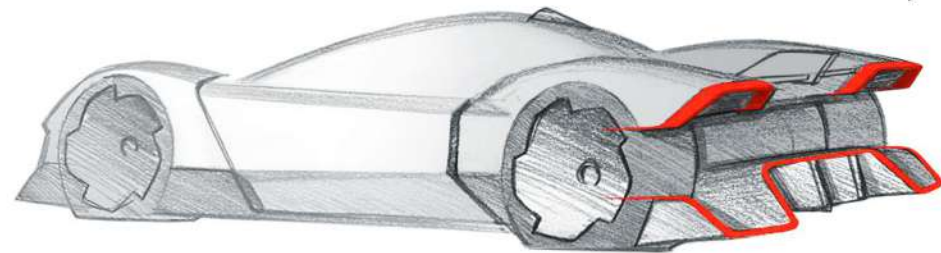


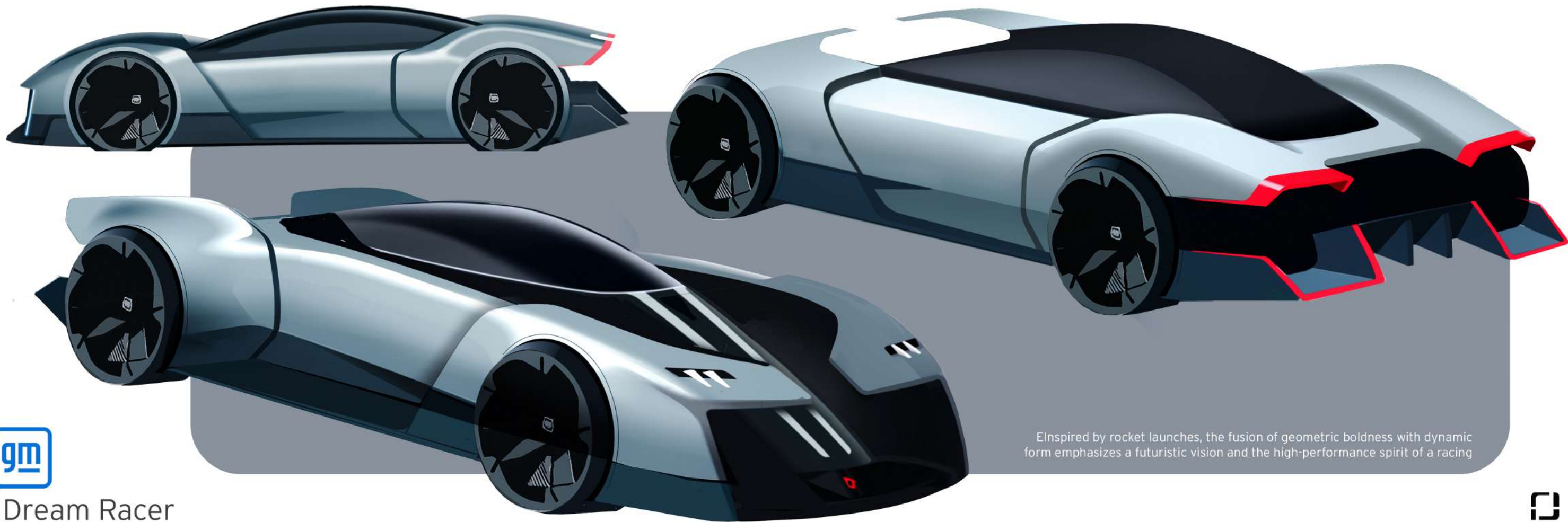


## Dream Racer

Inspired by the ignition and ascent of a spacecraft, the 'Propulsive' design language expresses pure energy, acceleration, and a forward-driving spirit in the sports car.

■ Propulsive





Inspired by rocket launches, the fusion of geometric boldness with dynamic form emphasizes a futuristic vision and the high-performance spirit of a racing



Dream Racer





## Dream Racer

Every design element of this vehicle serves a real function, contributing to the exotic racing experience—not just existing for appearance.



1. The front deployable spoilers help with downforce and braking.



2. The headlights are designed to help the aerodynamic of the vehicle.



■ Final Design

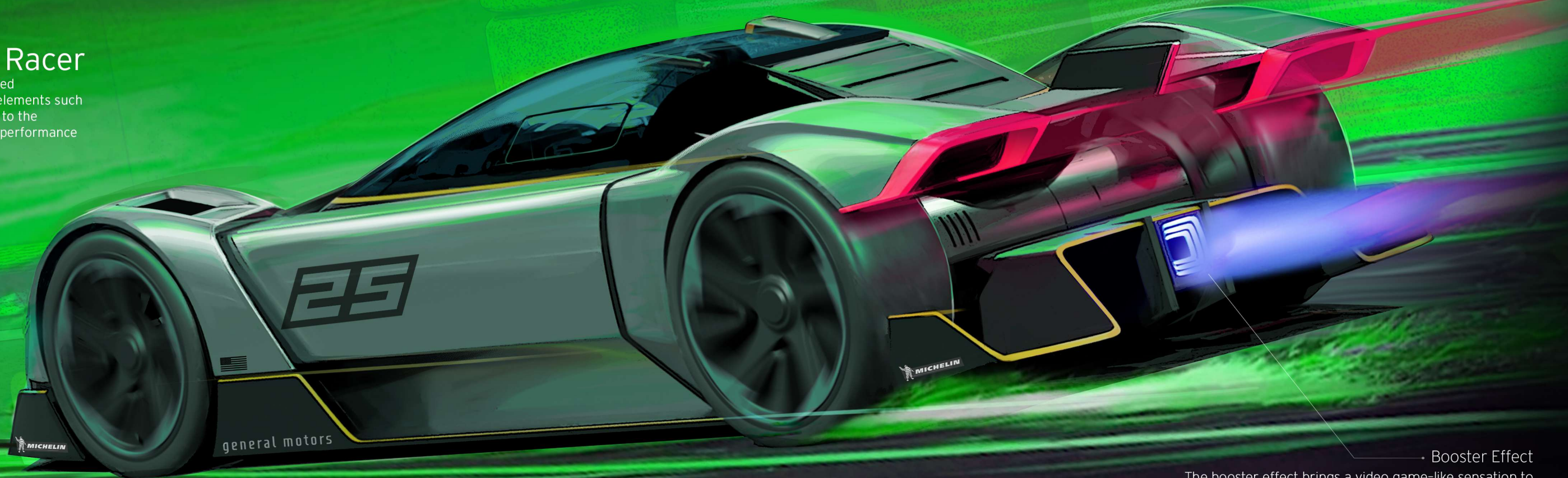




## Dream Racer

The vehicle added entertainment elements such as video games to the track-only high-performance

■ Final Design



Booster Effect

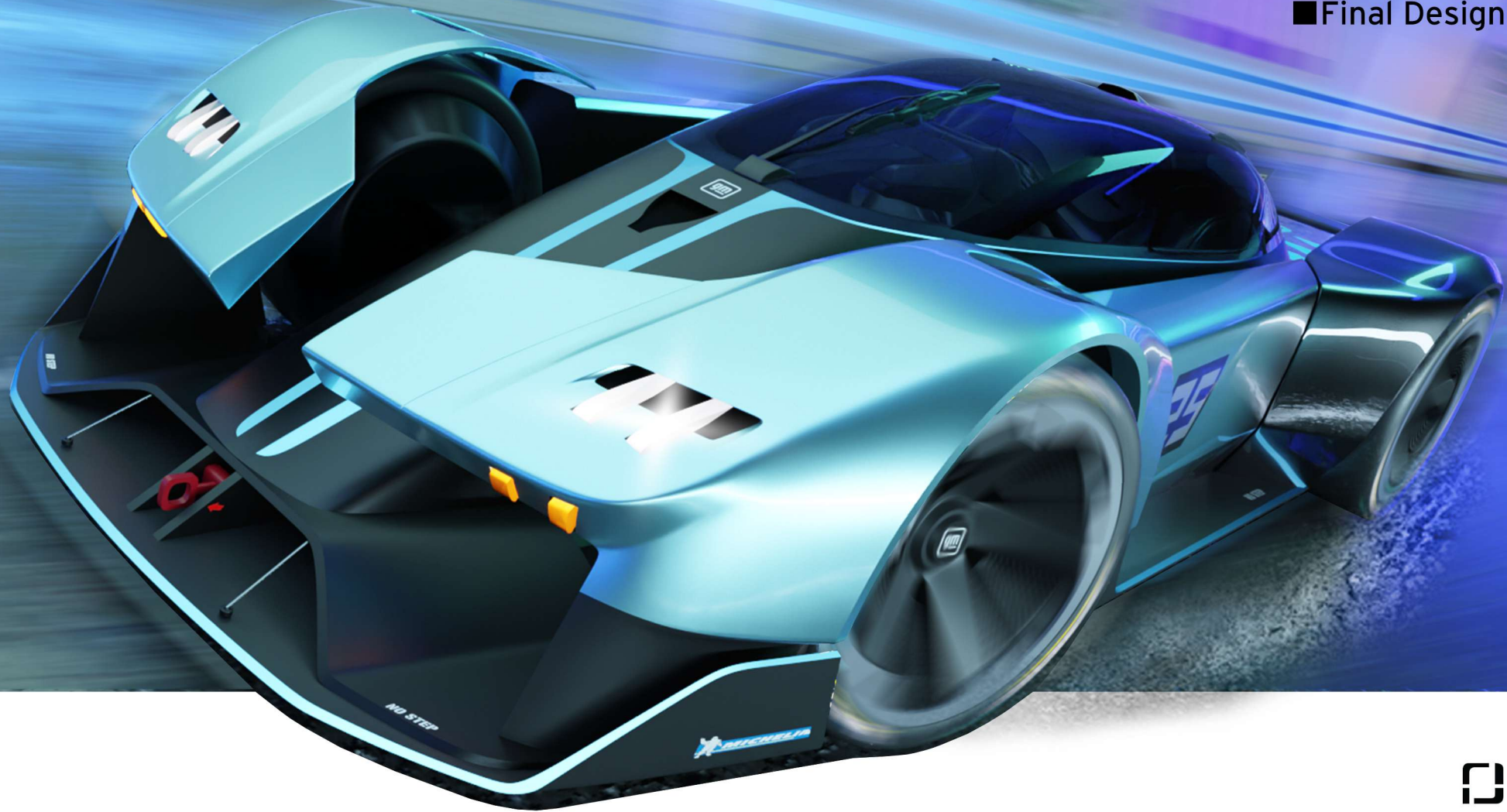
The booster effect brings a video game-like sensation to real-life racing, enhancing the driver's enjoyment.





## Dream Racer

We all need to escape the seriousness and competitiveness of daily life from time to time. This vehicle offers the driver a sense of joy in response.



■ Final Design





# Dream Racer

The rear design, inspired by a rocket launch, emphasizes the powerful output that this vehicle unleashes.



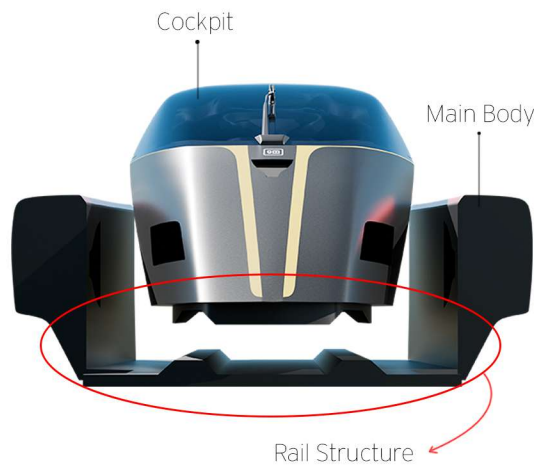
Final Design





## Dream Racer

The rail structure located between the driver's seat base and the vehicle body enables the movement of the driver's seat.





## Dream Racer

The vehicle's unique canopy-style doors and lighting effects, rarely seen in everyday cars, offer drivers a sense of excitement and enjoyment.

### 1. Lighting Effect

The lights mounted on various sides of the vehicle provide visual enjoyment to both drivers and spectators through a range of effects.



### 2. Canopy-Type opening Door

The canopy-style door, inspired by a fighter jet cockpit, provides the driver with easy access and a sense of openness when the vehicle is at rest.



Function

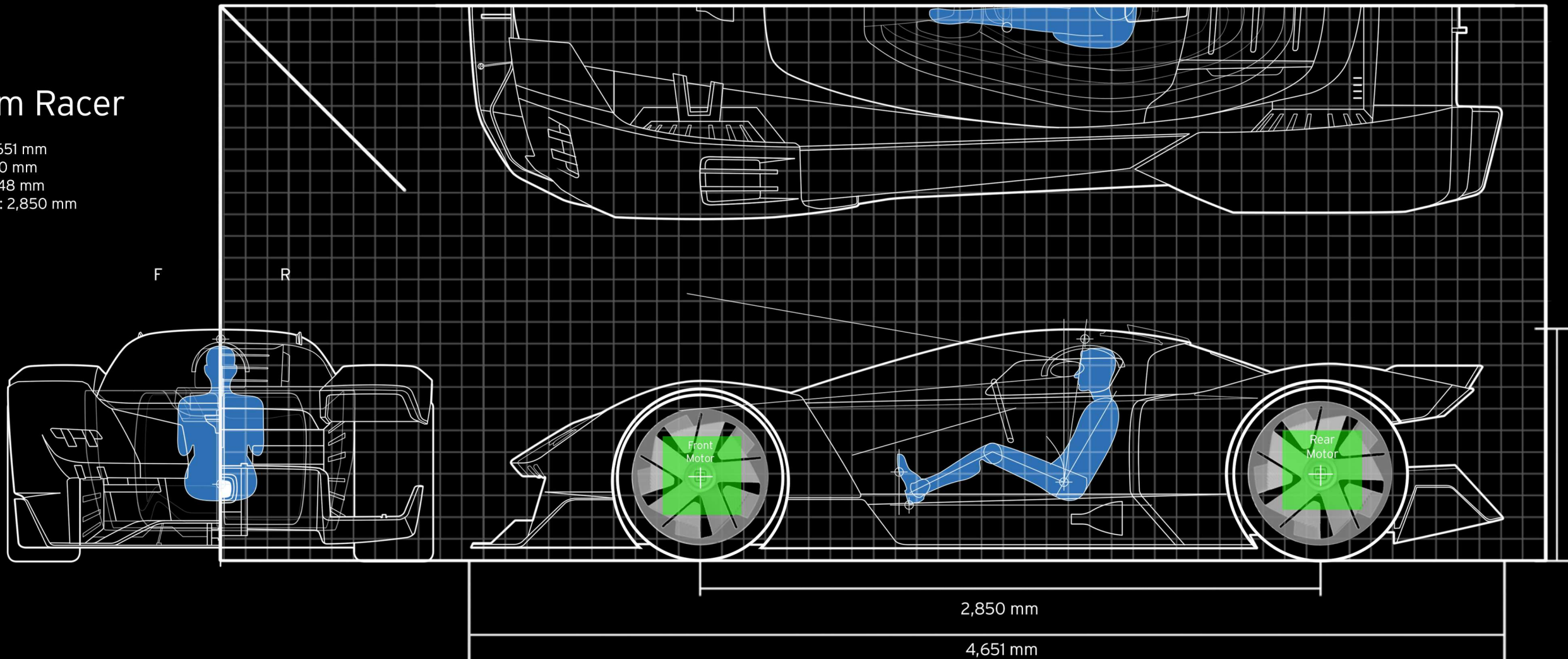




# Dream Racer

Dimension  
Length : 4,651 mm  
Width : 1,930 mm  
Height : 1,048 mm  
Wheelbase : 2,850 mm

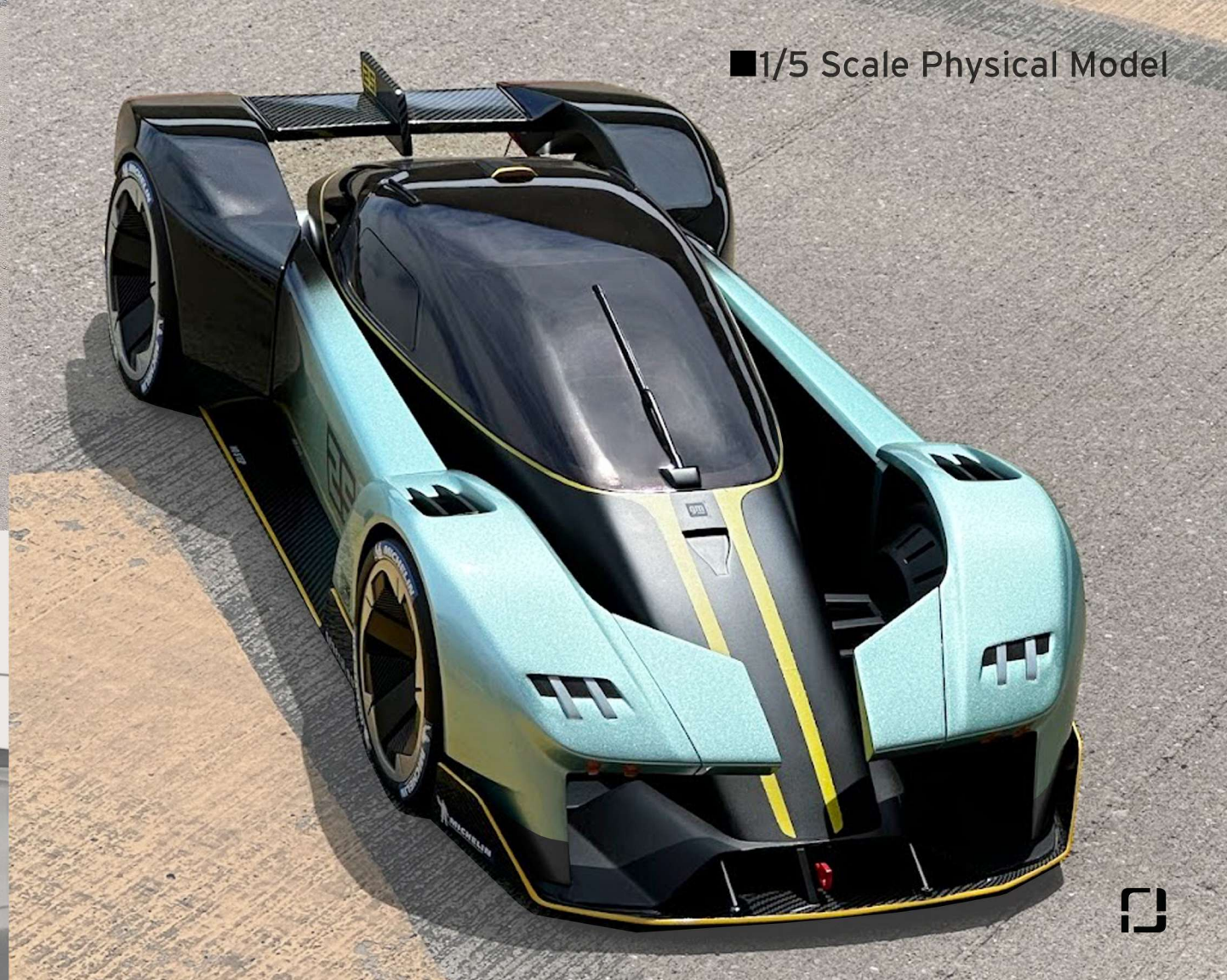
■ Dimension





## Dream Racer

The use of gradient paint evokes a sense of dynamic speed—making the car look as if it's racing forward, even at a standstill.



■ 1/5 Scale Physical Model



Ext Designer : Byeongmin Kim  
Int Designer : Woobin Park



Watch the full animation  
on Youtube



↑ Youtube video Link



Nissan  
Ride-sharing Mobility  
2 weeks  
Ideation Project

Autonomous  
Ride-Sharing service  
inspired by Japanese 'Zen-garden'.



■ Concept



- Great Accessibility
- Enhanced Safety
- Enjoy a moment break in the busy city

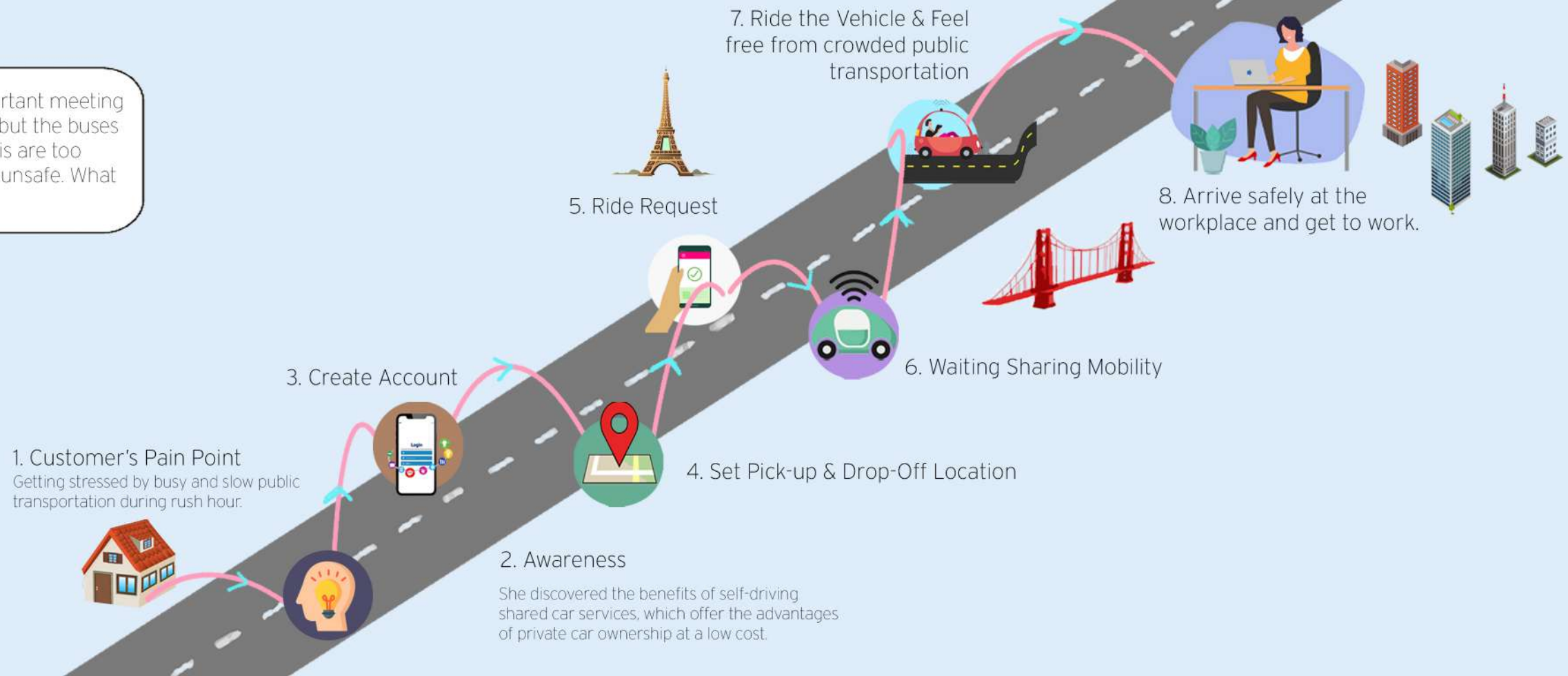


# Zen-Mobility

"I have a very important meeting with a client today, but the buses and subways in Paris are too crowded, slow, and unsafe. What should I do?"

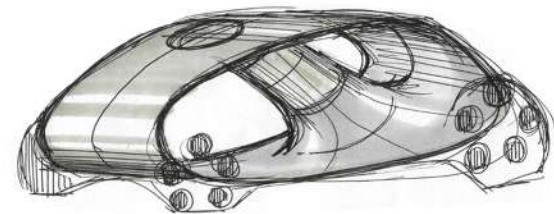
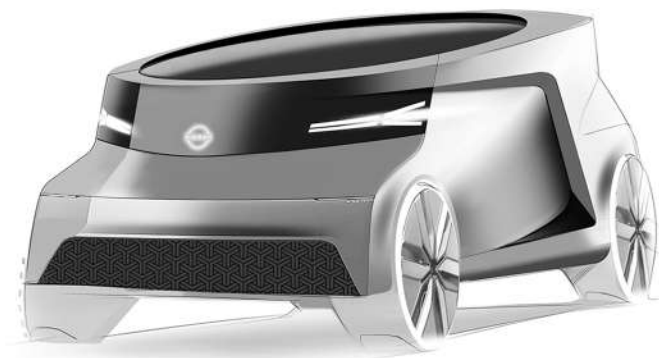


## Customer's Journey Map

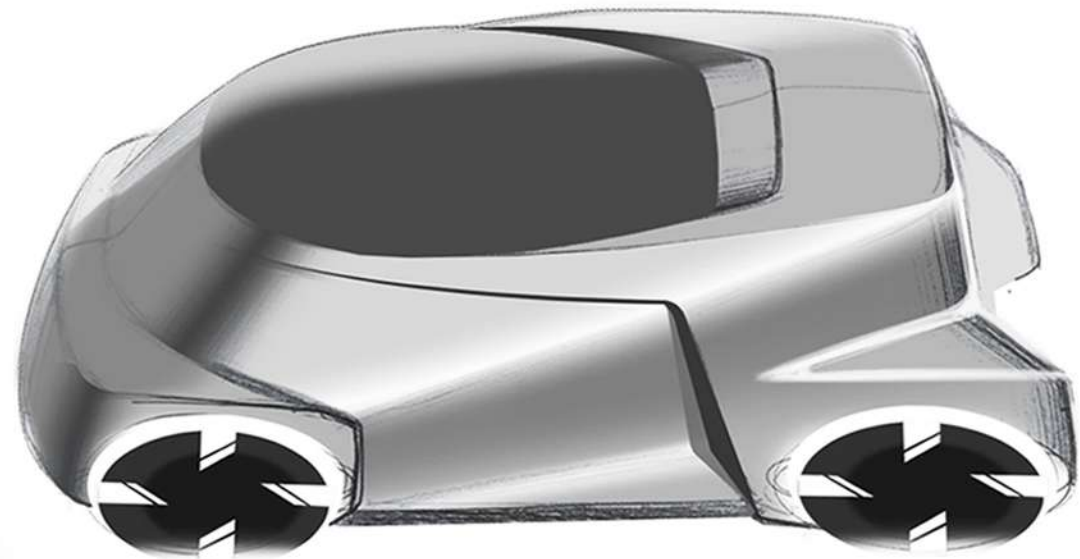
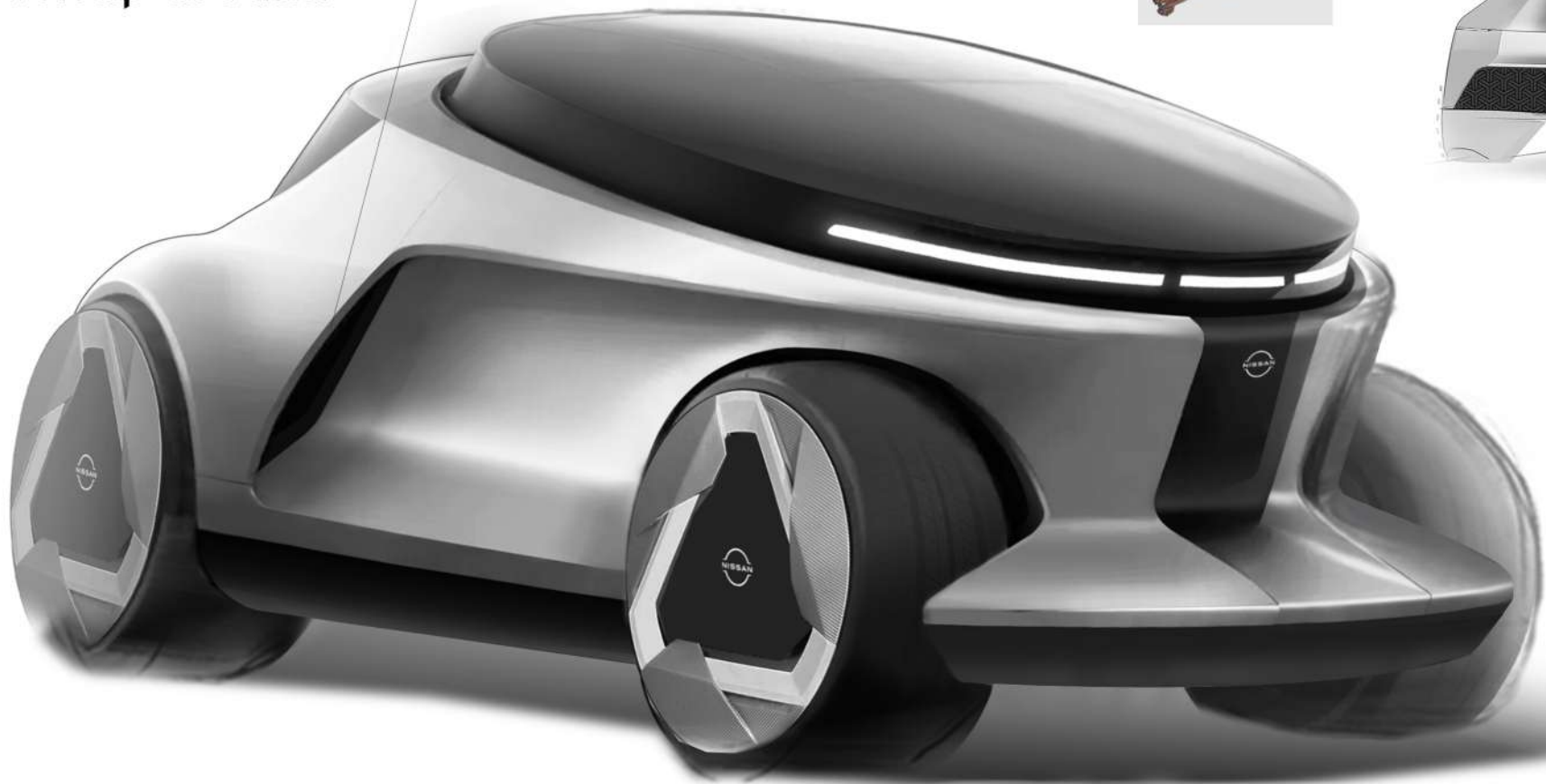


# I Wrap-around

Air Filter for providing clean air



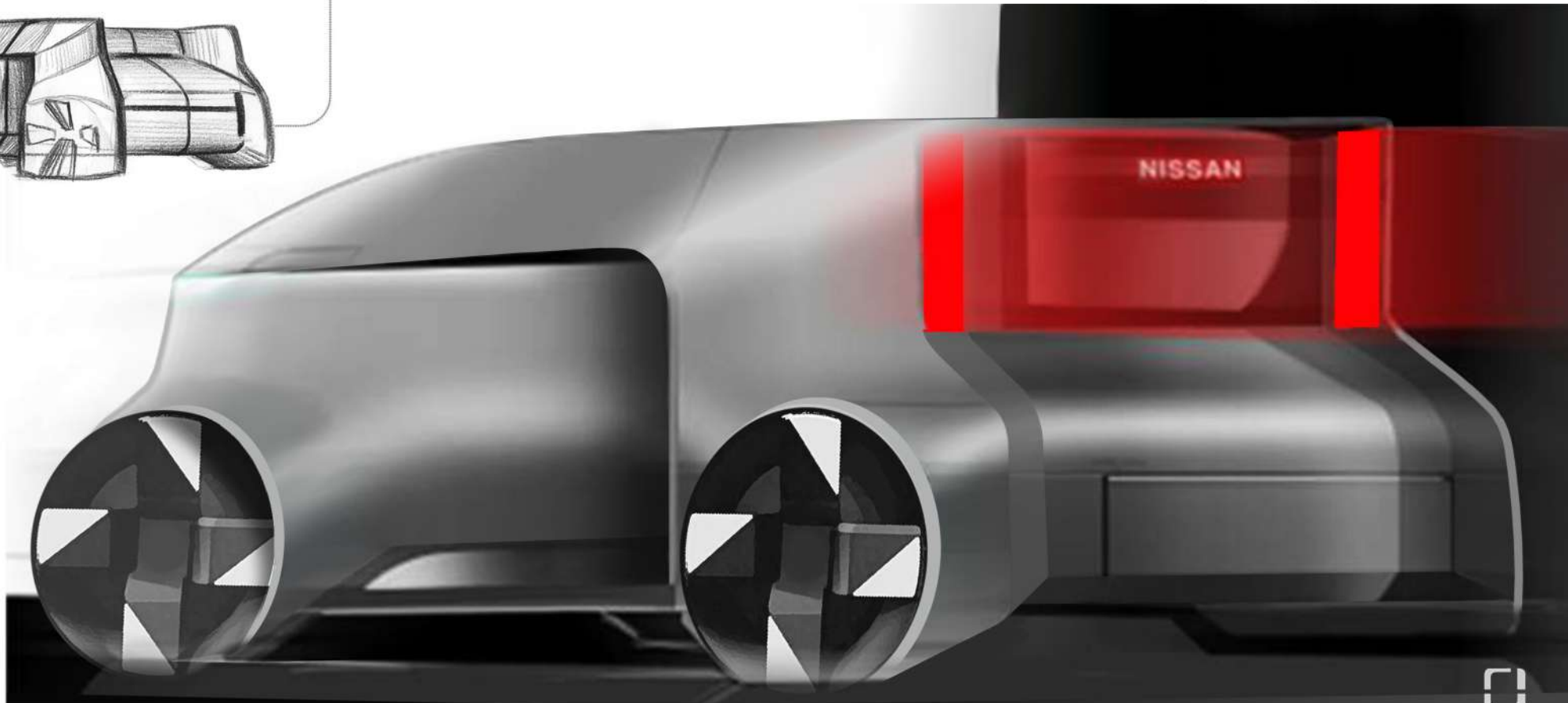
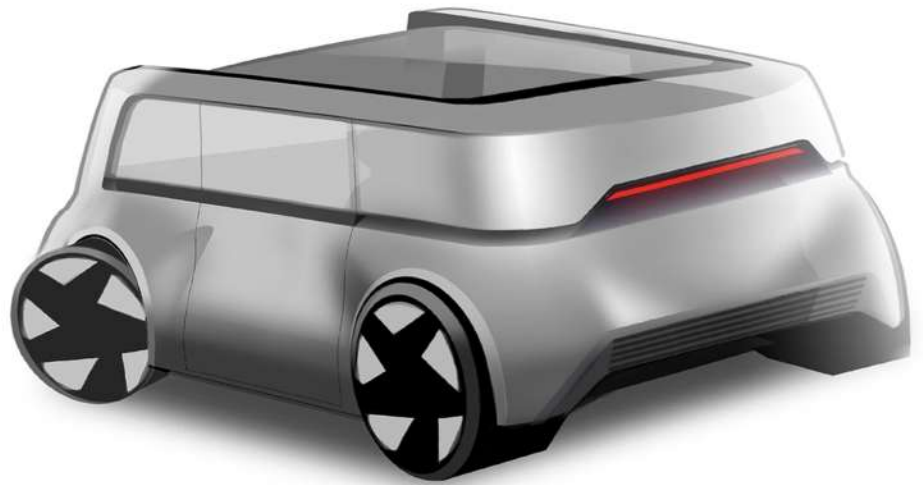
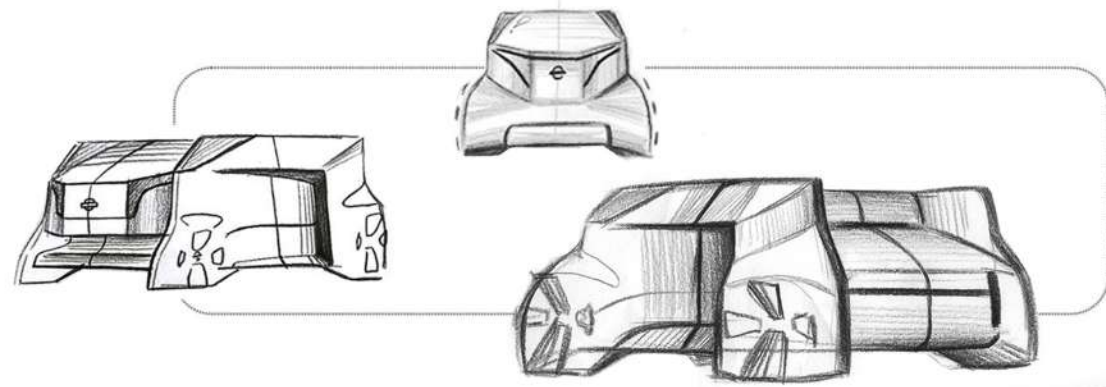
■ Direction A



Inspired by sculptural seat that embraces the user, the design conveys a sense of comfort and protection.



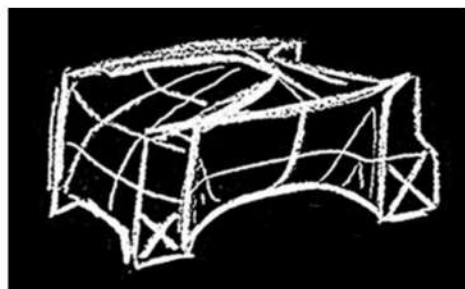
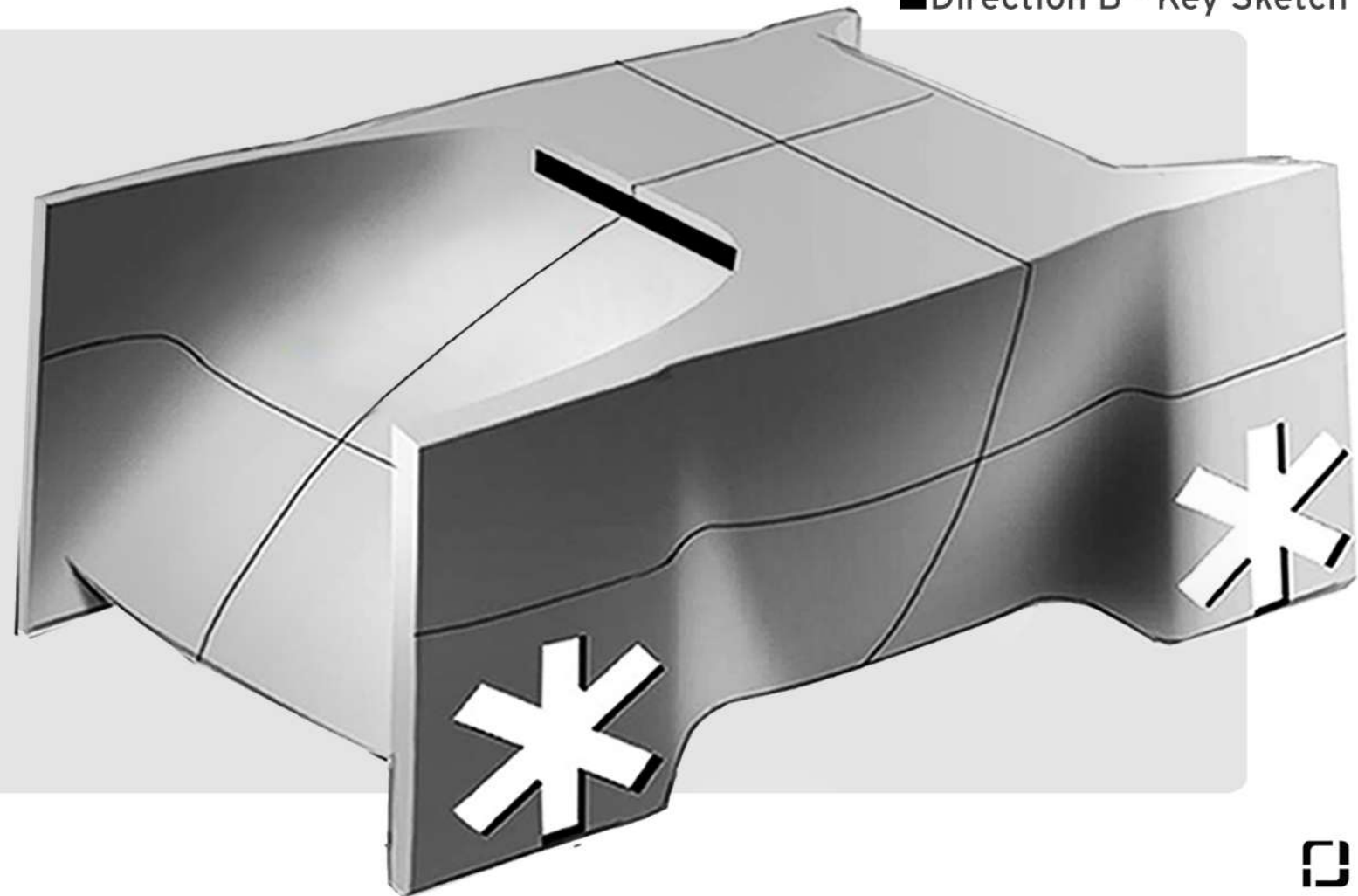
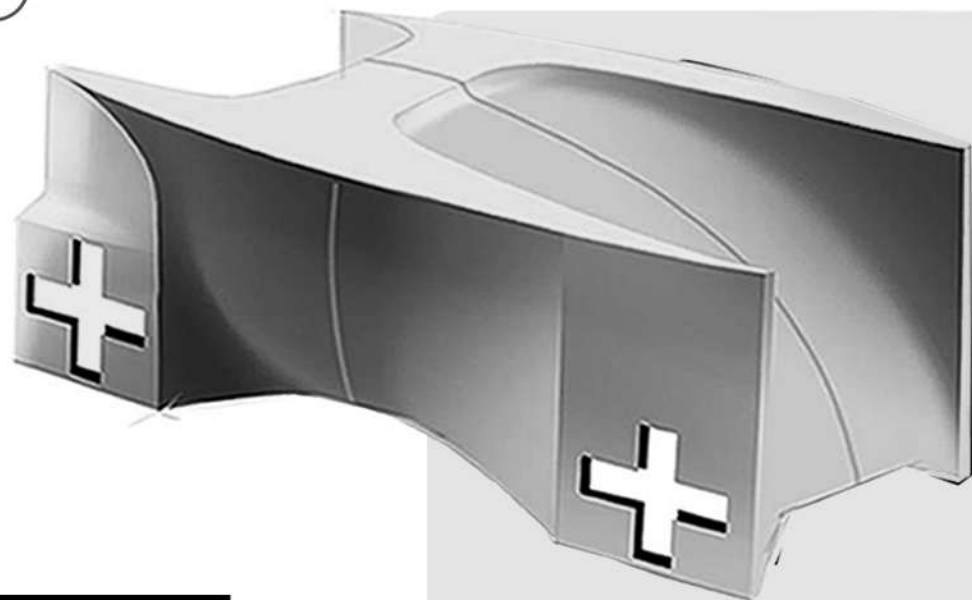
I Rugged



The boxy-shaped design, which prioritizes space efficiency, reflects a vision of future-oriented mobility with its rugged and functional form.



■ Rugged

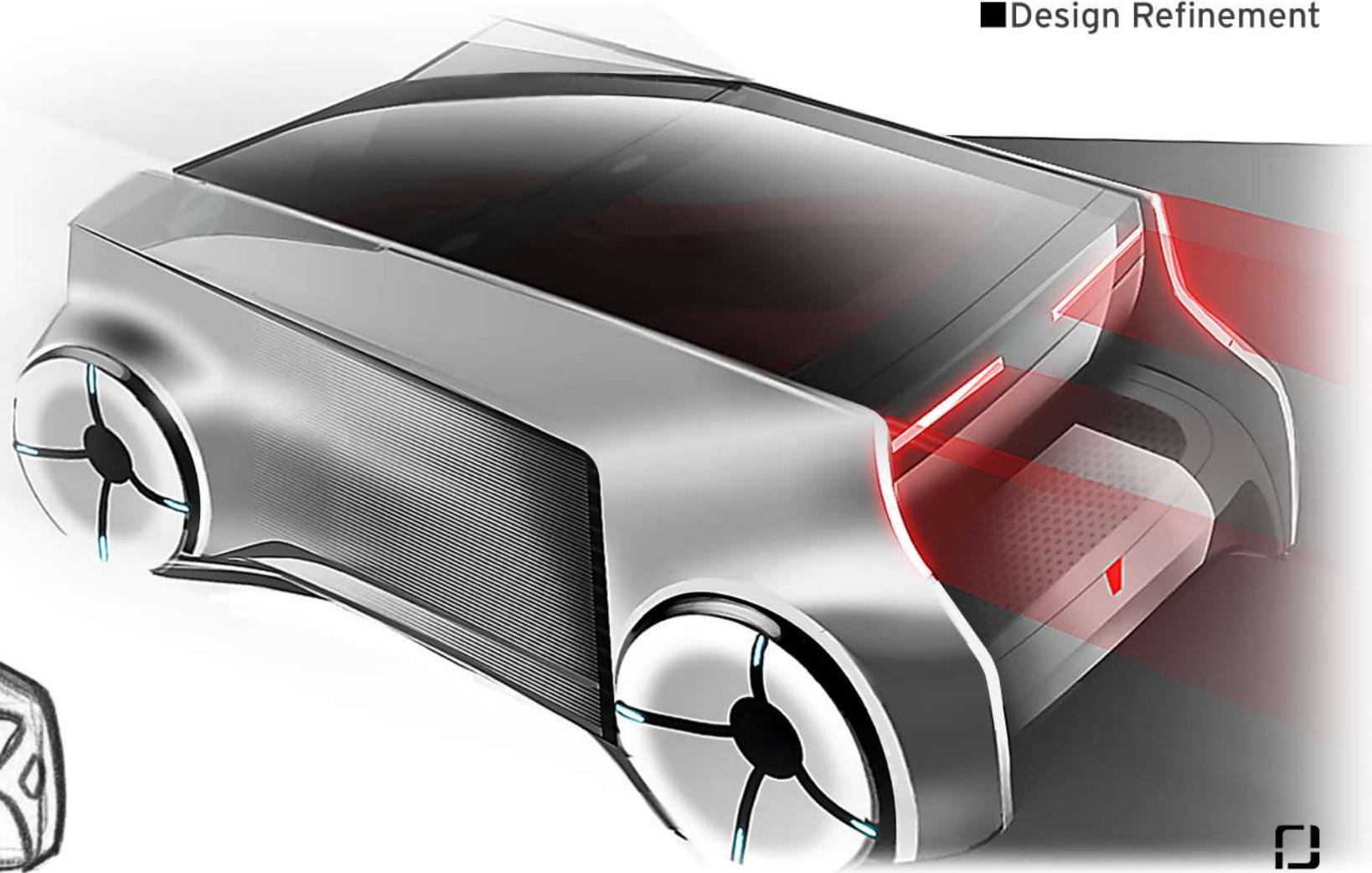
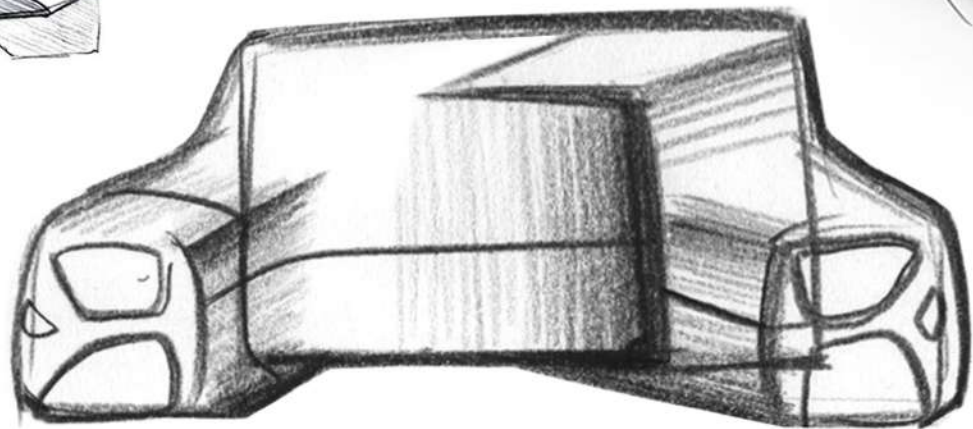
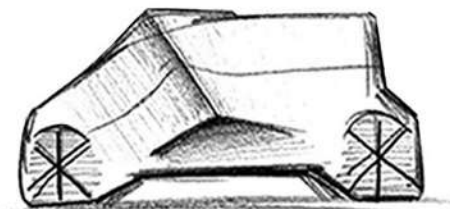
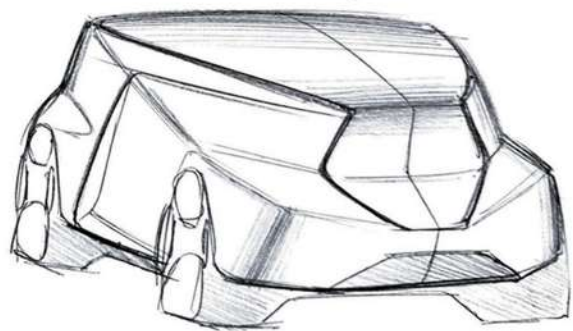
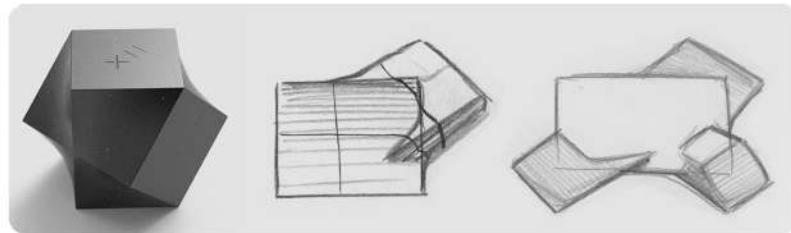


The boxy-shaped design, which prioritizes space efficiency, reflects a vision of future-oriented mobility with its rugged and functional form.



## Monolithic

Sharp lines and structured volumes echo the geometry of urban architecture, creating a natural connection with the city.



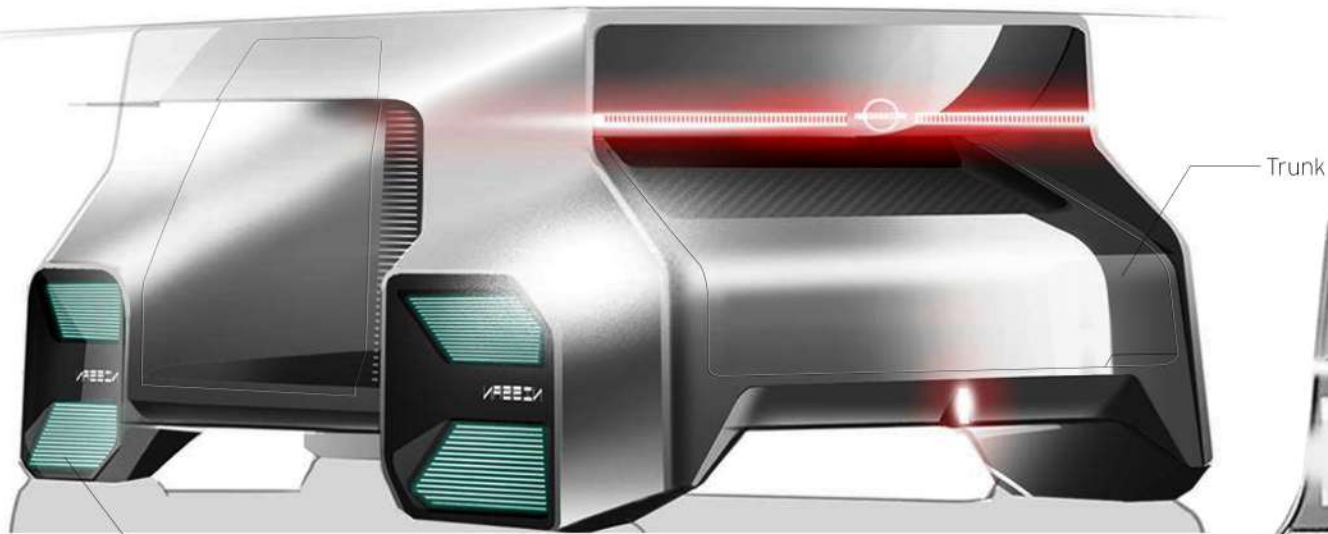
## Final EXT Design

2040 Nissan Zen Dimensions

OAL - 4195mm

OAW - 1800mm

OAH - 1670mm

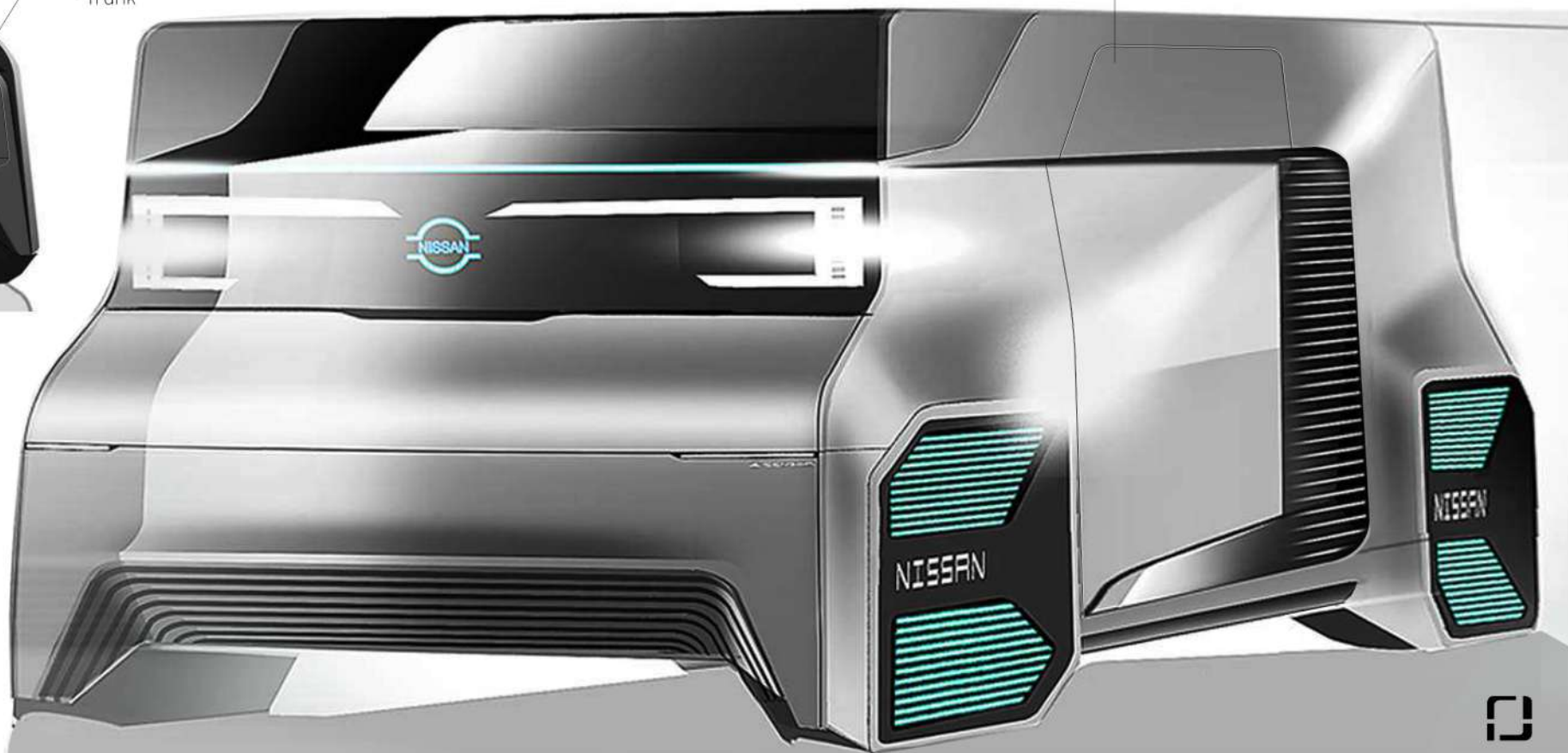


Trunk

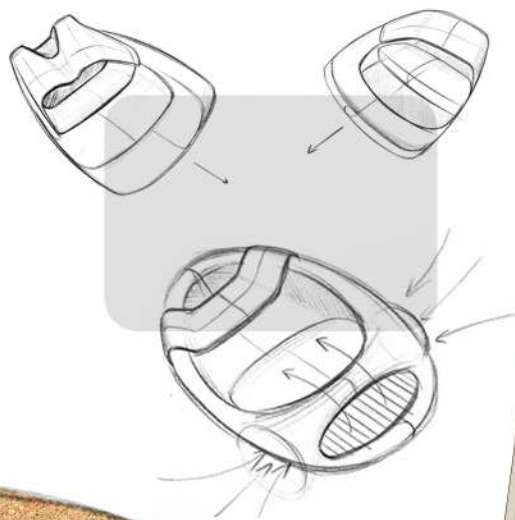
Automatic Sliding-door

Maglev Wheel

Air Purifier for Passenger



## Zen-Mobility



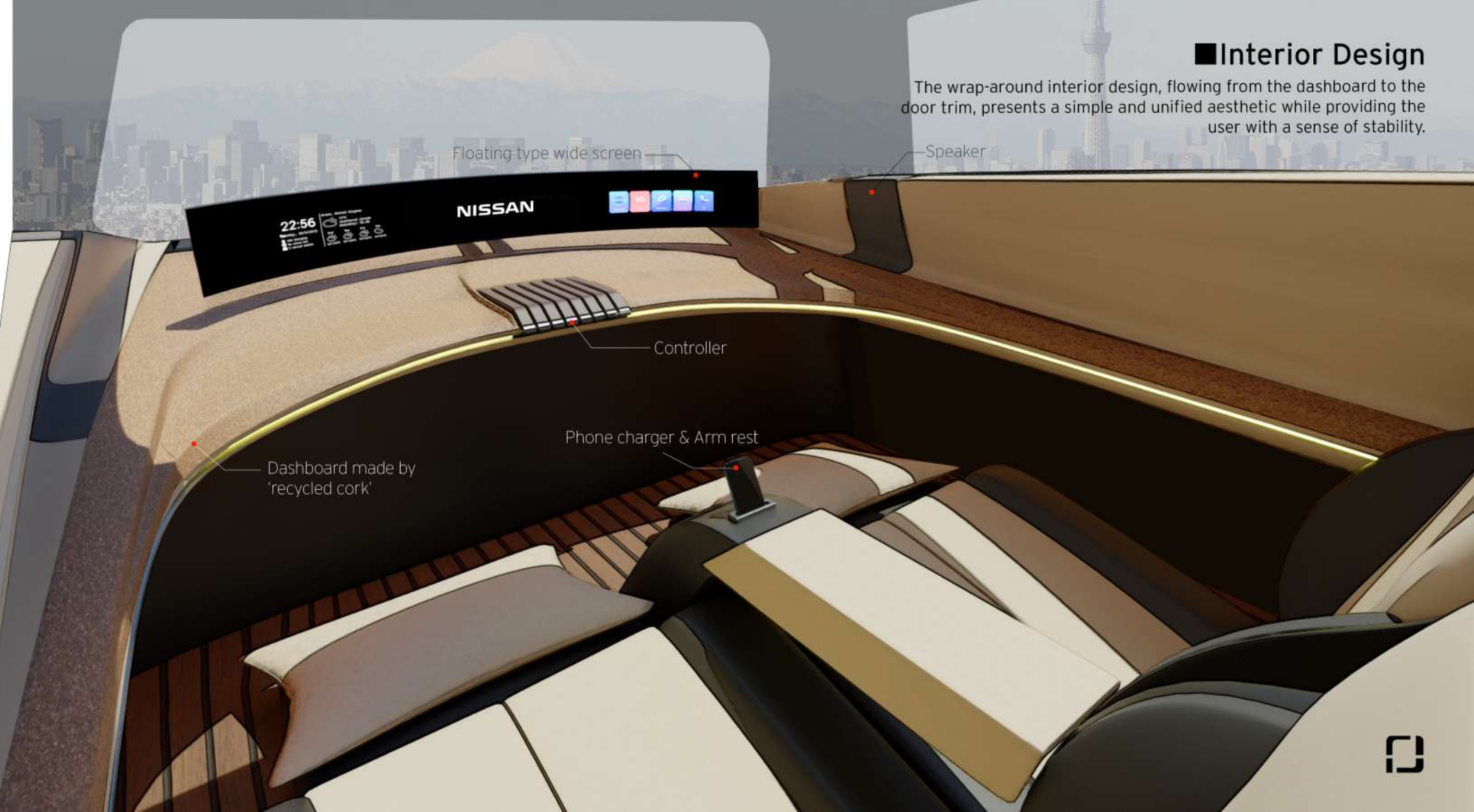
Wrap-around structure



Cork

## Interior Design

The wrap-around interior design, flowing from the dashboard to the door trim, presents a simple and unified aesthetic while providing the user with a sense of stability.



Floating type wide screen

Speaker

Controller

Phone charger & Arm rest

Dashboard made by 'recycled cork'



## Zen-Mobility

The ergonomic stretchable seat, air purifier system, and warm-colored interior provide passengers with a comfortable place to rest

