

PORTFOLIO

- LIU HAOCHEN -





liuhaochenfred

刘浩辰

LIU HAOCHEN

22

STUDY INDUSTRIAL DESIGN
(2018-NOW)



清华大学美术学院

Academy of Arts & Design, Tsinghua University

INTERN: CAR INTERIOR DESIGN
(2021.7-2022.1)

PATACDESIGN



上汽通用汽车
SAIC-GM

ICCG

上汽通用汽车
校园创新传播工场

第七届ICCG-汽车设计30强

第七届ICCG-汽车设计人气奖

第七届ICCG-汽车设计优胜奖

PROJECTS CATALOGUE

01



ICCG
1.1 BUICK HORIZON

02



2.1 ASTON MARTIN

03



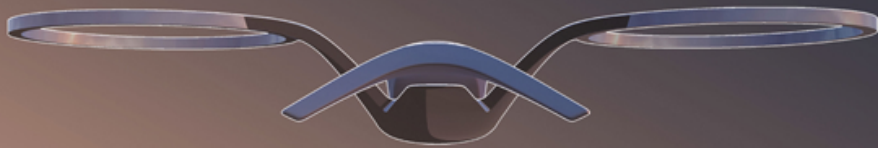
MINI PROJECTS
3.1 BMW EXTERIOR
3.2 FORM STUDY
3.3 OTHER DESIGNS

01

I.1 BUICK HORIZON CONCEPT



决赛 - 汽车设计优胜奖



BUICK
horizon

INTRODUCTION



FUNCTION BOARD



Buick Horizon Concept is a concept car cockpit simulator that combines a flying machine and autonomous driving. In 2025, young people are increasingly pursuing intense and exciting life experiences. The FPV Drone, known as "F1 in the air", allows pilots to watch the flight racing process in real time through the camera body and experience the feeling of sitting in the cockpit of a fighter jet.



BUICK

心 静 思 远 智 行 千 里

DESIGN LANGUAGE



The Buick has an elegant styling, which has the gentle curves and overall surface

TECHNOLOGY



The Buick has advanced but unobtrusive tech

DETAIL



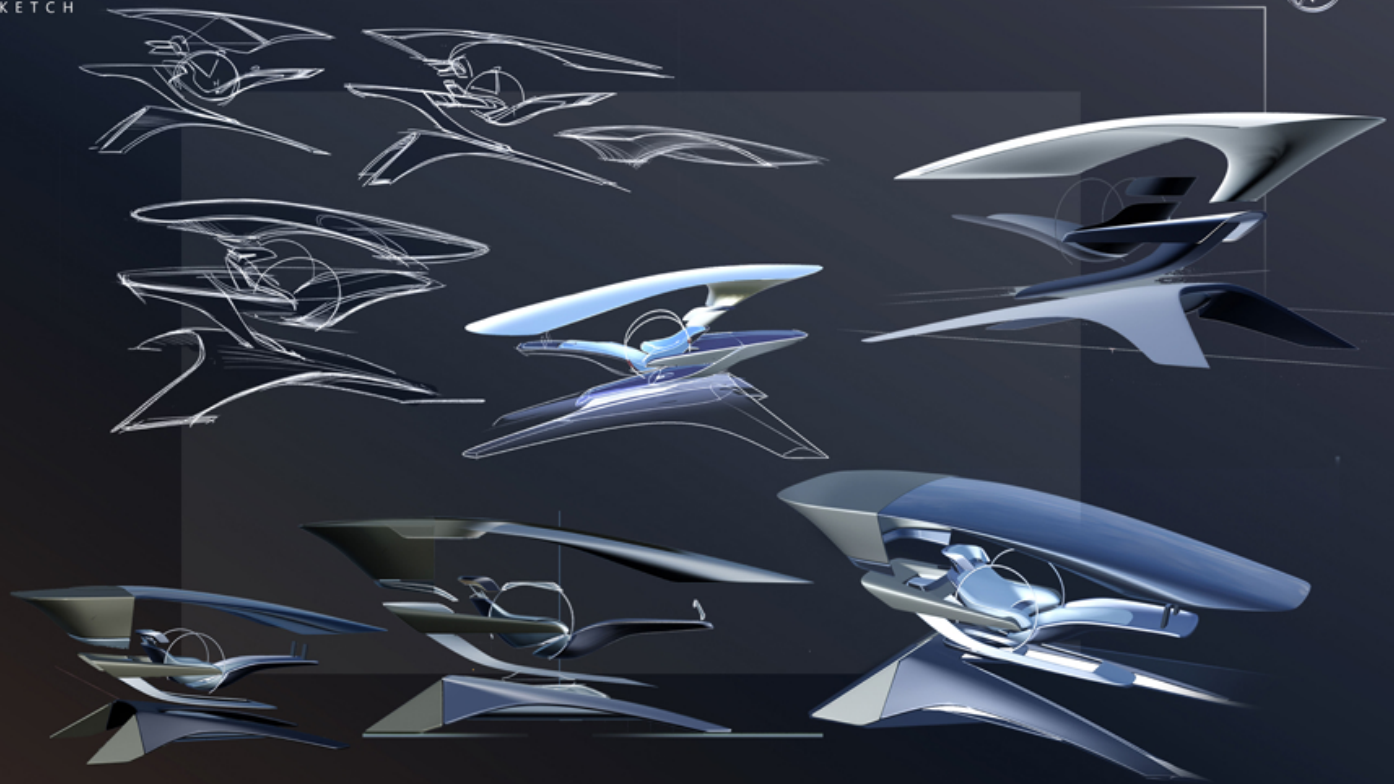
The Buick has sophisticated and gorgeous detailing

INSPIRATION

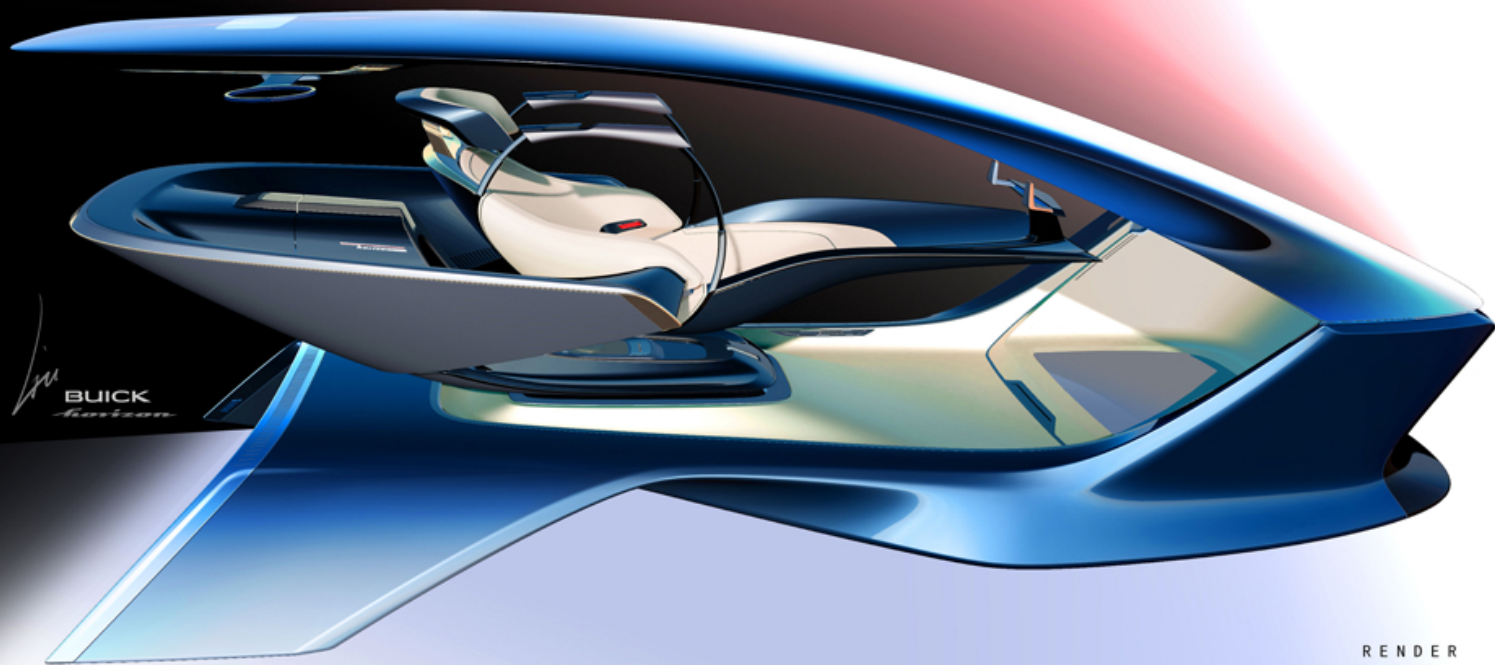
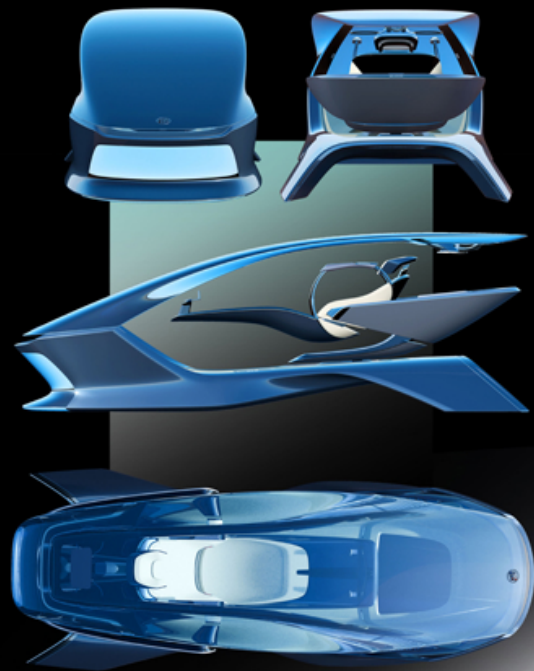


The three-axis gimbal technology that supports the seat is used to realize the somatosensory effect of the G-force seat, and at the same time, it can offset the changes in the body posture such as roll when the vehicle is driving.

— SKETCH



FINAL DESIGN



RENDER

PATACDESIGN

EXPLODED VIEW

SEAT
Zero-gravity for greater driver
comfort while keeping low

SEAT SHAFT
For simulated G-force seats

CANOPY
for displaying information
and simulating environment

CANOPY FRAME
for carrying the canopy

The base provides a stable motion
environment while simulating the
interactive state of the concept car

PATACDESIGN

BUICK



SEAT DESIGN

The side view of the seat shows that the ring cuts a circle on the seat back

Headrest Support

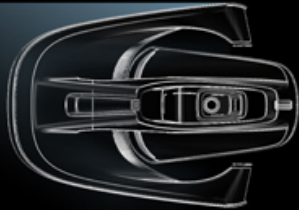


The center of the seat headrest and the center of the lumbar support are supported by hard materials, and the animation is displayed at the same time

DETAIL DESIGN



SEAT SHAFT



Inspired by gimbal and aircraft. The three-axis movement of the gimbal allows the seat to move freely, the wide surface of the aircraft makes the SEAT SHAFT look more integrated



The longitudinal axis of the SEAT SHAFT can be moved back and forth to fit the driver's body

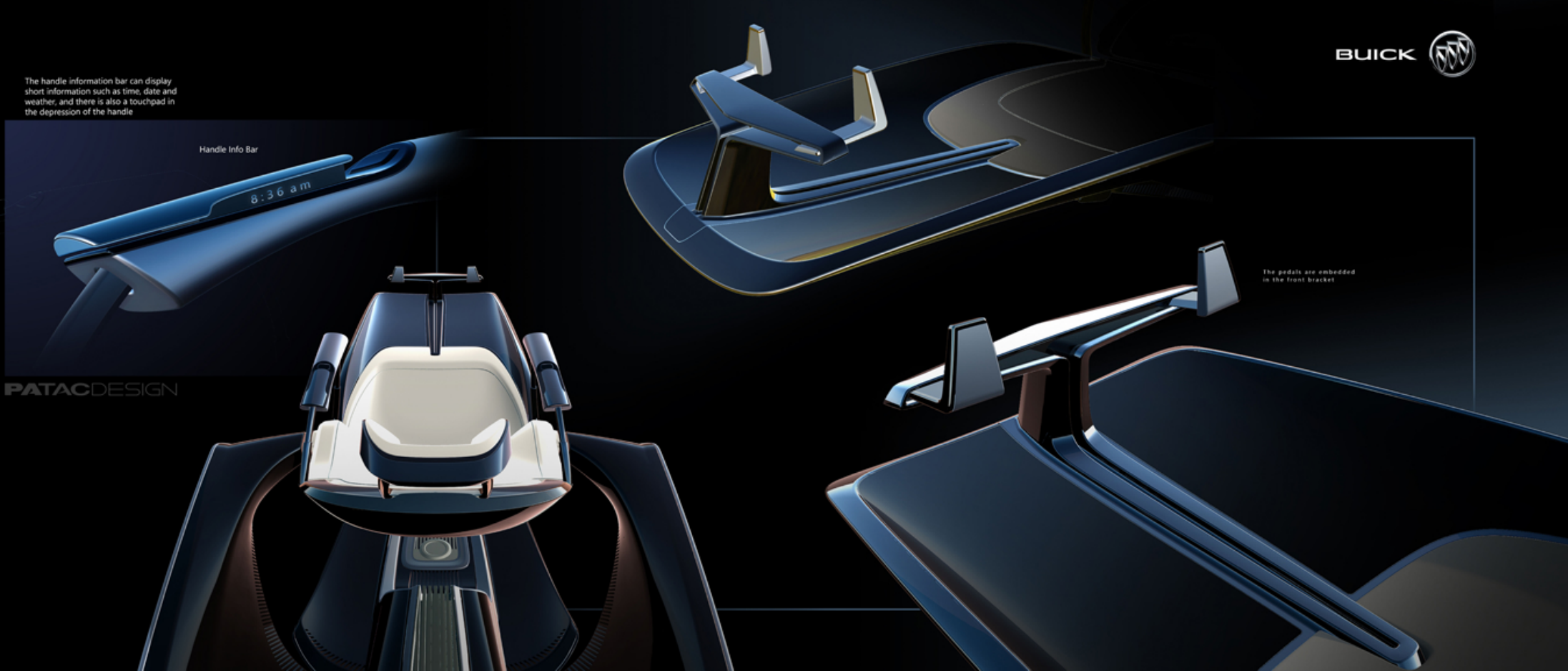
The handle information bar can display short information such as time, date and weather, and there is also a touchpad in the depression of the handle

Handle Info Bar

8:36 am

PATACDESIGN

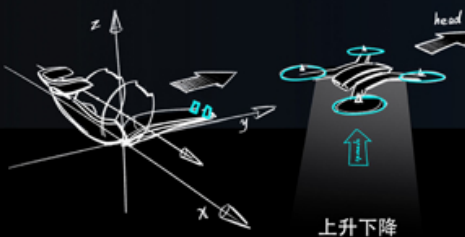
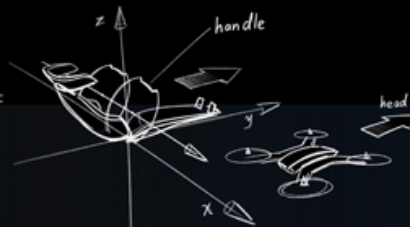
The pedals are embedded in the front bracket





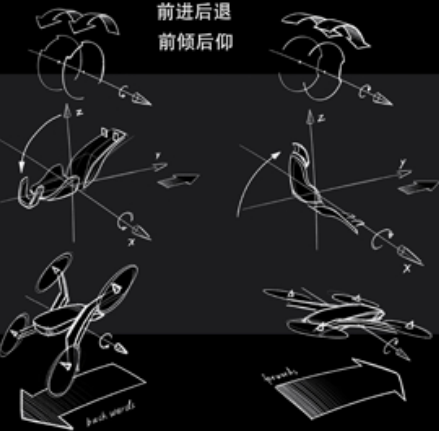
The two handles are turned forward and backward at the same time, which will make the seat tilt forward and backward, corresponding to the forward and backward of the FPV Drone

BASIC LOGIC

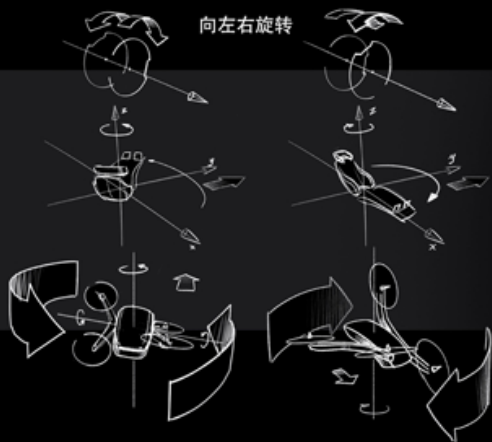


In FPV mode, the pedal is the accelerator pedal of the power system on both sides, and it can rise vertically when you press it at the same time.

前进后退
前倾后仰



向左右旋转



右踏板

push right pedal harder



左踏板

push left pedal harder

向左右倾斜







Body turn left



THREE VIEWS

The FPV Drone is usually attached to the rear of the canopy on the back of the headrest with a magnetic upside-down suspension, and will turn somersaults when taking off.

Horizon

The linearity of the welcome light blanket comes from the curved surface of the exterior, giving people a beautiful and luxurious feeling

TAIL LIGHT

The taillights are also designed to welcome the driver, while styling enriches the clean exterior surfaces



GLOOMY

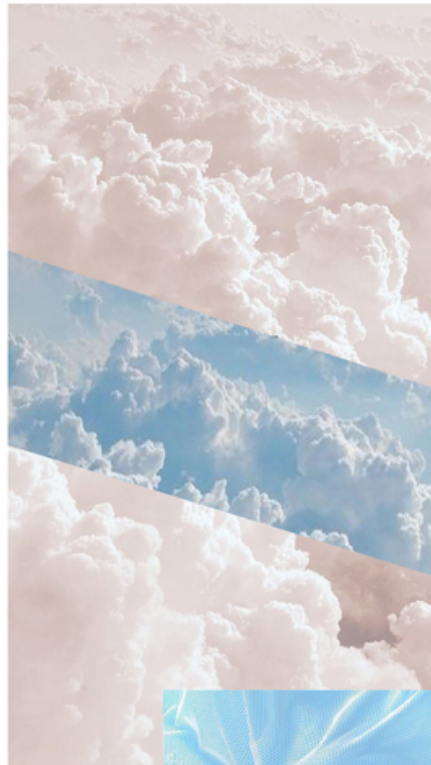


In order to make the exterior more calm and accentuate the interior



CMF MOOD BOARD

The interior is covered with more mesh-like fabrics, and warm and bright colors are used to make the whole interior lighter, like flying over the clouds.



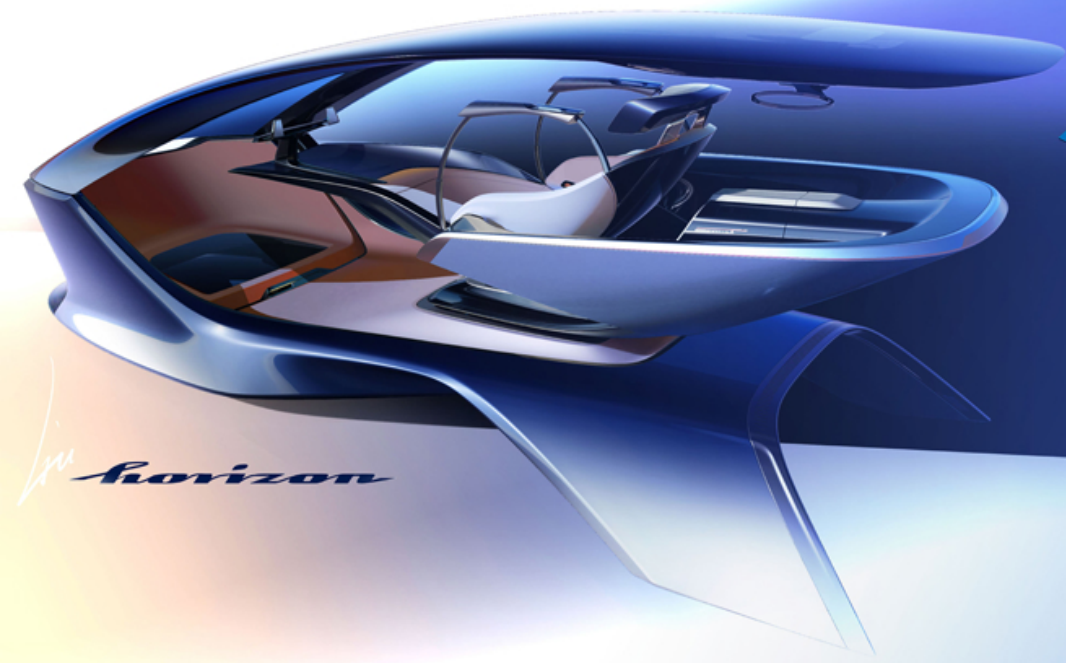
MOOD BOARD

The cloud-like lightness of the interior
is reminiscent of the tranquility of flying
through a storm to the eye of the storm

lin
BUICK
horizon

horizon

PATACDESIGN



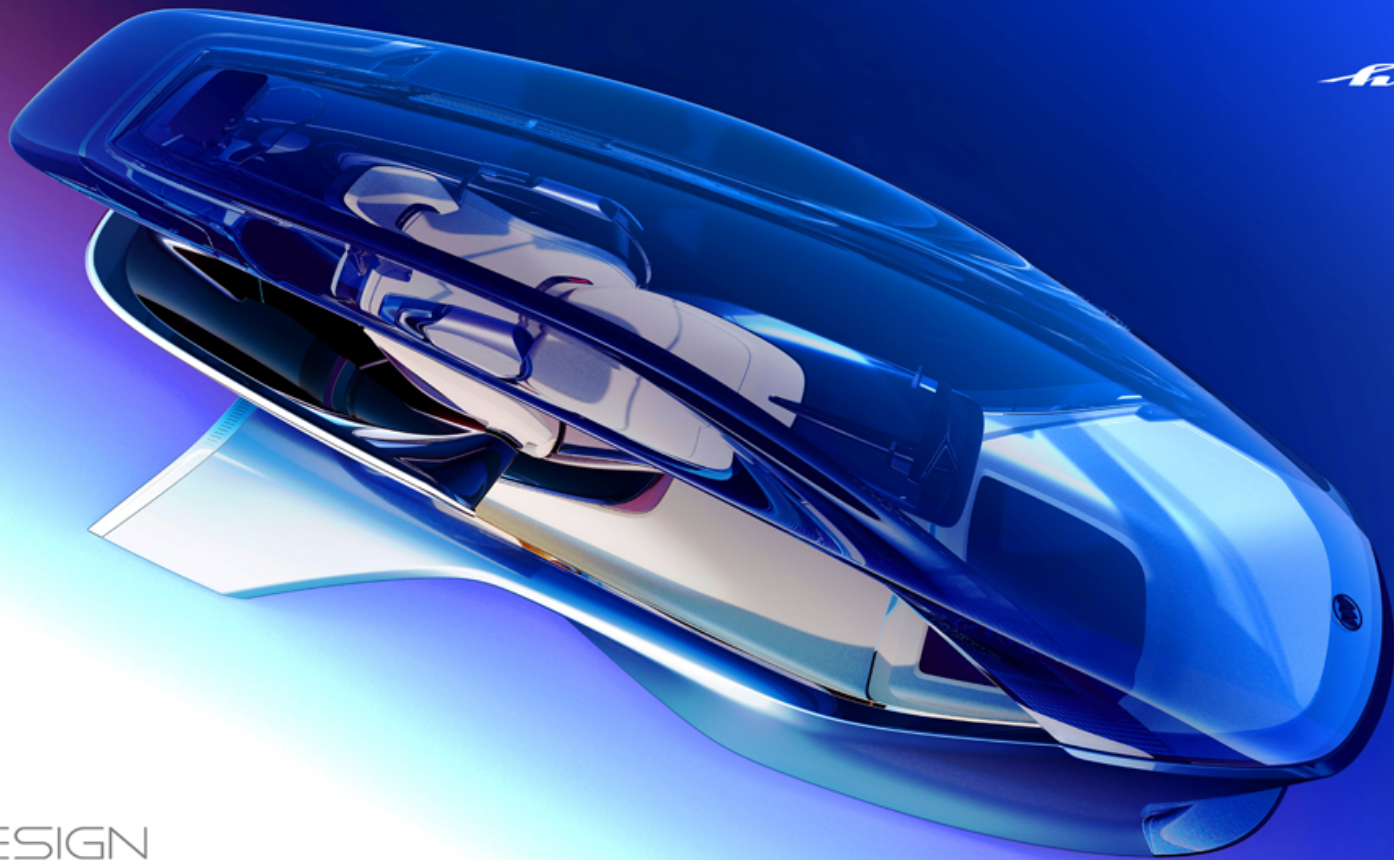
horizon

FINAL RENDER

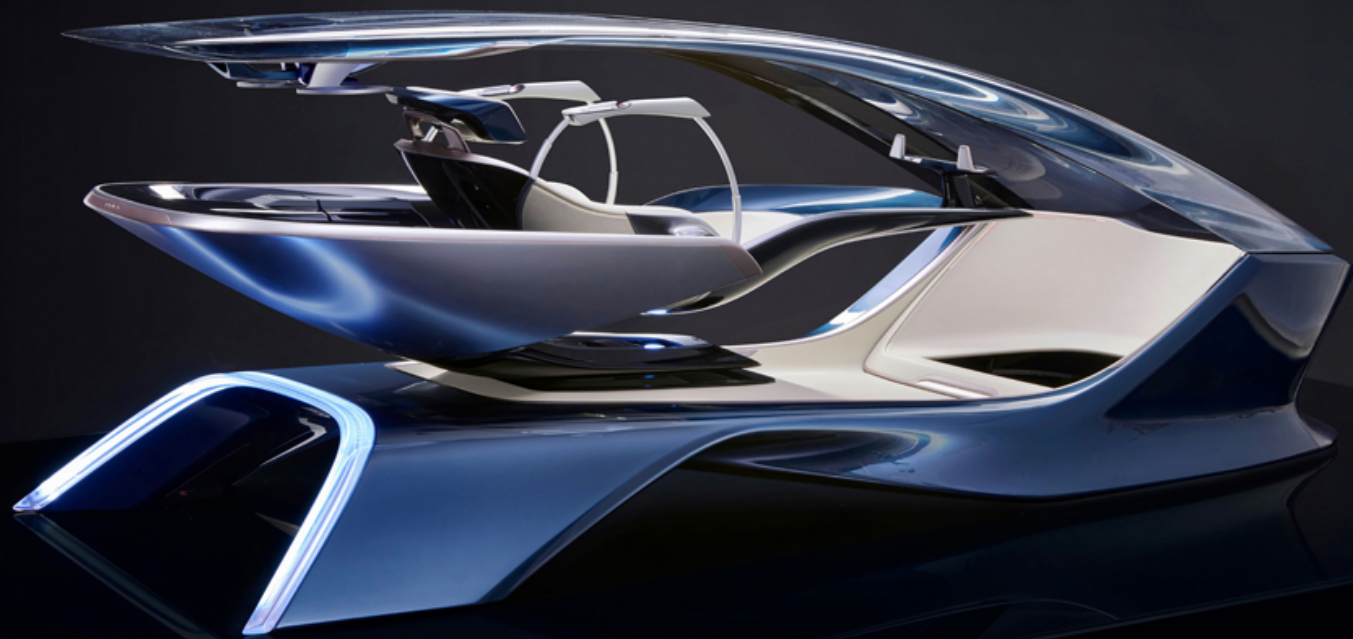
BUICK



horizon

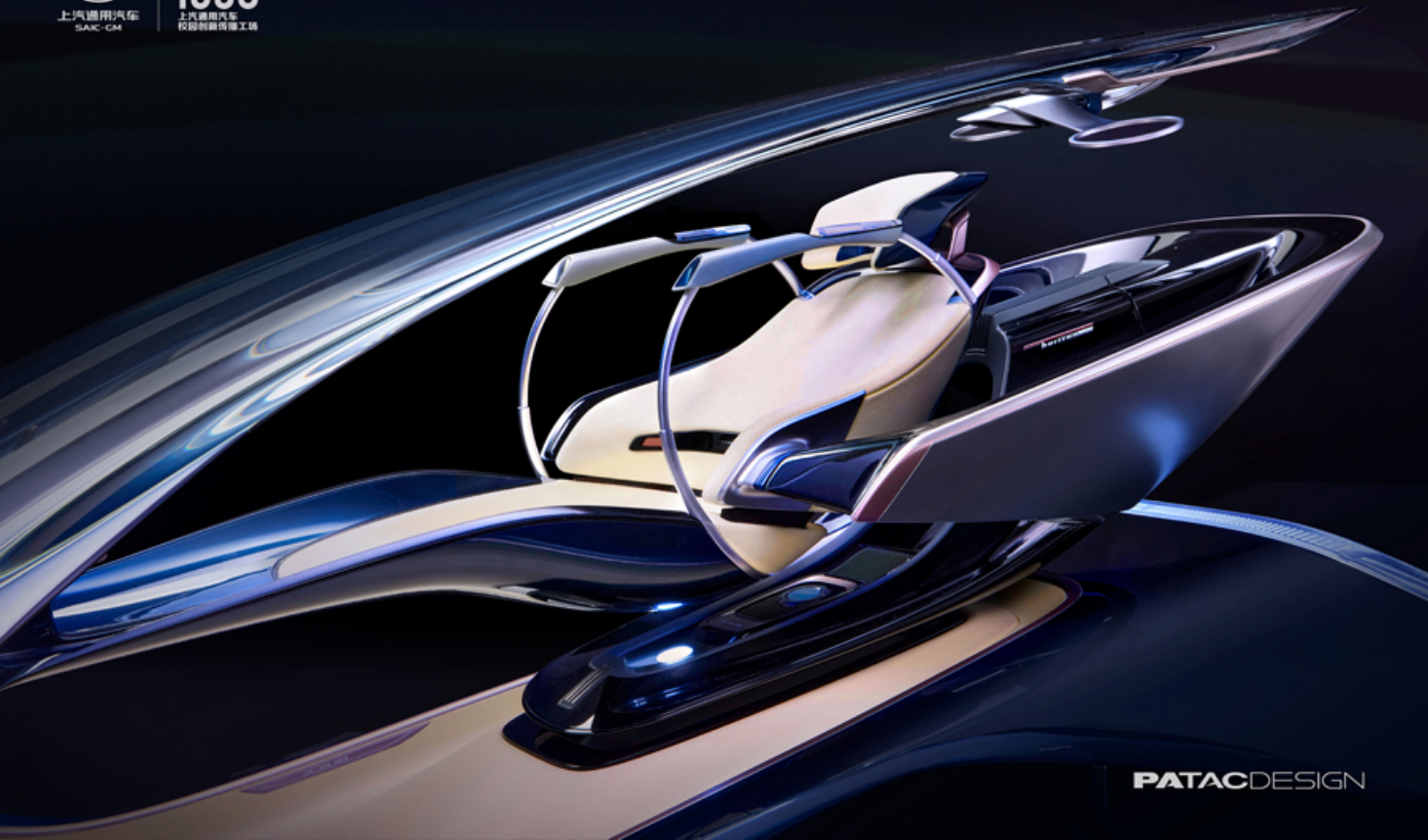


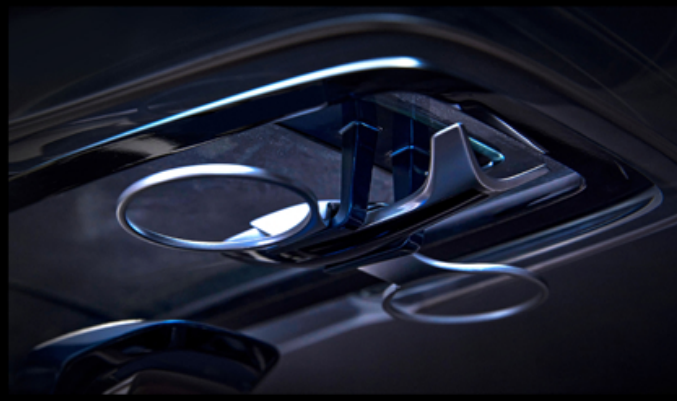
PATACDESIGN



PATACDESIGN









在泛亚与自己的模型合影

02

2.1 ASTON MARTIN DAKAR

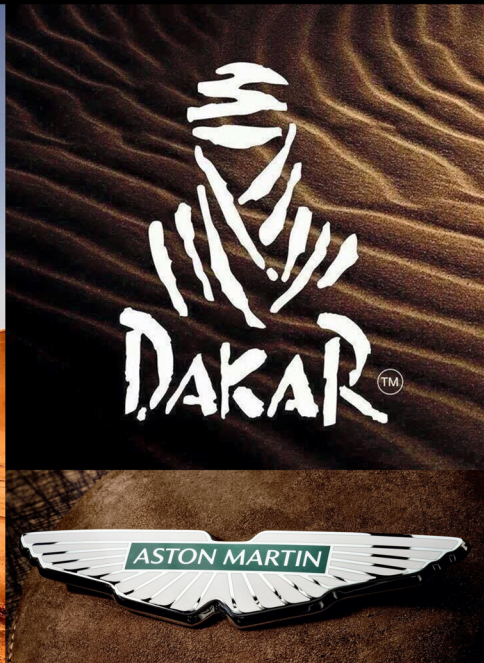


ASTON MARTIN

×



007 EXTREME DESERT RESCUE MISSION



HE NEEDS HIS ASTON MARTIN DAKAR FOR THE RESCUE MISSION



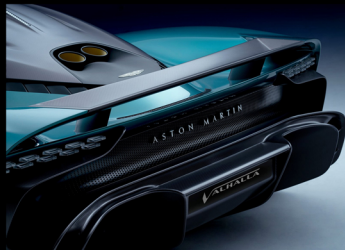
x



THE IMPRESSION
OF
ASTON MARTIN



THE HIGHEST LEVEL OF ELEGANT



EXTREME DYNAMIC & SPORTY



x



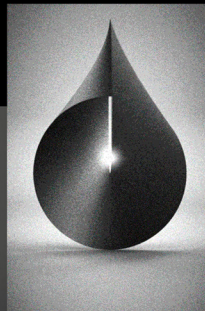
ASTON MARTIN

SHARKNESS

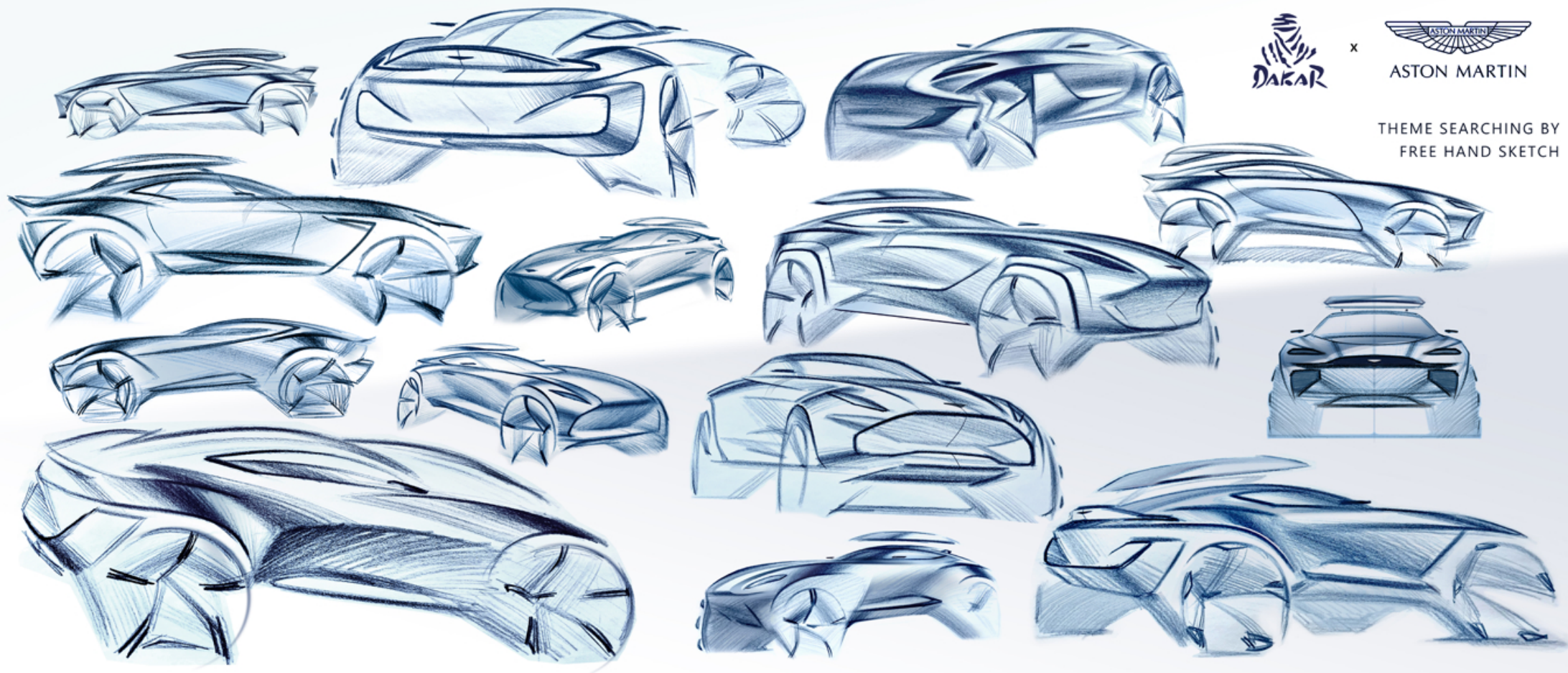


-FORM INSPIRATION

SO ELEGANT THAT MAKES PEOPLE FORGET ITS DANGEROUS & SPEED



CLEAN SURFACE & SHARP EDGE & SPEEDY LINES



DAKAR

x



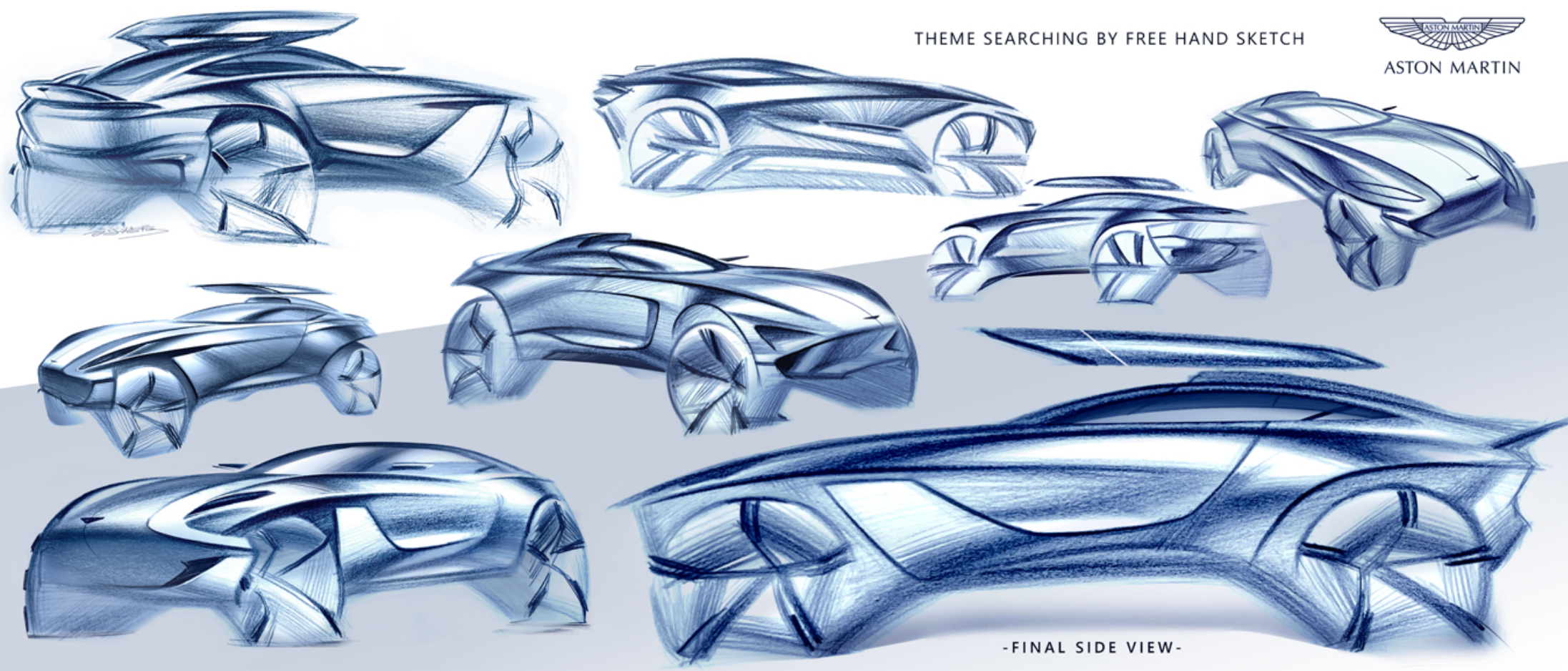
ASTON MARTIN

THEME SEARCHING BY
FREE HAND SKETCH

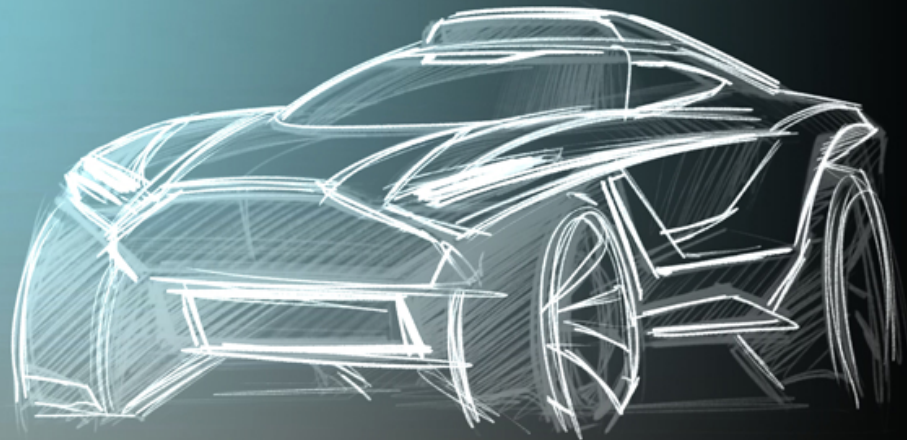
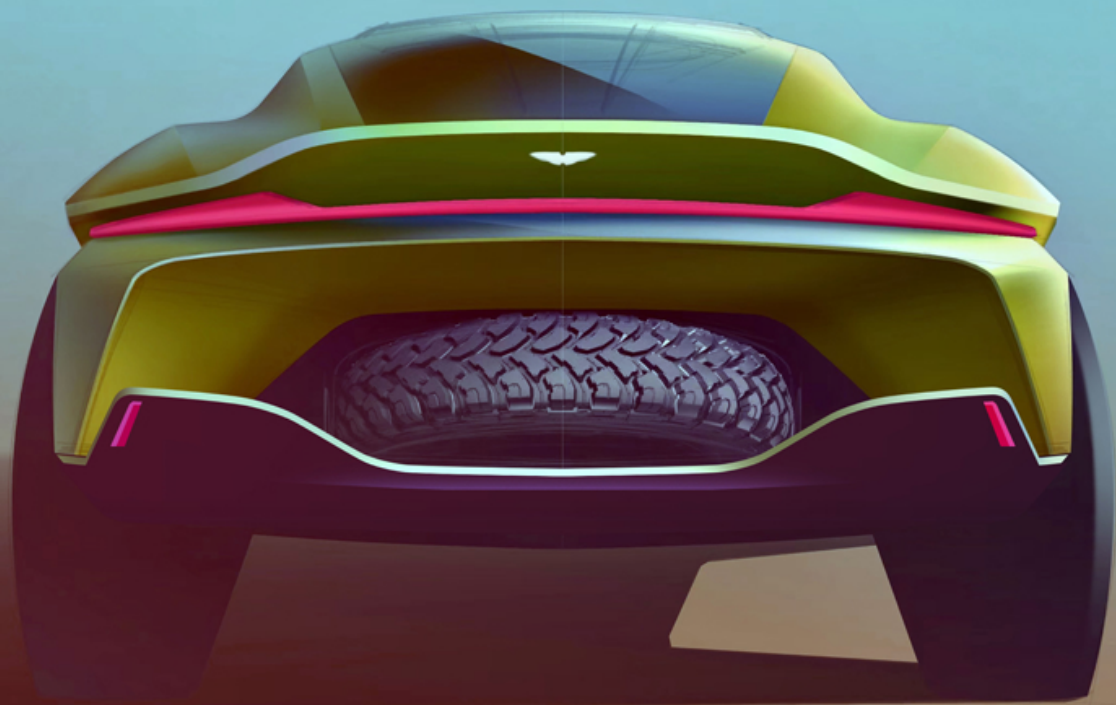
THEME SEARCHING BY FREE HAND SKETCH



ASTON MARTIN



-FINAL SIDE VIEW-



x



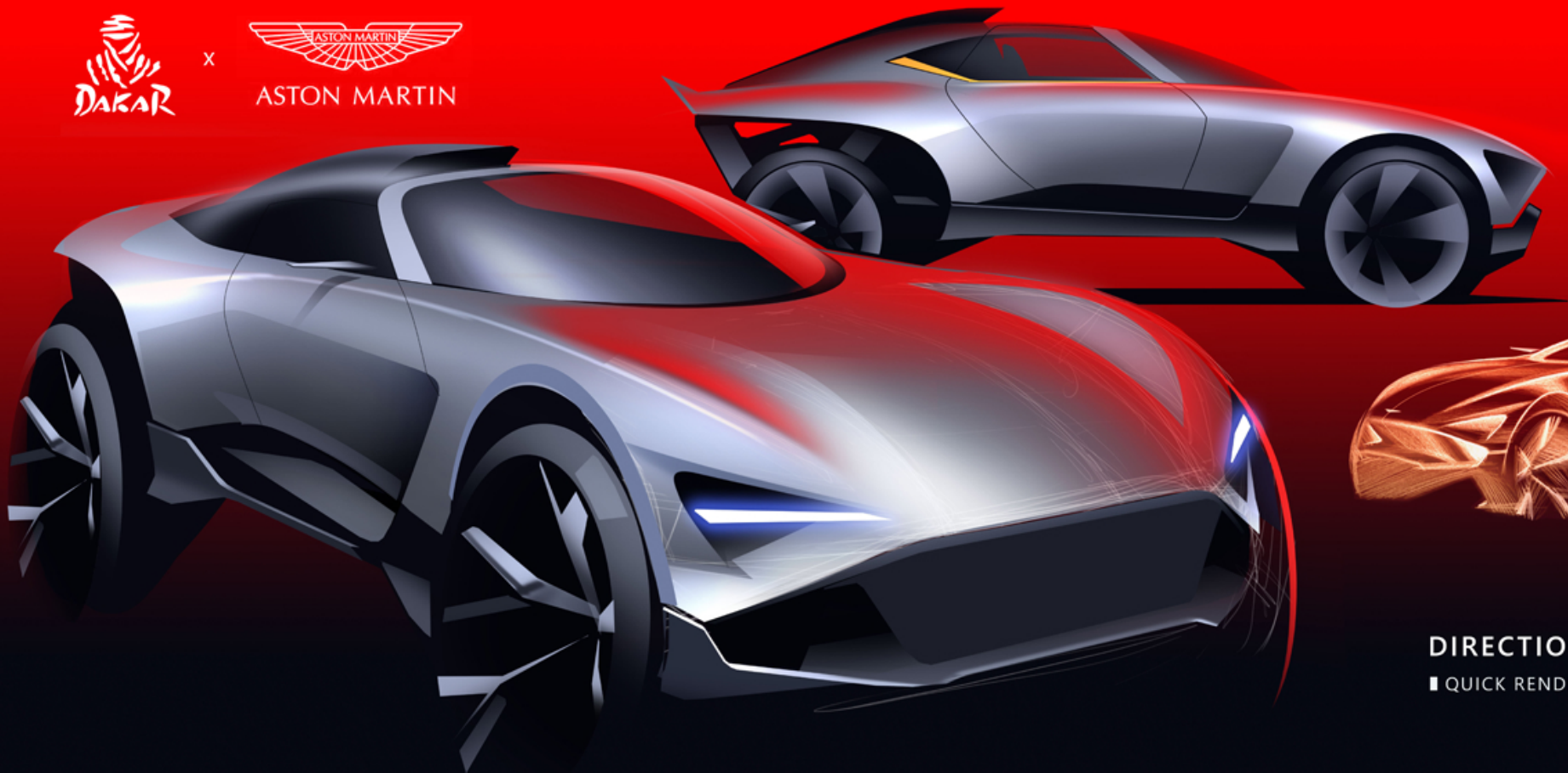
ASTON MARTIN



x



ASTON MARTIN



DIRECTION 1

■ QUICK RENDER

DIRECTION 2

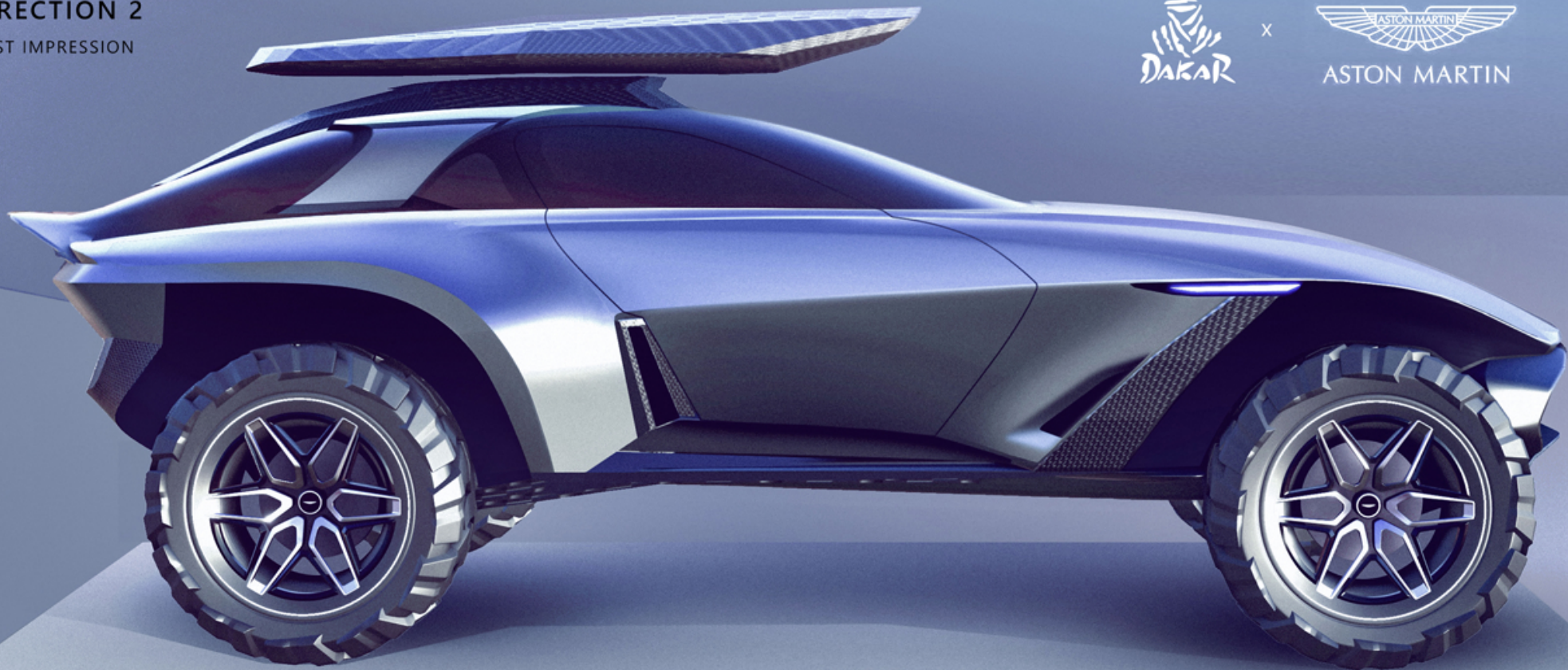
FIRST IMPRESSION

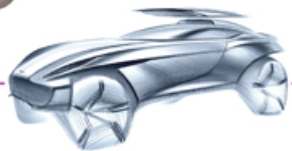
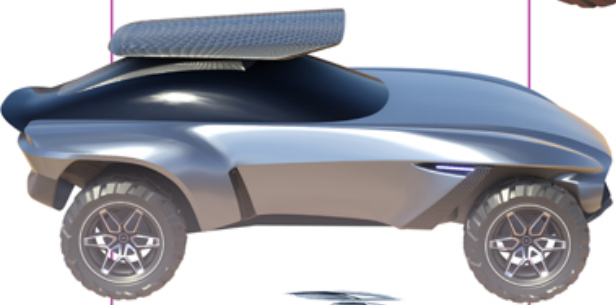
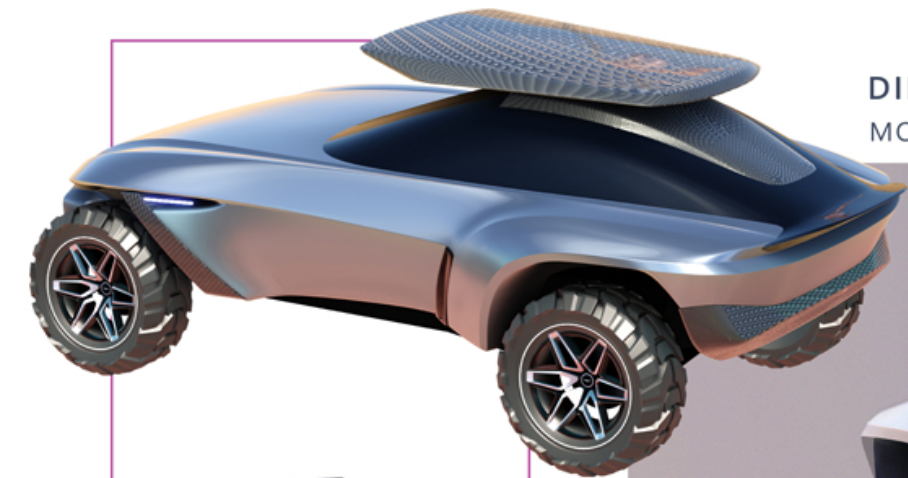


x



ASTON MARTIN





DIRECTION 2
MOVE FORWARD ON REFINING

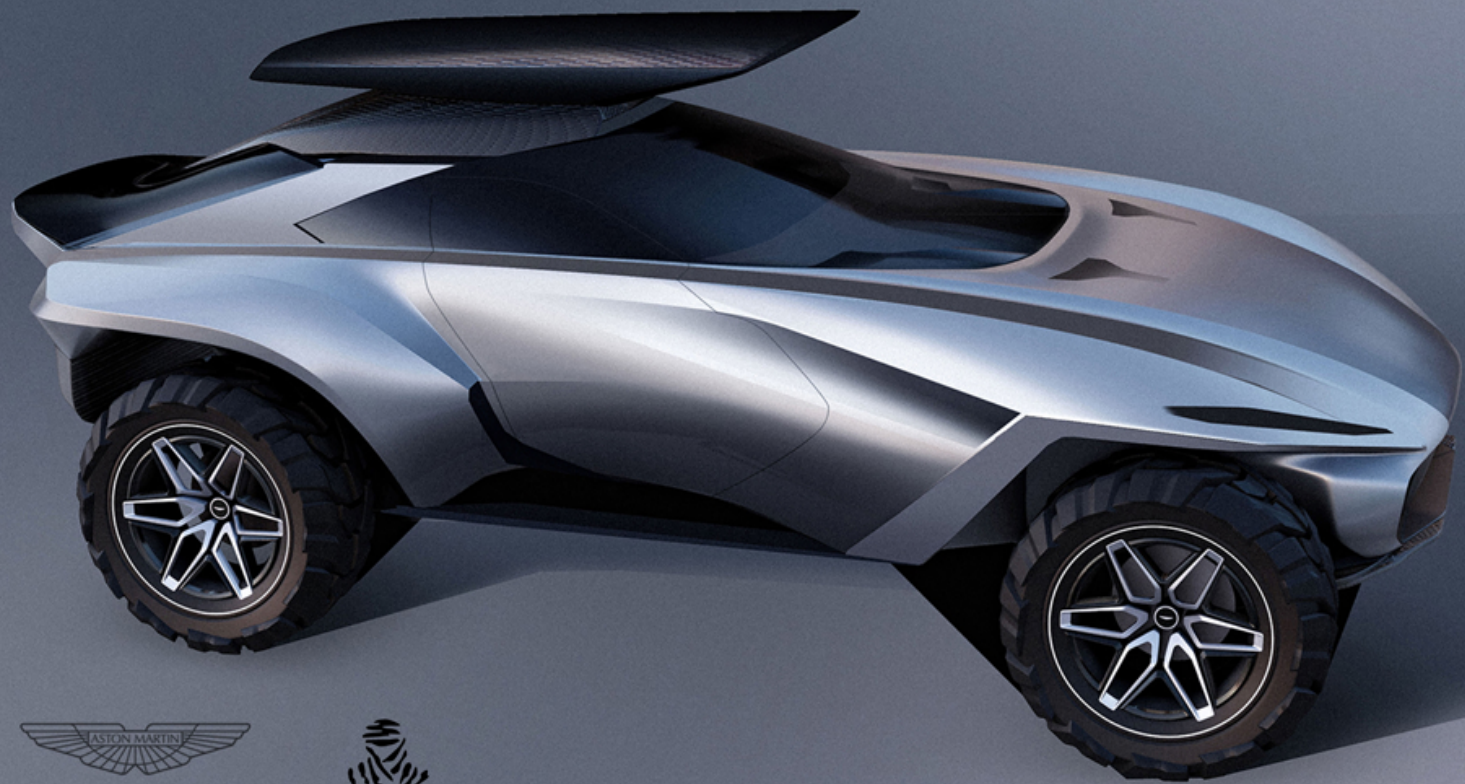


x

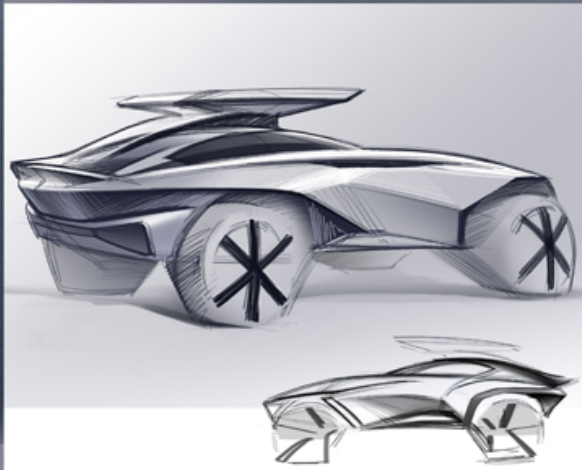
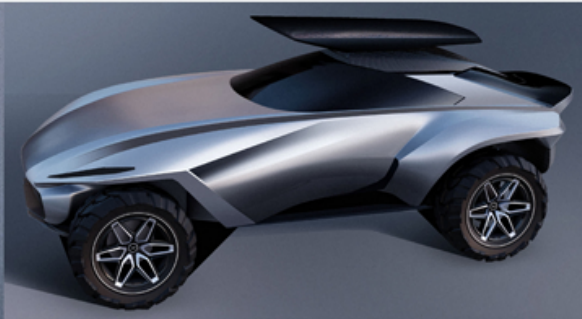


ASTON MARTIN



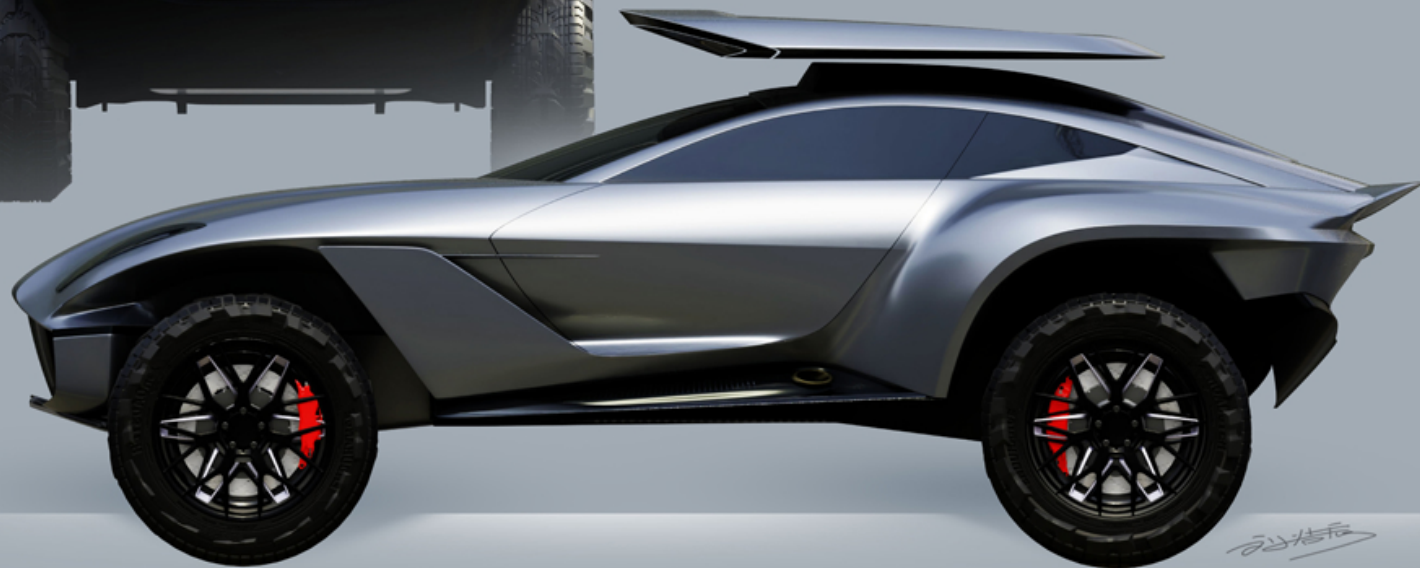
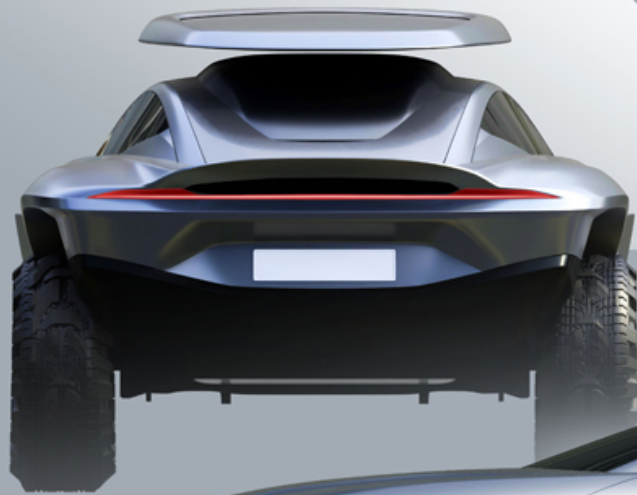


ASTON MARTIN



DIRECTION 3

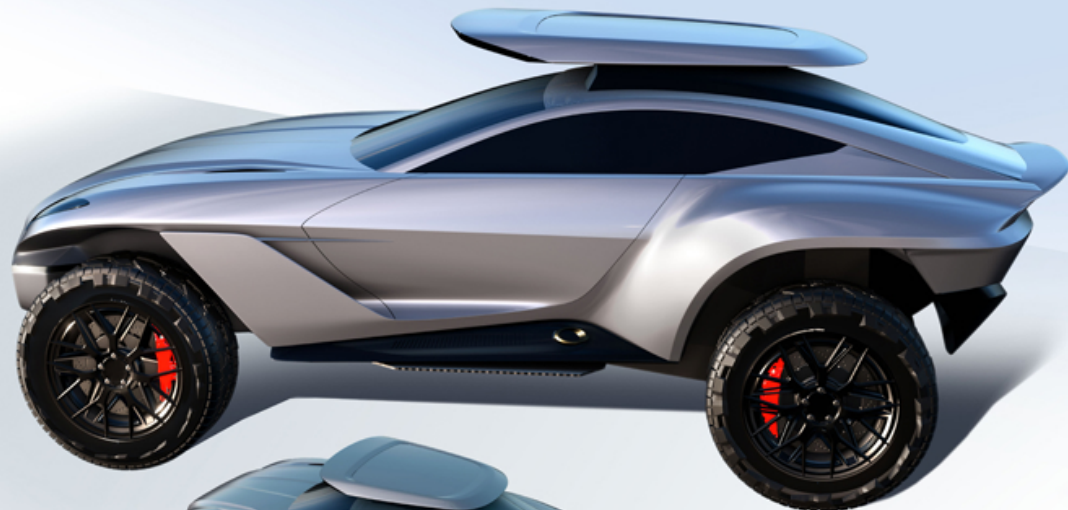
FINAL DESIGN



ASTON MARTIN

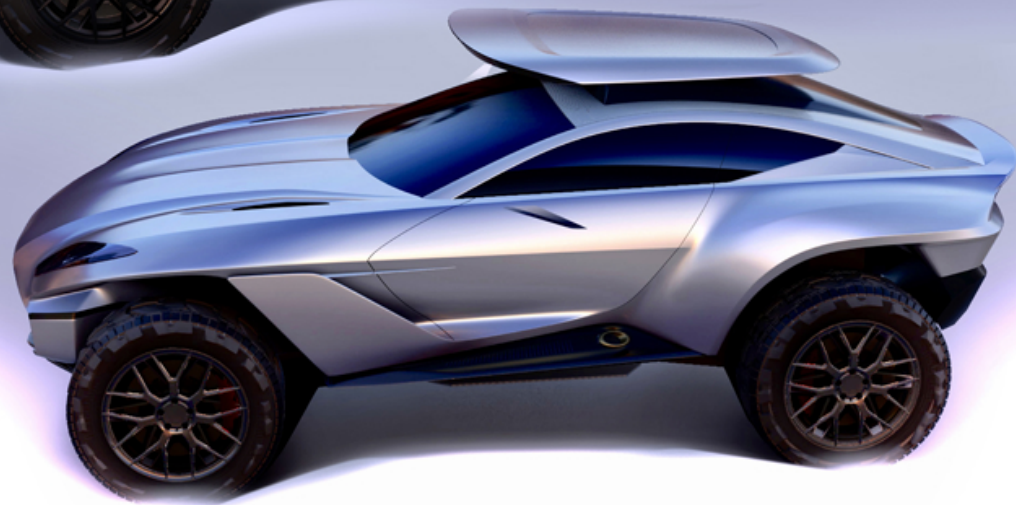
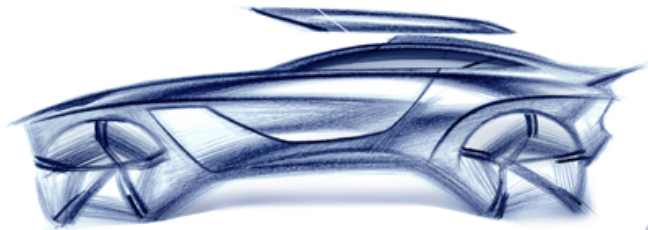


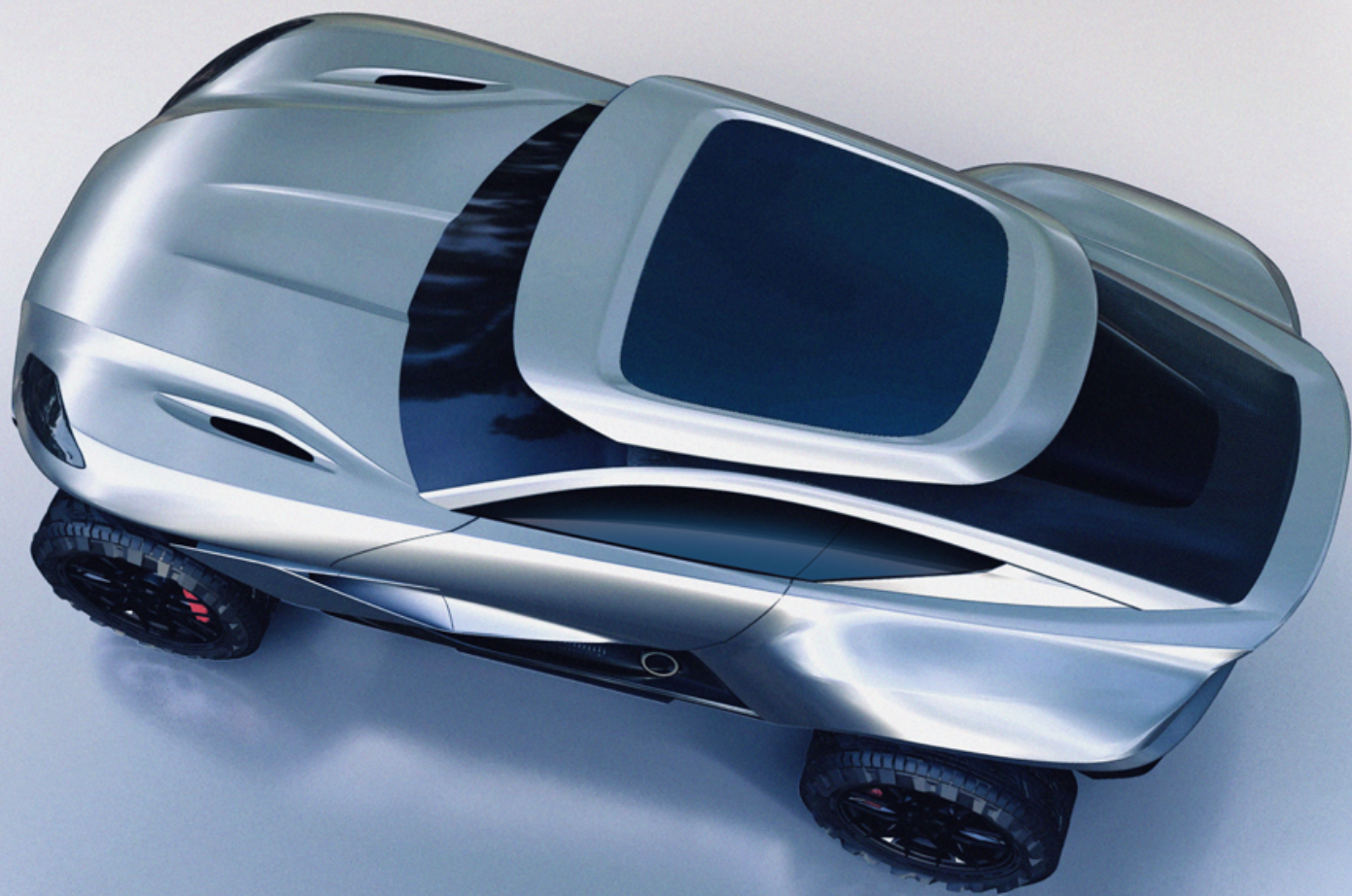
2024



DETAILS THINKING







ASTON MARTIN



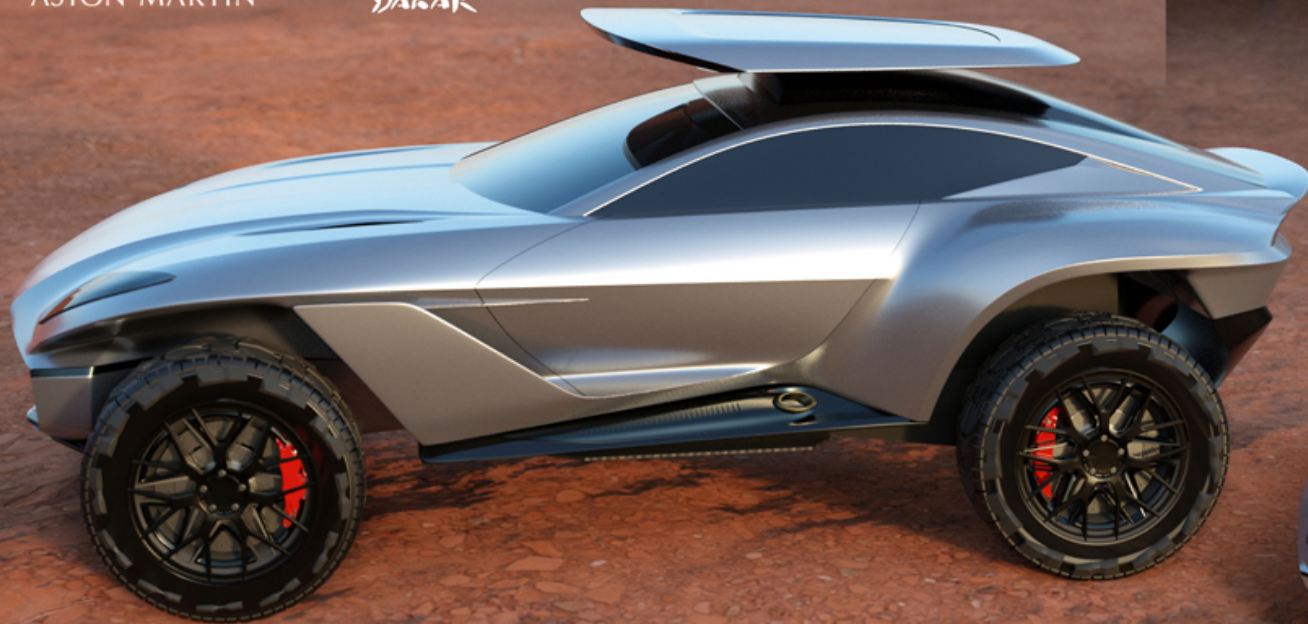
ASTON MARTIN





ASTON MARTIN

x



■ FINAL RENDER



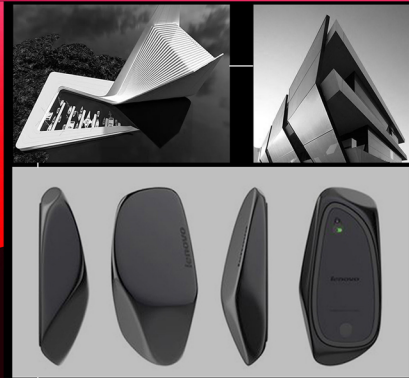
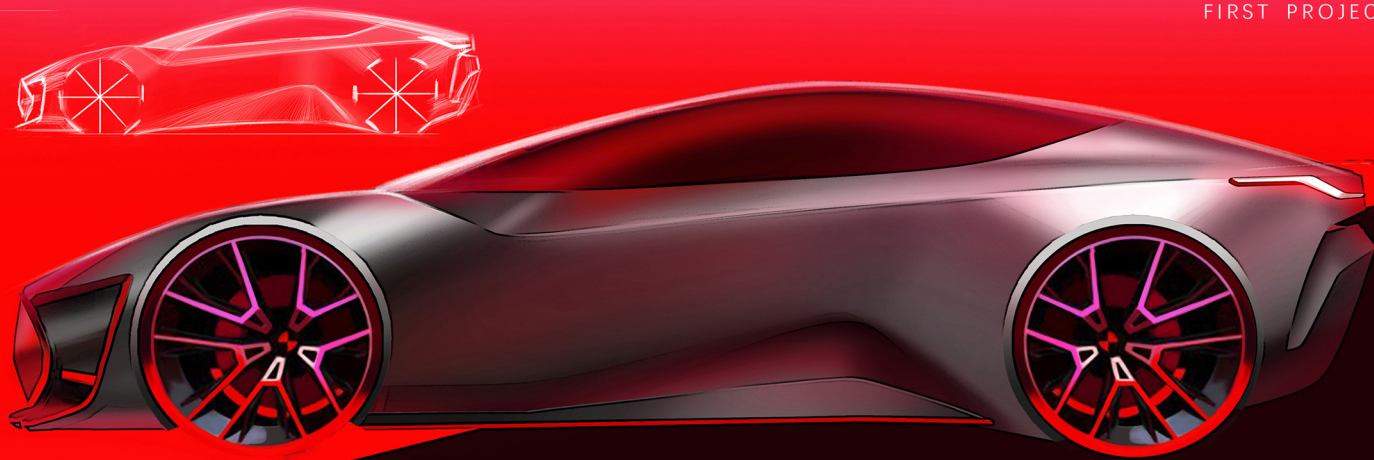
03



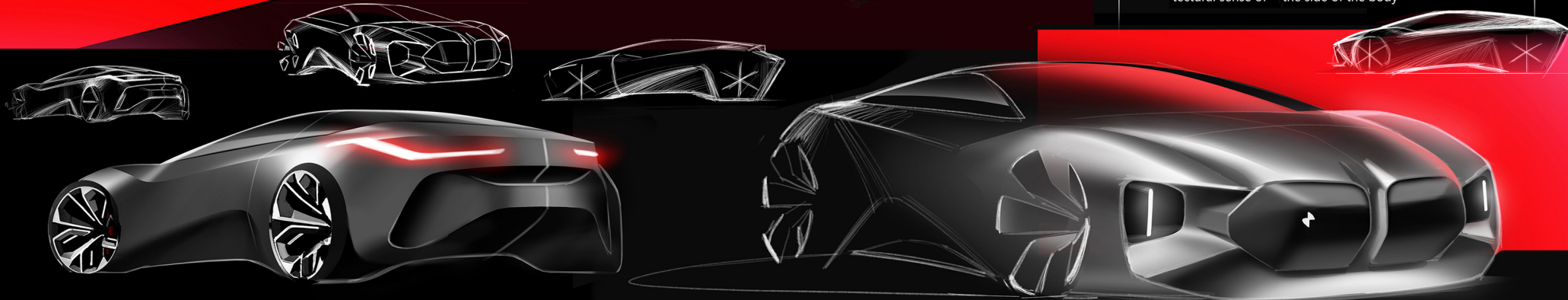
MINI PROJECTS

- 3.1 BMW EXTERIOR
- 3.2 FORM STUDY
- 3.3 OTHER DESIGNS

FIRST PROJECT

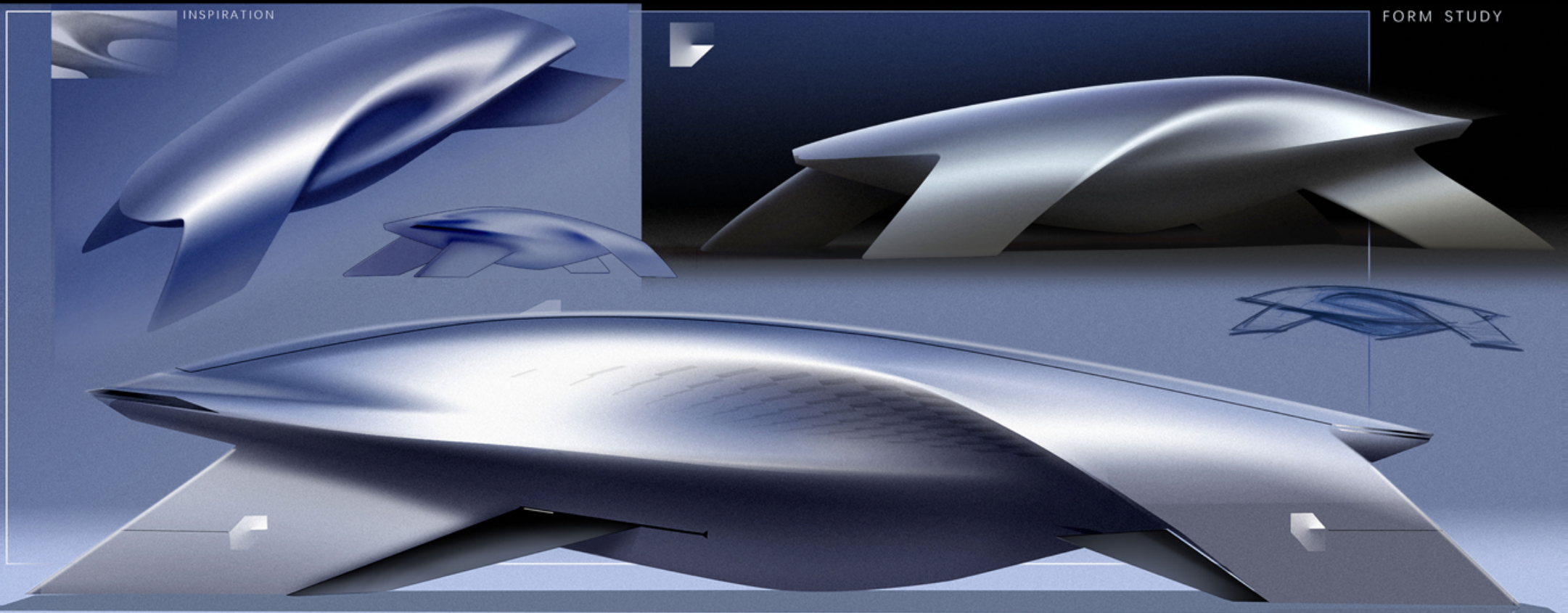


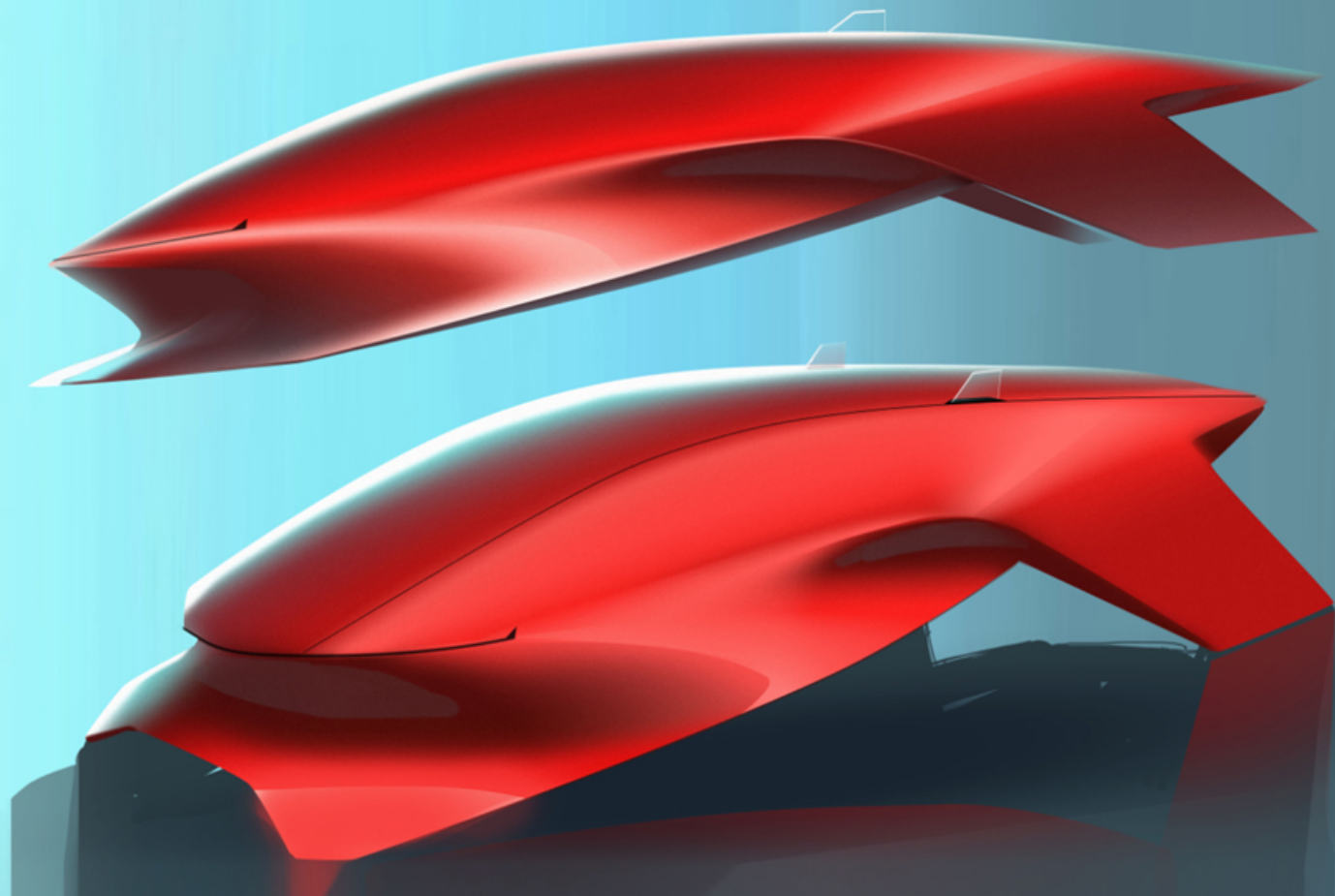
A electric family sports car runs in cities. The package is between the C-class and the D-class. The side boldly tried the design language with cutting as the theme, emphasizing the modern architectural sense of the side of the body



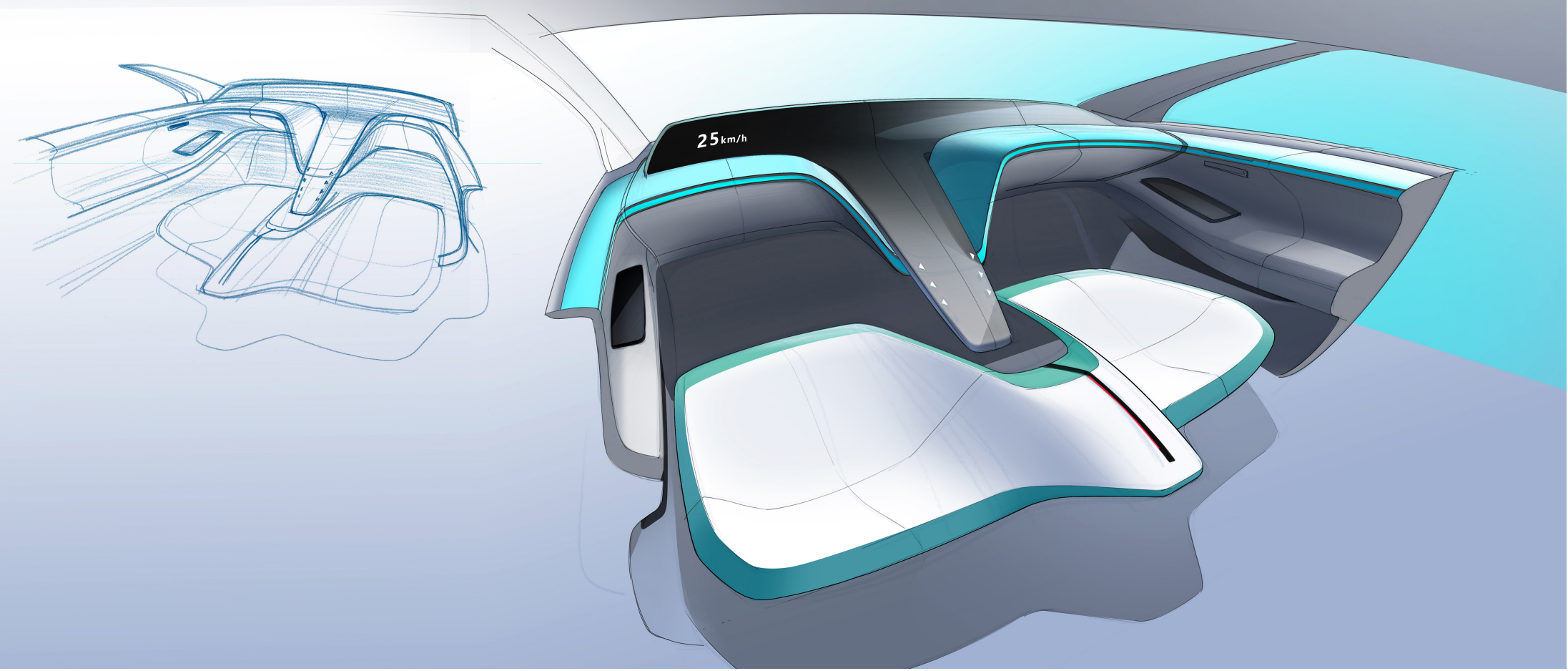
INSPIRATION

FORM STUDY











BUICK · *The Starry Night*



INSTRUMENT PANEL

The instrument panel is a piano,
which can show the movement
of the sound wave.



INSPIRATION

VELITE DOOR PANEL

The design language comes
from the door panel of the
Velite and the Enspire concept IP

ENSPIRE CONCEPT IP

THANKS

FOR YOUR ATTENTION !

A stylized, handwritten signature in white ink, appearing to read 'J. Smith', located to the right of the text box.

INDUSTRIAL DESIGN PORTFOLIO

“LESS IS MORE”
MIES VAN DER ROHE



清华大学美术学院
Academy of Arts & Design, Tsinghua University