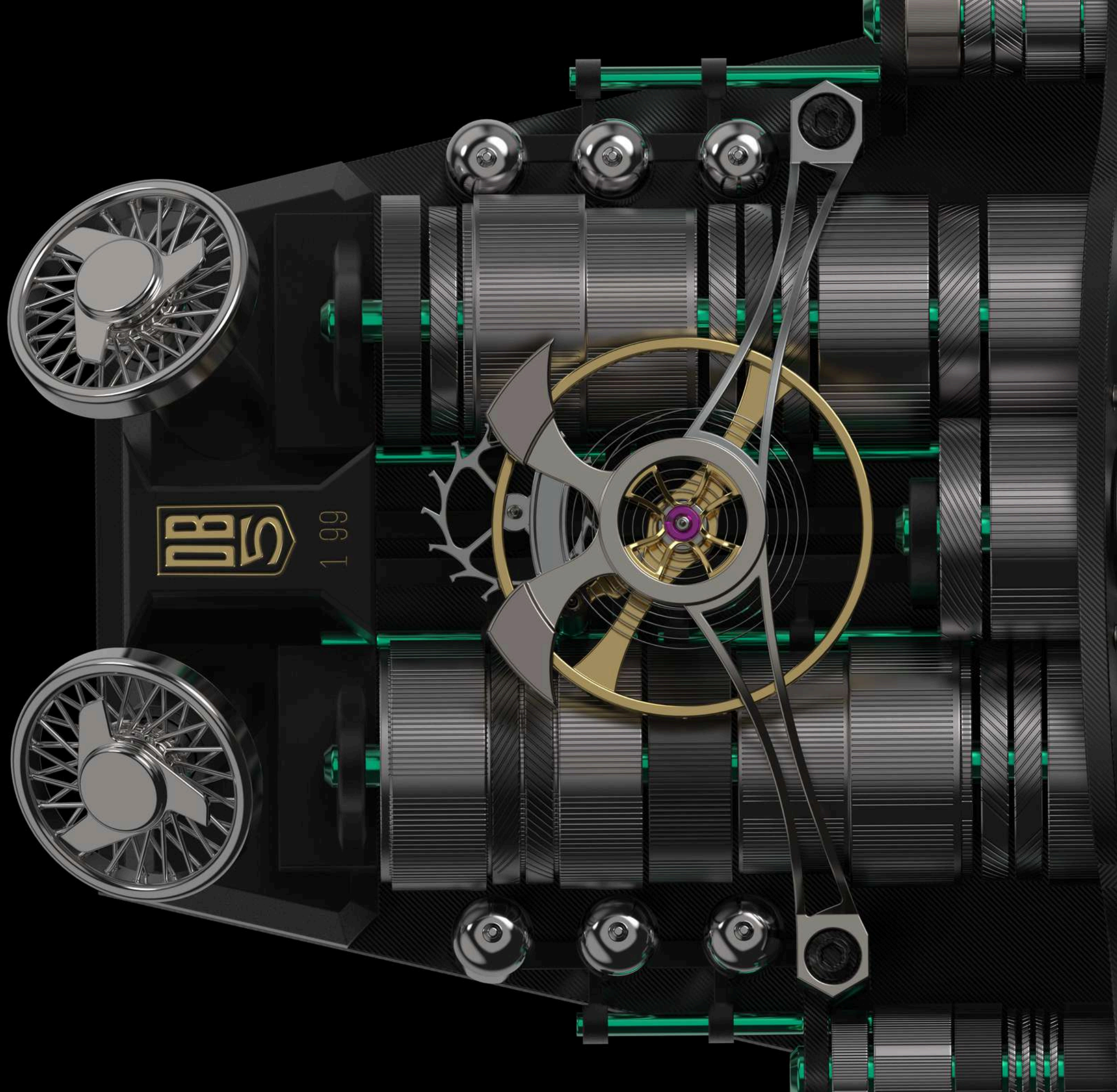


VAIBHAV CHAWLA
DESIGN PORTFOLIO

 **2025**



ABOUT ME

WHERE SHOULD WE START?!



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EDUCATION

2019-23
BACHELORS OF DESIGN, FASHION & LIFESTYLE
ACCESSORY DESIGN
NATIONAL INSTITUTE OF FASHION & TECHNOLOGY,
MUMBAI

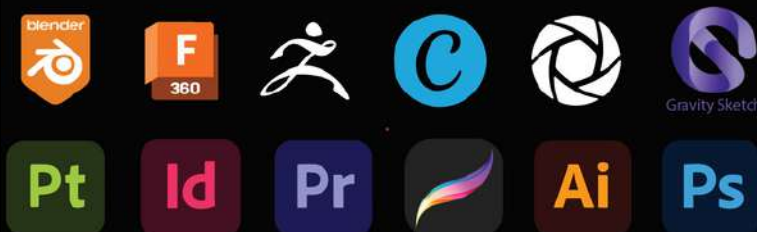
2023-2025
MASTERS OF DESIGN, MOBILITY & VEHICLE DESIGN
INDUSTRIAL DESIGN CENTER, IIT BOMBAY

RECENT WORKS

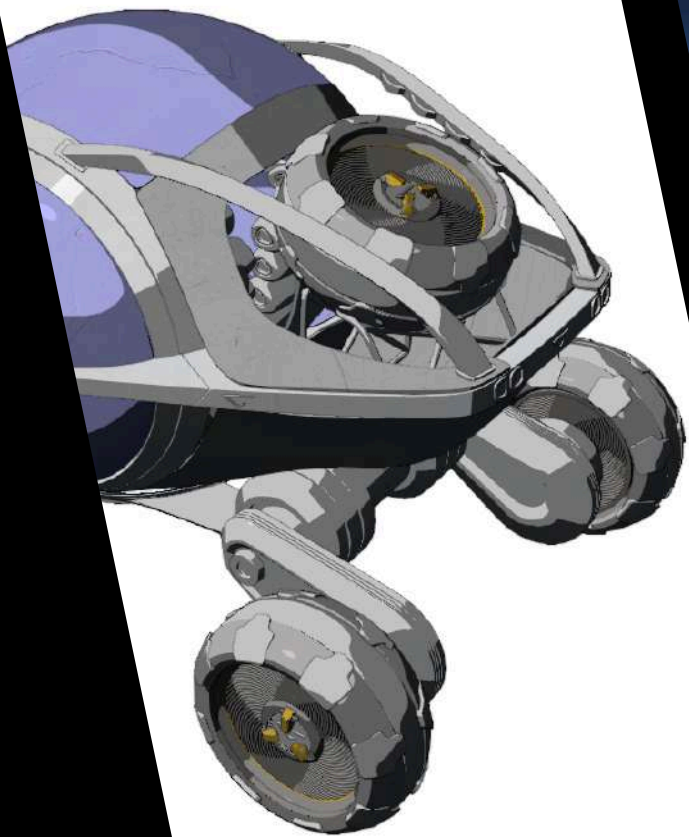
VEHICLE DESIGNER (FEB, 2025 - PRESENT)
NMD MOTORCYCLES, AL AIN, UAE

3D ARTIST (AUG, 2021 - AUG, 2023)
VIGA ENTERTAINMENT TECHNOLOGIES, BANGALORE

INDUSTRIAL DESIGNER (JAN, 2023 - APRIL, 2023)
TATA ELXSI LTD., BANGALORE



CONTENT



**NXT GEN ADV
TOURER**



**COCKPIT
DESIGN**



**WATCH
DESIGN X
JAMES BOND**



HI.VI



**CLAY
SCULPTING**

01

NXT-GEN ADV TOURER



DESIGN BRIEF

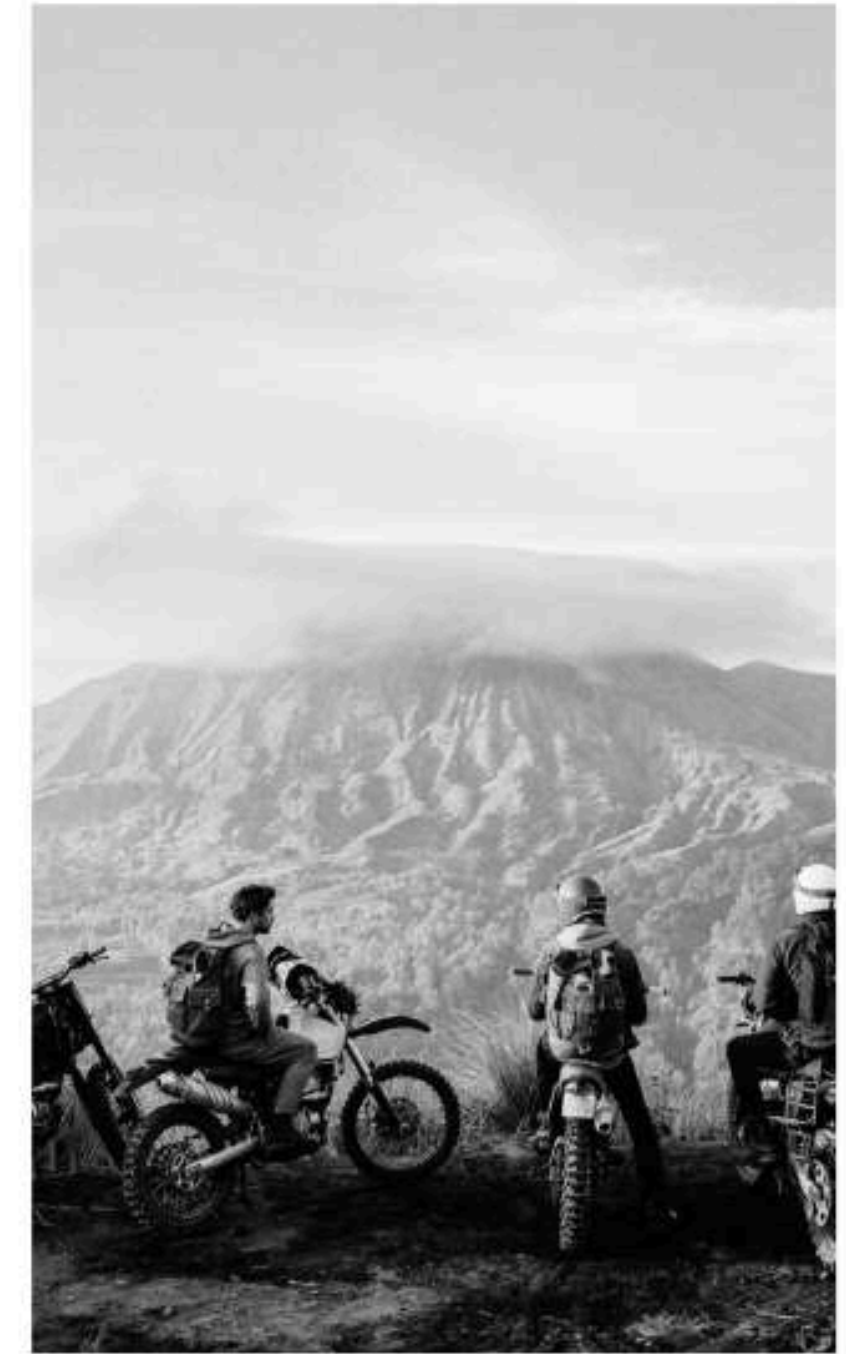
Design an innovative 4 wheeled Adventure Tourer for year 2040 that seamlessly integrates urban practicality with off-terrain capabilities, creating a vehicle that embodies a lifestyle of both everyday convenience and spontaneous exploration. Targeted at urban dwellers with an adventurous spirit.

MOOD BOARD



Free-Spirit

Wanderlust



Rebel

Urban-Explorer

INSPIRATION BOARD

Chiseled



Robust



Resilient

Organic



Minimal



INTERVIEW INSIGHTS



BEST FOR TOURING AND MOUNTING LUGGAGE



560+KMS RIDES

SENSE OF FREEDOM AND PEACE



CONSTANT EXPOSURE TO KACCHA RASTA
TODAY'S ROAD CONDITIONS AND TRAFFIC ARE
NO LESS THAN AN ADVENTURE!

SOME IN-PERSON INSIGHTS



EXPOSED TO ENVIRONMENT AND DANGER
CREATES A SENSE OF FEAR THAT GIVES THEM
ADRENALINE RUSH!

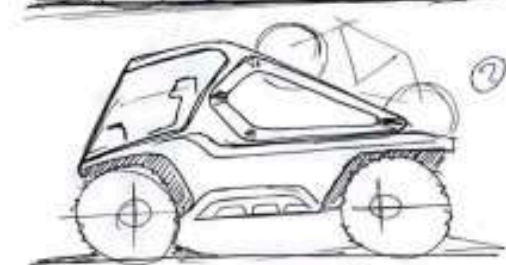
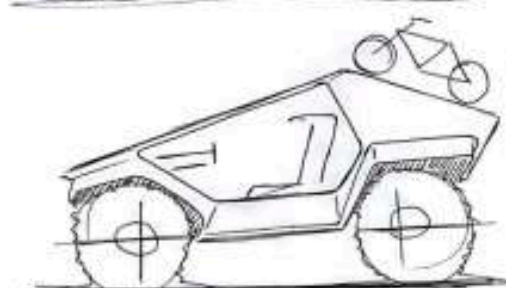
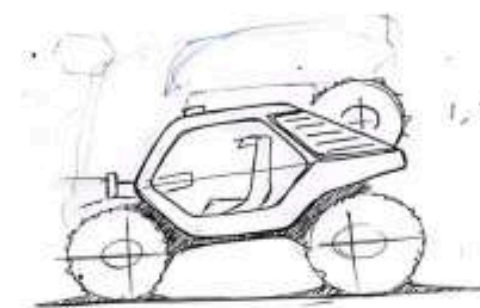
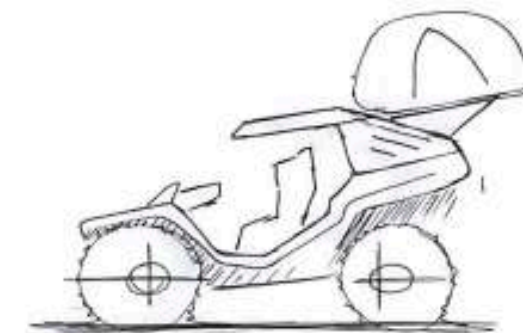
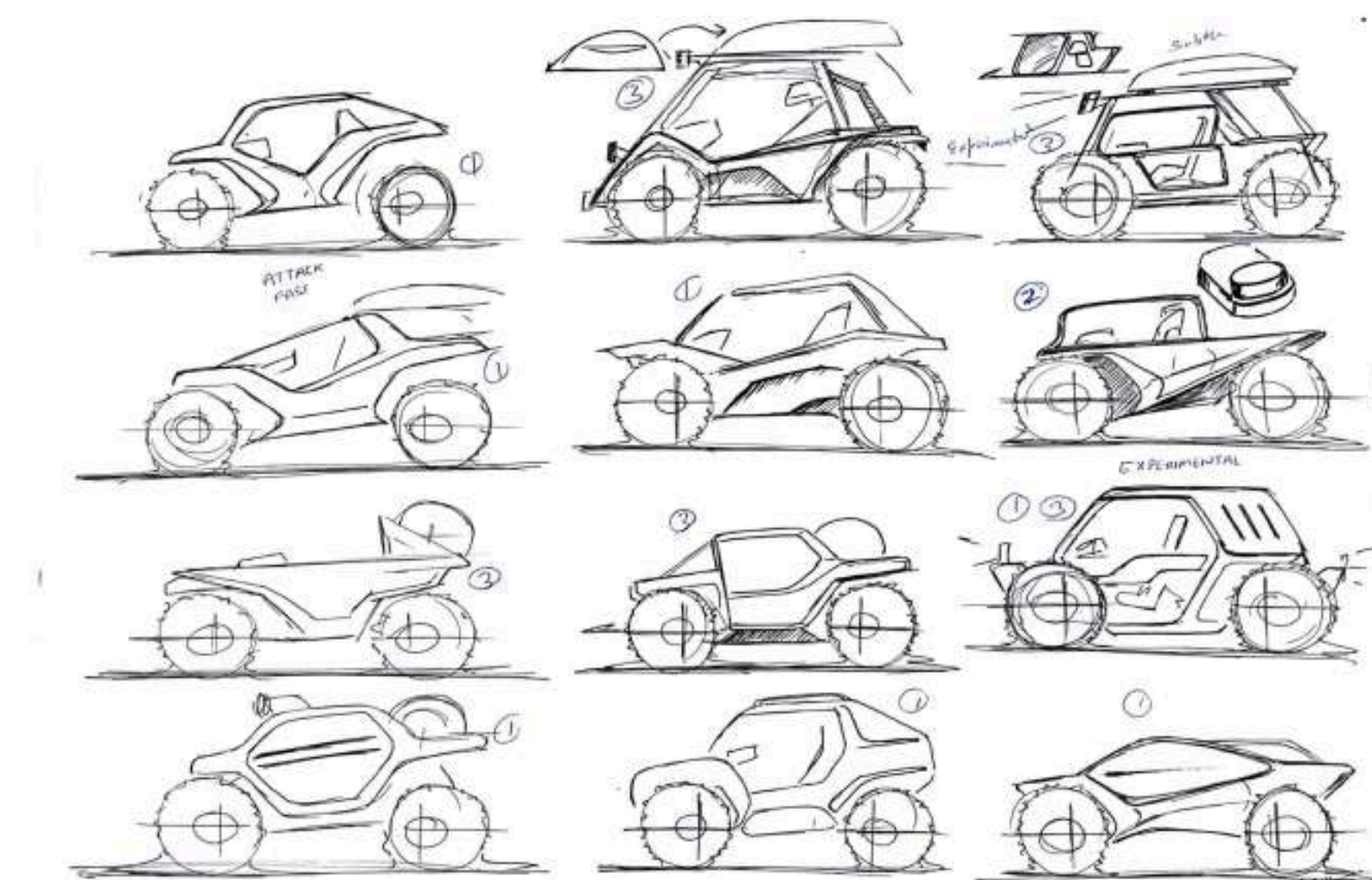


A TRUE ADVENTURE RIDER
DOESN'T JUST OWN A
BIKE-THEY NURTURE IT,
NAME IT, AND TRUST IT
LIKE FAMILY.

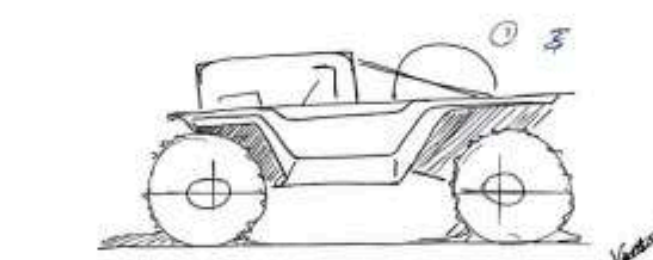
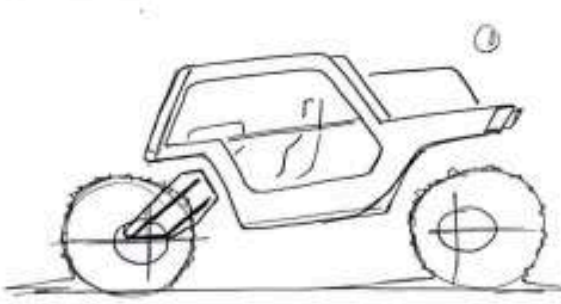
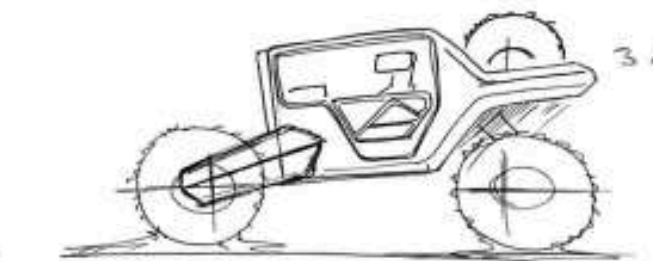
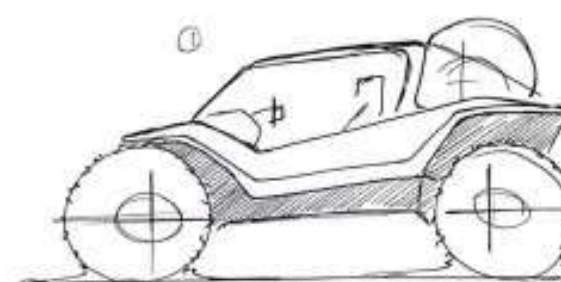
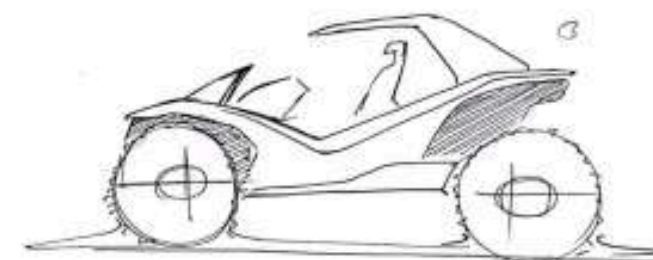
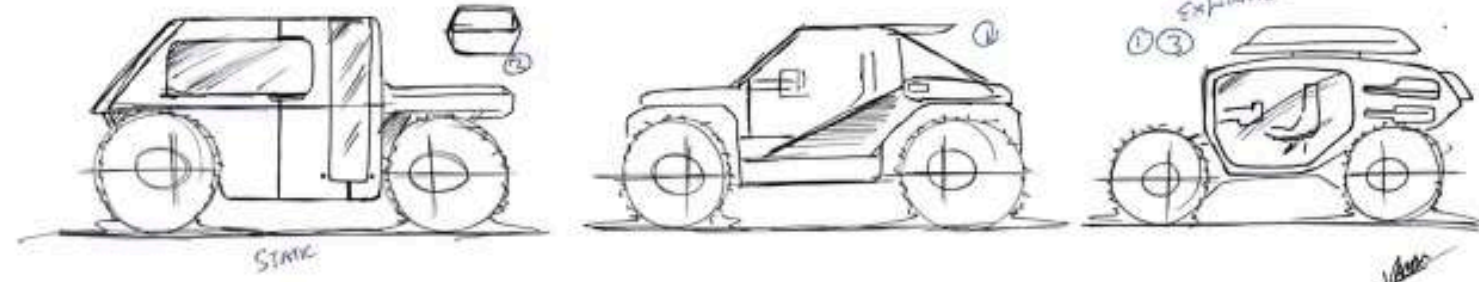
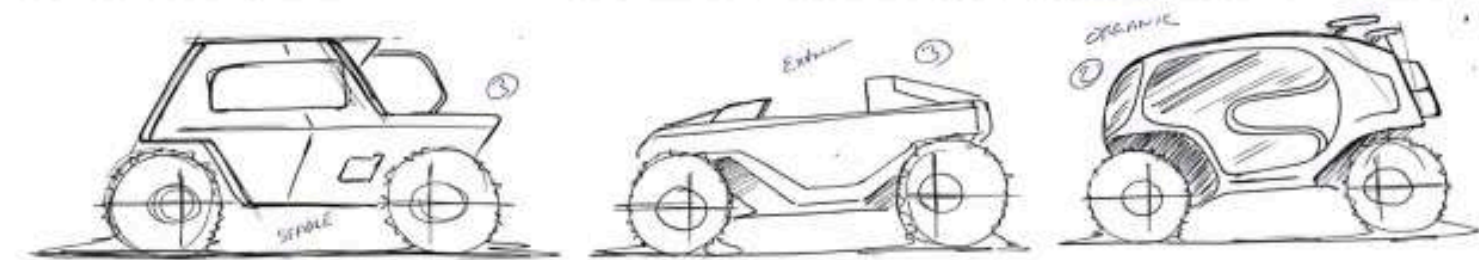
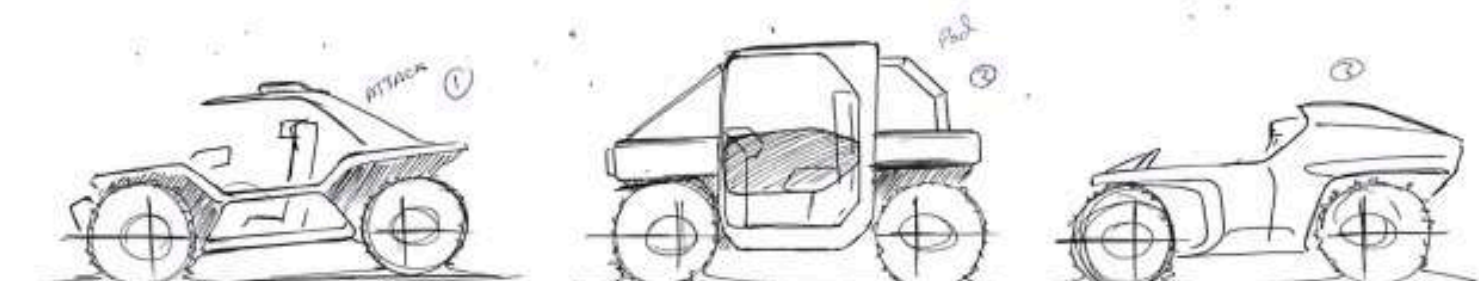
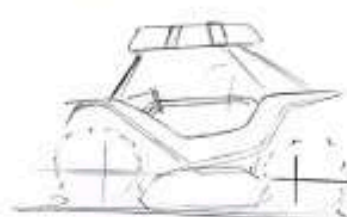
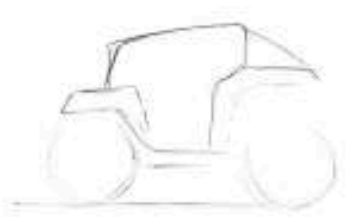
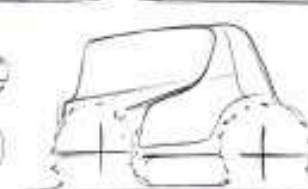
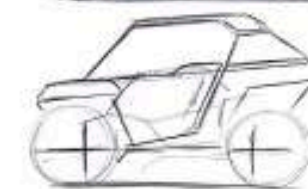
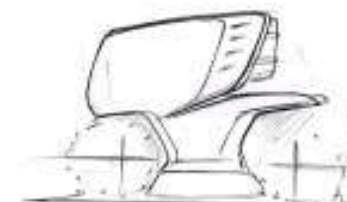
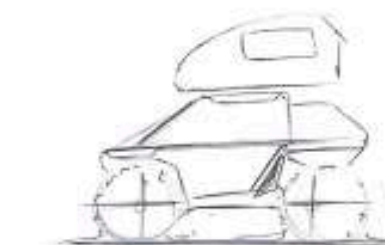


WE'RE REBELS AGAINST LIMITATIONS,
CHASING FREEDOM BEYOND THE
HORIZON

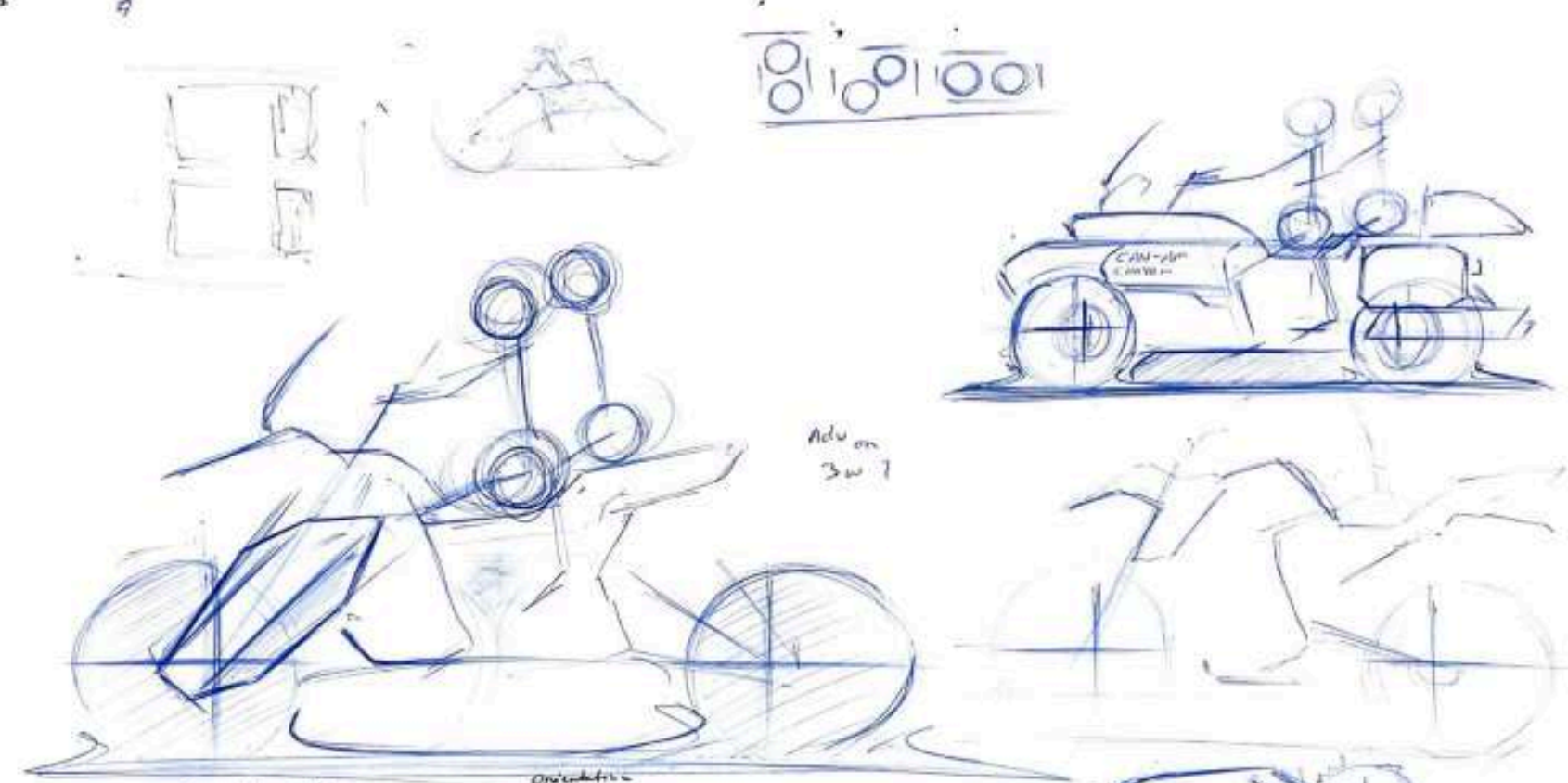
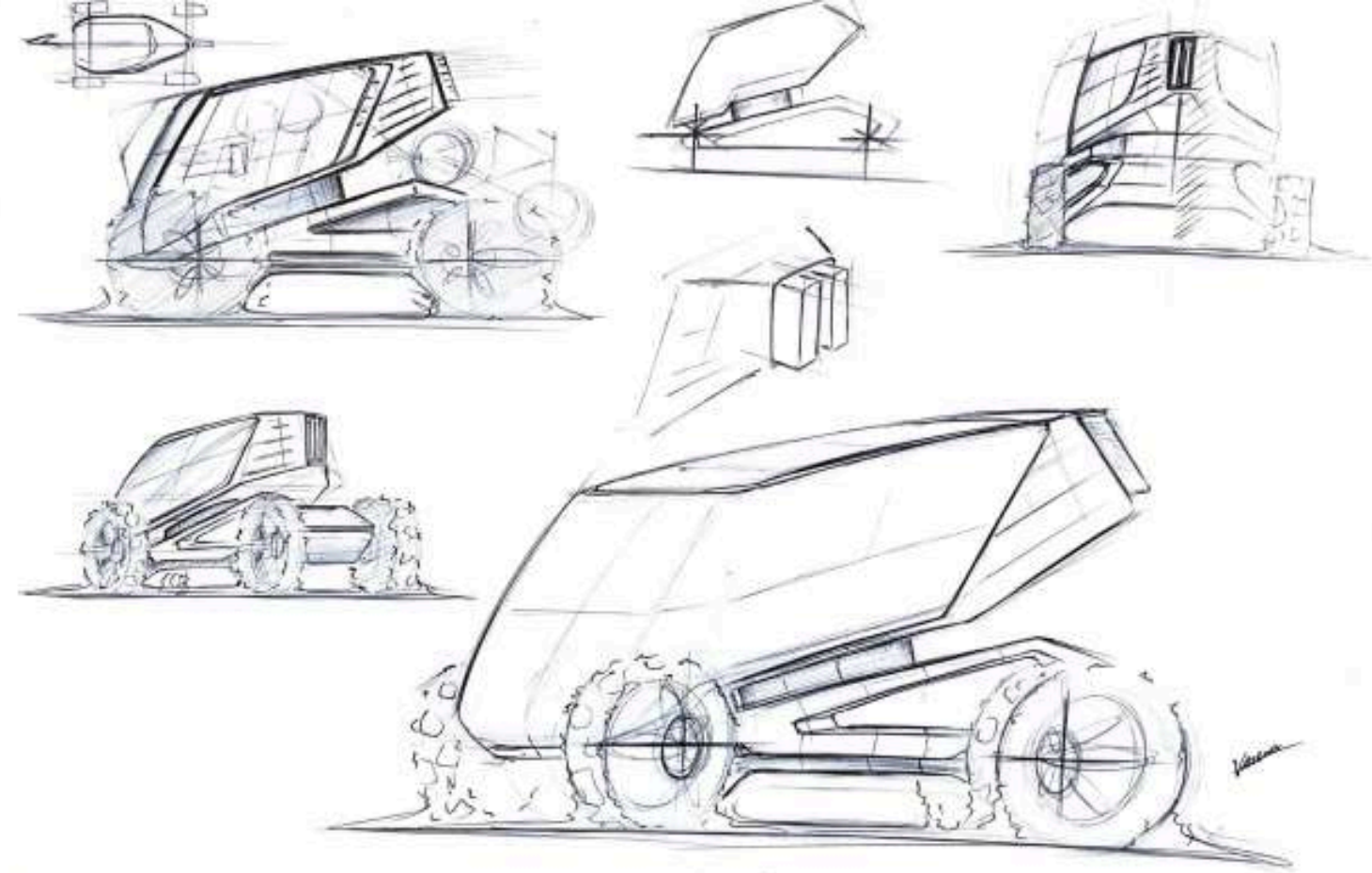
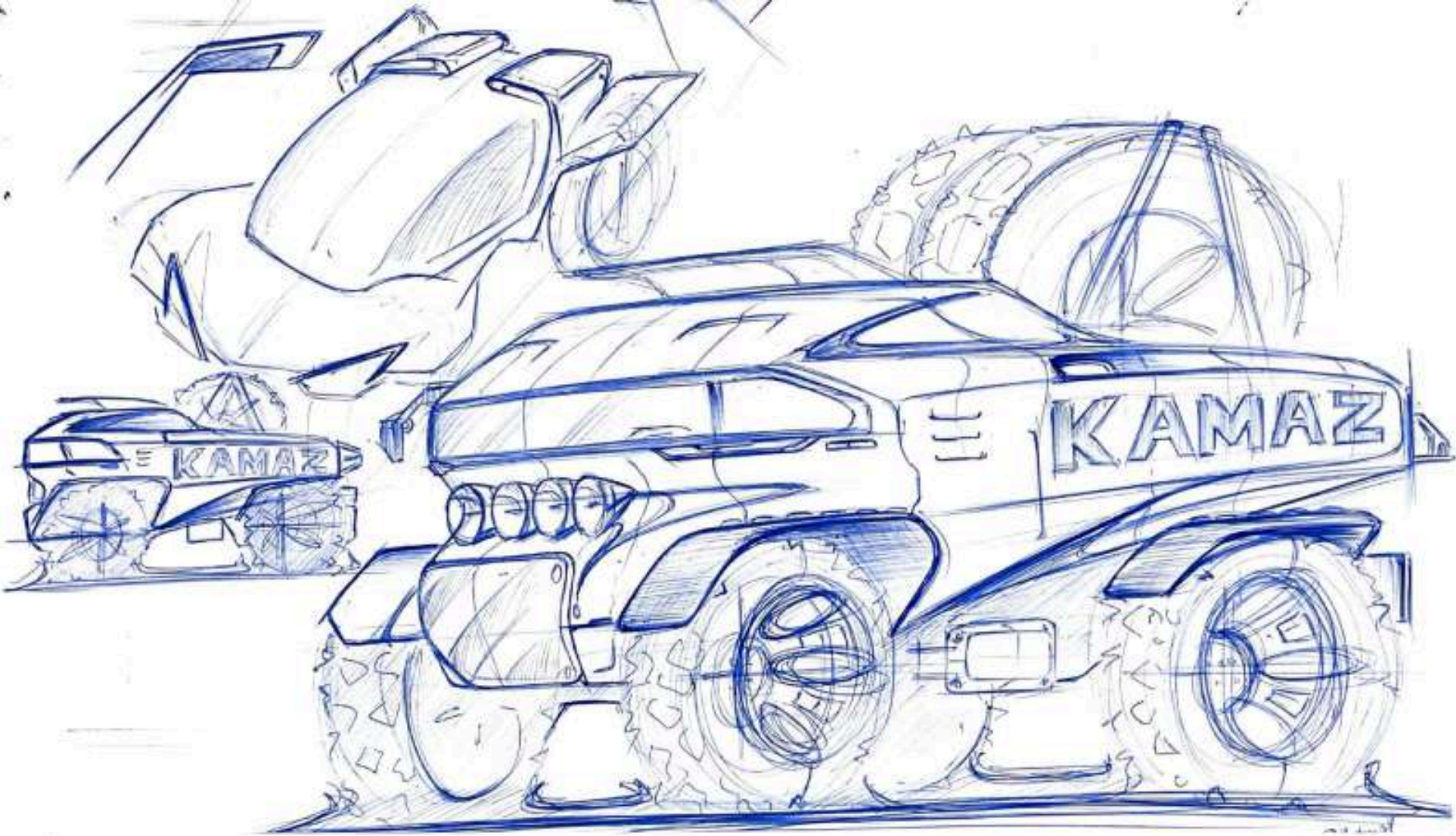
Quick Scribbles



form Chapter
for design

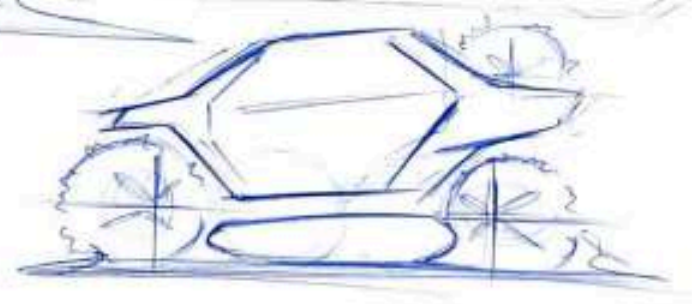


proportions
wheelbase
layout
form
stance

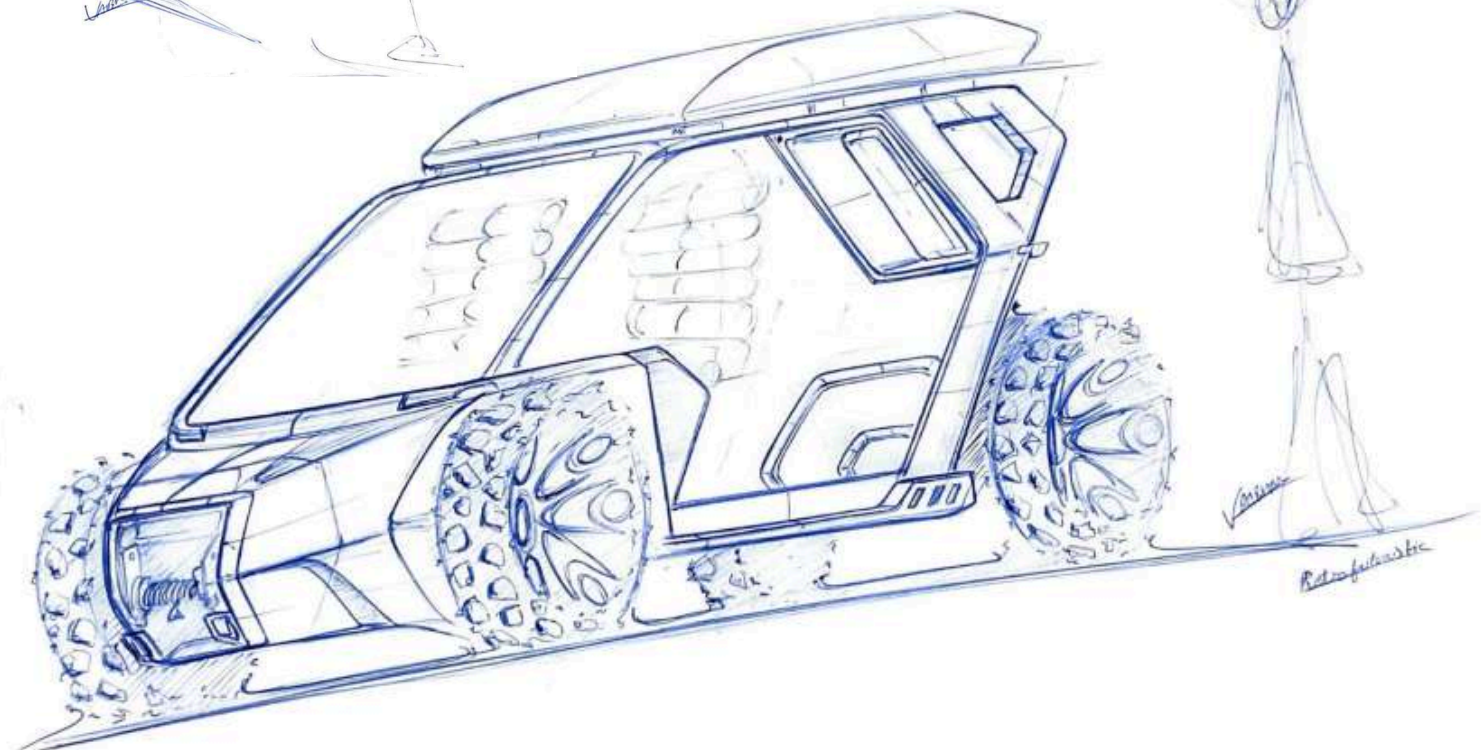
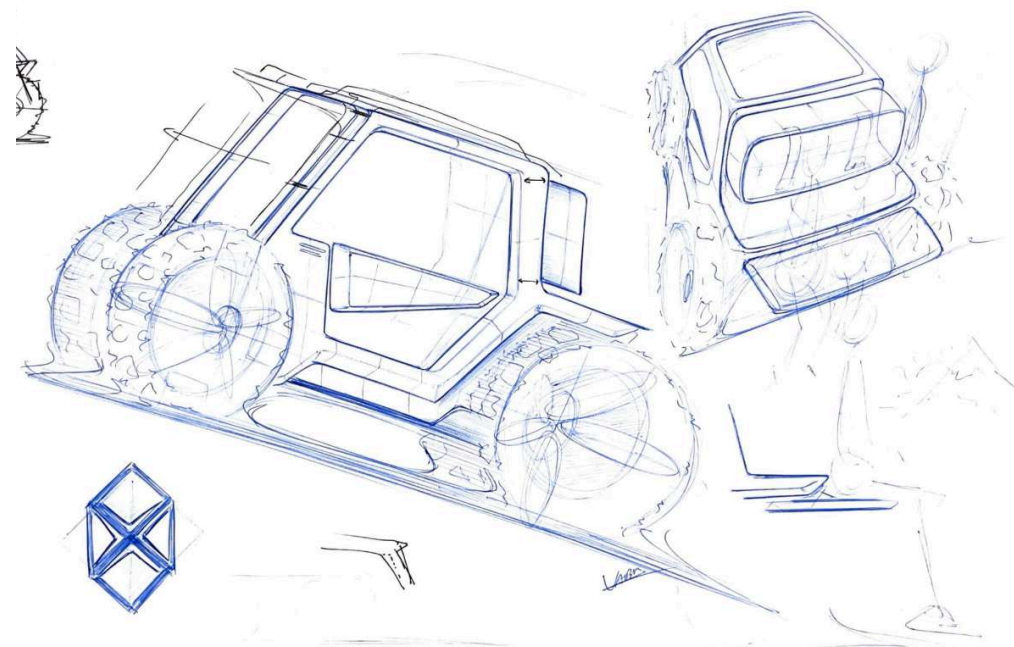
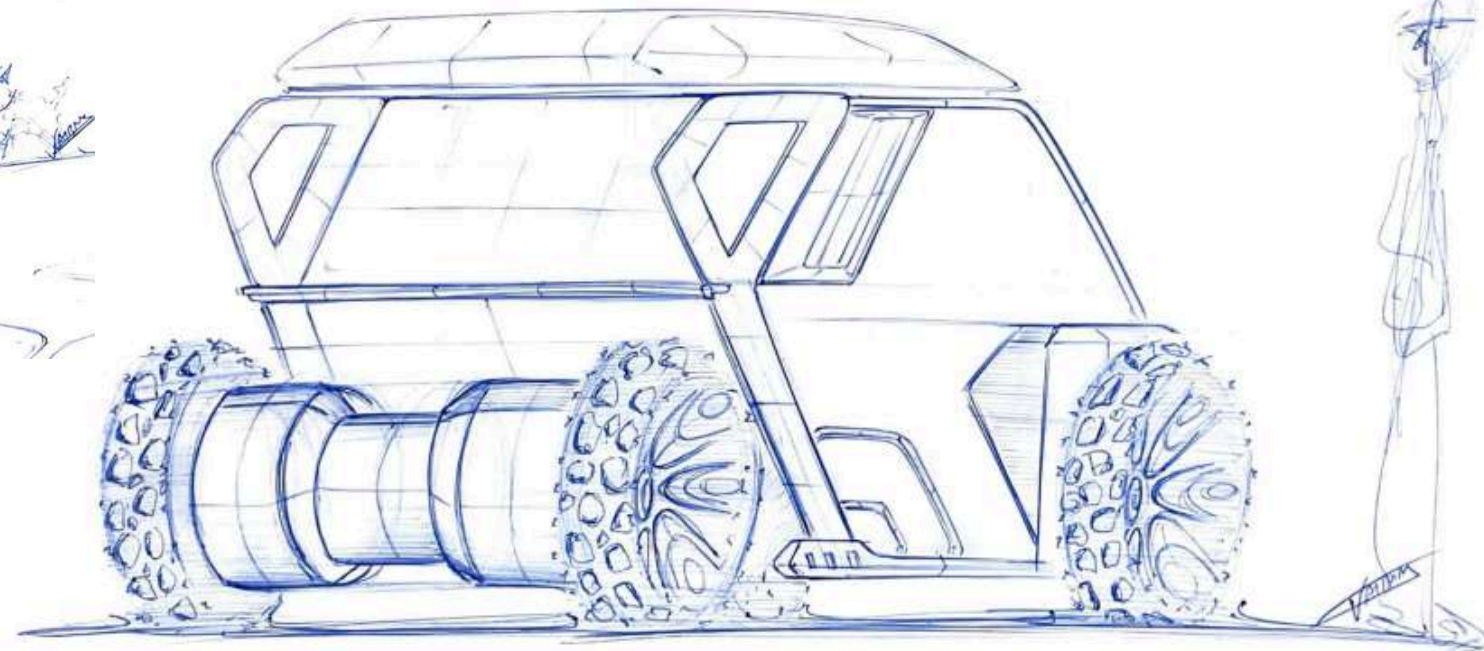
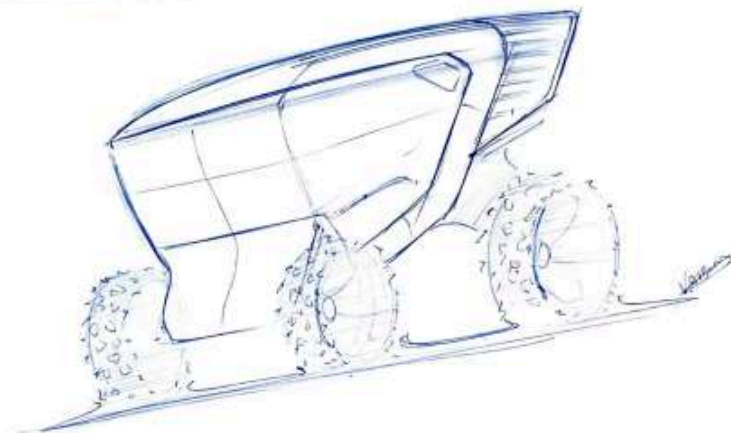
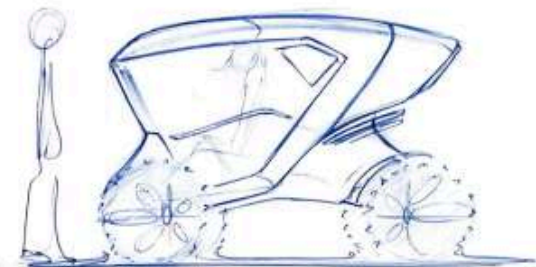
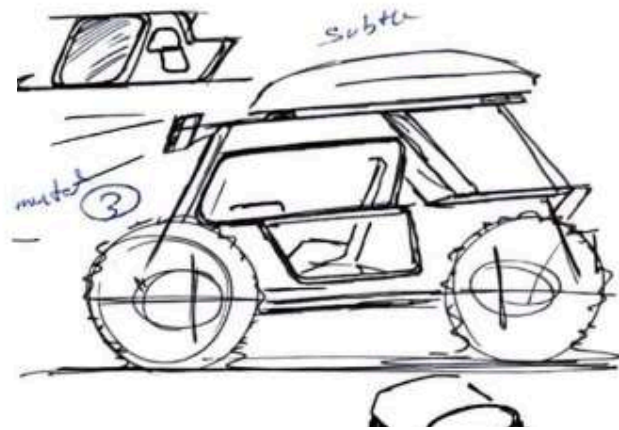
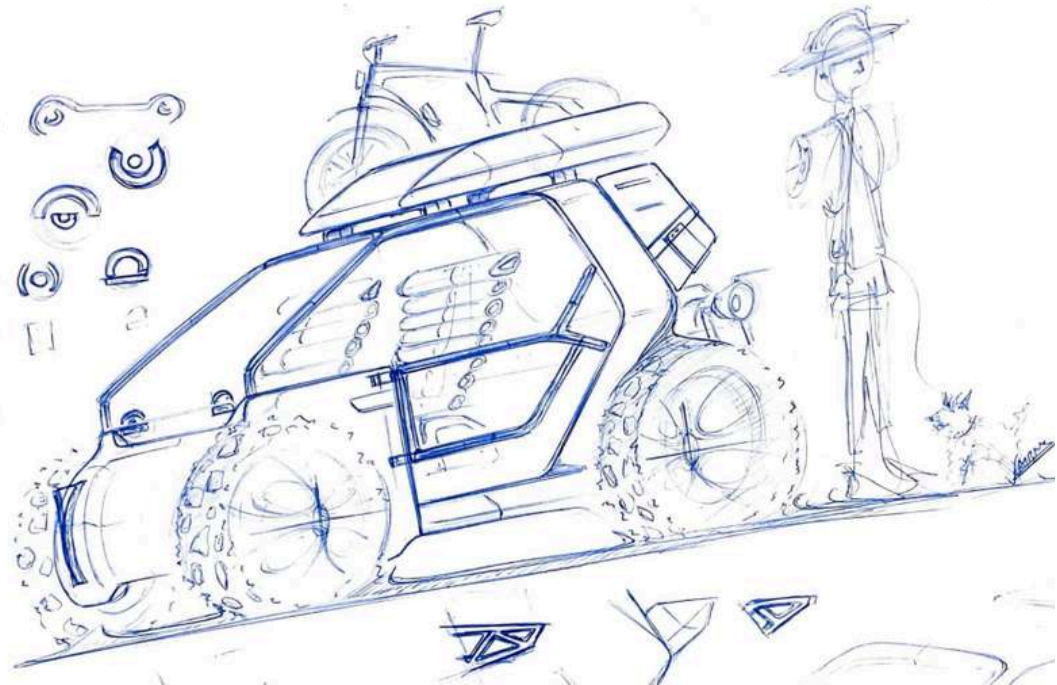
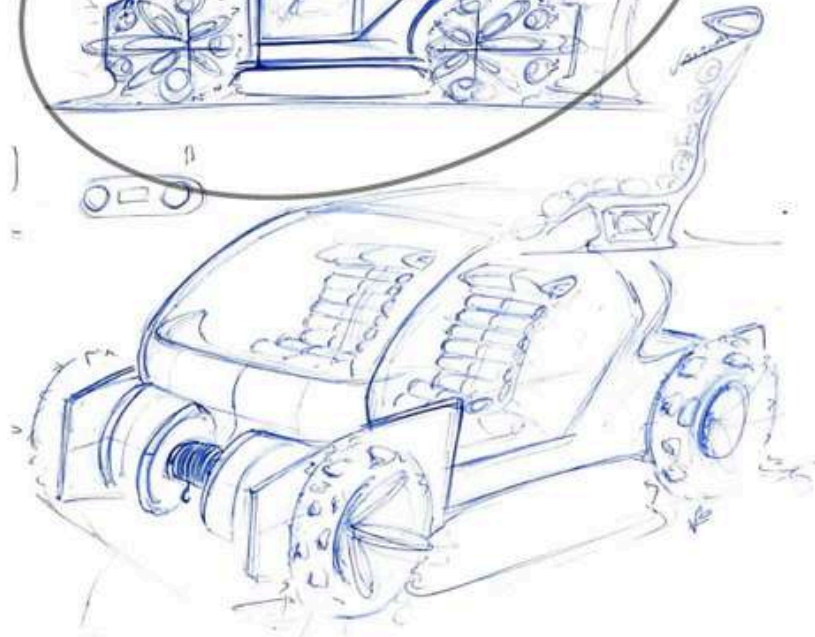
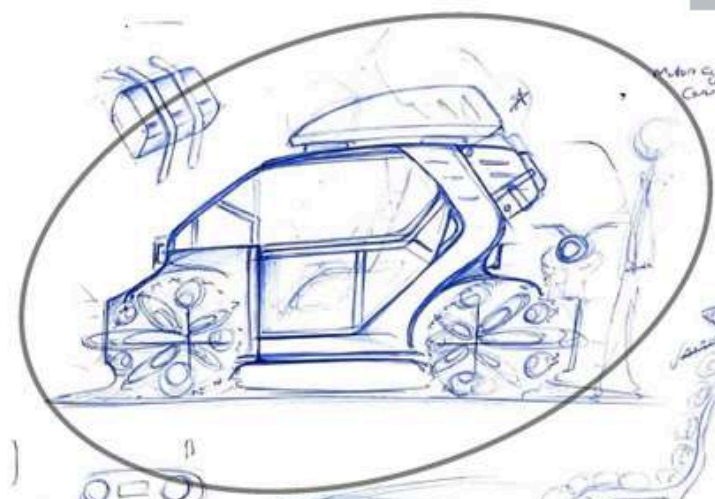


Internal volume more
 starts / adaption differ
 stable
 feeling of being safe
 & emotion of being safe
 - Roll cage / pillars
 -> Blending form / Craftsmen

Orientation
 stable
 category / perform / function
 organic structure
 which
 something to wear
 for tanks
 vehicle needed test

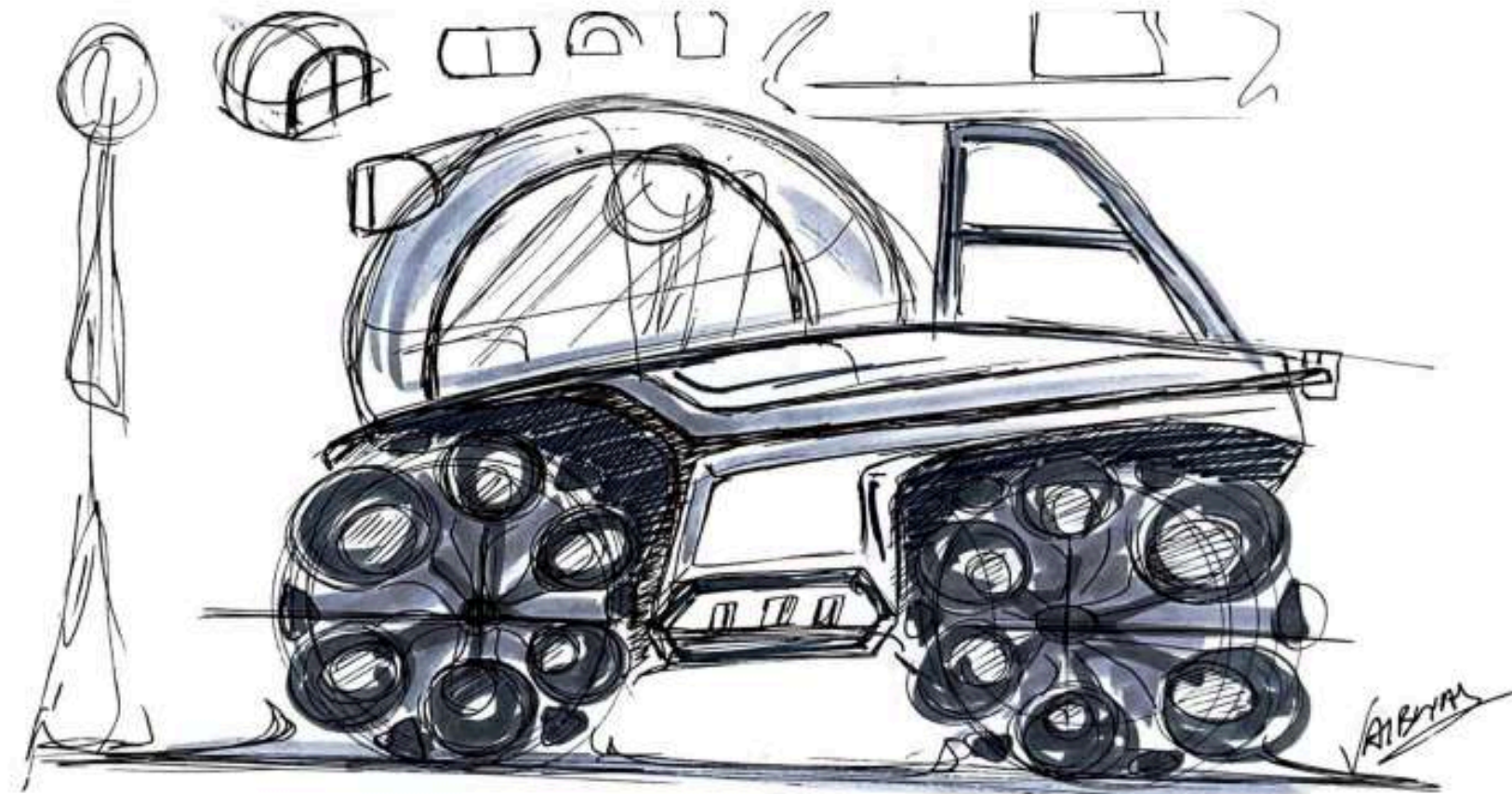
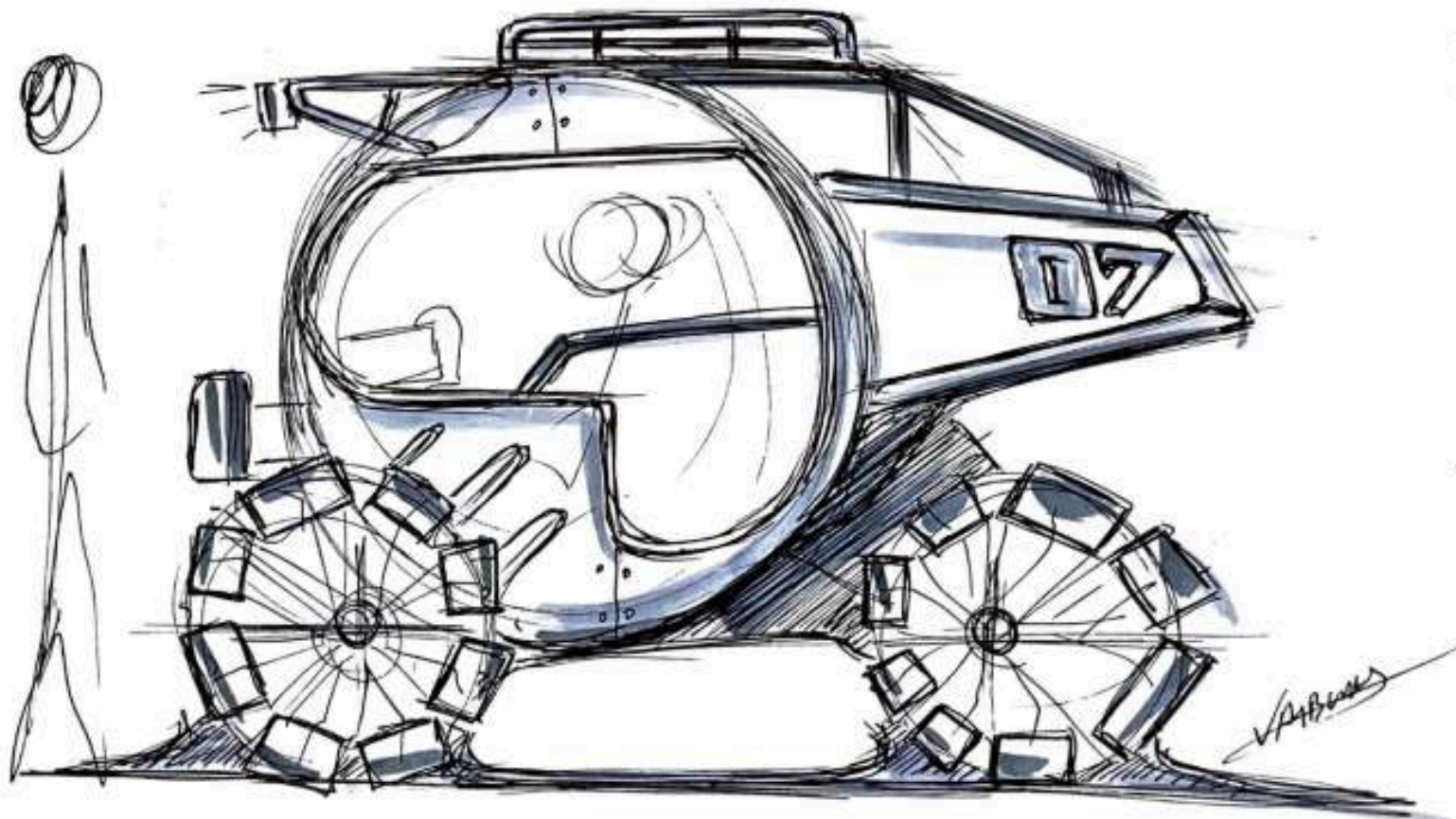
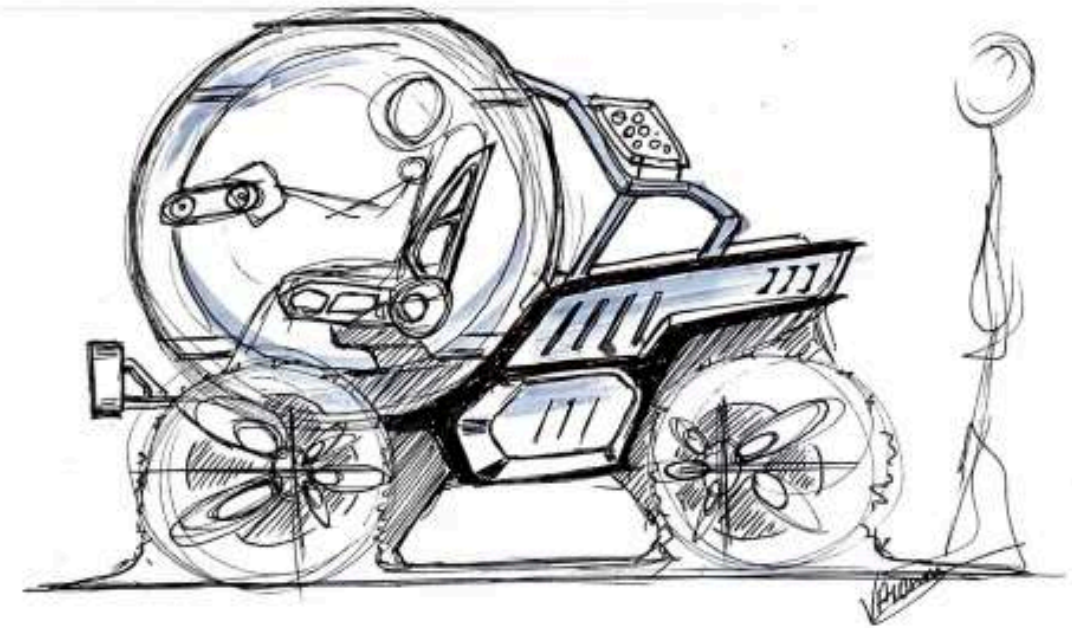
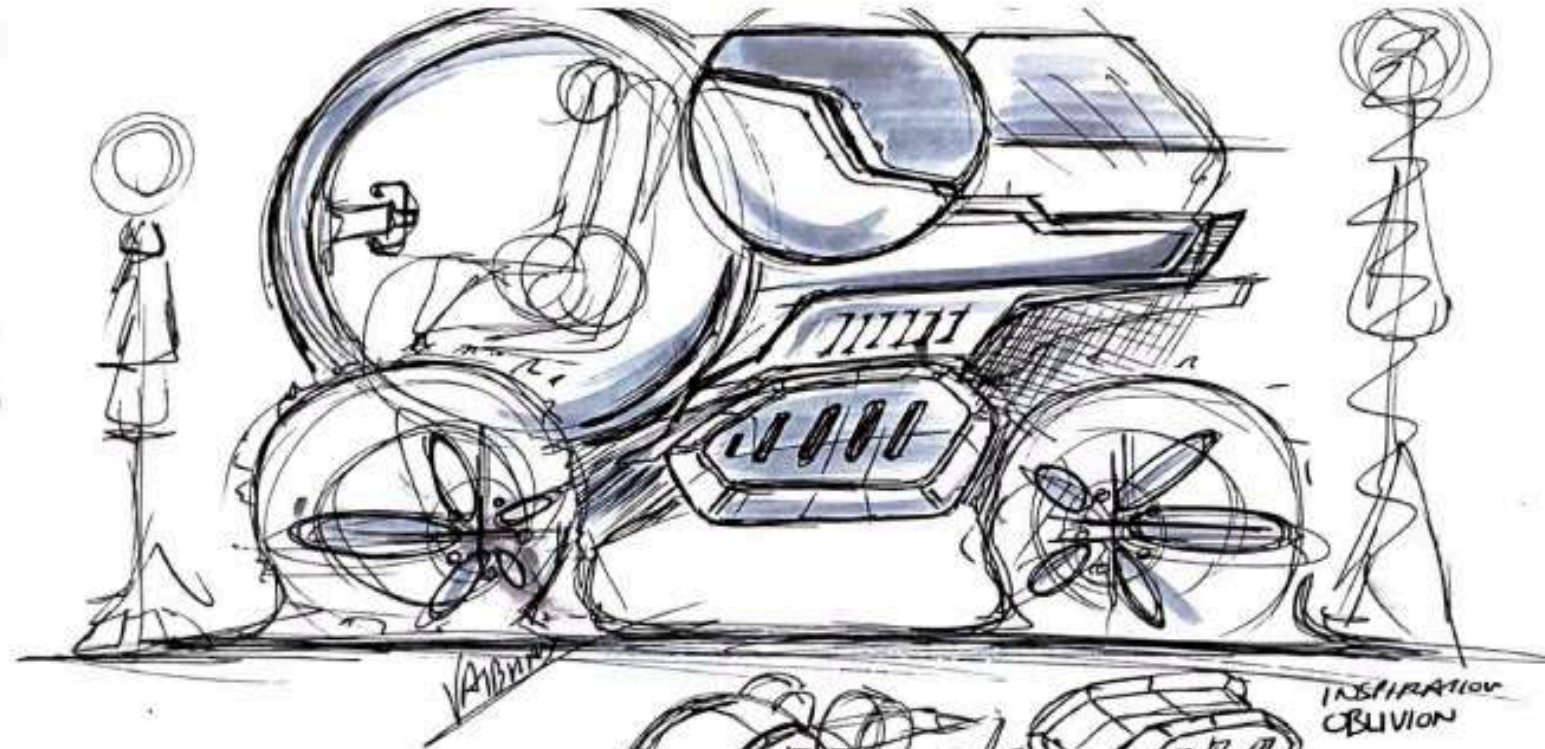
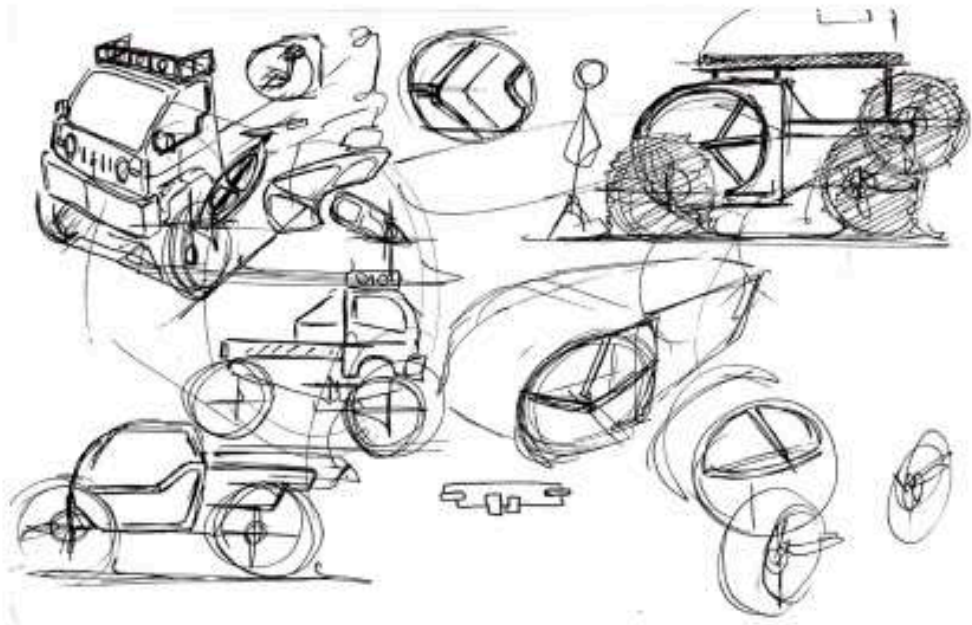


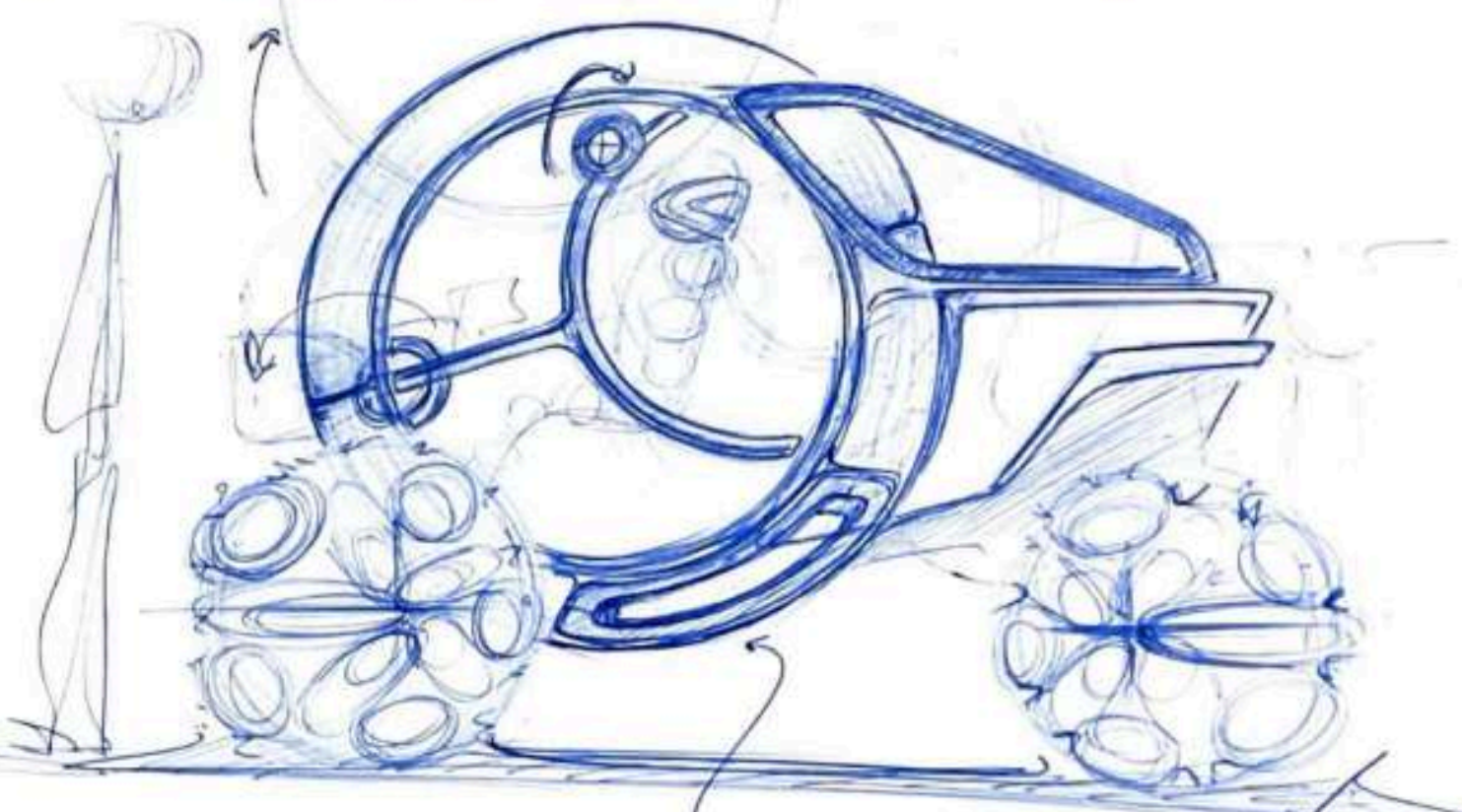
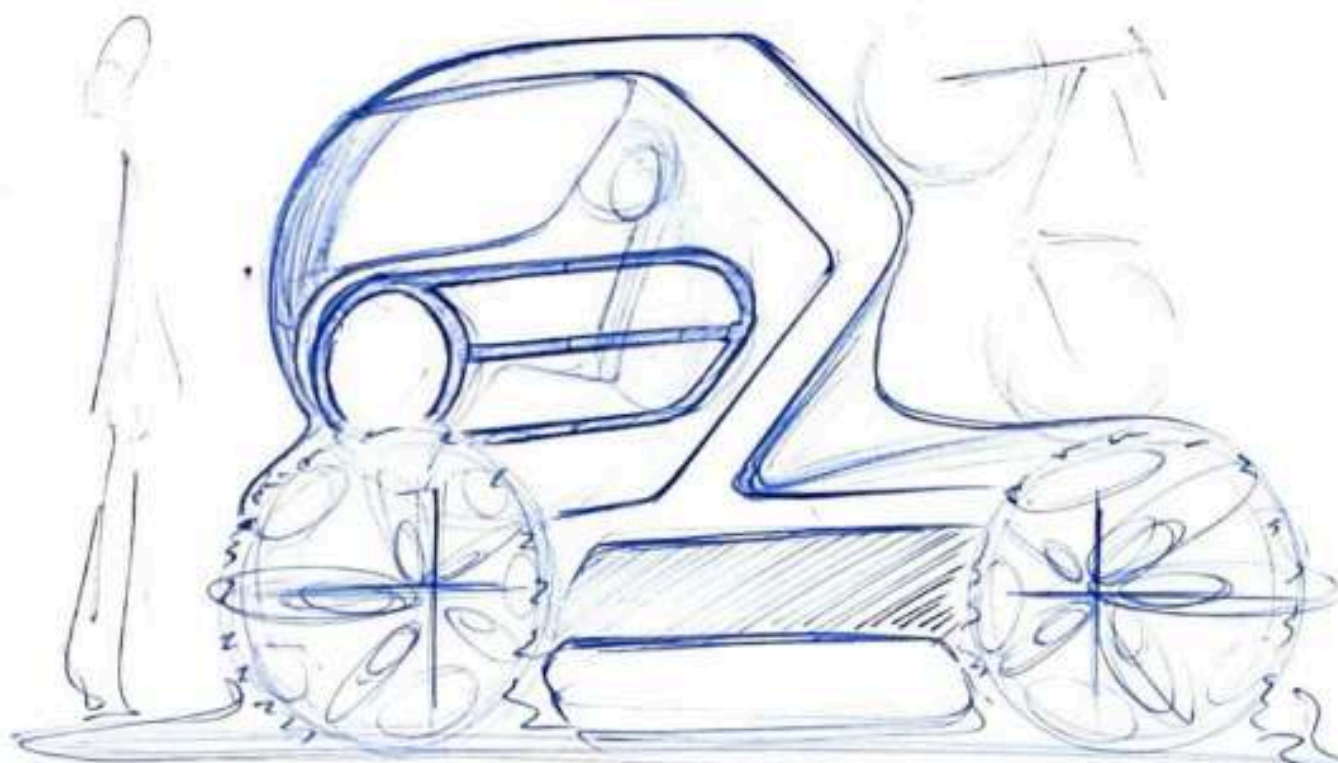
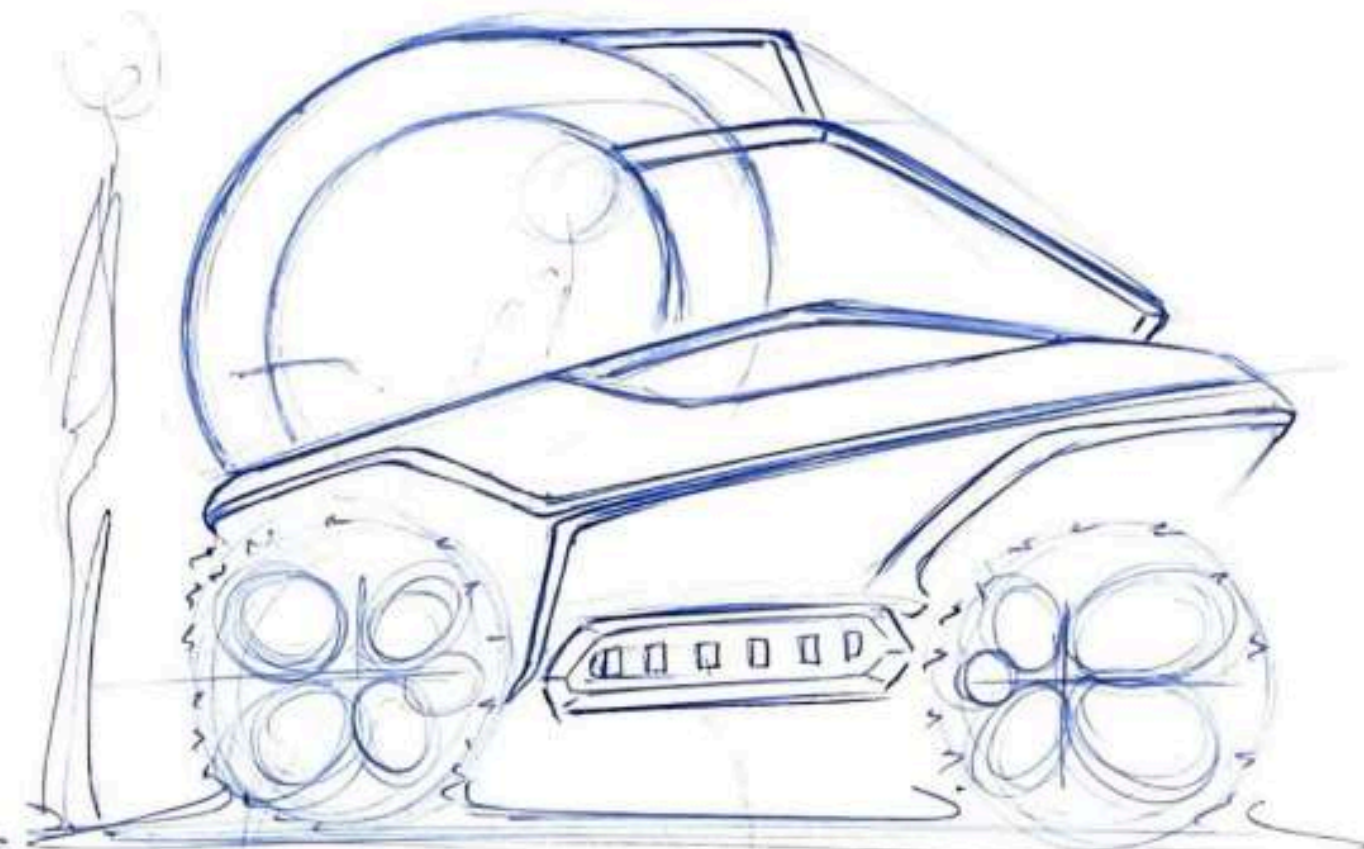
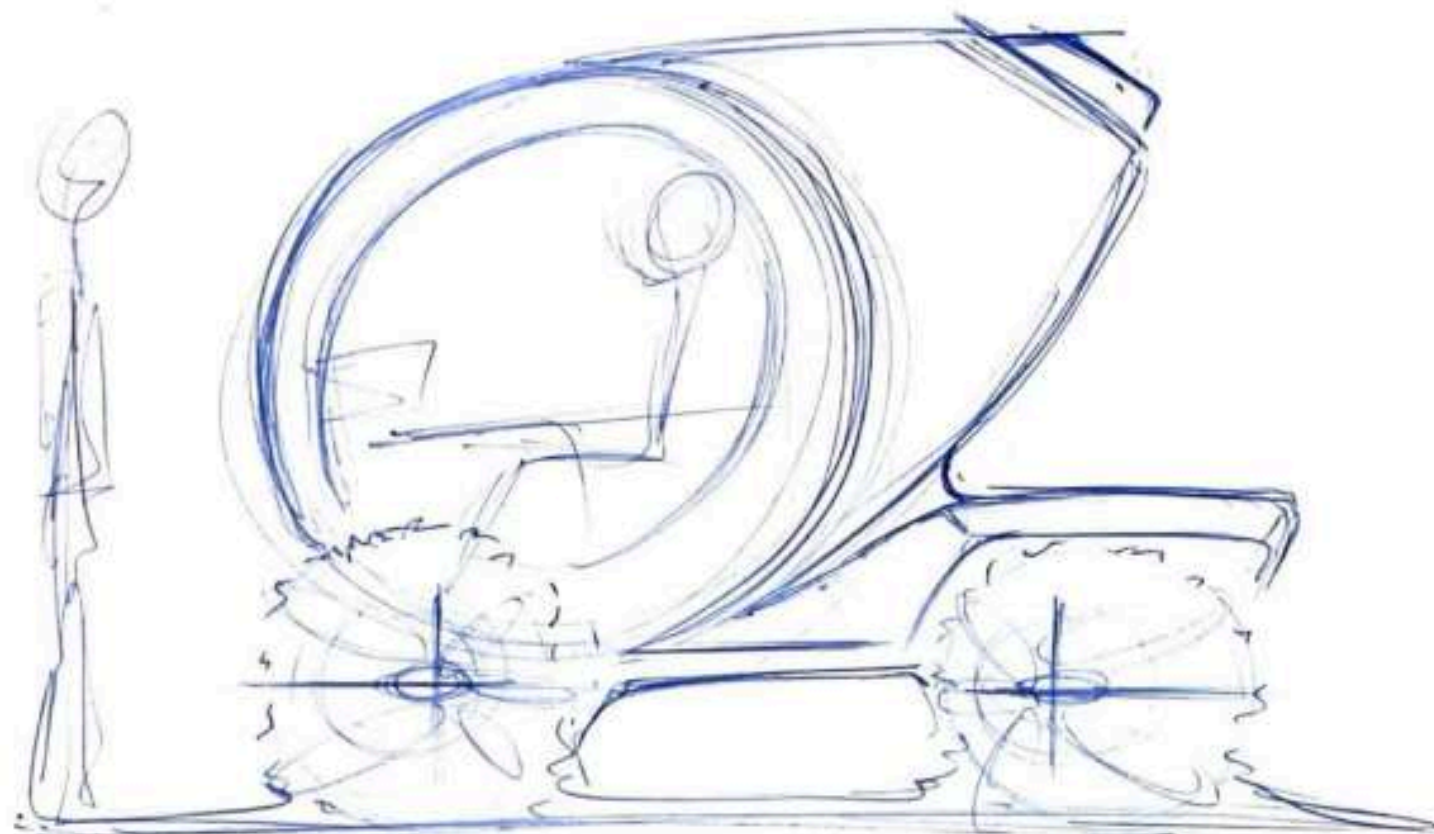
D-01



C-01

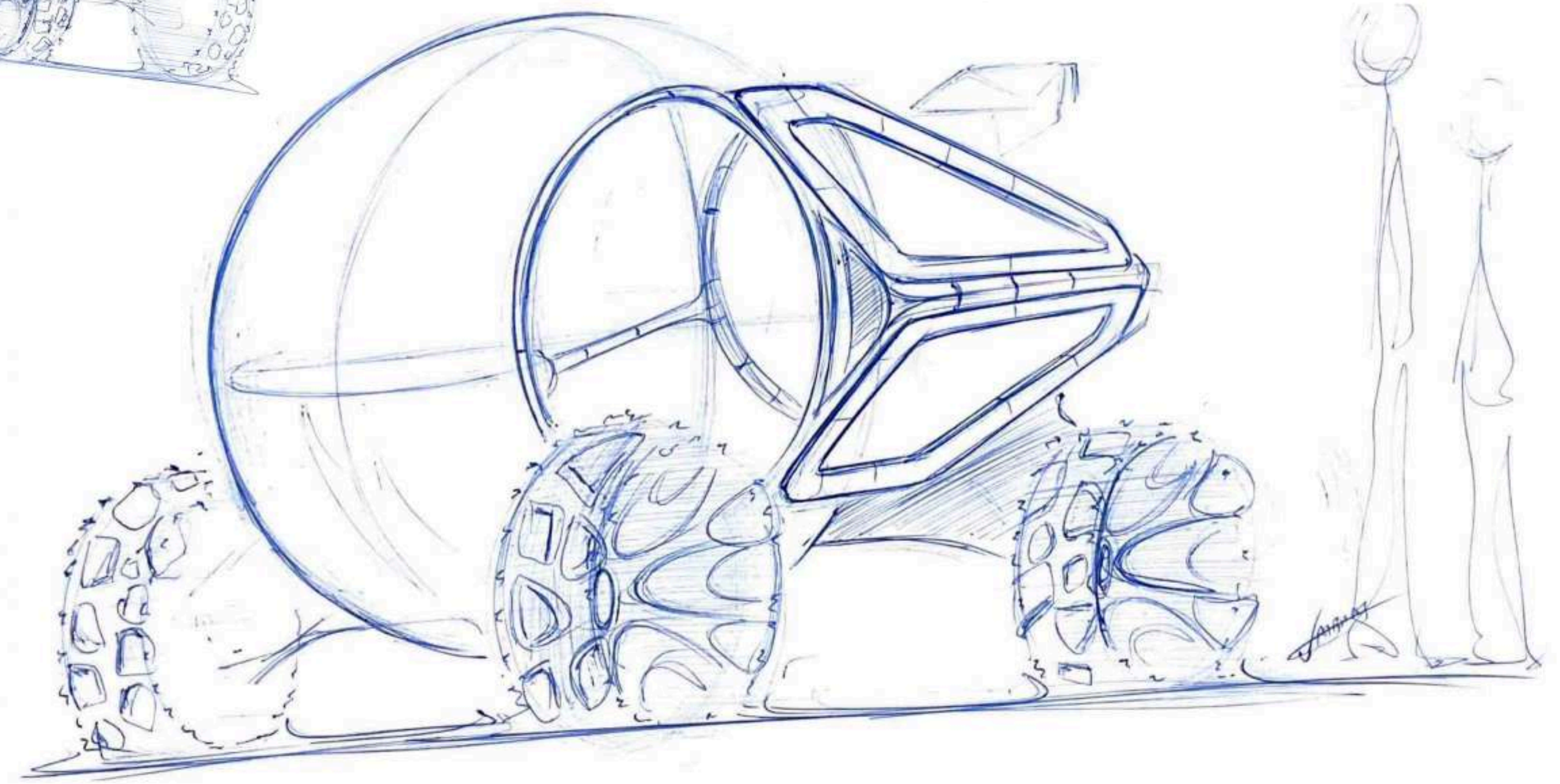
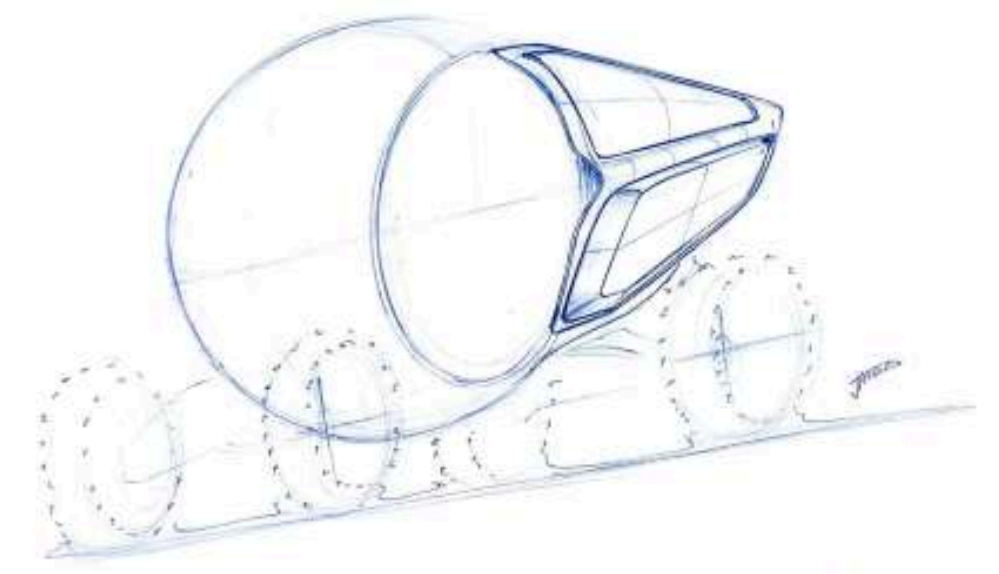
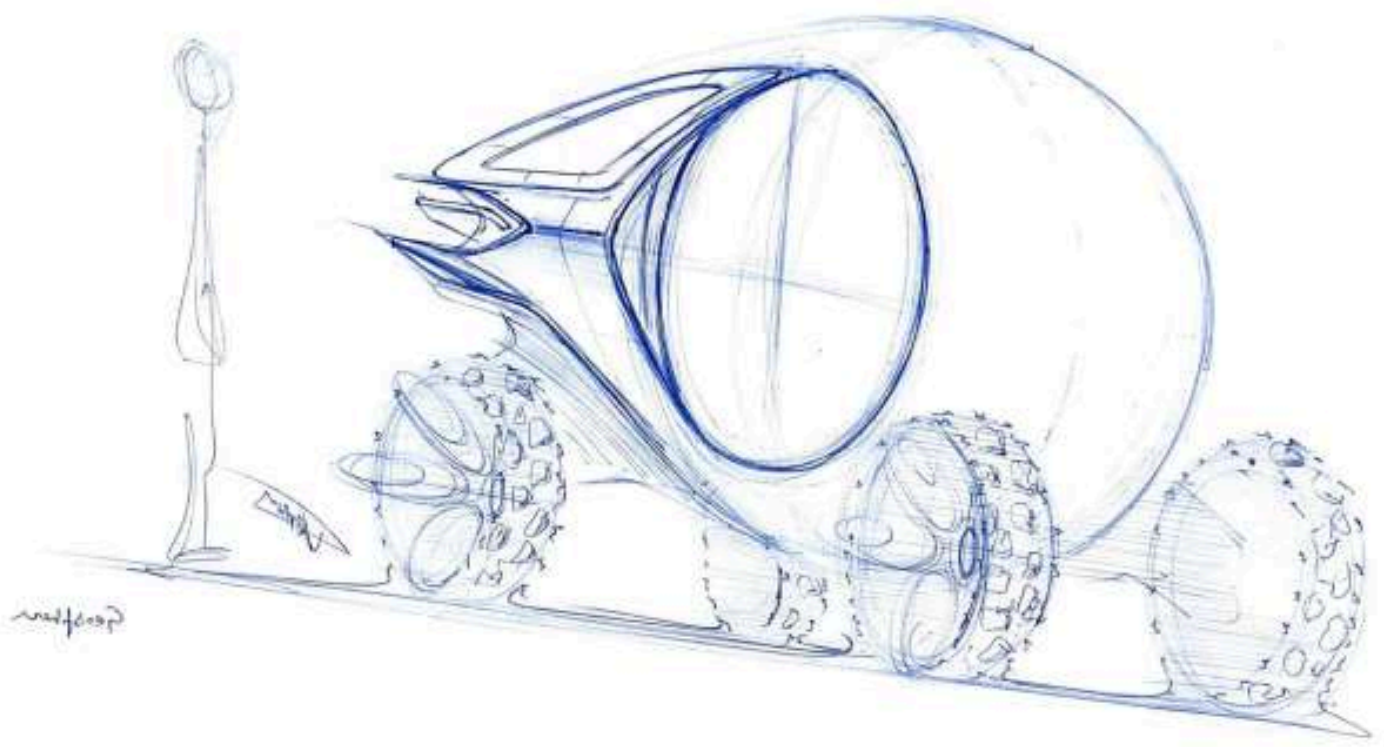
Potential to explore

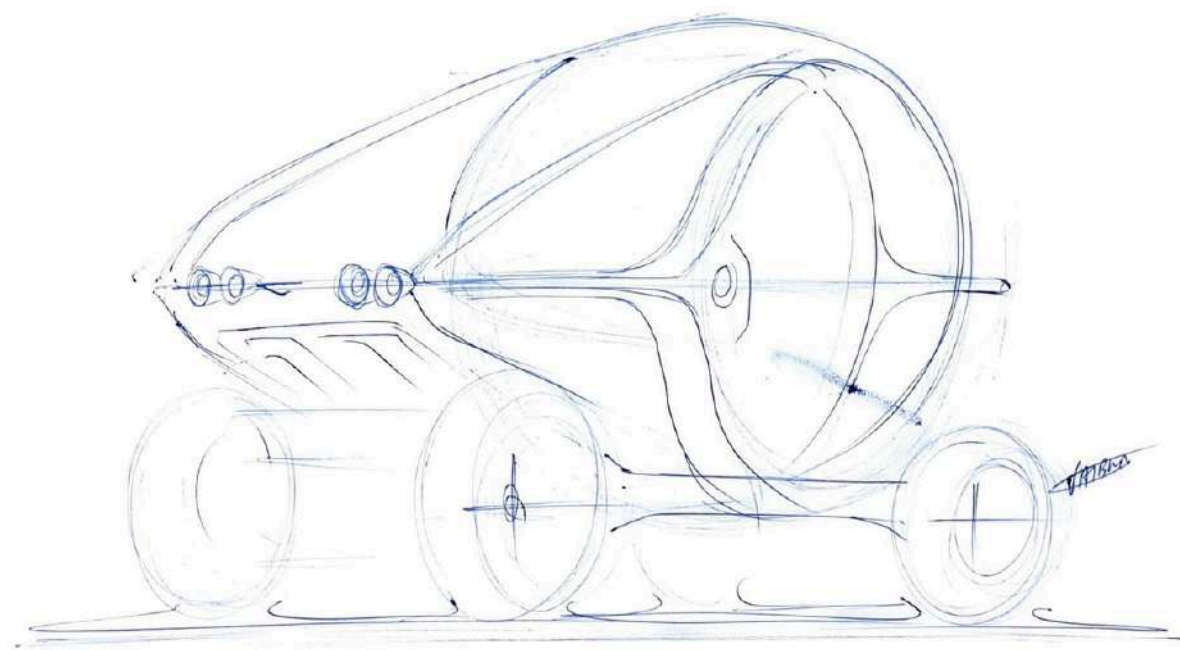




Rotating Cockpit

Vasquez



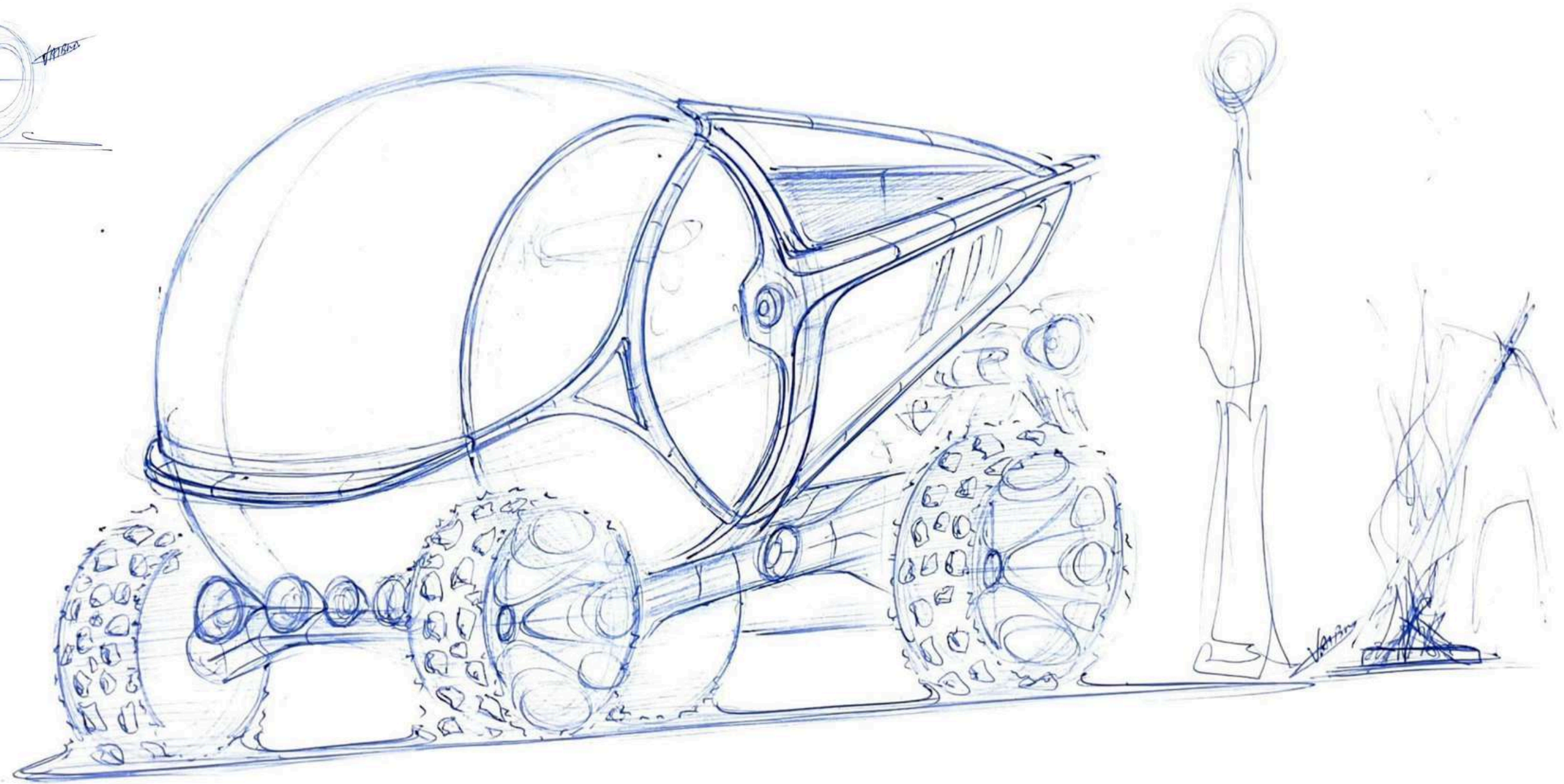


Gyrosphere ship,

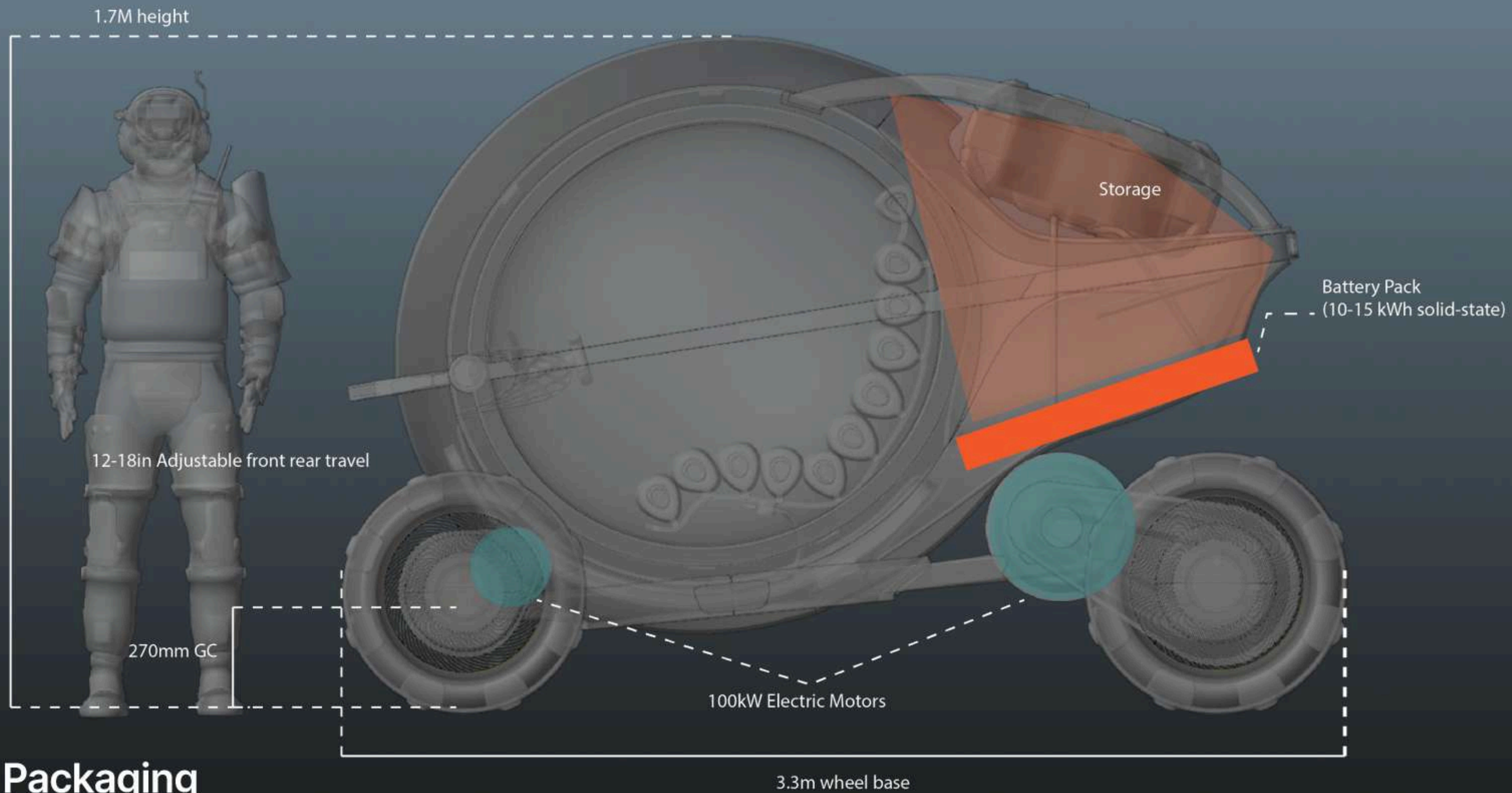
This form maximises the experience
Safety by the exoskeleton.

The design features a bold design
direction that is ready to tackle any
sort of challenge while still being
capable of use in Day-to-Day life.

The footprint of the car is kept small
yet spacious enough to house two
people with all their essentials,
including travel gear and camping
gear, all in on.



KEY CONCEPT



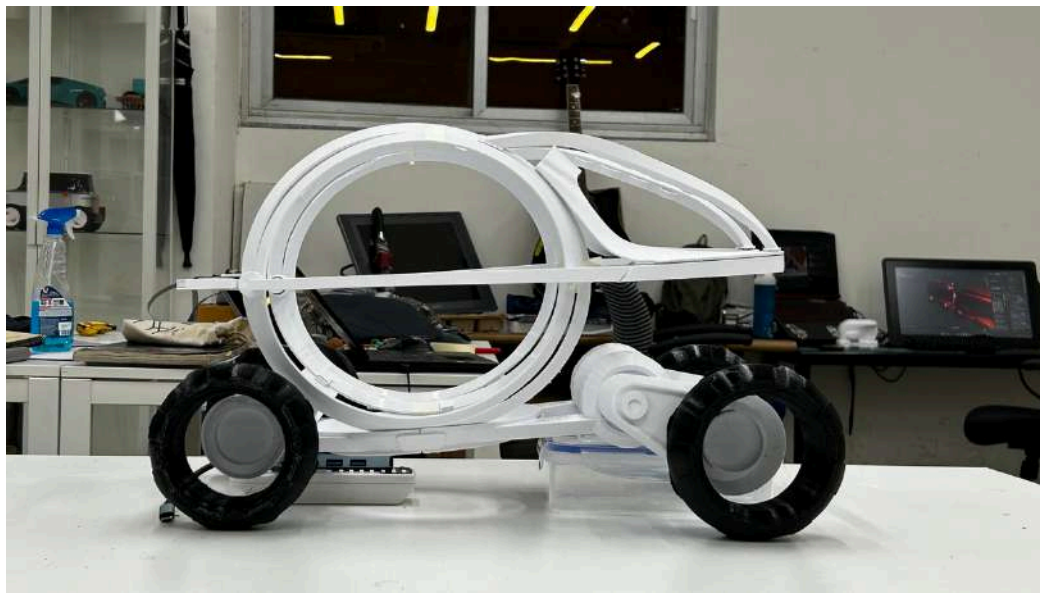
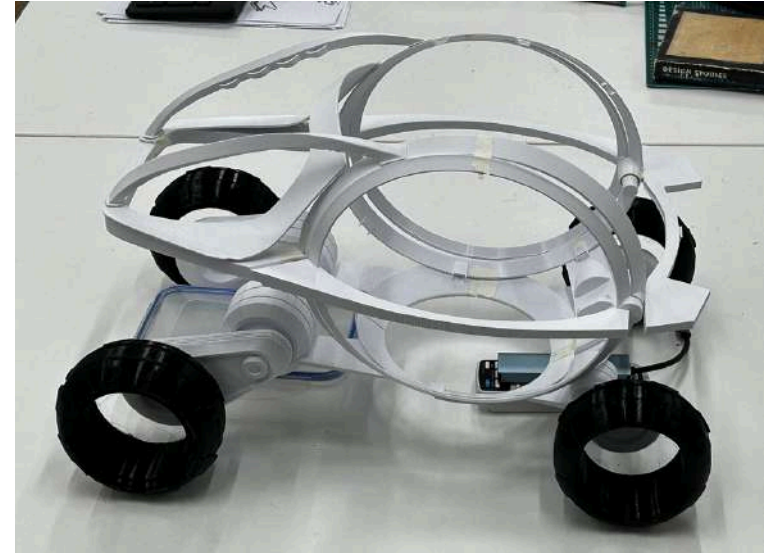
Final Renders











PROTOTYPING





Thank you



02

**COCKPIT
INTERIOR DESIGN**



DESIGN BRIEF

Objective

The primary objective of this project is to **design and implement a state of the art and aesthetically enhanced cockpit for the Advanced Medium Combat Aircraft (AMCA)** that integrates **next generation technology along with ergonomic design principles** to **enhance Pilot performance** and comfort, and reduce cognitive load and fatigue.

Approach

Small Changes for Big Impacts. Apply component level changes as an aircraft already is modular and working at smaller levels is more suitable for a cluster of components.

OVERVIEW

Current Advancements

The Current 4.5th & 5th generation fighter jets are defined by stealth, advanced sensors, and network-centric capabilities. These aircraft, like the US' F-22, F-35, China's J-20, and Russian Su-57, prioritize low observability and integrated systems for enhanced situational awareness and combat effectiveness.

The Next Generation Fighters

The concept of sixth-generation fighter jets emerged in the late 2000s as fifth-generation fighters like the F-22 and F-35 entered service, aiming to push the boundaries of aerial warfare technology even further. Various nations initiated research and development programs for sixth-generation fighters, aiming to achieve operational status by the 2030s.



Concept Development

Creation of Image Boards that captures the aspirations of the Pilots.

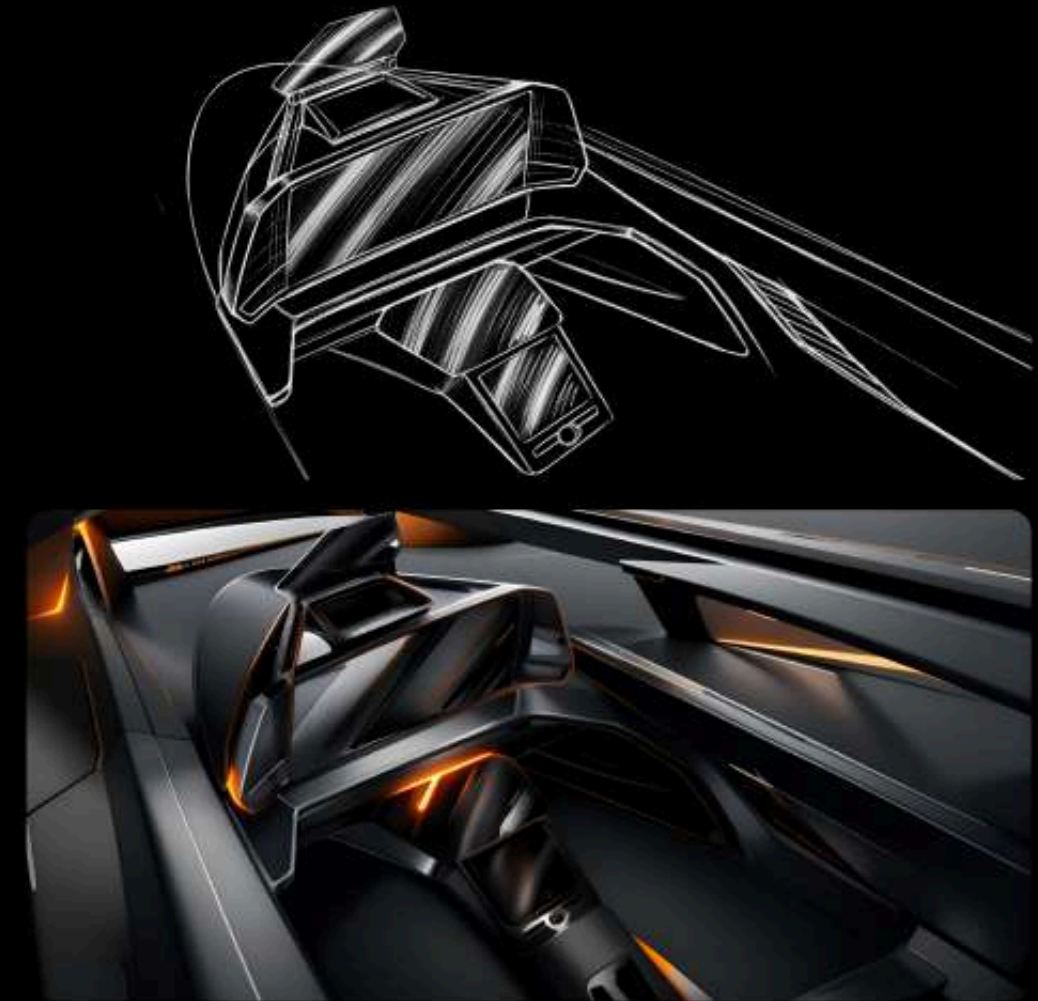
Creative ideation by large number of ideation sketches, (manual/digital) & renderings.

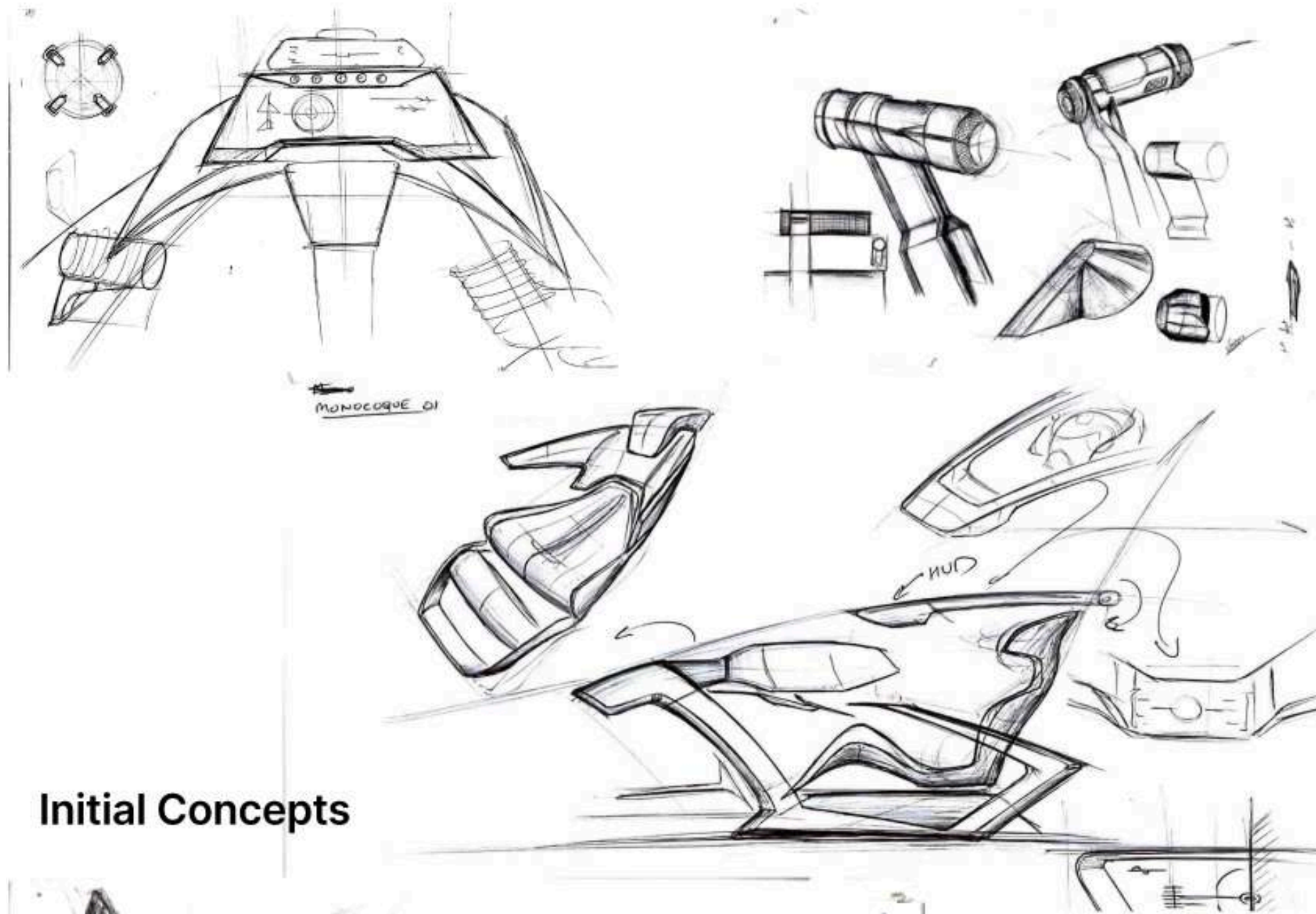
Faired up Concept renders of the selected key concept sketch based on the feedback from pilots and the team.

3-4 Thematic renders that broadly highlight the shape, form color, and aesthetics of the cockpit. This stage will set the ground work for Virtual Mock-Ups.

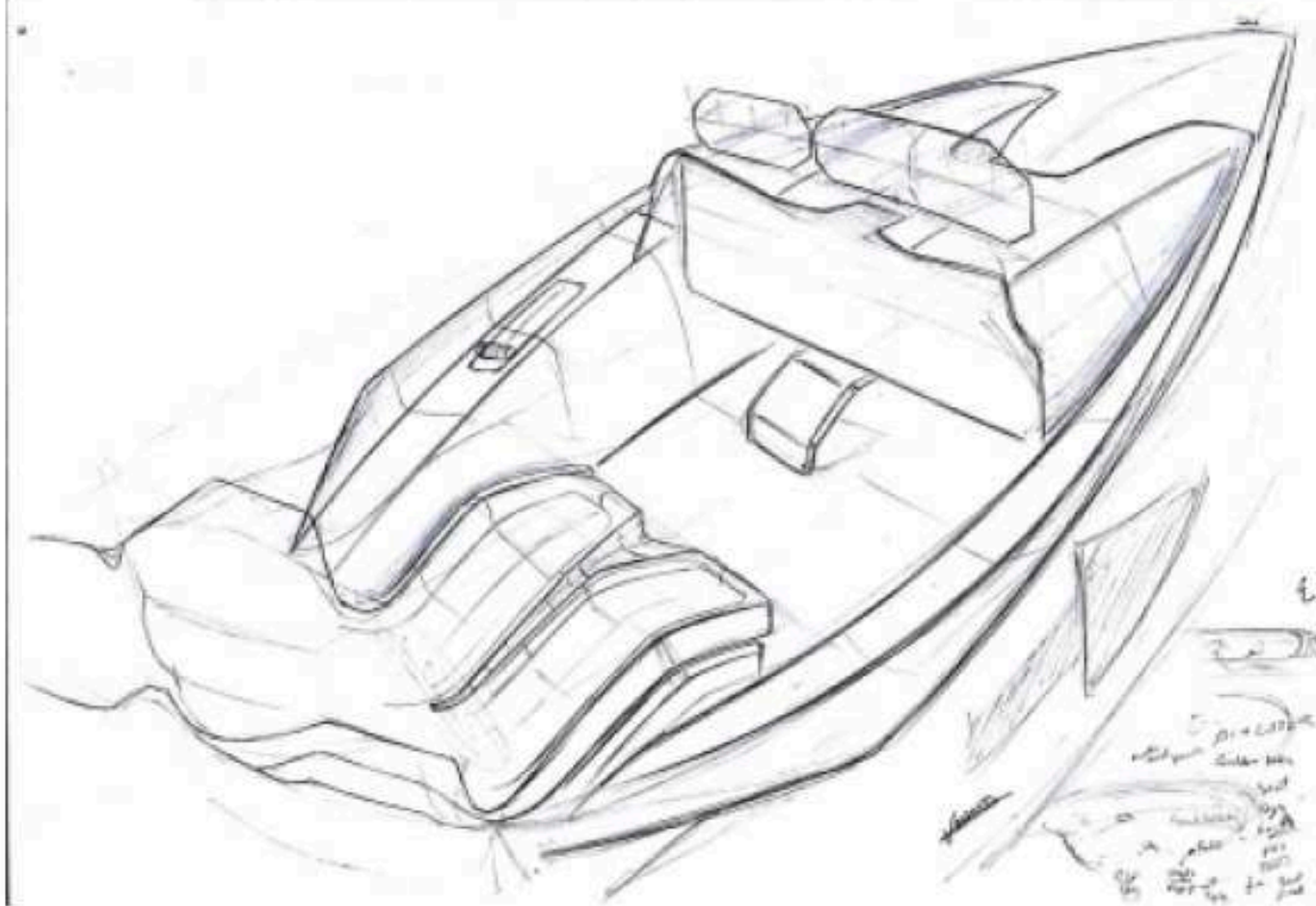
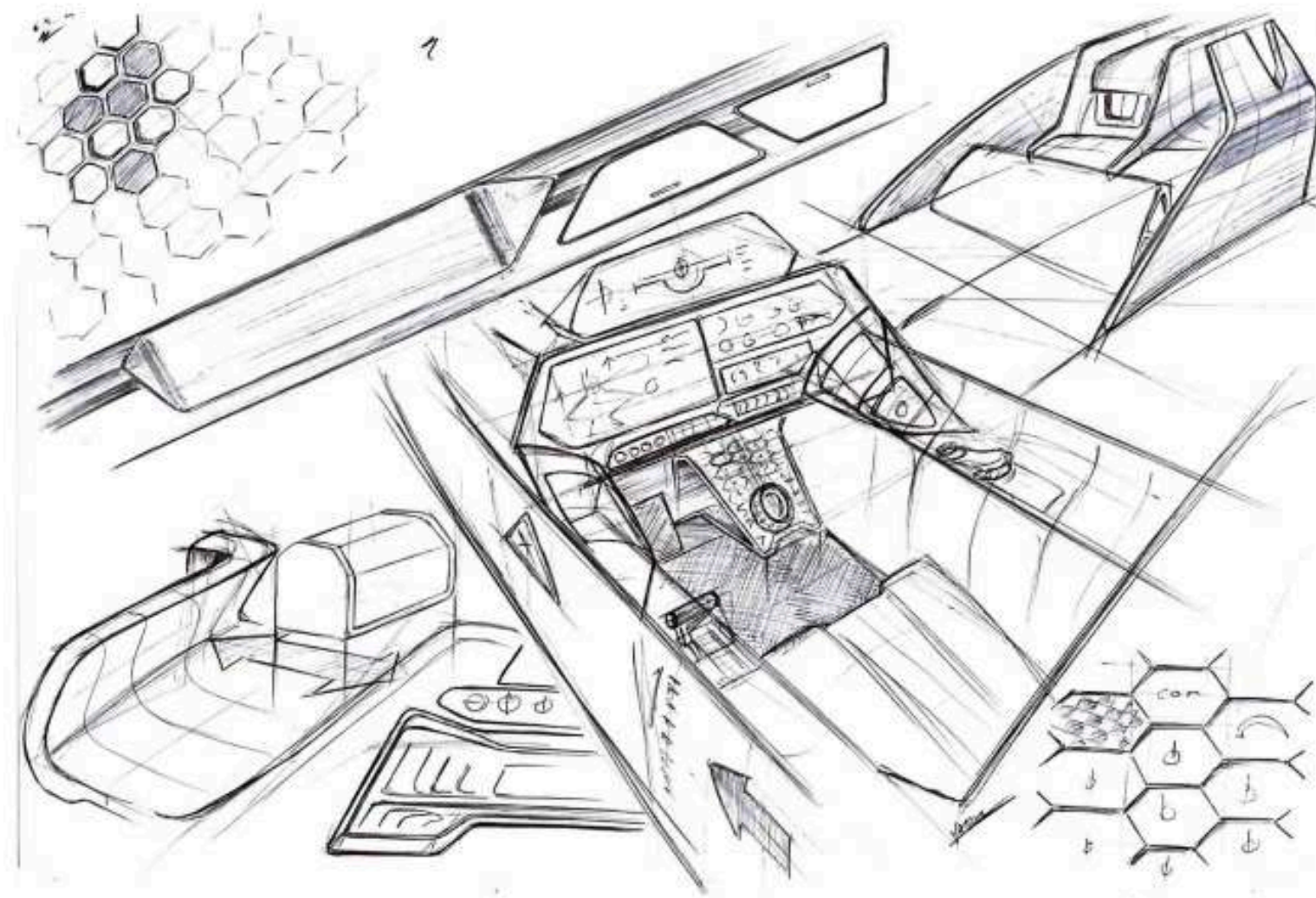
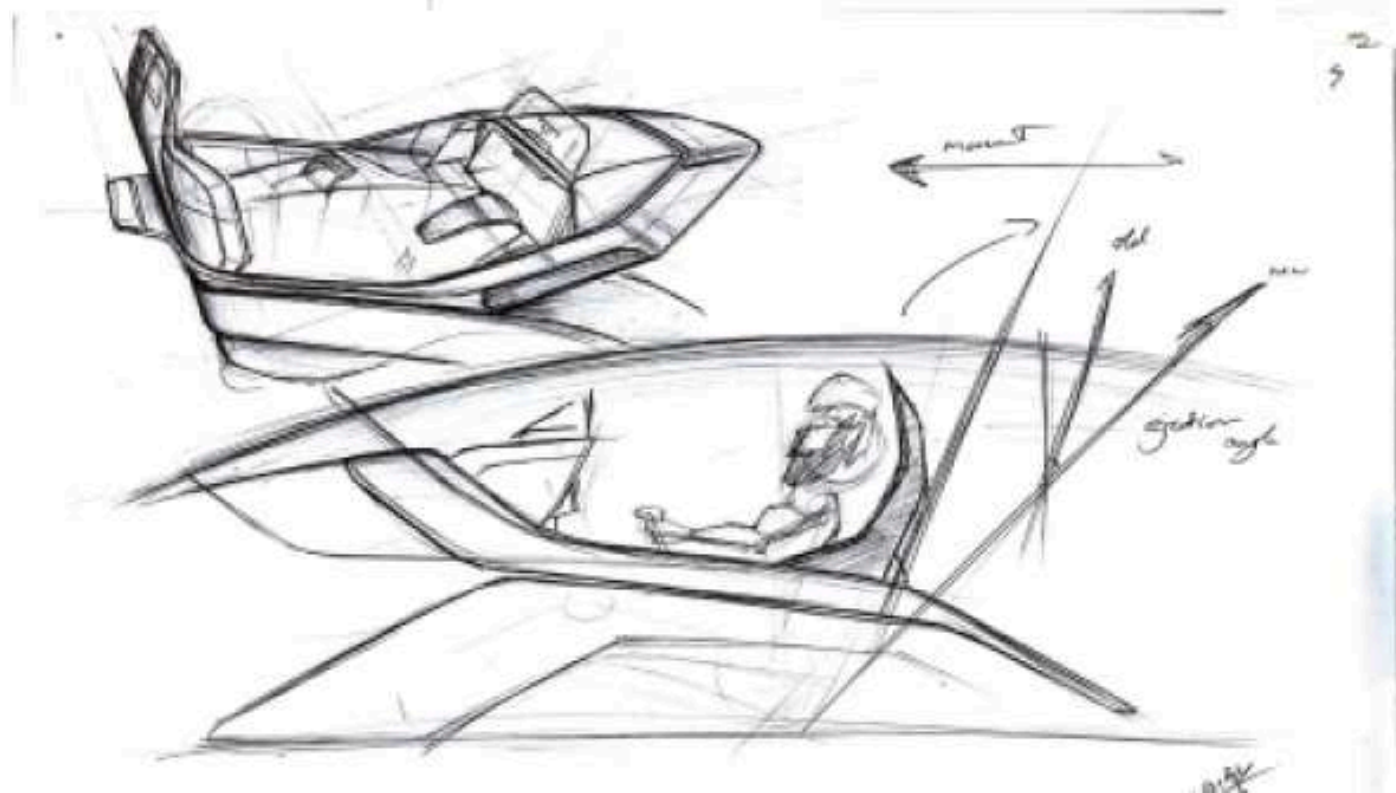
Detailed Design, design bezels of switches, controls and displays,

Color and Graphics, Color schemes and graphics for interiors, switches, and switch clusters.



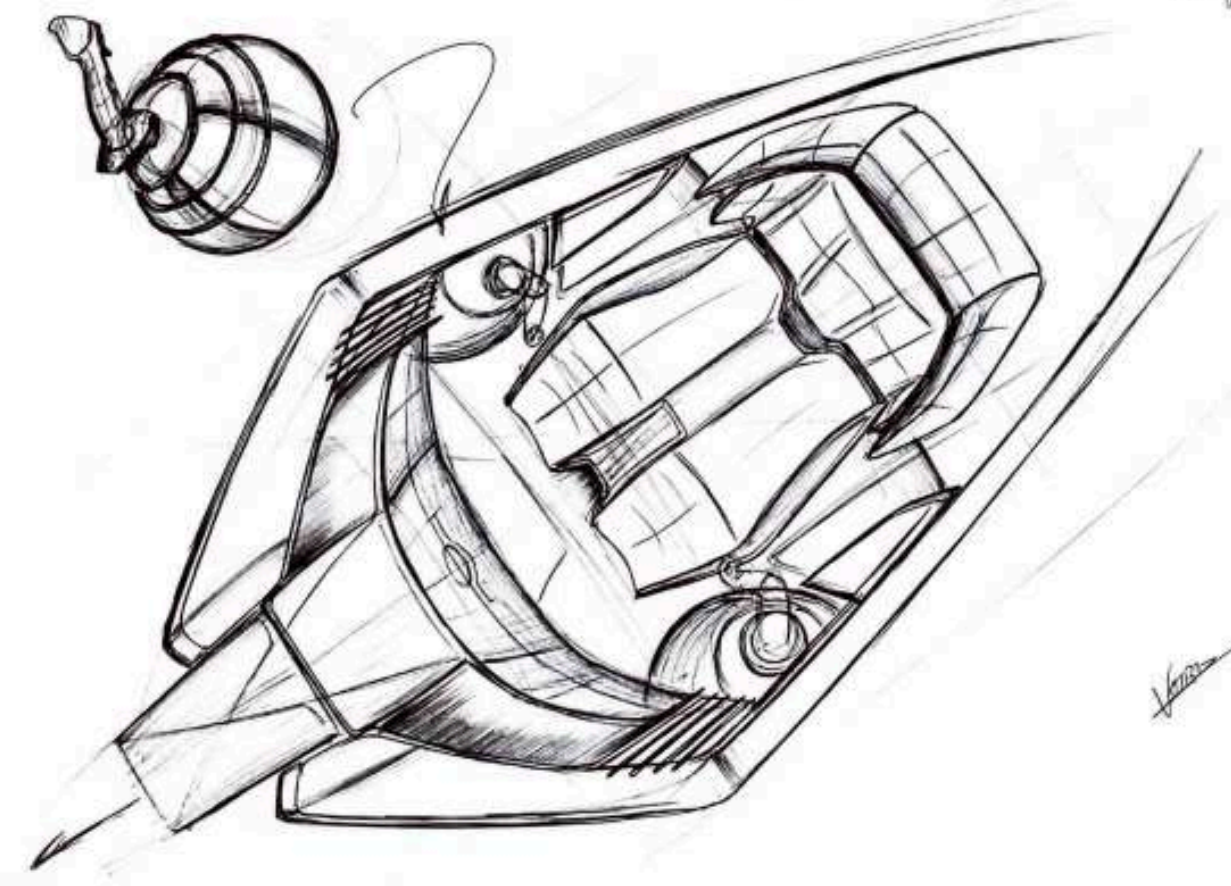
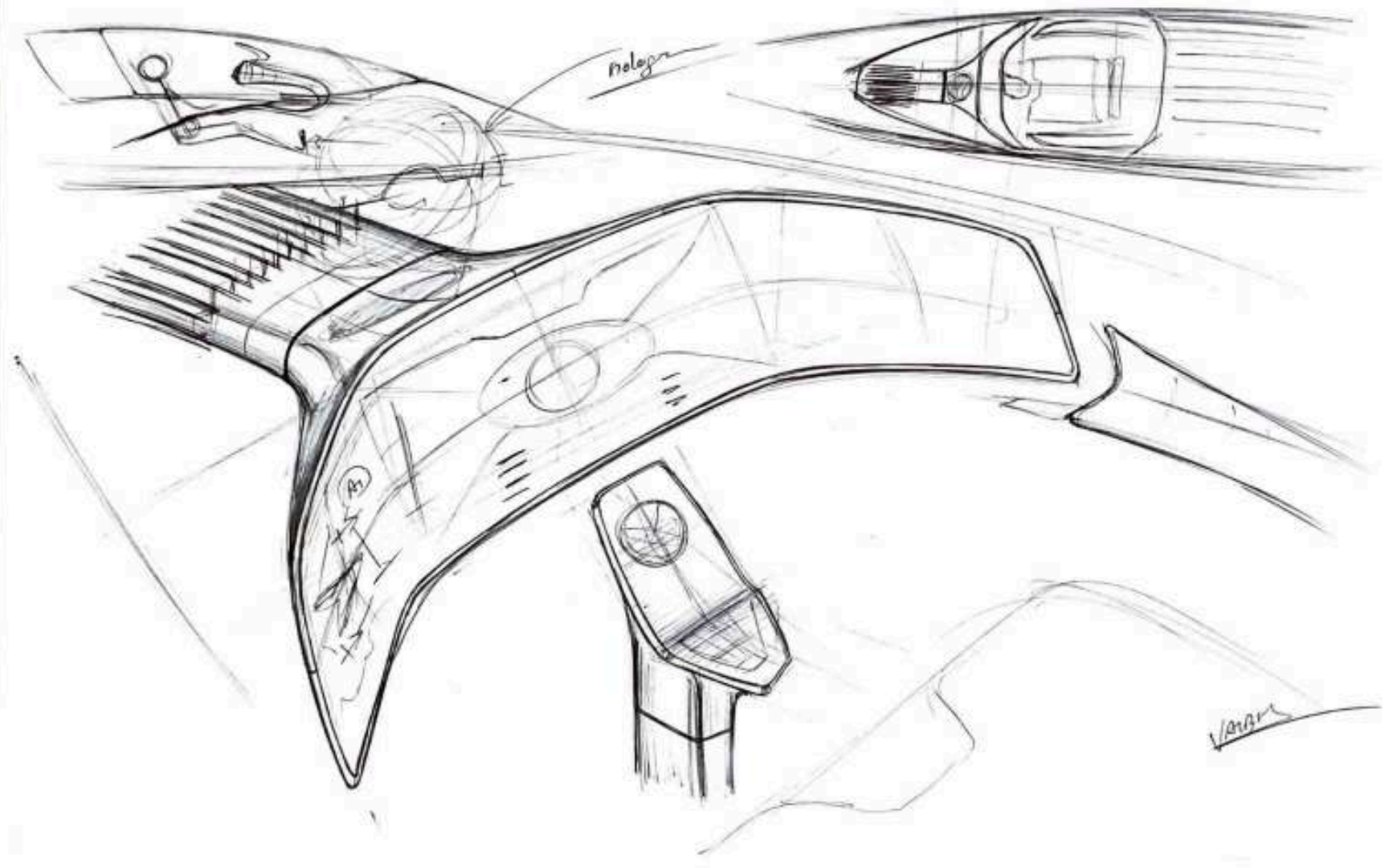
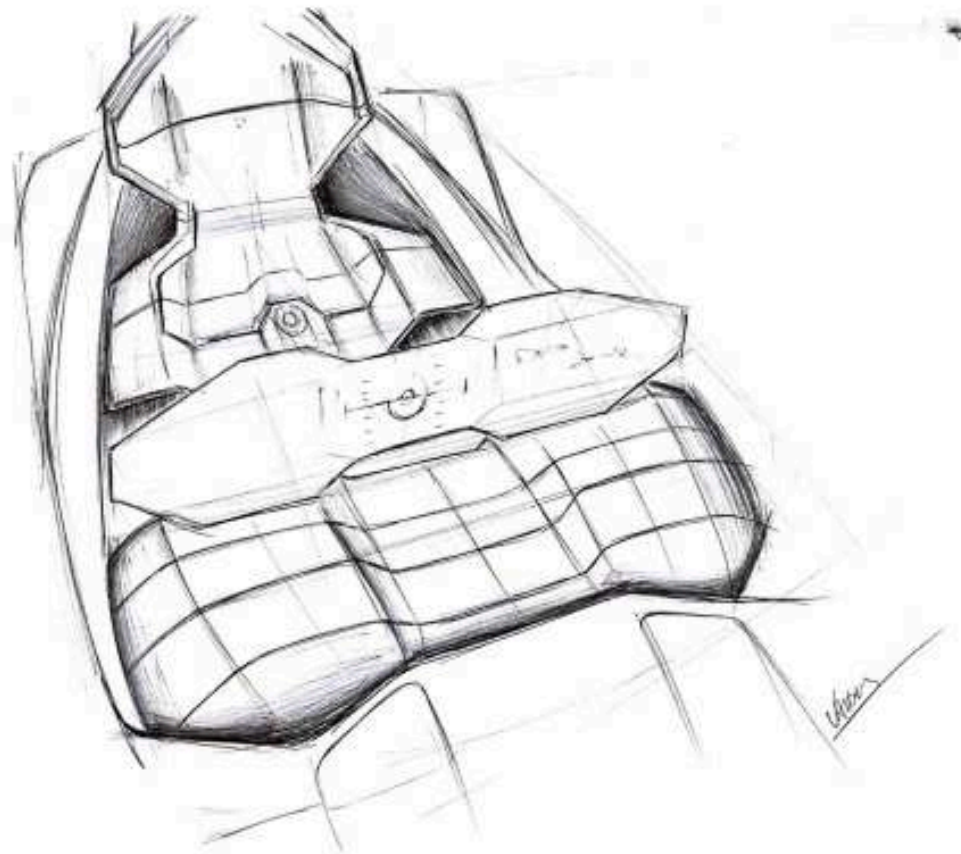
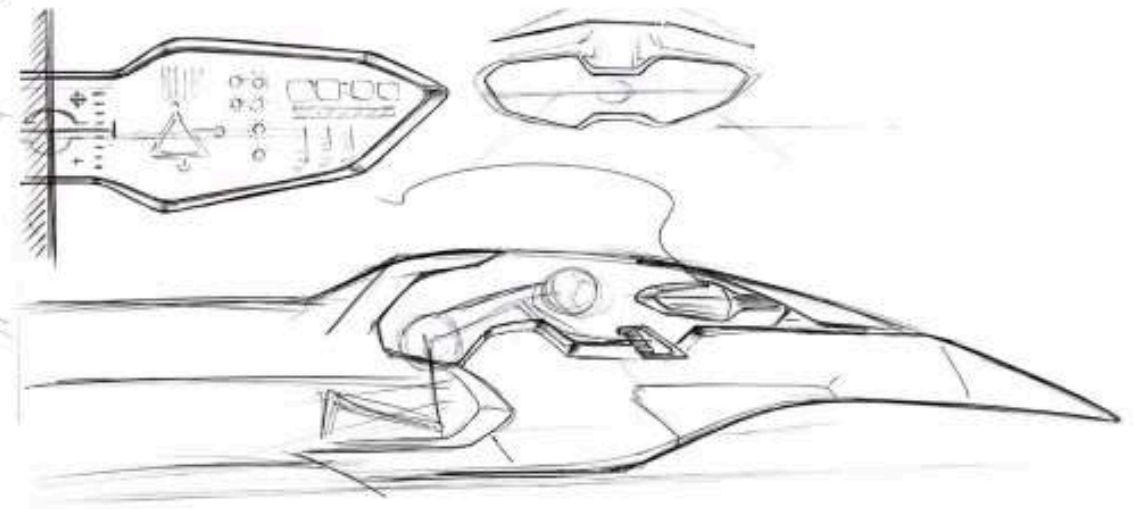
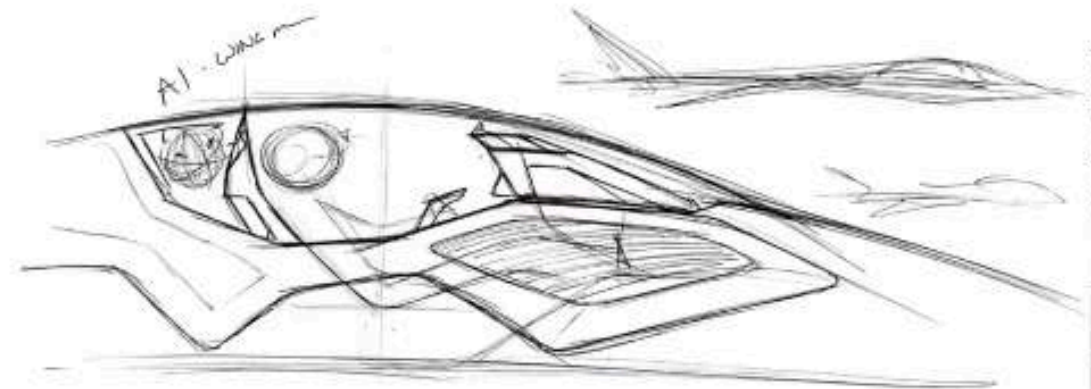


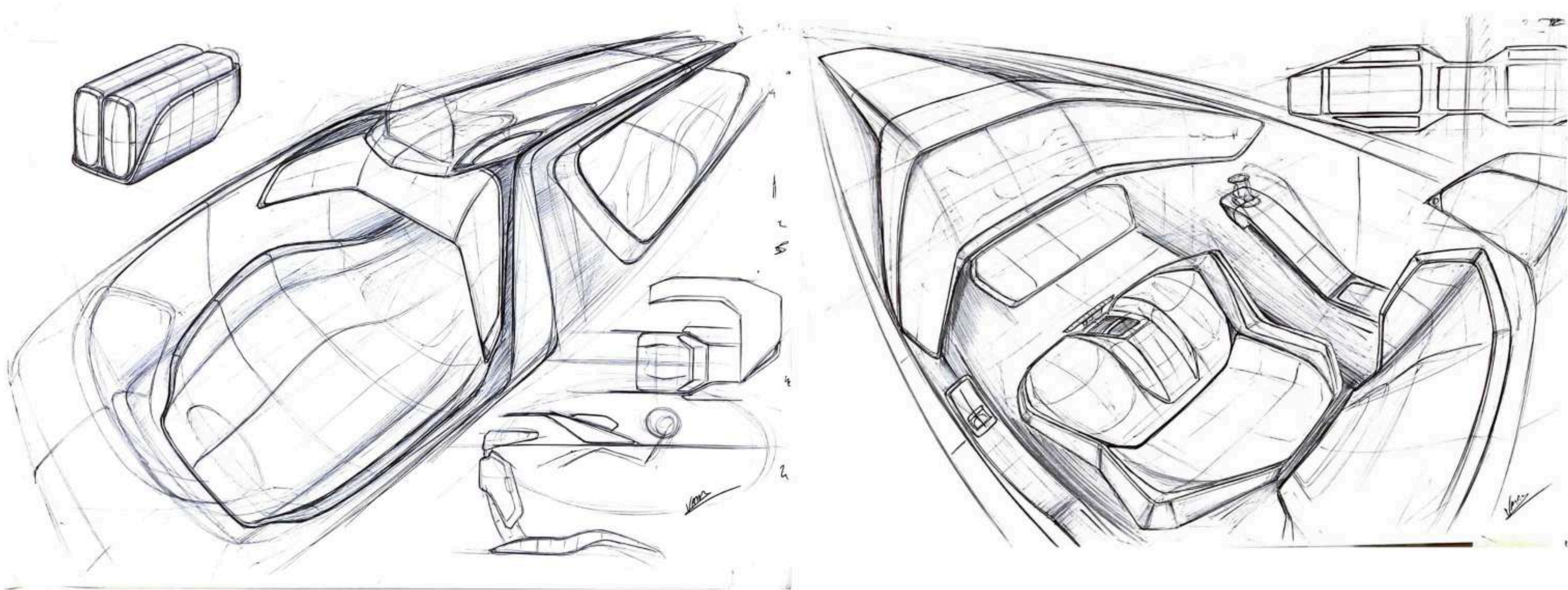
Initial Concepts



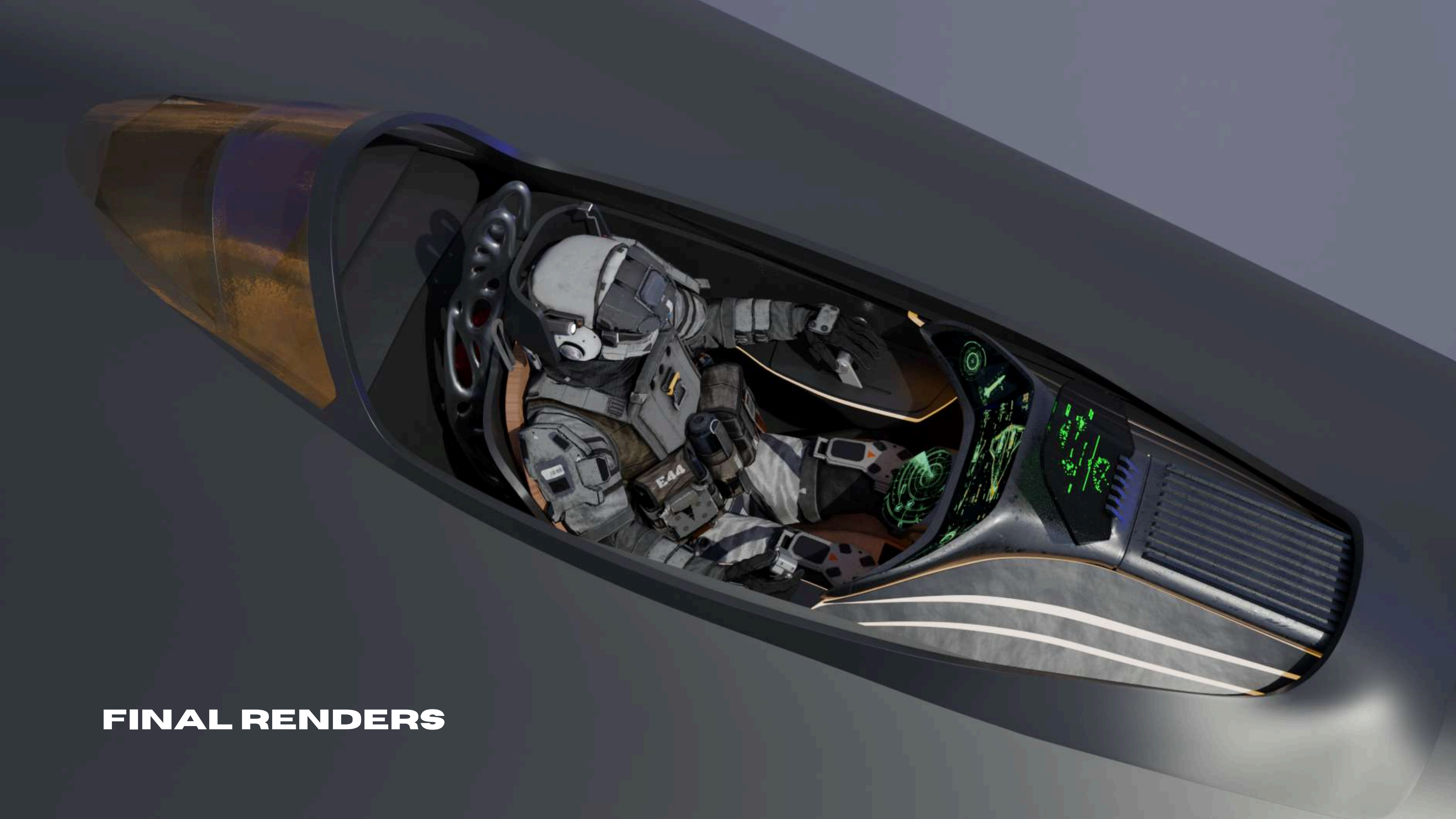


FUTURE
SPEED
ATTACK





Finalized Directions

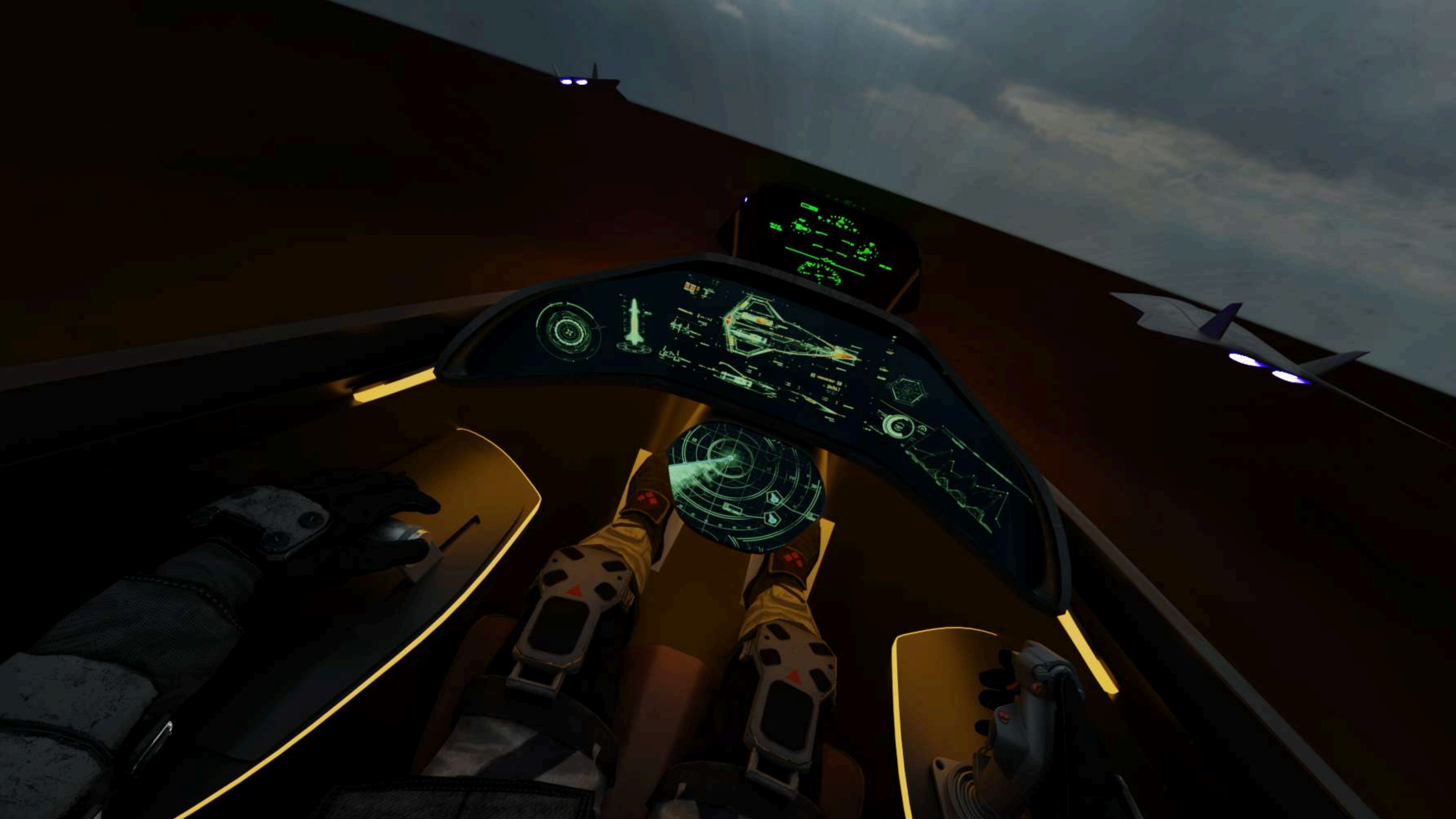


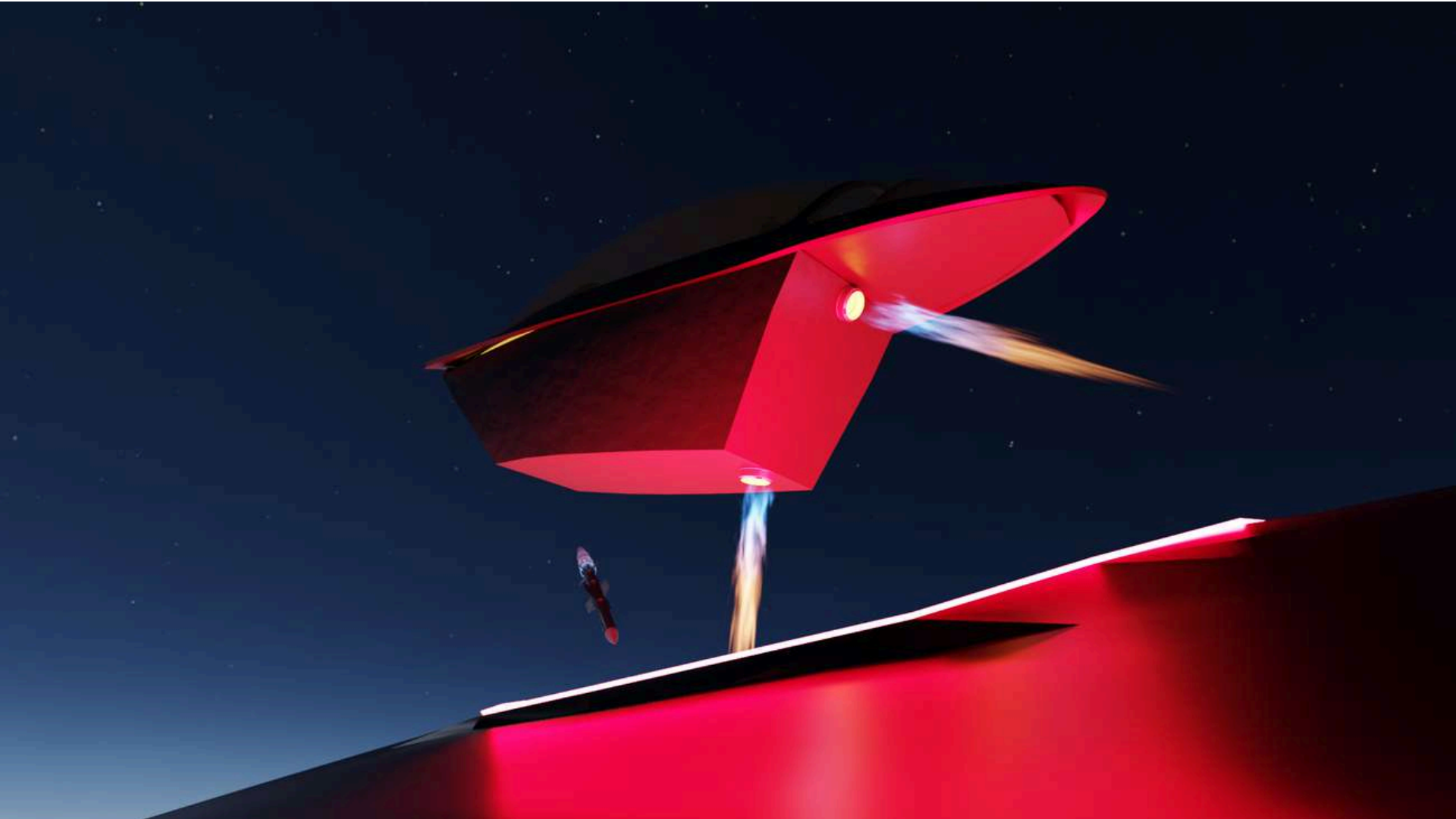
FINAL RENDERS













THANK YOU

03

**WATCH DESIGN
X JAMES BOND**





OVERVIEW

JAMES BOND IS A FICTIONAL CHARACTER CREATED BY NOVELIST IAN FLEMING IN 1953.

A BRITISH SECRET AGENT WORKING FOR MI6 UNDER THE CODENAME 007. HE IS OFTEN DEPICTED AS A PEERLESS SPY, NOTORIOUS WOMANIZER, AND MASCULINE ICON.

IAN FLEMING, LIKELY DREW HIS INSPIRATION FROM MORE THAN ONE SECRET AGENT HE LEARNED OF FROM HIS EXPERIENCE WORKING WITH BRITISH NAVAL INTELLIGENCE. POTENTIAL REAL-LIFE INSPIRATIONS FOR BOND INCLUDED WORLD WAR II SECRET AGENT F.F.E. YEO-THOMAS AND SERBIAN DOUBLE AGENT DUSKO POPOV.



AUTOMOTIVE LEGACY

THOUGH THE AUTOMOTIVE LEGACY IS DOMINATED BY ASTON MARTIN DB5 BEING BOND'S CAR AND MOST REMARKABLE TILL DATE, THERE WERE FEW MORE ADDITIONS TO THE FRANCHISE OTHER THAN ASTONS LIKE, BMW, LOTUS, BENTLEY, MERCEDES, TRIUMPH, AND MOST RECENT THE MAJOR INVOLVEMENT OF JLR GROUP.

ASTON MARTIN DB5

A silver Aston Martin DB5 is shown driving on a wet city street at night. The car is in motion, with motion blur on the background buildings and street. The car is a classic two-door coupe with a distinctive grille and round headlights. The street is wet, reflecting the car and the city lights. The background shows a row of multi-story buildings with lit windows and storefronts, creating a classic London atmosphere.

FIRST DEBUT IN 1964 IN GOLDFINGER, DB5 IS ONE OF THE MOST ICONIC AND IMPORTANT PART FOR BOTH JAMES BOND AS WELL AS ASTON MARTIN FRANCHISE BY SAVING A BRAND AND MARKING A HISTORIC CAR ALL TOGETHER, IT WAS THE FIRST CAR TO BE PACKED WITH TONS OF SPY GADGETS, AND HAS BEEN FAVOURITE SINCE DAY ONE OF THE DEBUT, THIS ONE HAS BEEN FEATURED IN ALMOST 7 BOND FILMS INCLUDING THE LATEST "NO TIME TO DIE" WITH AN OPENING STUNT SCENE.



IDEA

THE IDEA WAS TO DEVELOP A LIMITED EDITION WATCH COLLECTION FOR MARKING THE SUCCESS AND IMPACT OF JAMES BOND AS A CHARACTER AS WELL AS A BLOCKBUSTER FRANCHISE IN HISTORY OF CINEMA.

THE LINEUP WILL BE CREATED FOR THE YEAR 2023, TO CELEBRATE 70 YEARS OF CREATION OF JAMES BOND AS A CHARACTER, CREATED BY NOVELIST "IAN FLEMING" IN 1953.

TARGET MARKET

- A POTENTIAL WATCH COLLECTOR
- A PERSON WHO IS INTO MOVIES AND COLLECTS MEMORABILIAS
- JAMES BOND FANS
- AGE GROUP 30+
- ENTREPRENEUR

**HAS A GOOD TASTE IN LUXURIOUS/PREMIUM LIFESTYLE
HOUSES
CARS**

TREND TAKEAWAYS

**COLLABS
GREENS AND GREYS
DIVERS
RETRO
CAR COLLABS
SKELETONS**

TIMEPIECE

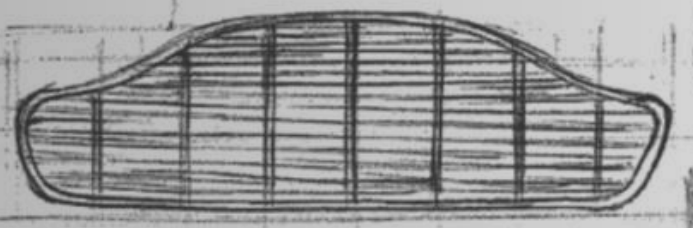
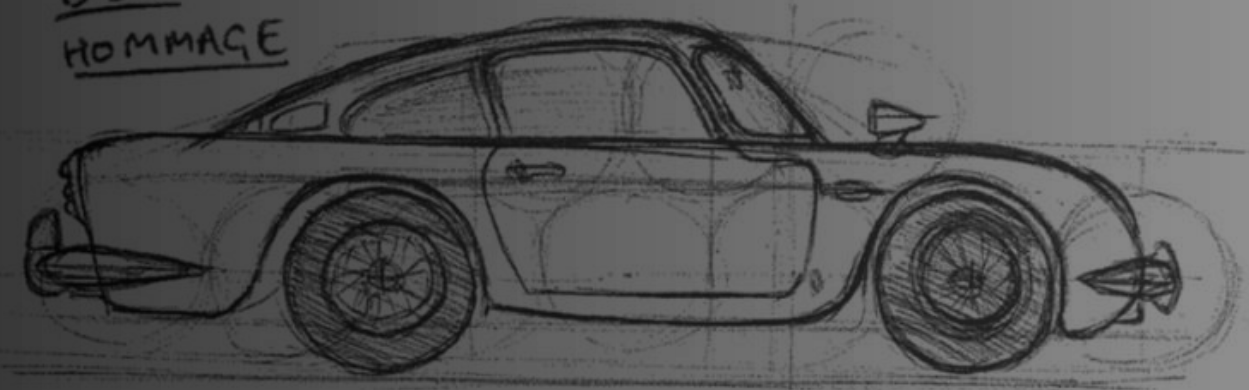
ASTON MARTIN DB5

A HOMMAGE DESIGN FOR THE DB5



DESIGN INSPIRATION BOARD

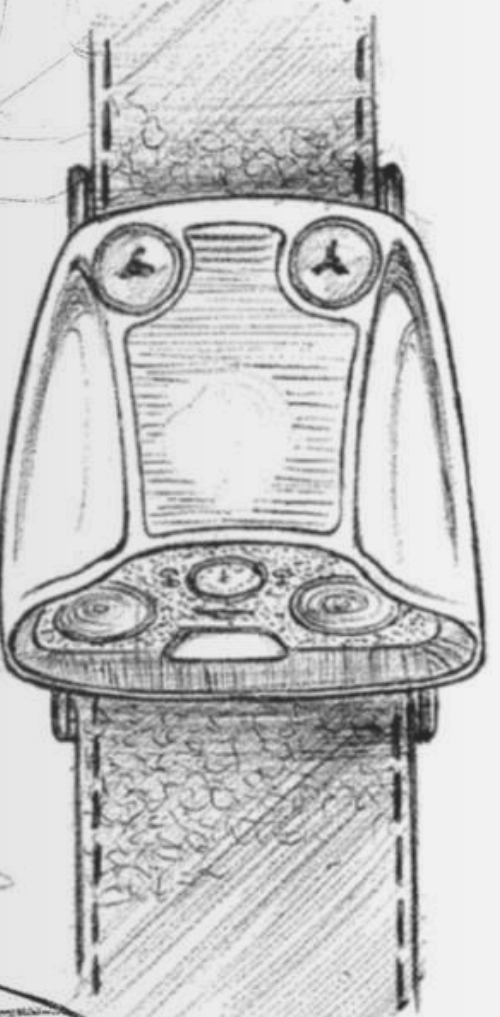
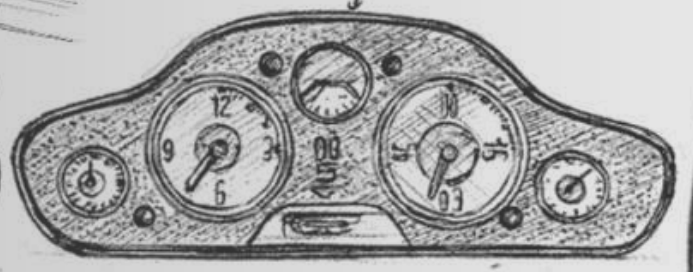
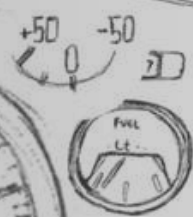
WATCH-III
DB-5
HOMMAGE



6 1/2 wheel body ratio

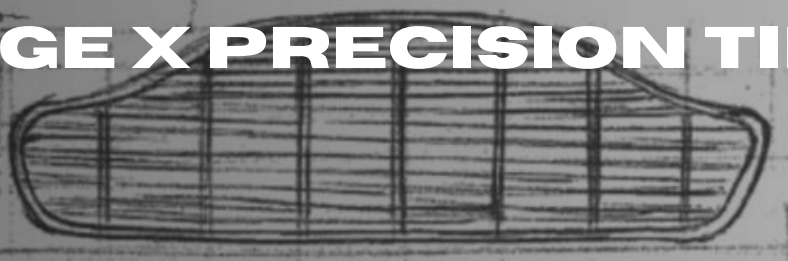
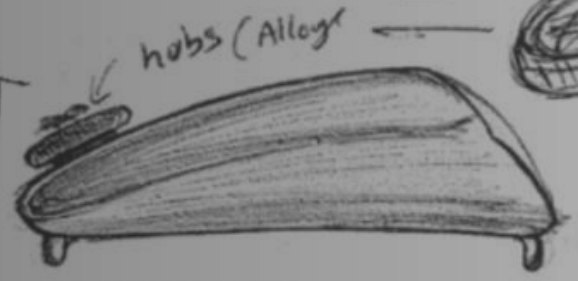
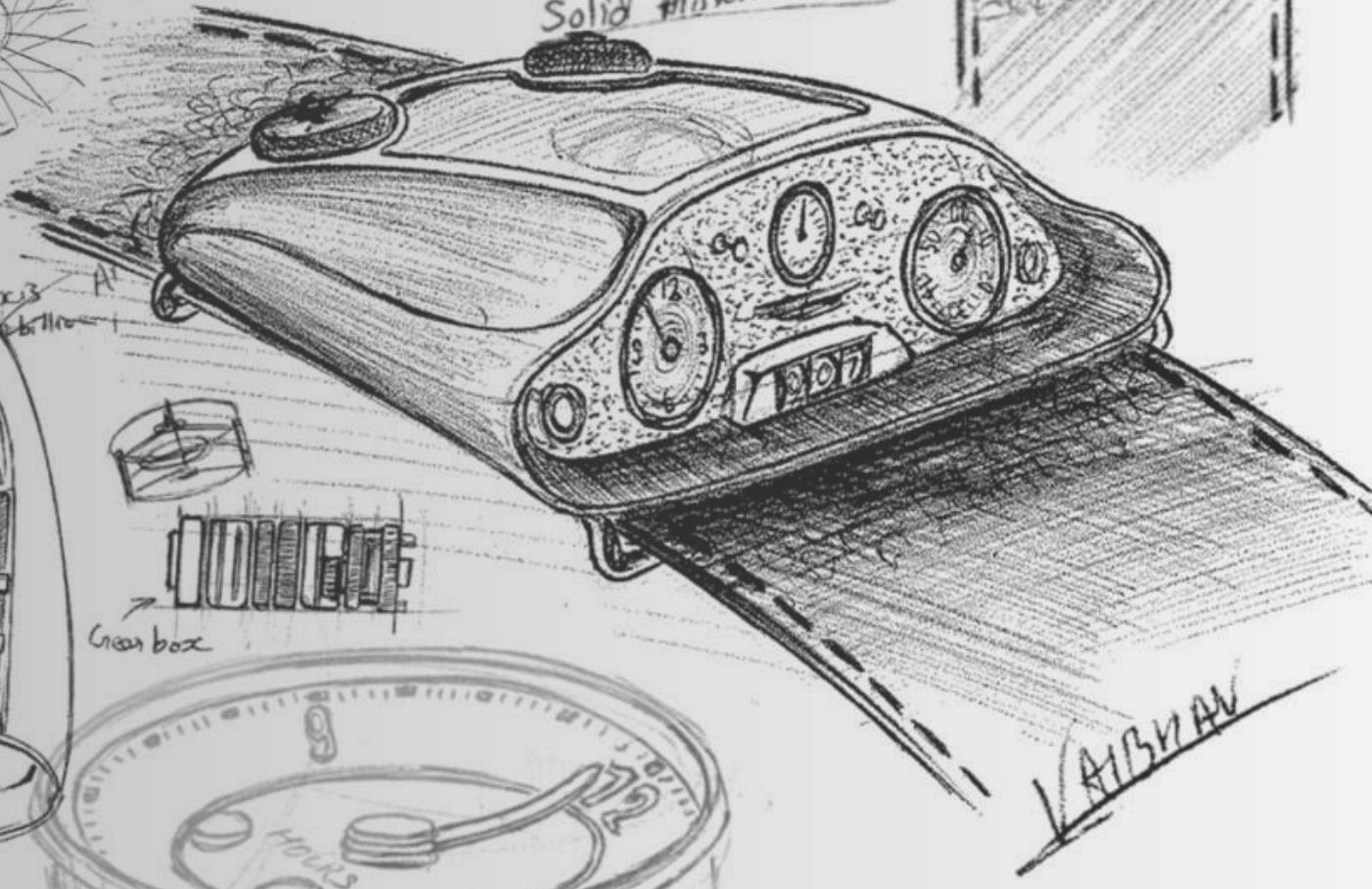
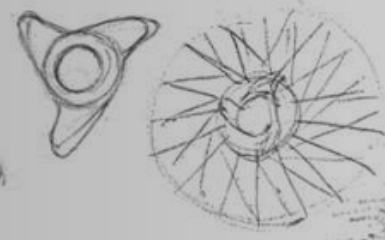
20 40 60 80 100
MPH

50 30



Solid Aluminium

DB5



- moon phase for primary
- triple for billion

DESIGN IDEATION

CULTURAL HERITAGE X PRECISION TIME-KEEPING

V. AIBMAN



**FINAL DESIGNS AND RESIN
PRINT PROTOYPES**

ASTON MARTIN DB5 LIVERY

**SYMBOL OF TIMELESS ELEGANCE AND
SOPHISTICATION. ITS SLEEK DESIGN AND
POWERFUL ENGINE MADE IT THE
PERFECT CAR FOR HIGH-SPEED CHASES
AND DARING ESCAPES. THE ICONIC CAR
HAS BECOME SYNONYMOUS WITH THE
JAMES BOND FRANCHISE AND
CONTINUES TO CAPTURE THE HEARTS OF
FANS WORLDWIDE.**



OPEN HEART MOVEMENT

RESEMBLING THE DOHC OF DB5'S
STRAIGHT 6 WITH A FUSION OF CABESTAN
AND JACOB&CO'S INSPIRED MOVEMENT,
THE OPEN HEART MECHANISM IS
DESIGNED WITH CYLINDRICAL GEARS AND
HANGING TOURBILLION IN THE CENTER.



THE CROWNS

INSPIRED FROM THE SPOKED WHEELS,
WHICH WERE A POPULAR DESIGN
ELEMENT IN THE 1960S WHEN THE CAR
WAS FIRST INTRODUCED. THE SPOKED
WHEELS ON THE ASTON MARTIN DB5
ARE A UNIQUE AND RECOGNIZABLE
FEATURE THAT ADDS TO THE CAR'S
OVERALL AESTHETIC APPEAL.





CROWN

**OPEN
HEART/ENGINE**

GRILLE IDENTITY



**SPOKE
WHEELS**



**DASHBOARD
STYLED**



RESIN PRINTED PROTOTYPES

QUICK PROTOTYPING OF
THE COLLECTION OF FOUR
007 THEMED WATCHES
CONSISTING OF POCKET
WATCH, DIVERS WATCH, A
MOVIE MEMORABILIA
AND THE DB5.



**A QUICK
VISUALIZATION OF THE
TIMEPIECE AND HOW
IT'LL REFLECT IT'S
ELEGANCE AND
CULTURE IN REAL LIFE.**





**WITH THE OPEN HEART
MOVEMENT AND FRONT DASH
DIAL REPRESENTATION, DB5
IS A PERFECT LIVERY FOR THE
LEGACY OF 007.**

**COMPLETE COLLECTION
SHOWCASED ON THE WEBSITE.**

04

HI.VI



SUB-4M SUV DESIGN PROJECT

A COLLABORATIVE GROUP PROJECT WITH THE HELP OF DEEPTI SHETTY AND SHUBHAM CHAUHAN.

THE PROJECT IS ABOUT EMPOWERING AND ENRICHING THE LIVES OF WOMEN IN INDIA, CELEBRATING THEIR VALUES, AND DELIVERING A DRIVING EXPERIENCE THAT'S JOURNEY OF SELF-DISCOVERY. IN EVERY DETAIL, FROM ITS STYLE AND FUNCTIONALITY TO ITS UNWAVERING FOCUS ON WELL-BEING, THIS SUV IS MORE THAN A VEHICLE - IT'S A COMPANION, A CONFIDANT, AND A TRUE REFLECTION OF YOUR DESIRES.

MARKET UNDERSTANDING

HERE WE TRIED TO UNDERSTAND ON WHAT MARKET WE'LL BE WORKING, WHAT IS THE AUDIENCE, WHAT ARE THEIR NEEDS, WHAT ARE THE CURRENT TRENDS, AND WHAT IS GOING TO BE THE FUTURE PREDICTION FOR THE AREA WE ARE WORKING IN.

THE BUYERS

32 Years Old
Aryan Makheja
Stays in Delhi
Does Marketing Management
Married with one child

Aryan is a mid-level marketing professional who lives in Delhi with his wife and young child. He needs a reliable and practical vehicle for his daily commute to the office. Aryan enjoys weekend trips to the nearby hill stations with his family and occasionally goes on off-road adventures with his friends.

NEEDS & GOALS

Urban Commuting
Family Adventures
Off-Roading
Techy
Safety
Status



CHALLENGES

Budget
Parking
Traffic
Vehicle size

29 Years Old
Riya Sharma
Pune
Graphic Designer
Single

Riya is a young, independent graphic designer living in Pune, a city known for its blend of urban and natural beauty. She enjoys exploring the city, taking weekend trips to the nearby mountains, and occasionally goes camping with her friends.

NEEDS & GOALS

Urban Commuting
Adventure and Nature love
Fuel Efficiency
Stylish and Trendy
Techy

DEEPTI SHETTY | SHUBHAM CHAUHAN | VAIBHAV CHAWLA
23M2287 23M2289 23M2286

STUDY DONE TO UNDERSTAND THE MARKET CONDITIONS AND FUTURE OPTIONS IN THE MARKET PRESENTED IN A POSTER FORMAT.

WHAT IS SUV?

Goes where no other car can
Can carry you as well as your home
Dominates like a Bull on Road
Probably can take weather down
Ready to Attack
Stronger than Promises



WHY SUV?

Big Bold Car
Dominating road presence
Dominates like a bull on road
Ultra spacious
Feature packed
Much Safer

WHAT ALL ARE THERE?



Micro



Sub-Compact



Compact



Full-Size



Extended

YES! a micro SUV XD



Top 5 States

Uttar Pradesh
Maharashtra
Karnataka
Gujarat
Haryana

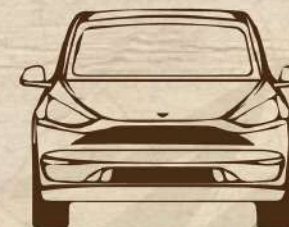
715K Jan-Sept '23
Total sales of SUVs in India



37.1M
Total sales of SUV World



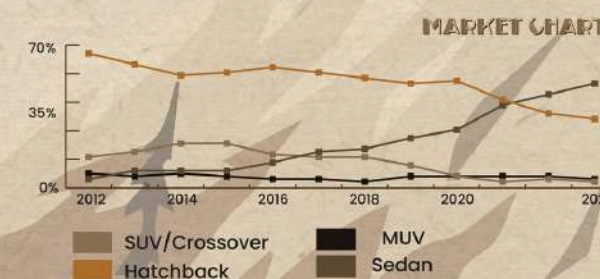
11.5M
Total sales of CRVs till-date



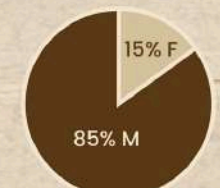
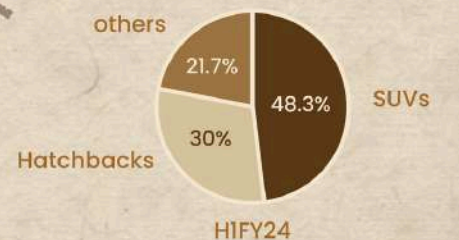
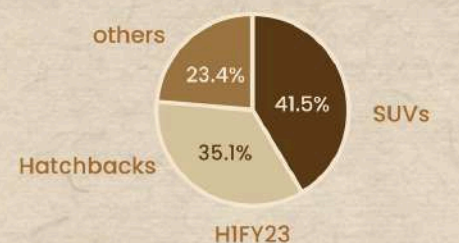
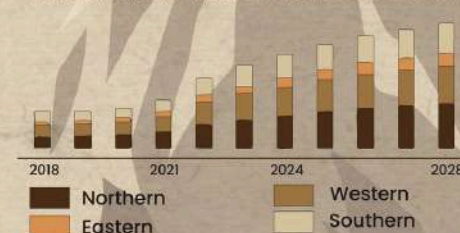
263K
Model Y sold FY23(worldwide)



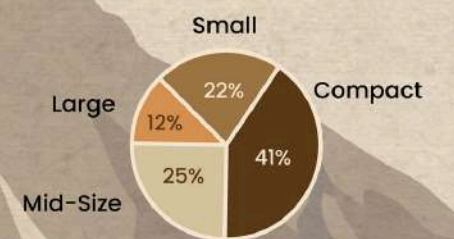
172K
TATA Nexon sold in FY23 till now



INDIAN SUV MARKET SIZE BY REGION



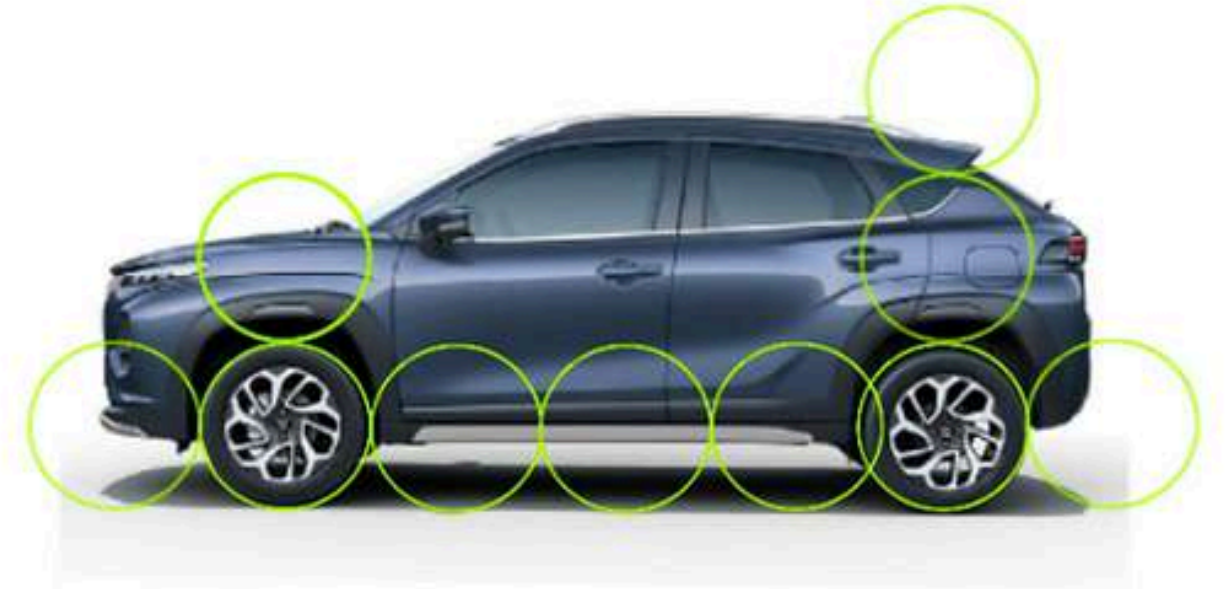
Male v/s Female
Buyers ratio



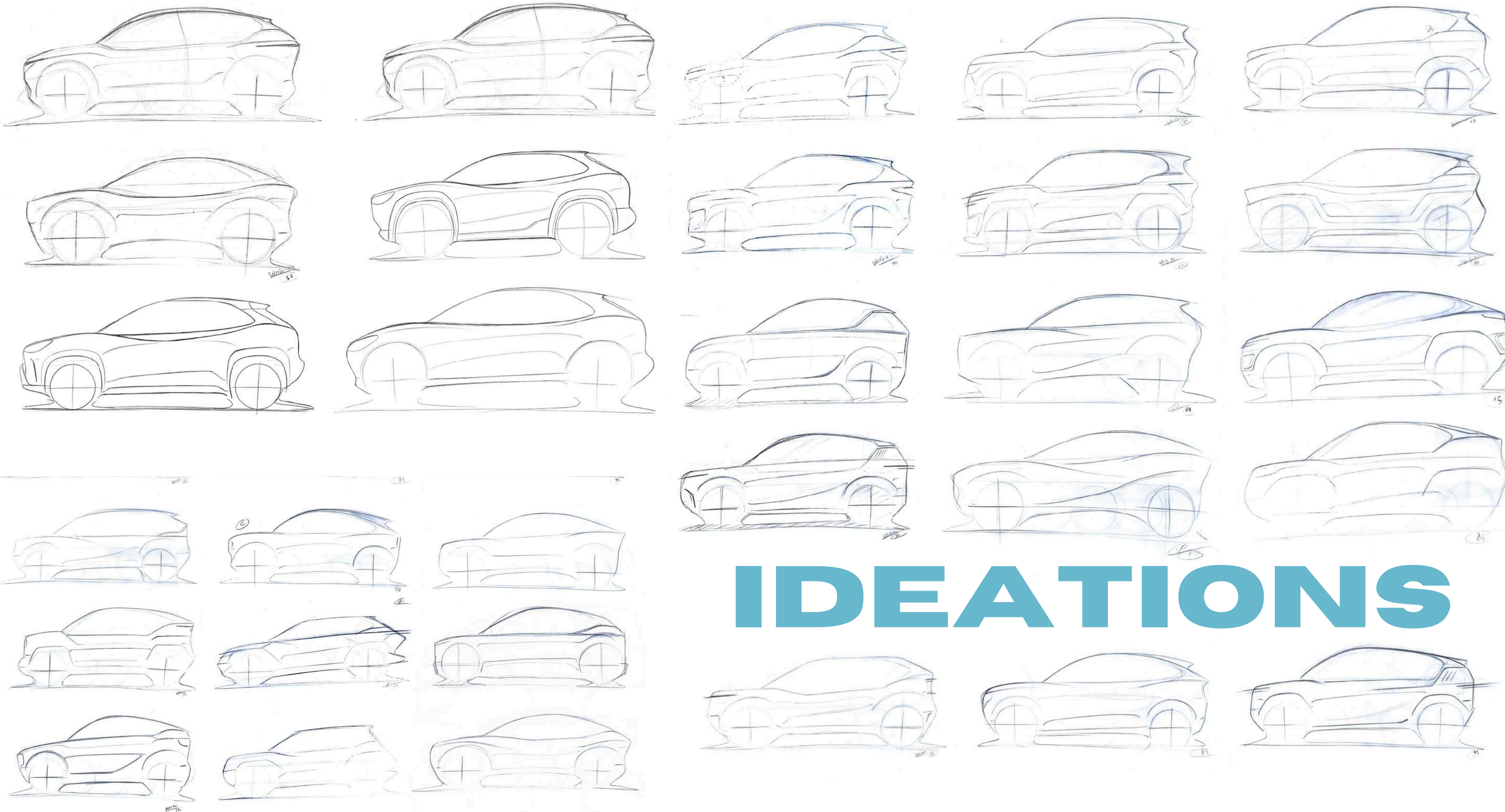
Global market share of
SUVs

RATIOS & PROPORTIONS

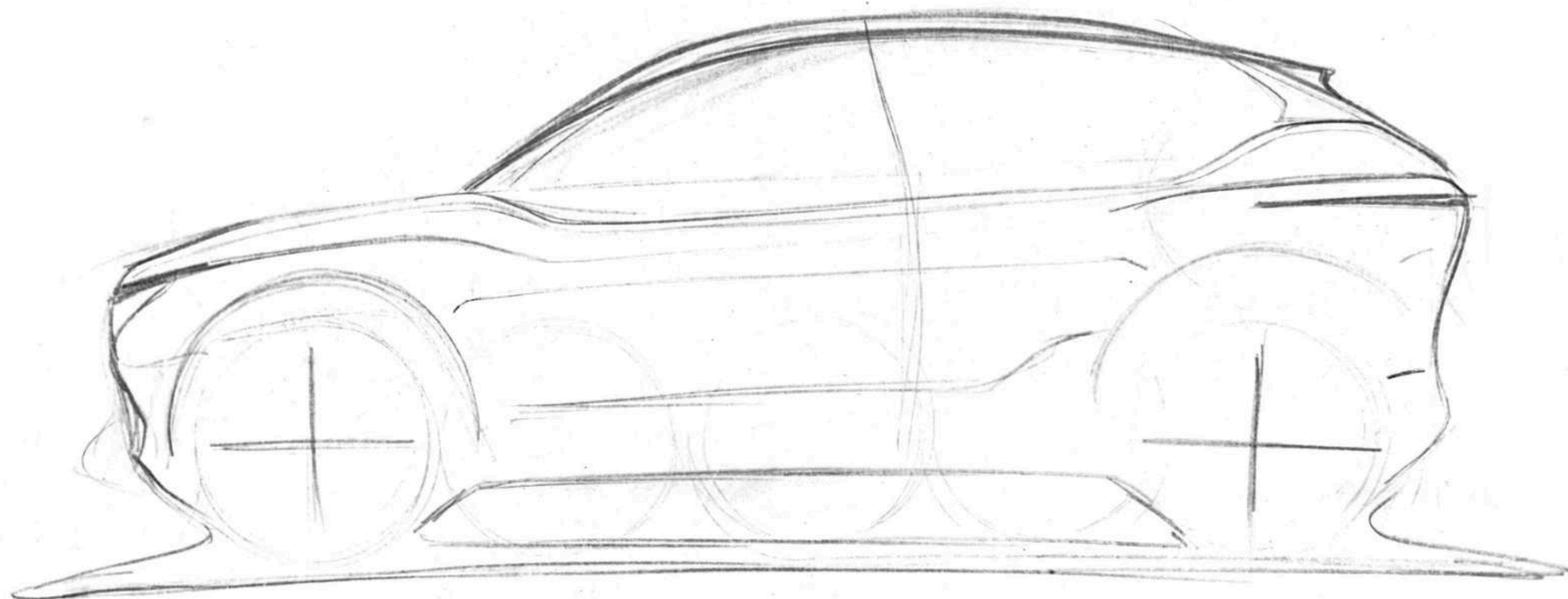
2.8 wheel, wheelbase was fixed



2.8 wheel
2.8-3

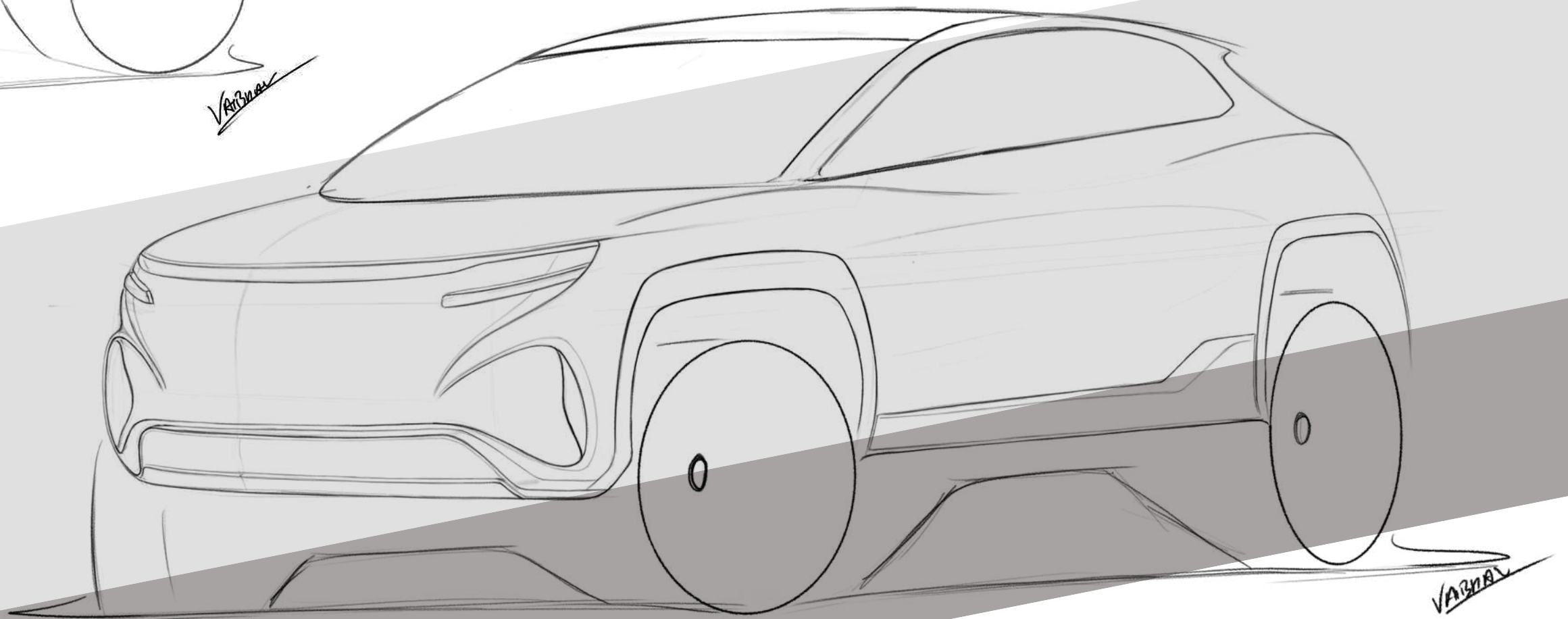
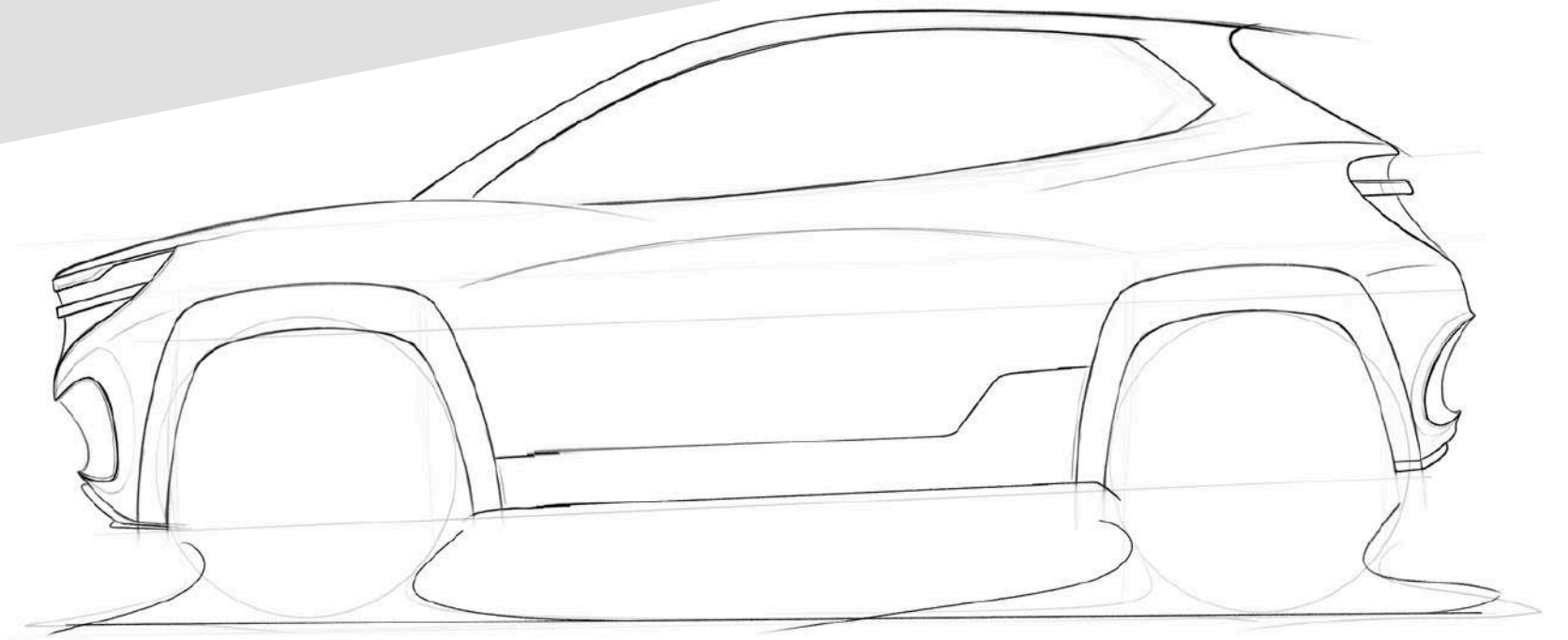
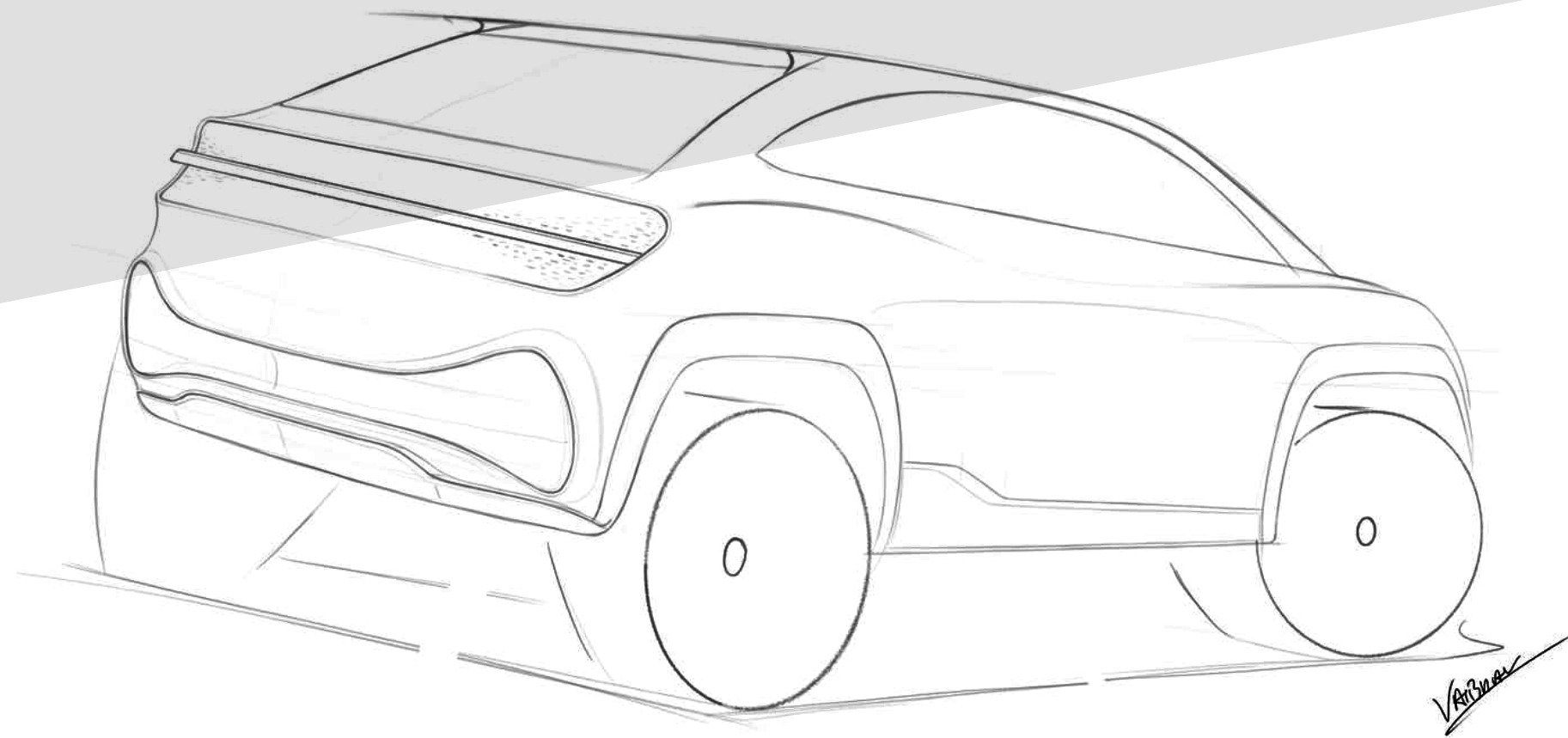


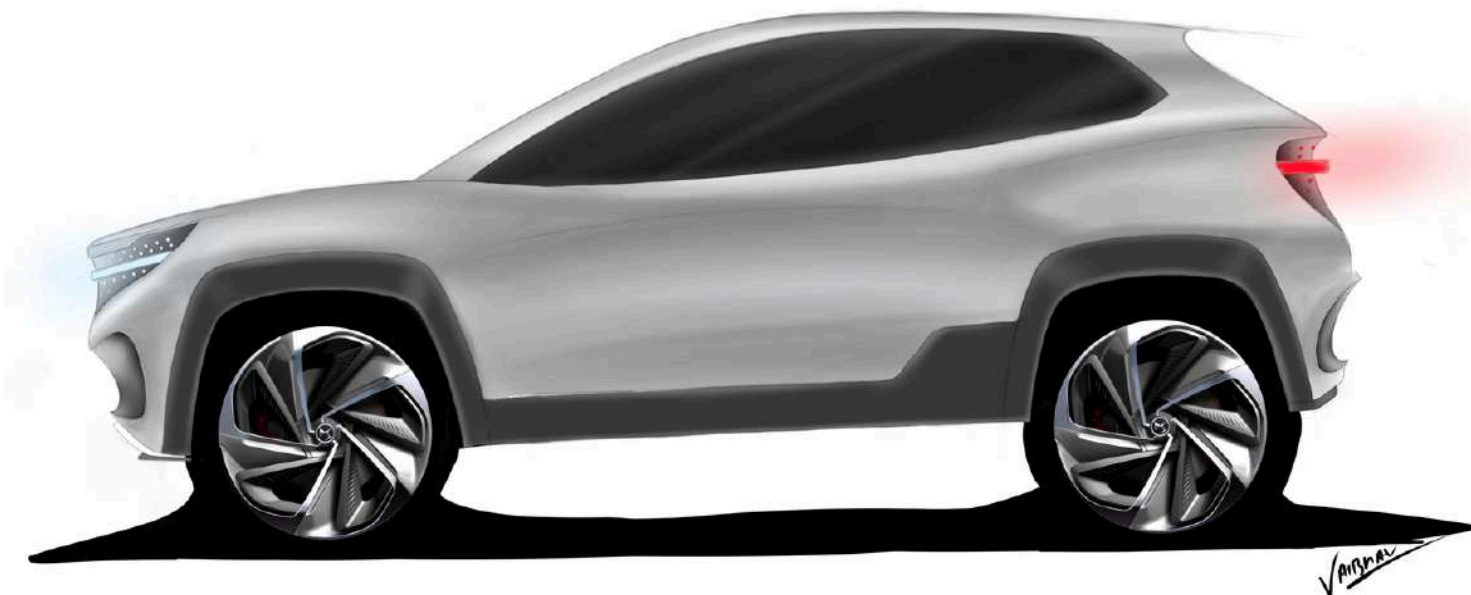
IDEATIONS



FINAL DIRECTION TO FURTHER DEVELOP THE CONCEPT

FINAL FORM

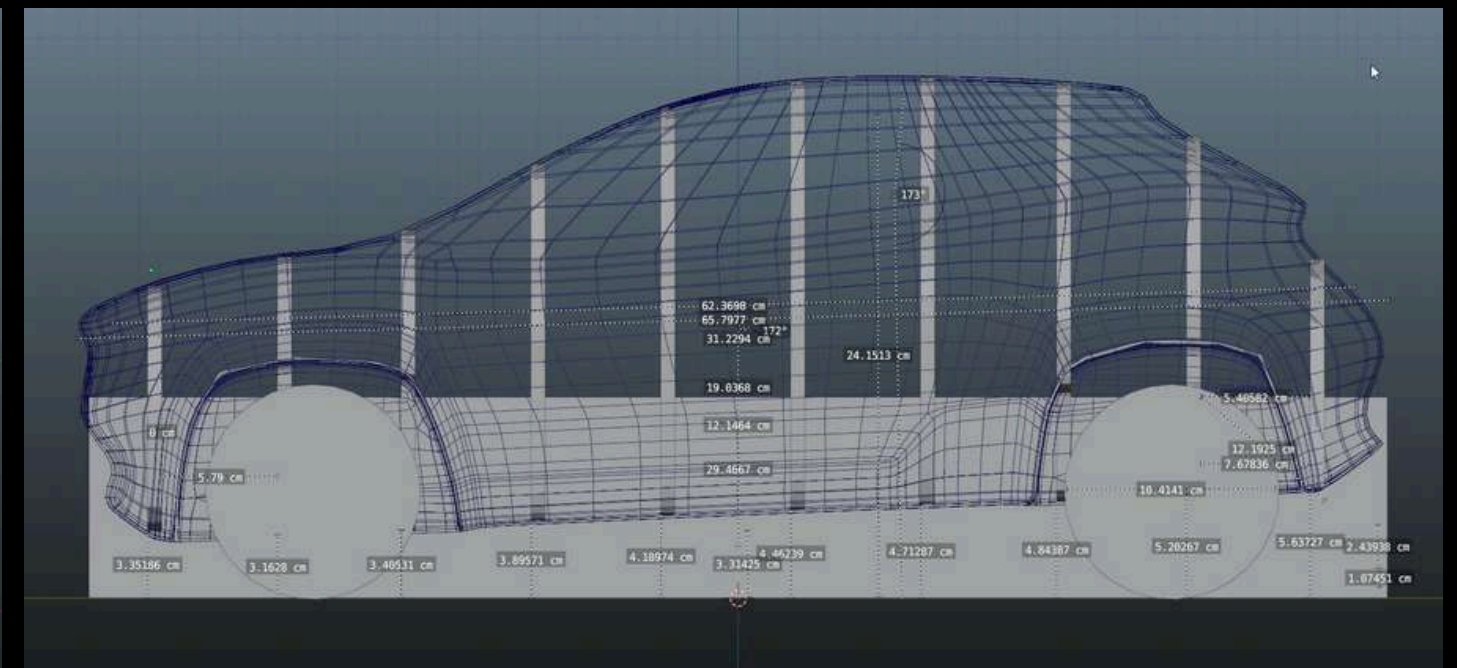
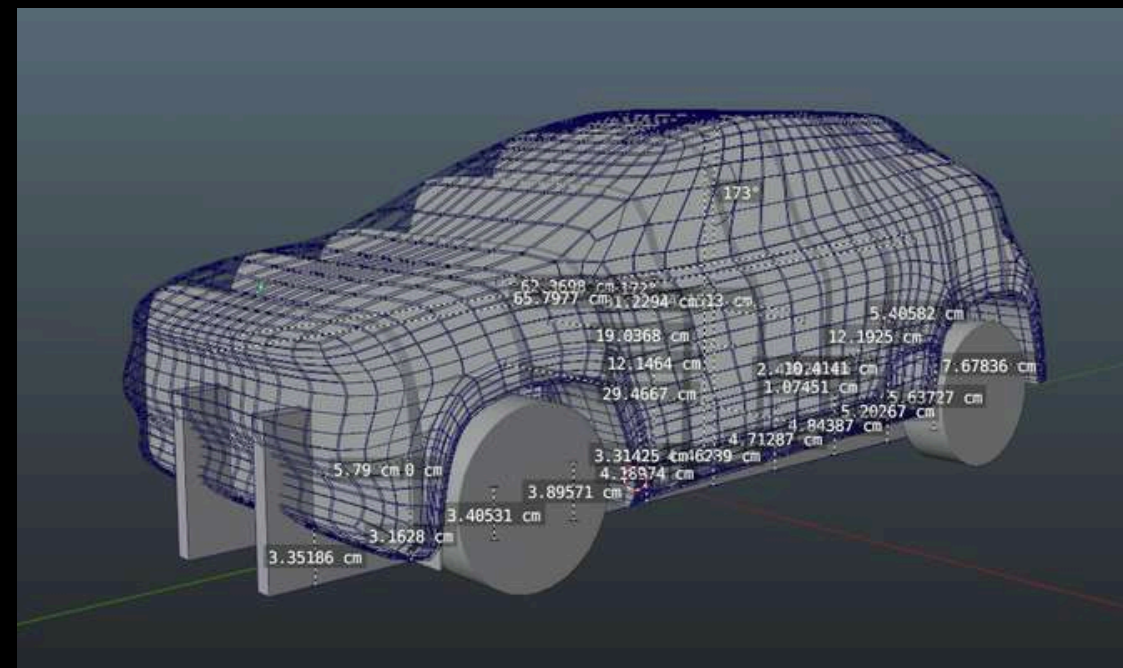
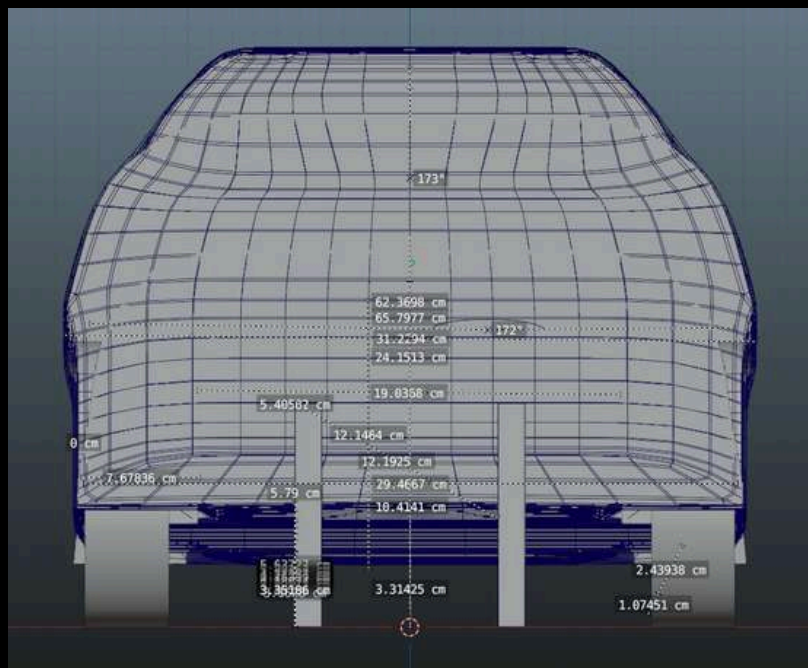




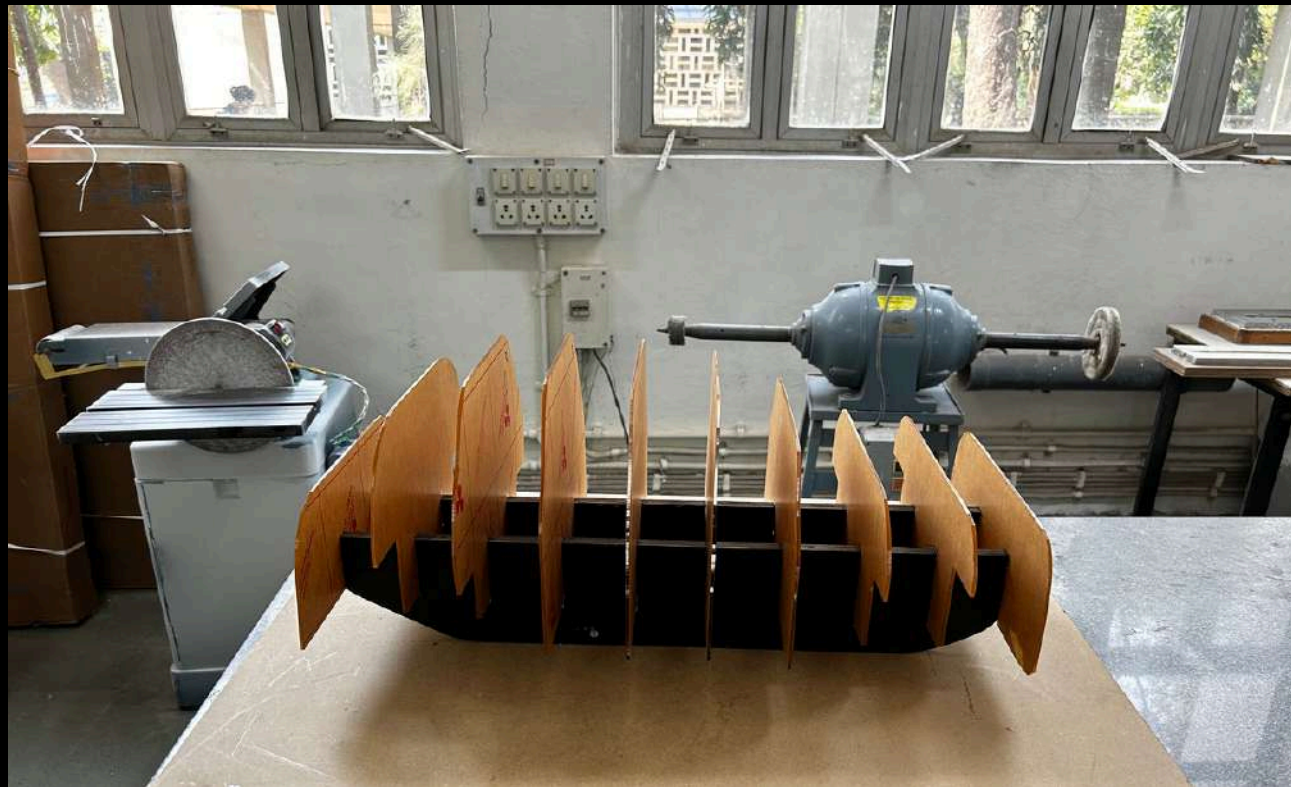
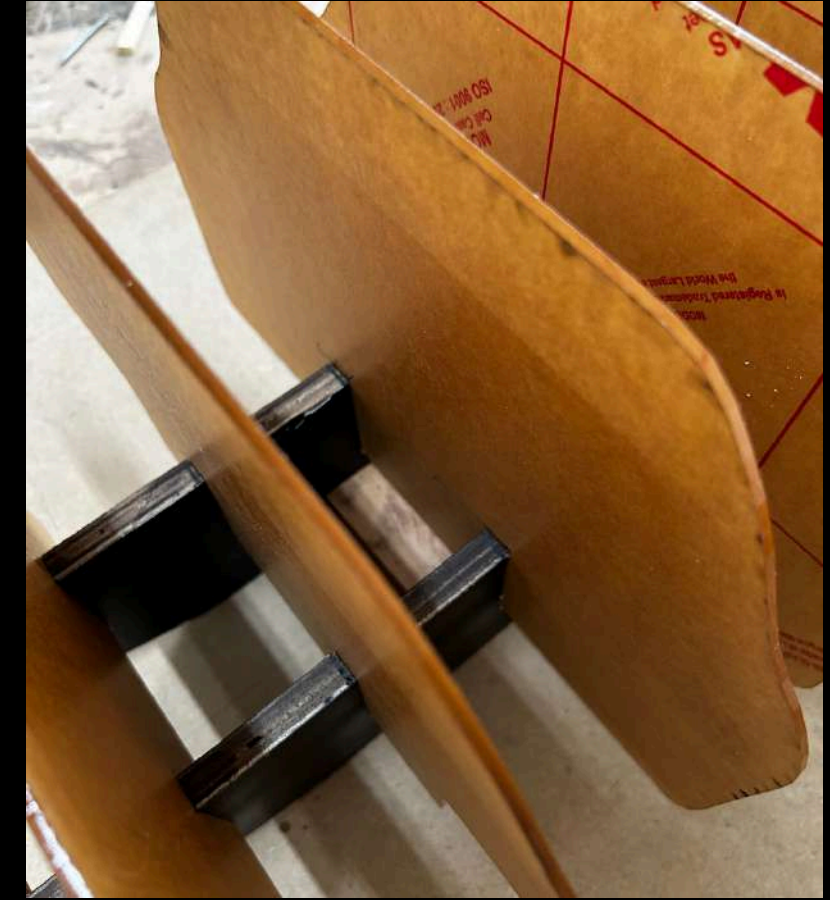
03

CLAY SCULPTING

**A WORK IN PROGRESS FOR THE SUV DESIGN DONE IN AN EARLIER PROJECT.
A GROUP PROJECT BACKED UP BY DEEPTI SHETTY AND SHUBHAM CHAUHAN.**



PREPARING ARMATURE FOR LAZER CUTTING USING BLENDER



**PREPARE LAZER
CUT ARMATURE
AND A SOLID BASE
TO WORK FOR
FURTHER STAGES
LIKE THERMOCOL
SECTIONS AND
CLAY DEPOSITION.**



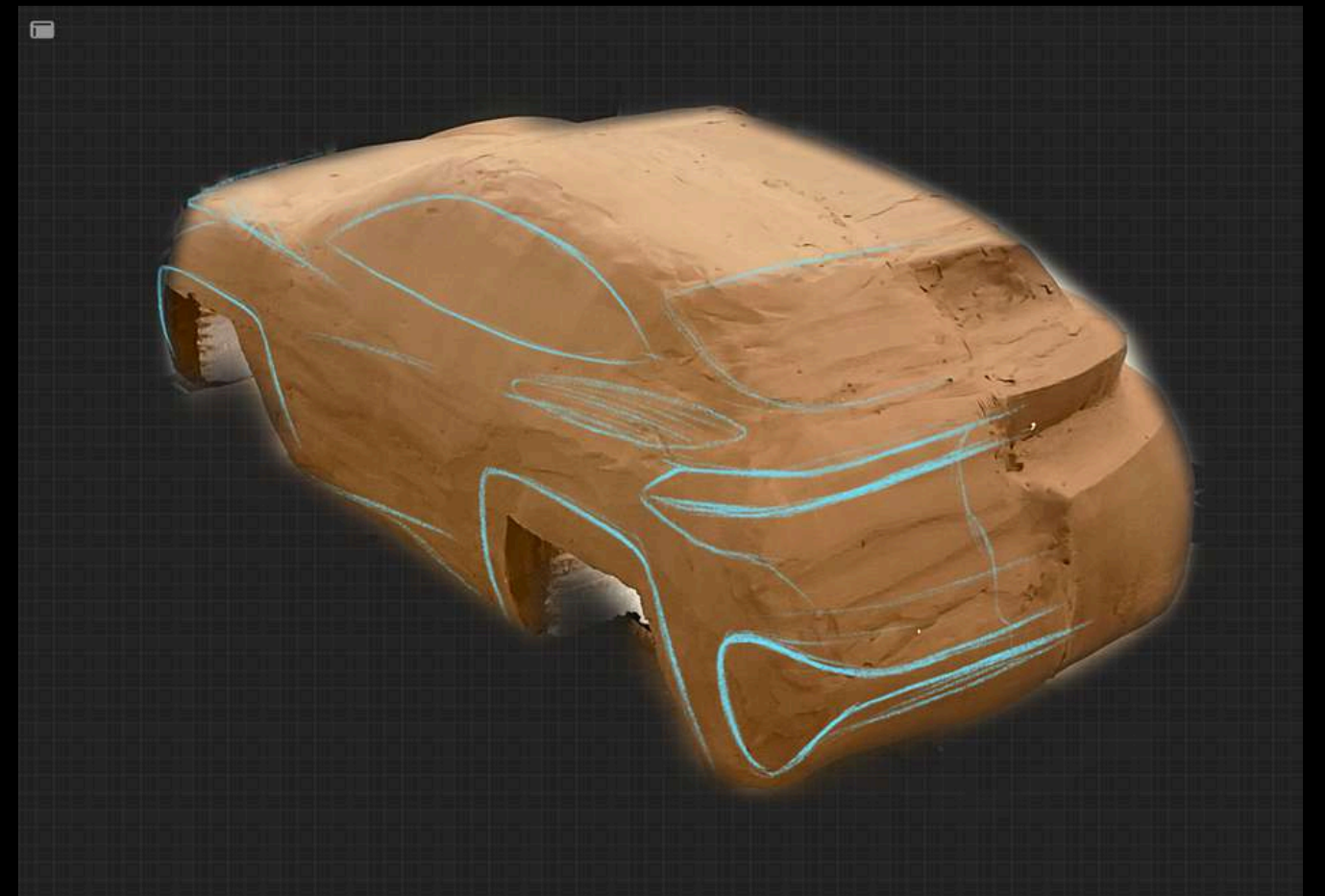
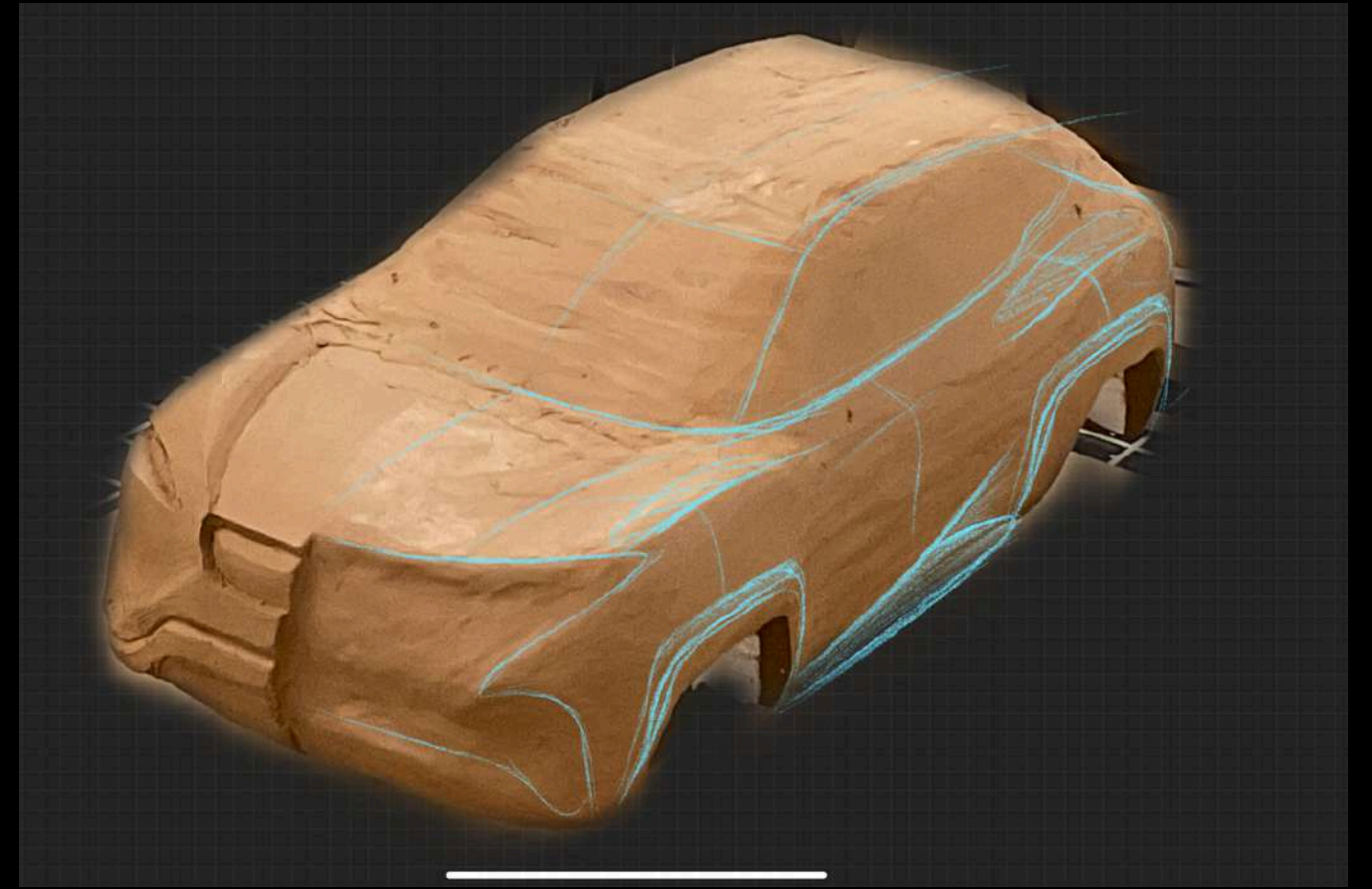
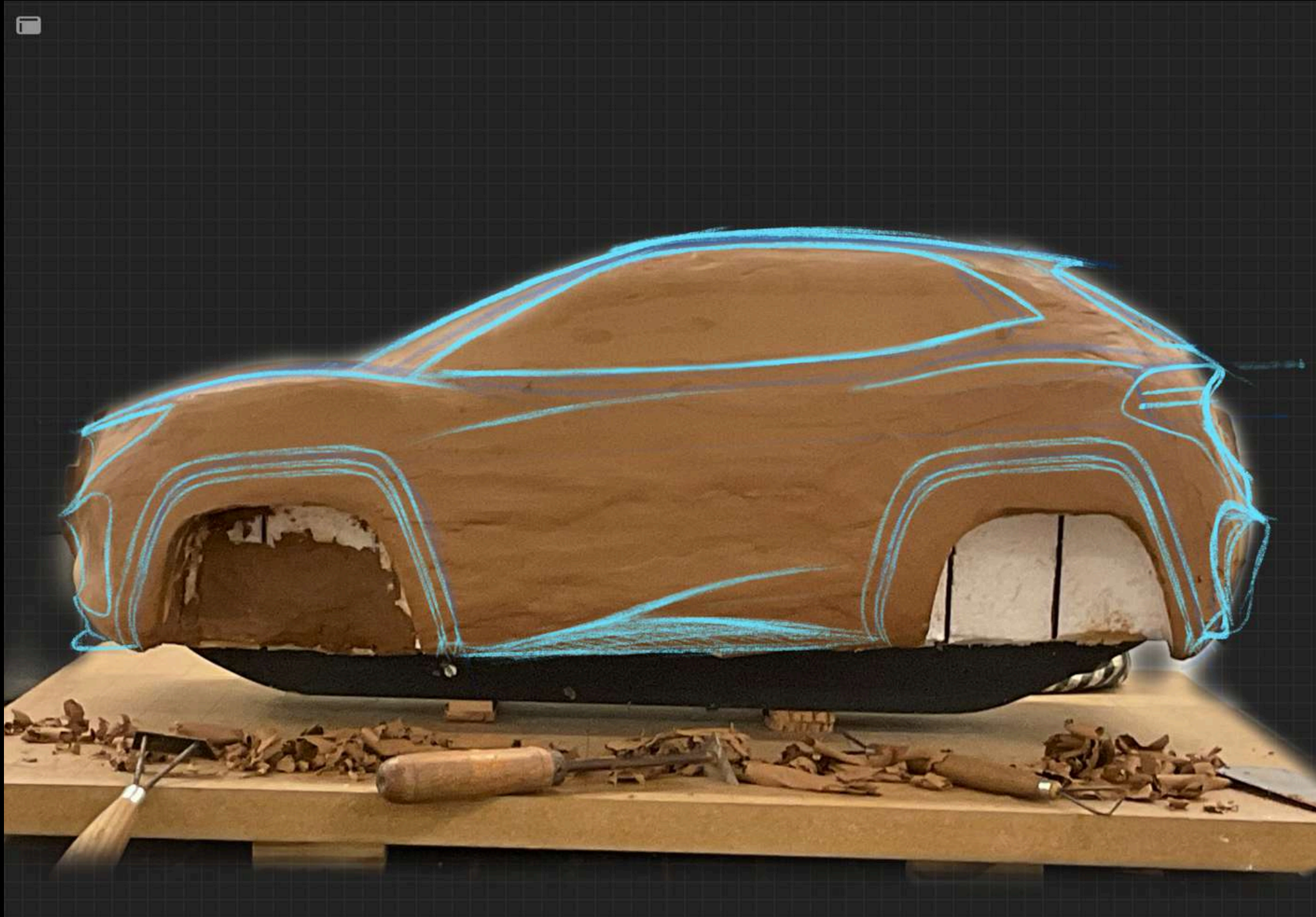
STAGE 01



STAGE 02



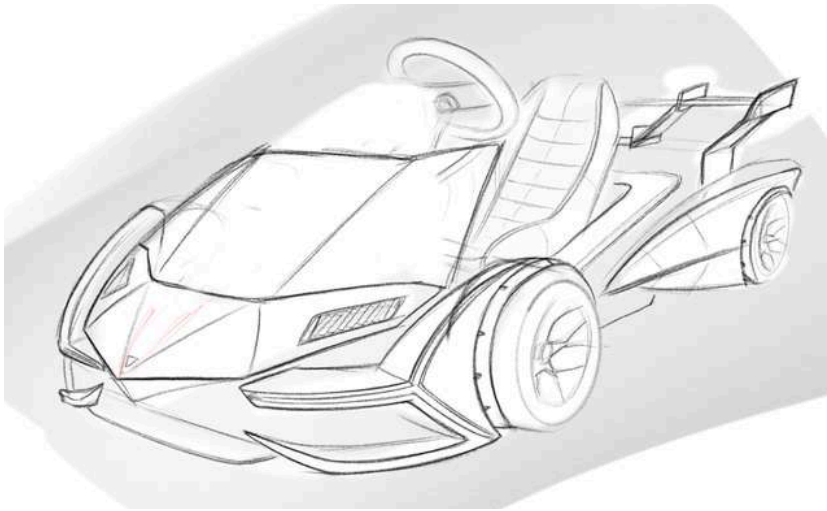
CLAY SKETCHOVERS



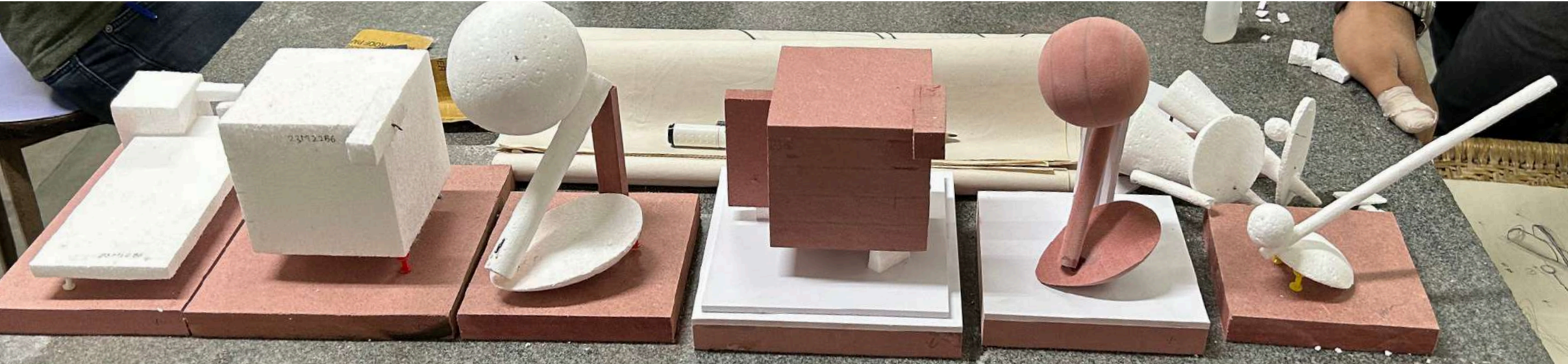
06

**SKETCHING &
RENDERING &
MISC.**

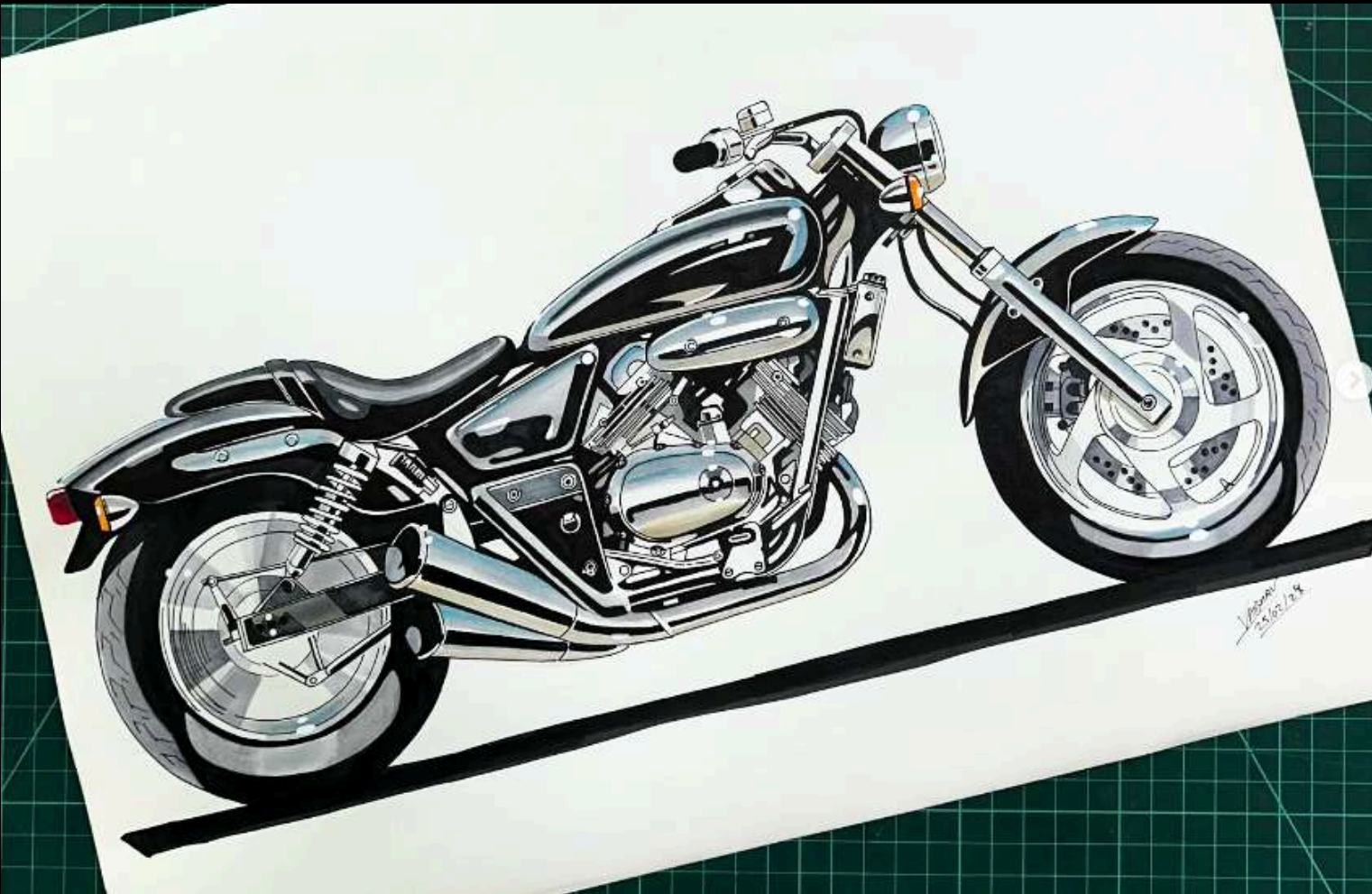
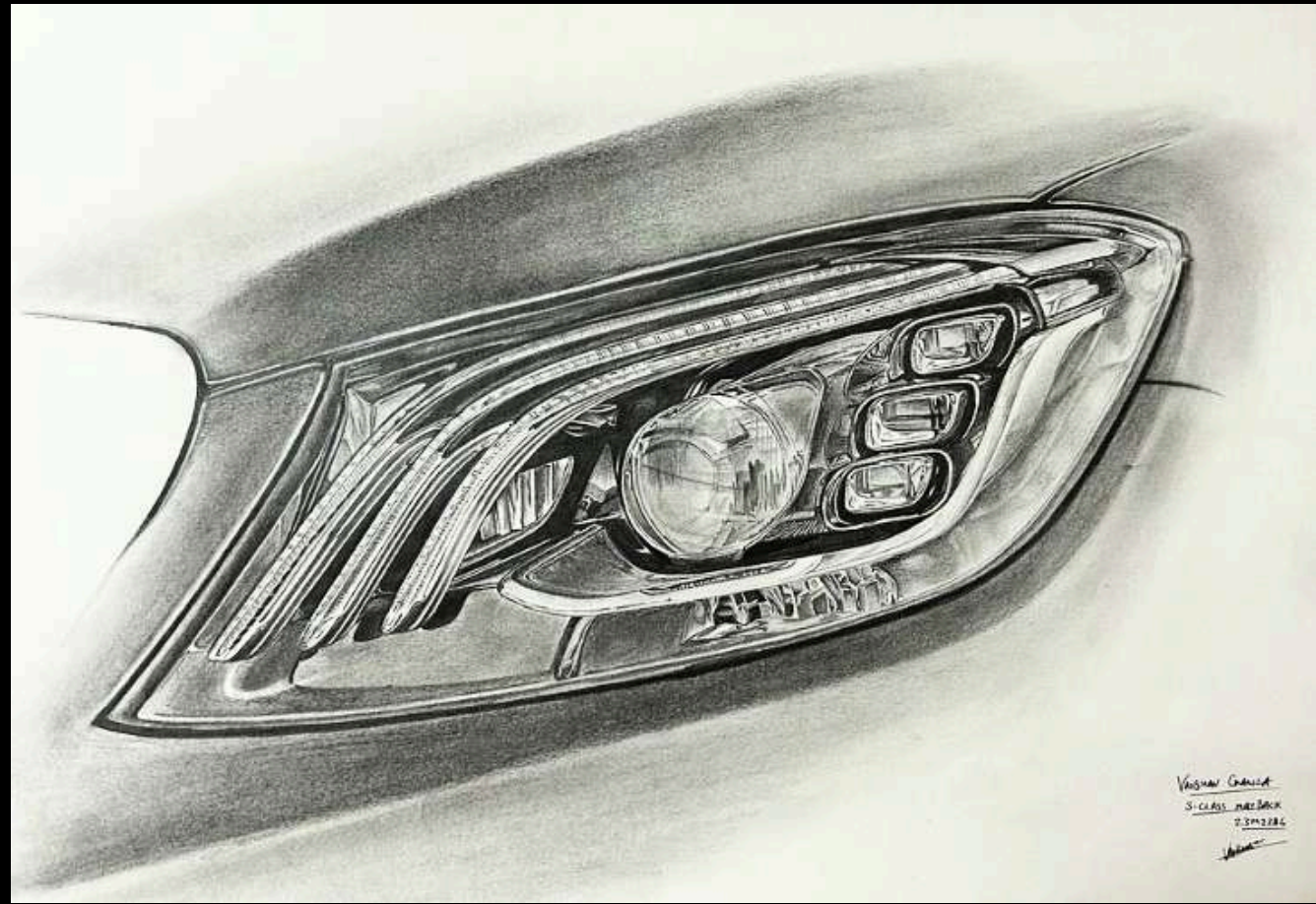
GO-KART DESIGN

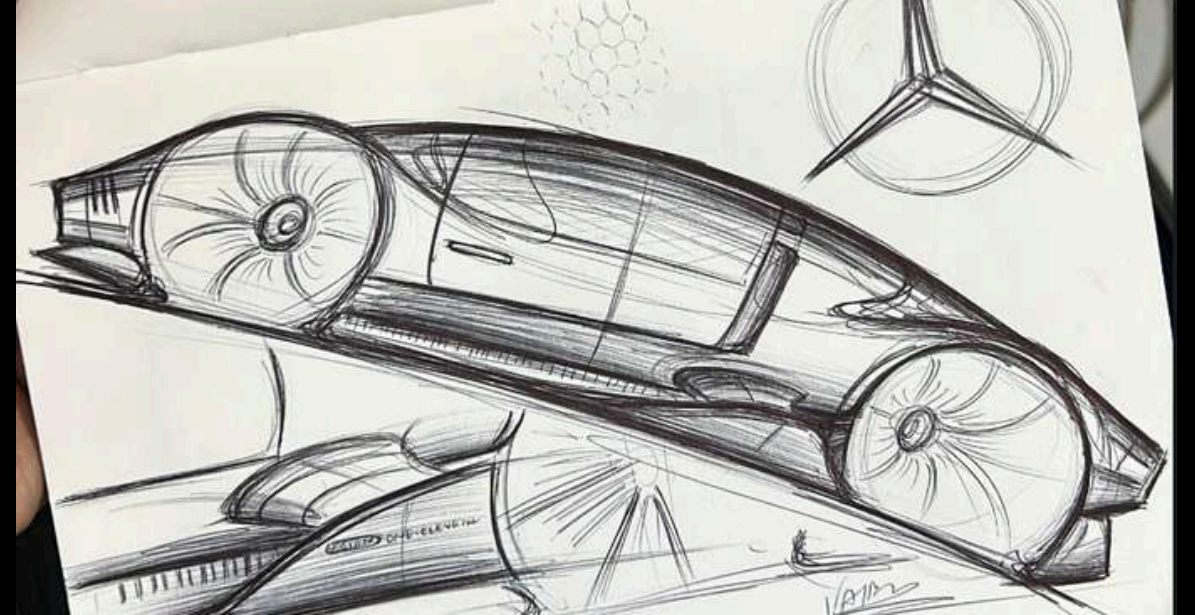
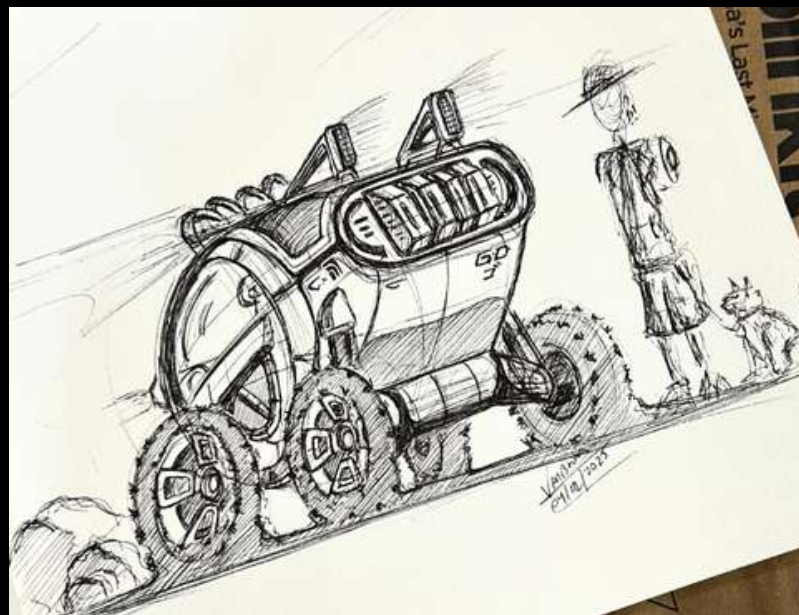
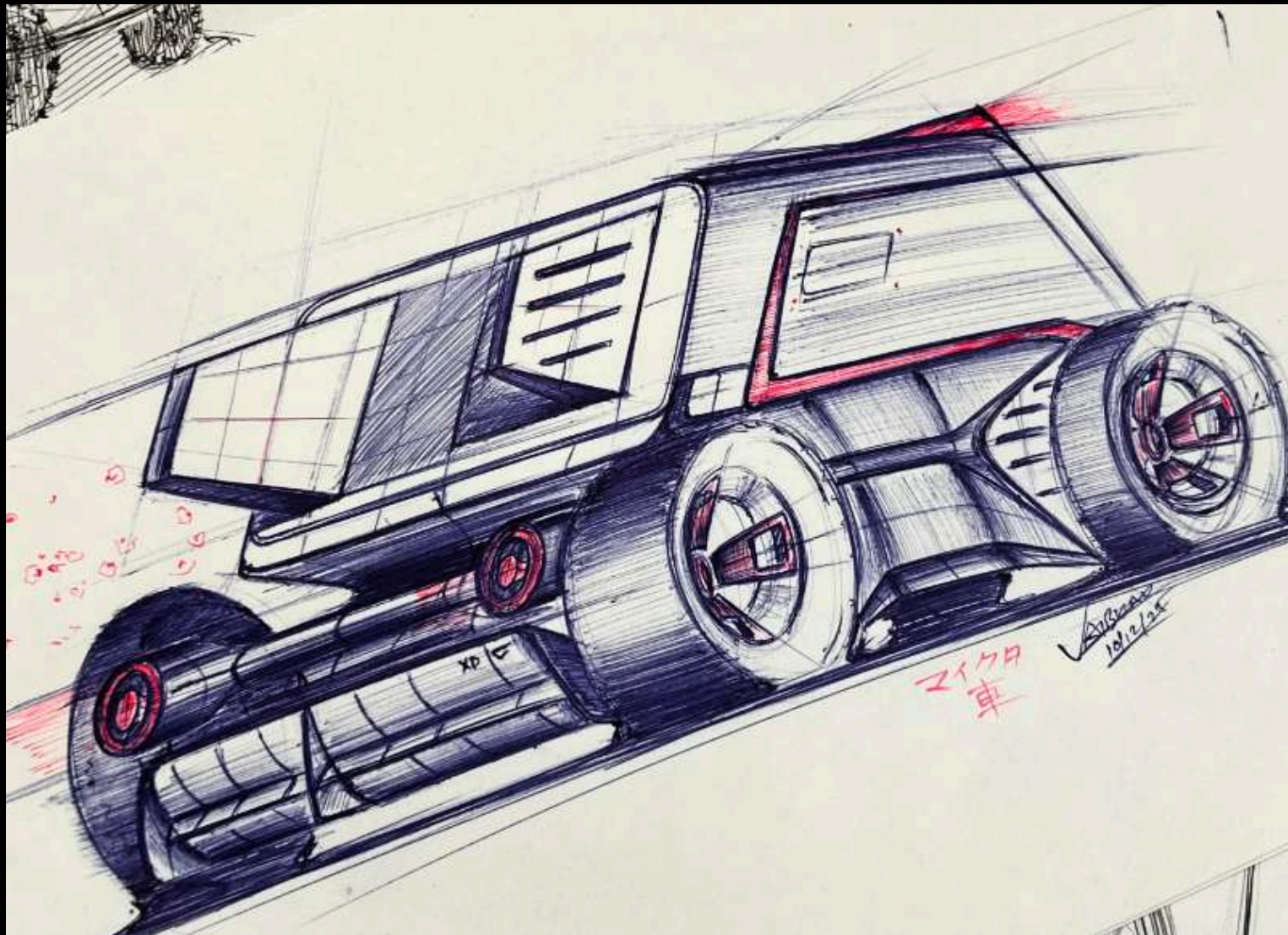
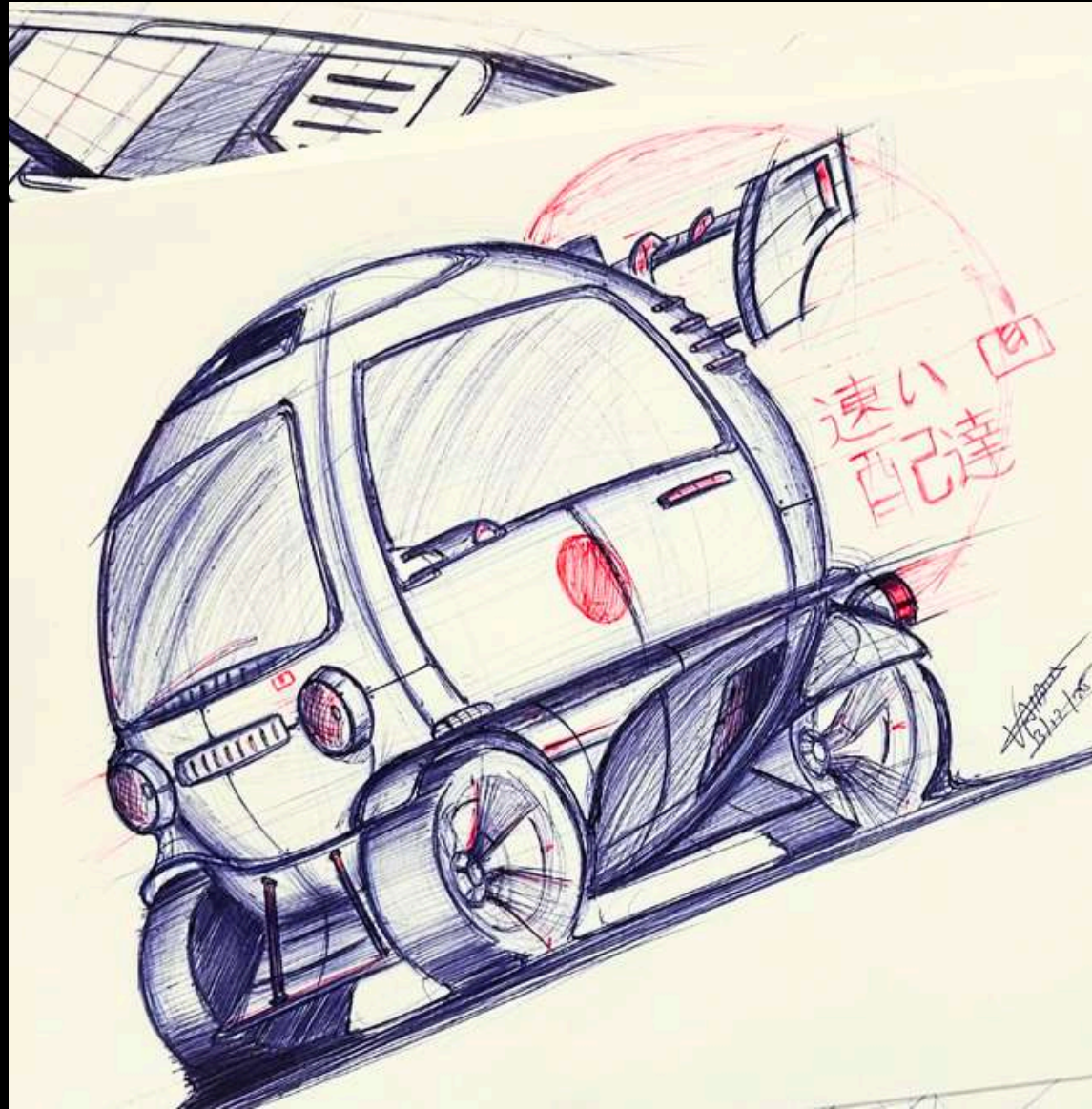
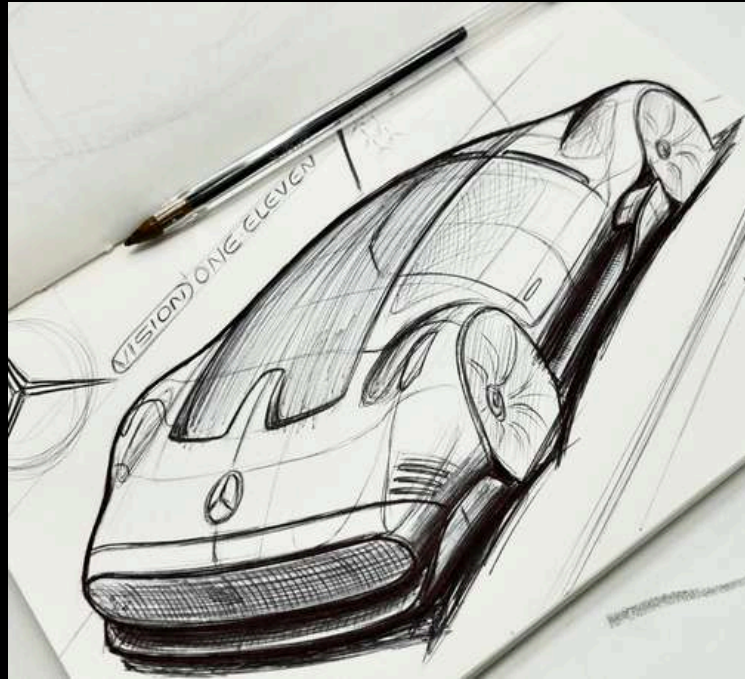
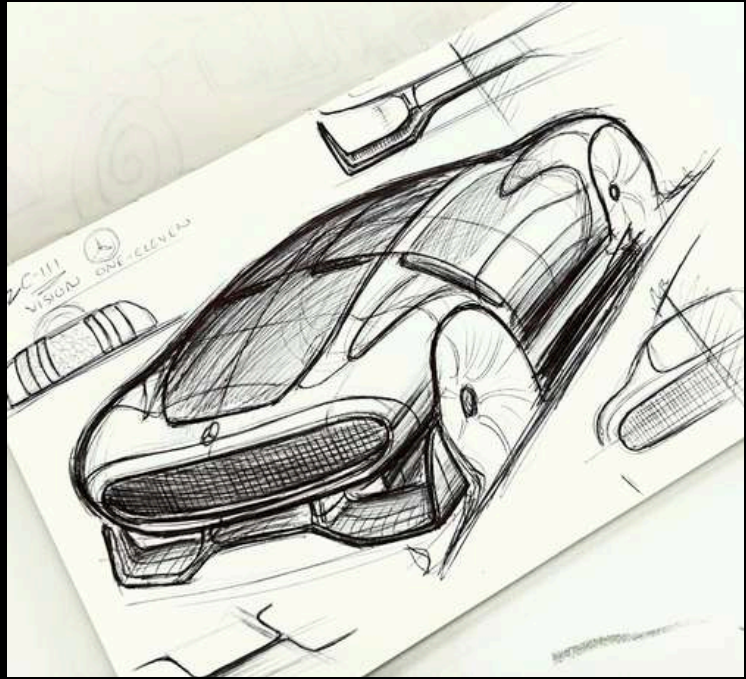


**FORMS
EXERCISES
& SOME PROTOTYPING**

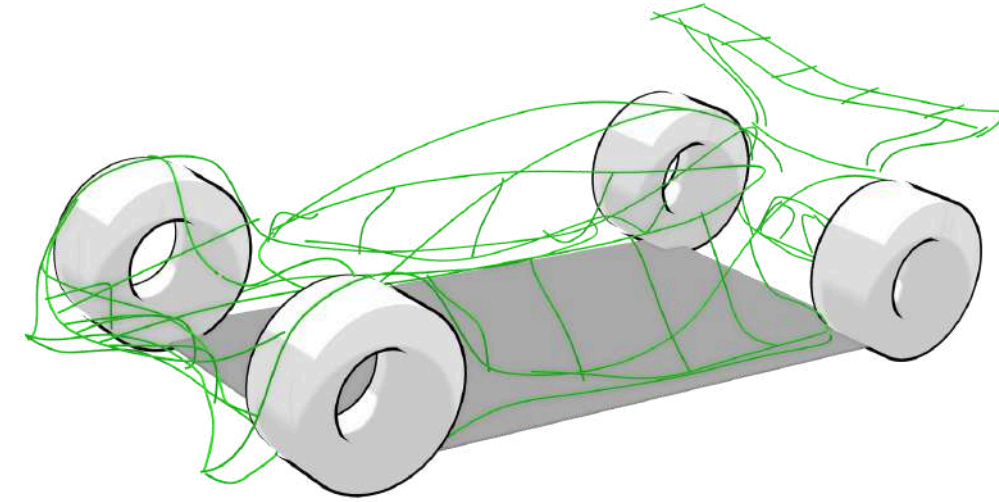
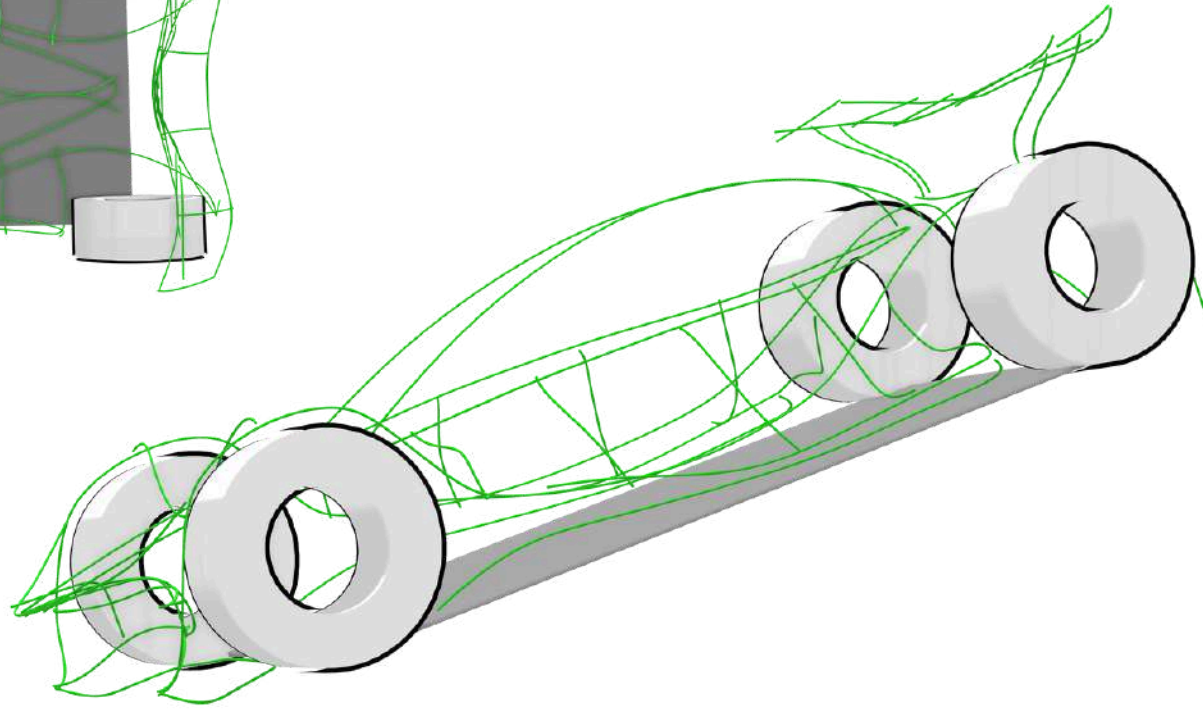
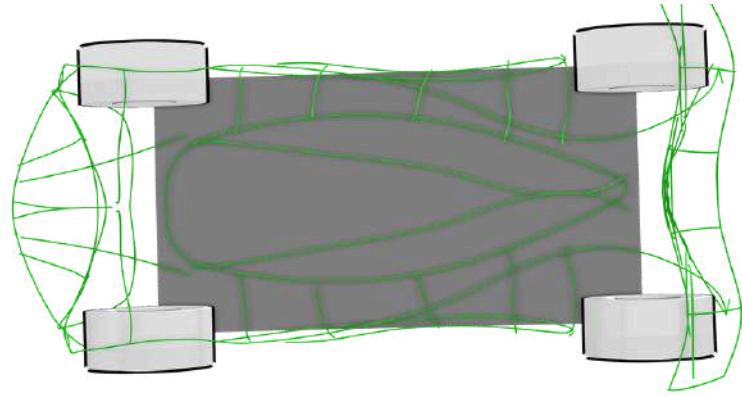




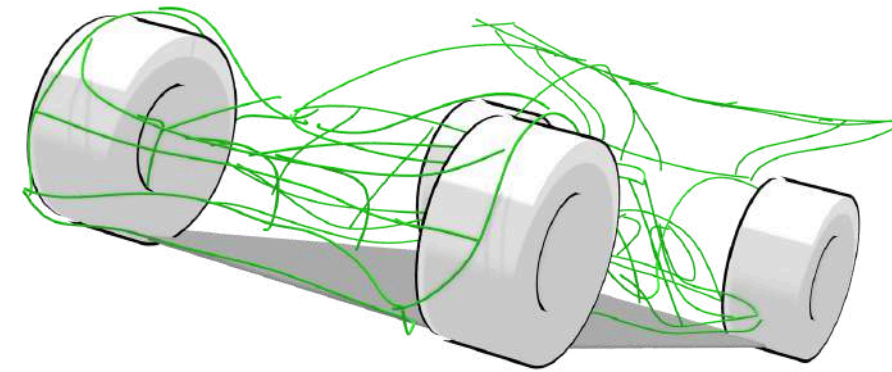
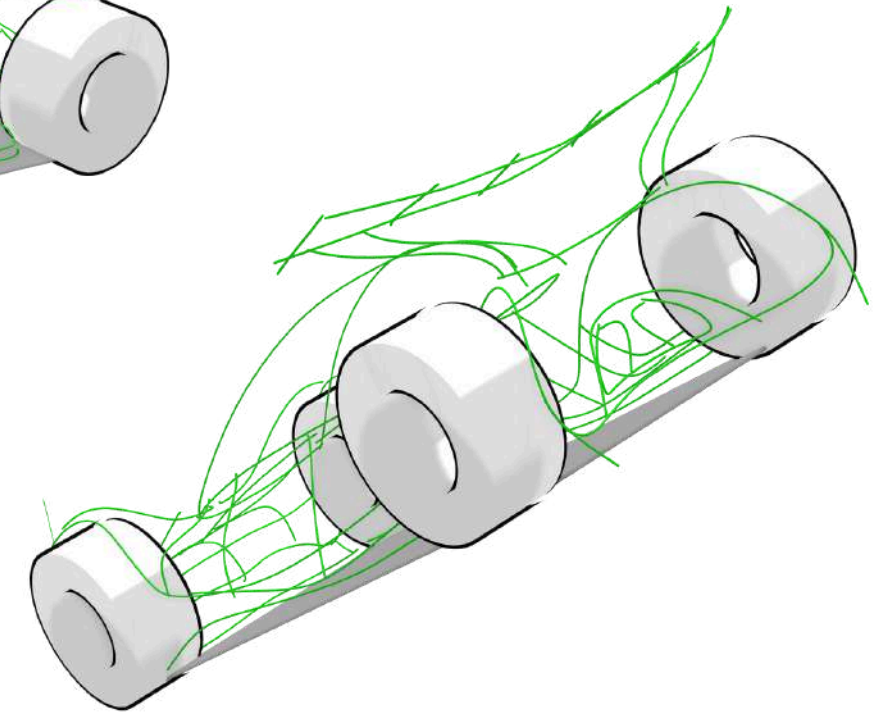




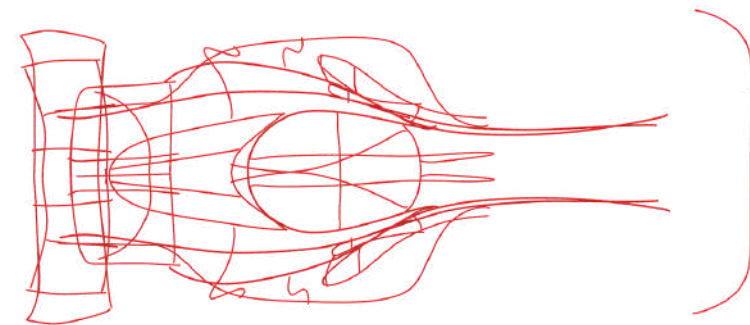
GRAVITY SKETCH EXPLORATIONS



gravity sketch



gravity sketch



07

3D MODELLING & RENDERING









**COCKPIT MODELLING &
RENDERING**



THANK YOU