



PORTFOLIO 2024

DIGITAL DESIGN

JOJI ISAAC ABRAHAM



Hello, I am Joji,

A Digital Designer, working at Aspireli, a Dubai based Design & Technology Studio focusing on innovative Automotive Part Design. Before Aspireli, I worked as a Digital Modelling Consultant - Specialist, for FORD - UK, on consultancy through Contechs UK and Satven India. Prior to this role, I worked as a Lead Digital Designer at Tata Motors Global Design Team, Pune. I always look into the new realms of design. I am open for opportunities to utilize my skills & Competencies, & to contribute as a Lead Digital Designer.

Regards,
JOJI ISAAC ABRAHAM



TRAVELLER
SPREAD SMILE
WARM
PEACE LOVER
EXPLORE LIFE
FOODIE

I love design, technology & trends. However, I always find time for journeys which rejuvenates me and help me learn new cultures, values, cuisines and what not... Snaps from some of those journeys...



Drives



Peace of mind



Food



Travel



isaac.joji@gmail.com

EXPERIENCE



ASPIRELI - DUBAI

Nov 2023 - Present



*on consultancy through Contechs UK and
Satven India*

FORD - UK

March 2023 - Nov 2023



TATA MOTORS DESIGN DASSAULT SYSTEMES

Sep 2016 - March 2023



Feb 2015 - Aug 2016



Jul 2013 - Dec 2013



Digital Designer - Automotive Surfacing Nov 2023 - Present

- Analyzed automotive design trends, market dynamics, customer expectations to identify opportunities for product innovation.
- Created and refined surface models for automotive designs, ensuring alignment with brand identity and market demands.
- Collaborated with cross-functional teams to translate conceptual designs into tangible products, meeting project deadlines and quality standards.
- Leveraged expertise in Alias Nurbs, SubD, Blender & Unreal Engine to develop high-quality renderings and surface models.
- Contributed to brainstorming sessions and design reviews, offering creative insights and solutions to design challenges.
- Stayed updated on industry developments and emerging technologies to drive continuous improvement and innovation within the design process.
- Received recognition for contributing to a positive team culture and dynamic work environment.
- Established new Design process, process work flow, cross functional team handover standards, and design standards along with the design team while leveraging my Automotive OEM and consulting experience from Germany, UK, USA and India and helped setup a high energy and hyper efficient studio environment.



Satven



FORD UK, On Consultancy through Contechs UK & Satven India
Digital Modelling Consultant - Specialist Mar 2023 - Nov 2023

Collaborated with Contechs UK Technical team, FORD UK Designers, Clay Modellers, Studio Engineering and Design Managers, accommodated their requirements and supported High Quality Surfacing based on design Gates K2 to K6 in the development of FORD UK & FORD North-America Projects.

- Concept to Class A Surfacing.
- Adapted client requirements and tailored a workflow for them



TATA MOTORS DESIGN

Lead - CAS Modelling, Digital Design
Senior Manager - Design Centre
Digital Designer

Aug 2018 - Mar 2023
Dec 2017 - Jul 2018
Sep 2016 - Nov 2017



TATA MOTORS DESIGN

INDIAN AUTO EXPO 2023

INTERIOR SURFACING for production (concept to Production)

To be launched



Tata SIERRA :

Interior FATC and Centre Console,
Seats, Door Trim



Tata Hexa Safari Edition : Grille & Exterior Cladding



Tata Yodha : Exterior front bumper & fender

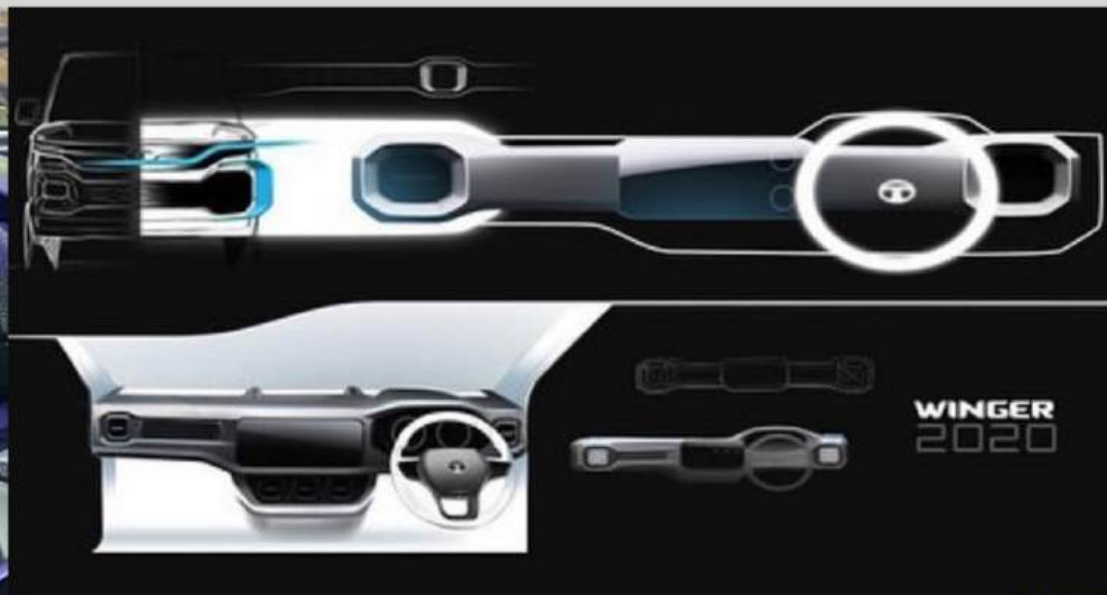


Tata EV Bus : Exterior front fascia



TATA MOTORS DESIGN

INDIAN AUTO EXPO 2020
EXTERIOR SURFACING



TATA MOTORS DESIGN

INDIAN AUTO EXPO 2020
INTERIOR SURFACING

Tata Winger :
Interior IP complete,
Door cards & Seatback



TATA MOTORS DESIGN

INDIAN AUTO EXPO 2020
INTERIOR SURFACING

Tata Prima :
Interior IP, multiple Headliner variants, Door Trims
& All new Steering Family.



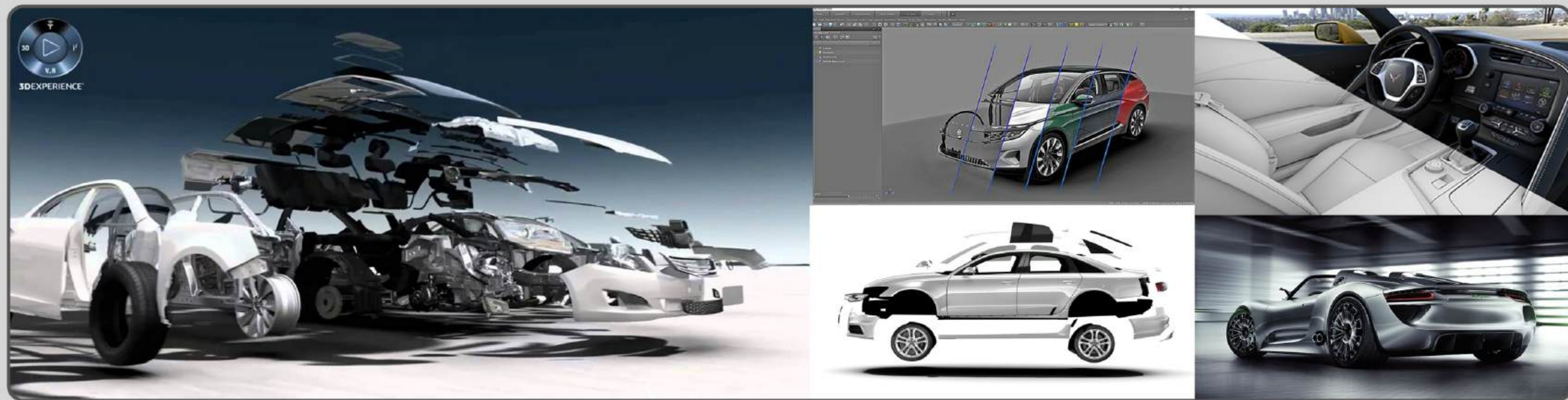
Tata Intra : Dual tone wheel cover, Mascot & HVAC Control Decals

Tata Ultra AMT Concept 2018 : Amt Console & the Mascot

Tata Magic EV 2018 :
Wheel Cover

TATA MOTORS DESIGN
INDIAN AUTO EXPO 2018
EXTERIOR & INTERIOR SURFACING





DS 3DEXCITE

Digital Designer - Permanent Dec 2015 - Aug 2016
 Digital Designer - Contract Feb 2015 - Dec 2015

Dassault Systèmes - 3DEXCITE, Pune, India
Formerly known as 3DPLM Global Services (3DGS)

Projects:

- Worked on the content preparation & Visualization for an International Automotive OEM's entire product range for Europe.
- Worked on the content preparation & Visualization for two other International Automotive OEM's products for Europe.

Key Responsibilities:

- Digital Design - Content Preparation - Visualization
- Clean up of 3d Models & 3D modelling for using in visualization
- Worked on 3D Modelling, Content preparation, optimization for visualization in Deltagen
- Storyboarding, Animation preparation.
- Understanding client requirement (Multiple Automotive OEMs for their operations in Europe) and working on 3DEXCITE standards.
- Knowledge sharing, training new team members, exploring different platforms for visualizations for different requirements.
- Helped in aligning the team towards creative Design for visualization, as I was among the first few Digital Designers while the team started in Pune.

Confidential Data:

- All the work done here for 3DEXCITE clients (Automotive OEMs) were live projects and hence confidential.



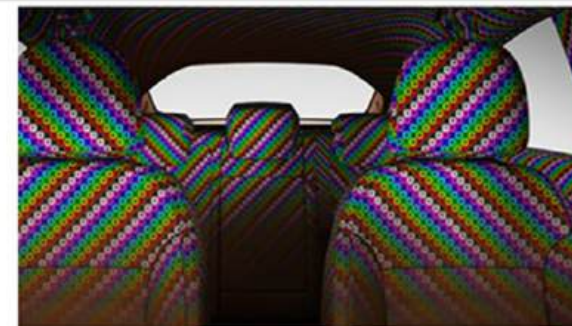
Visual 3D Modelling

Refine CAD geometry during the process of virtual 3D model preparation with dedicated geometry optimization, completion and creation services. Our flexible scanning services bring virtual products to life even when no CAD data is available. This offering is completed by services for 3D environment creation.



Visual CAD2Asset Automation

Streamline visualization processes across your enterprise by driving high-volume media production standardization, efficiency and scalability. In doing so, accelerate product cycles by using existing CAD data that is efficiently converted into visual assets, feeding an expanding landscape of media channels with compelling content.



Visual 3D Master Model

Create a single source for all visualization use cases by preparing CAD geometry data and completing it with product information - such as configuration, materials and codes. For a complete solution, we offer 3D master model creation, as well as data and information harvesting, 3D modelling, model lifecycling and distribution.



Visual 3D/2D Staging

3DEXCITE's fast and efficient Visual 3D/2D Staging services use efficient, multi-channel media production pipelines to turn 3D model data into configurable, visually stunning 3D real-time assets, 2D layers and still images for an ever growing number of marketing use cases.



TECHNICON DESIGN GmbH, Russelsheim, Germany
Alias Modelling Intern Jul 2013- Dec 2013



One of the non confidential project work during my Internship

What I Learned / Experience.

- Industry experience.
- Learning and Improving Alias Modelling Skills and implementing them.
- Understanding Industry expectations, restrictions & quality requirements in Alias modelling and working for that.
- Alias modelling from different types of inputs like scan data, physical model, photographs, sketches.
- Learning the process & project workflow.
- A light introduction/idea about the CNC Milling & Learning Clay Modelling.
- Adapting to a different culture and contributing as a team player.

Quick Modelling 01

BMW M4 Concept

Scan data Modelling of the BMW M4 Bonnet & Fender from given scan, & Sketch modelling of front bumper as per reference image in 16 hours.

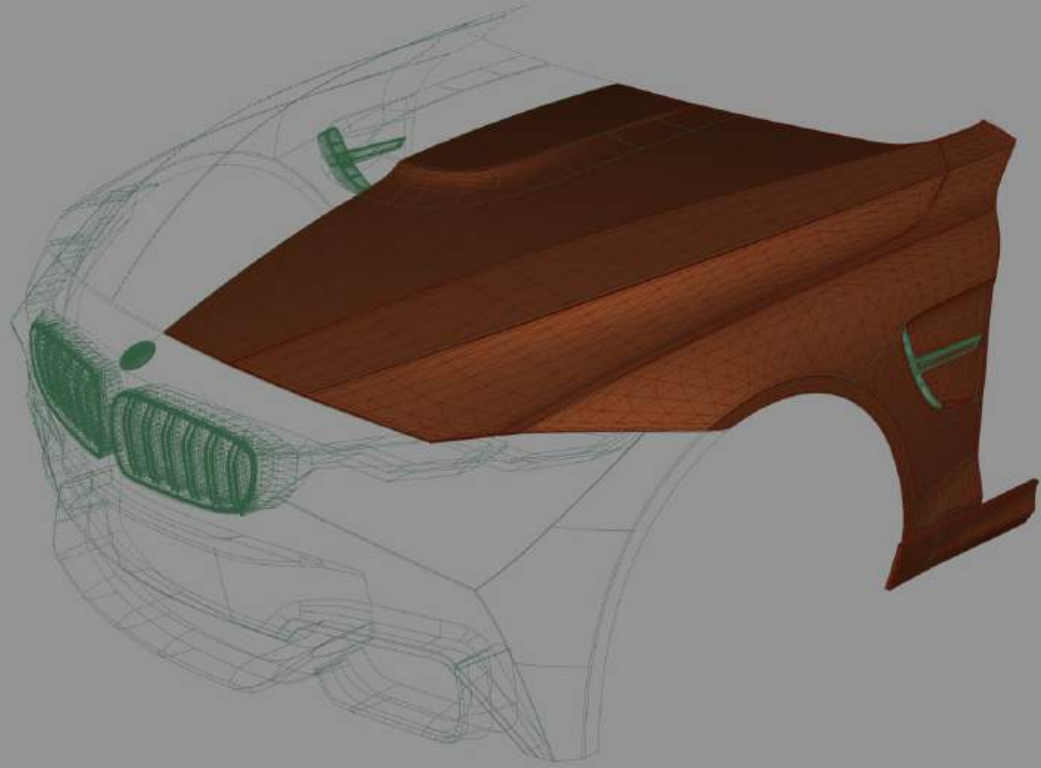


Input : Reference Image

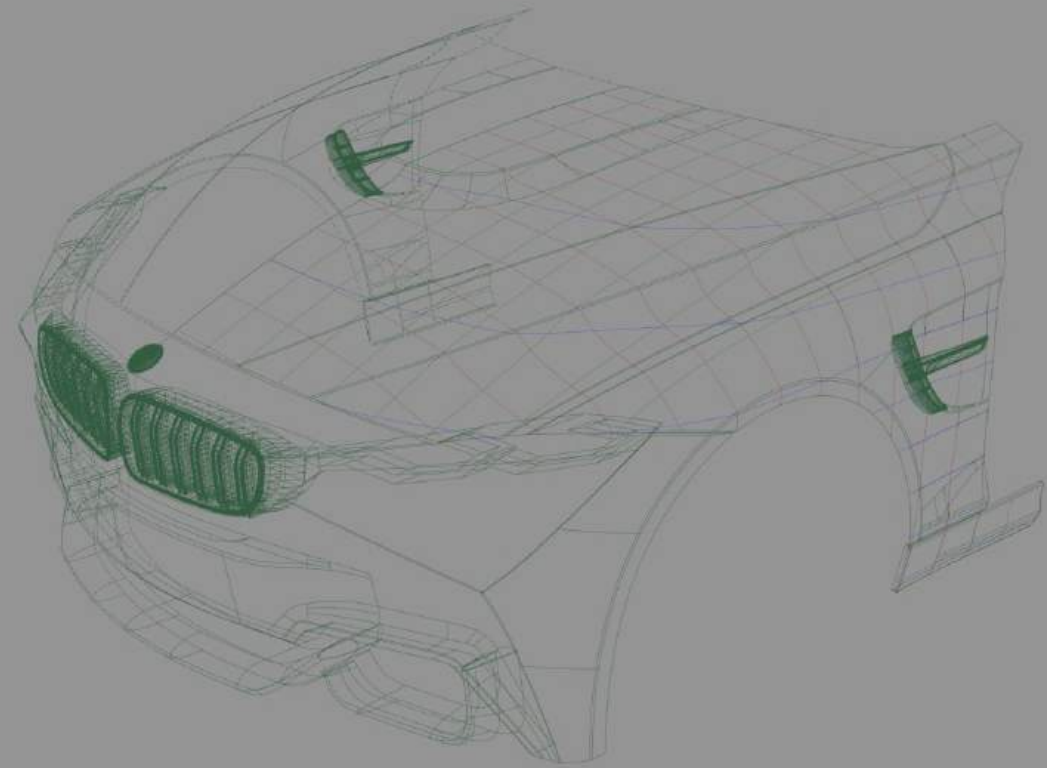
Quick Modelling 01

BMW M4 Concept

Scan data Modelling of the BMW M4 Bonnet & Fender from given scan, & Sketch modelling of front bumper as per reference image in 16 hours.



Input : Scan Data

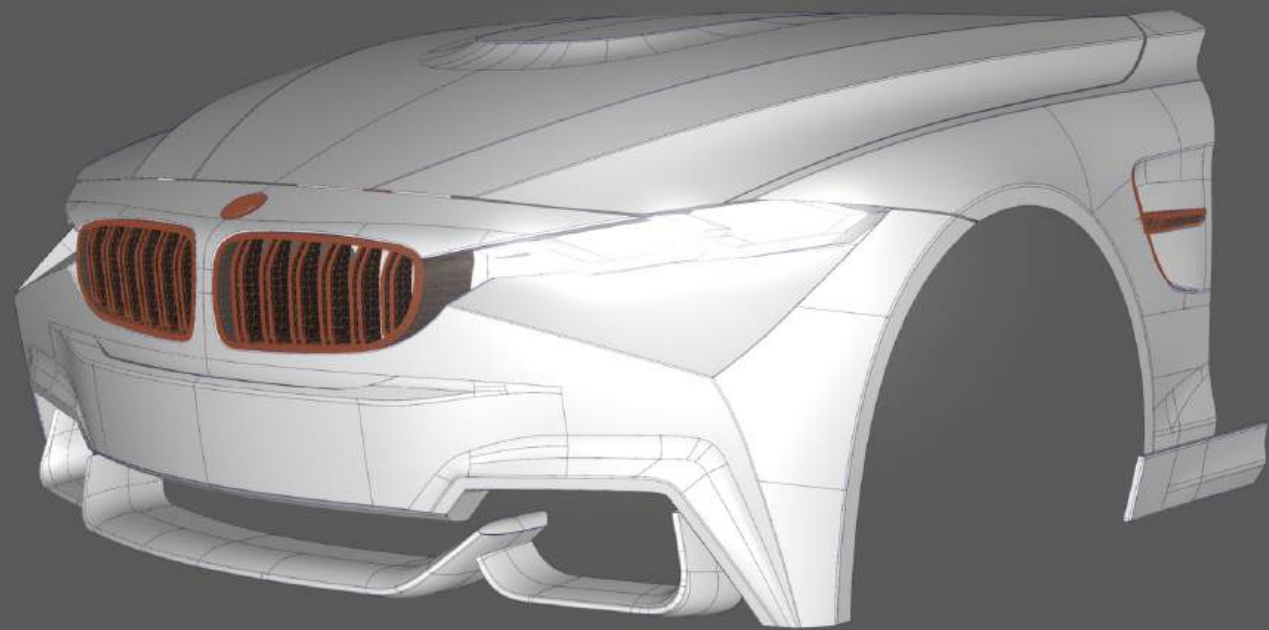


Process : Creating Sections on Bonnet & Fender

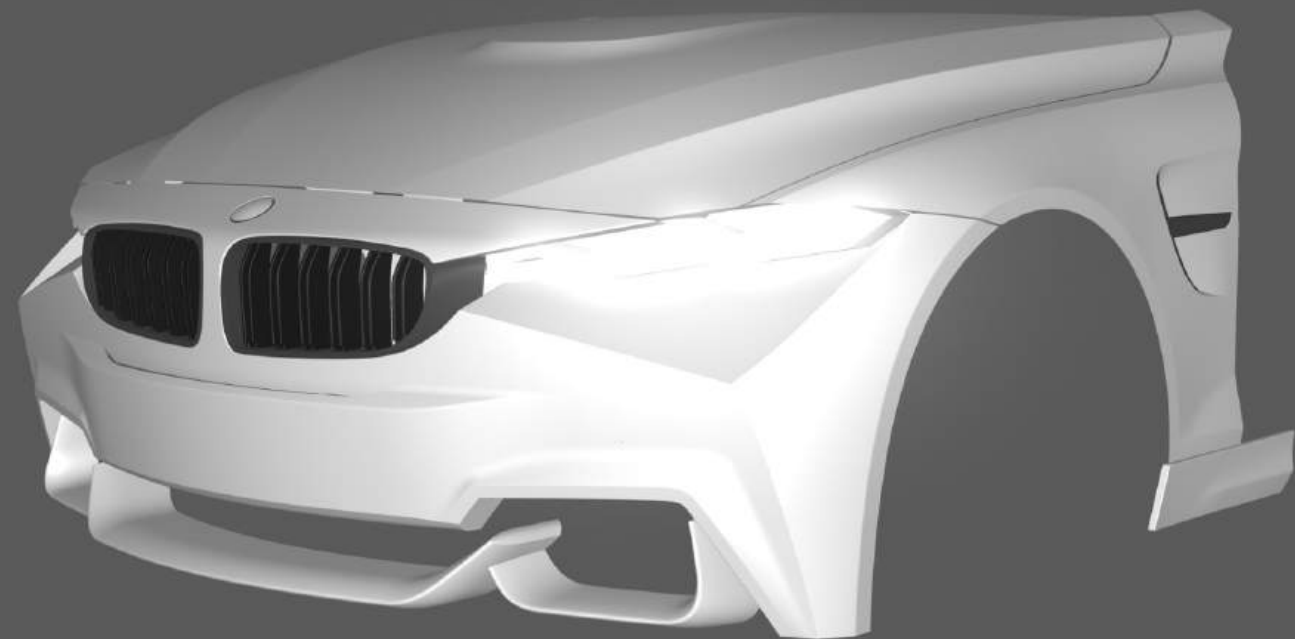
Quick Modelling 01

BMW M4 Concept

Scan data Modelling of the BMW M4 Bonnet & Fender from given scan, & Sketch modelling of front bumper as per reference image in 16 hours.



Patch Layout



Hardware Shade

Quick Modelling 02

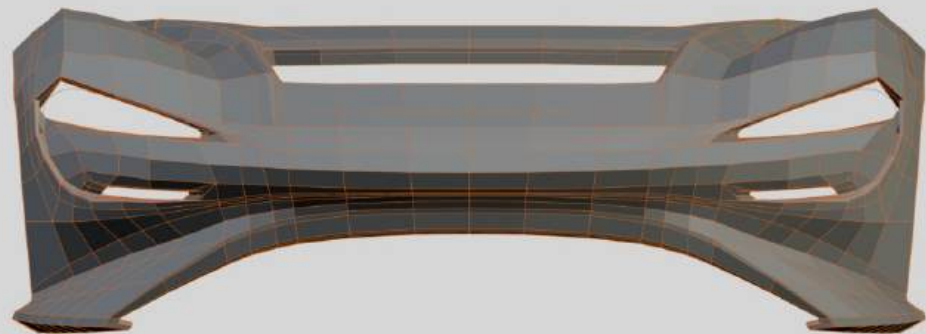
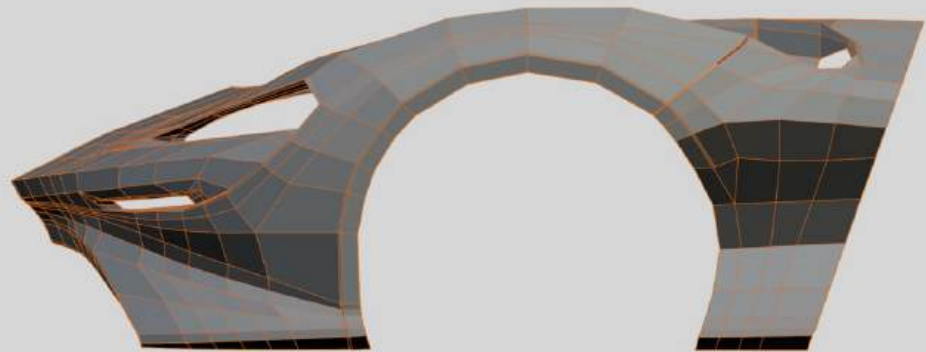
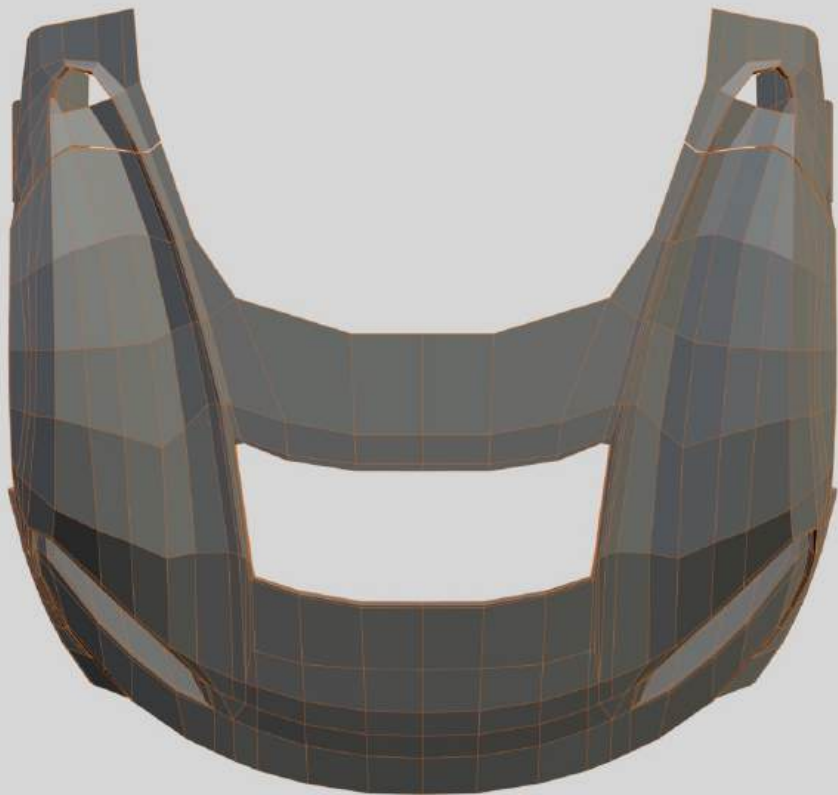
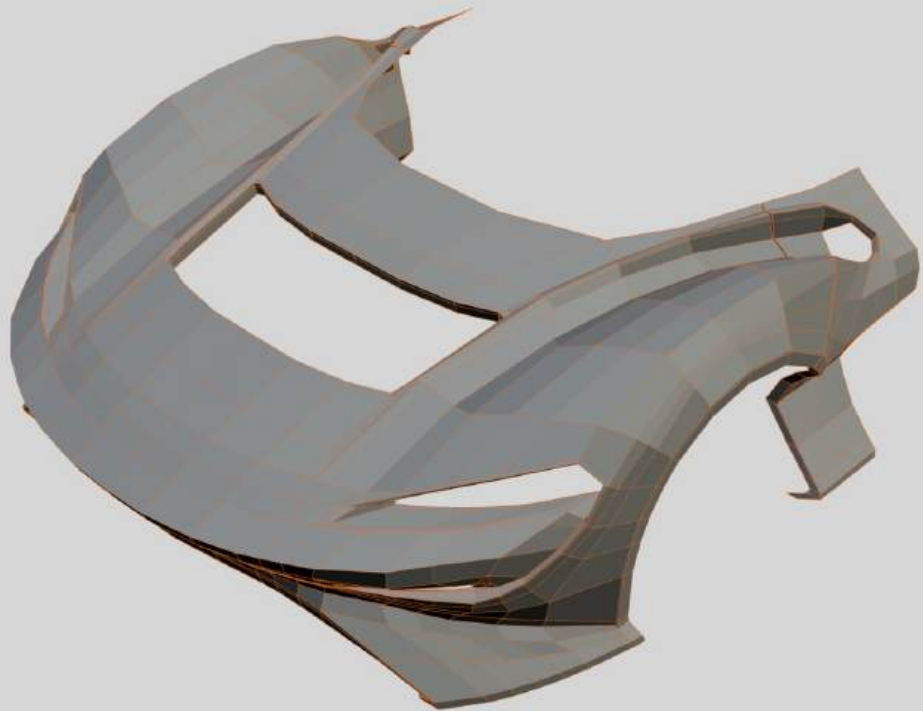
McLaren Elva

Model McLaren Elva front fascia in Alias SubD and Alias Nurbs using reference images

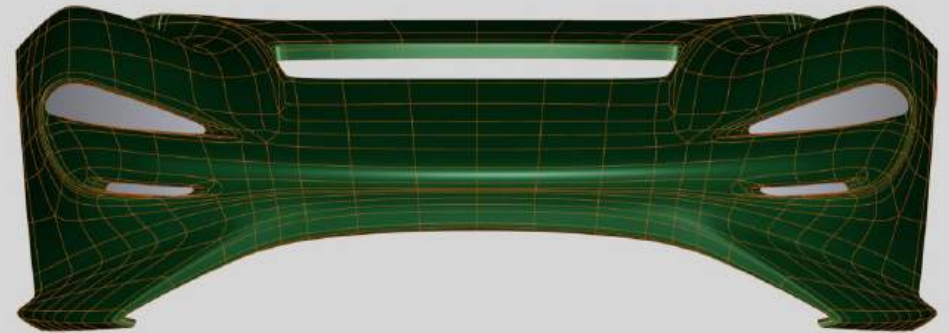
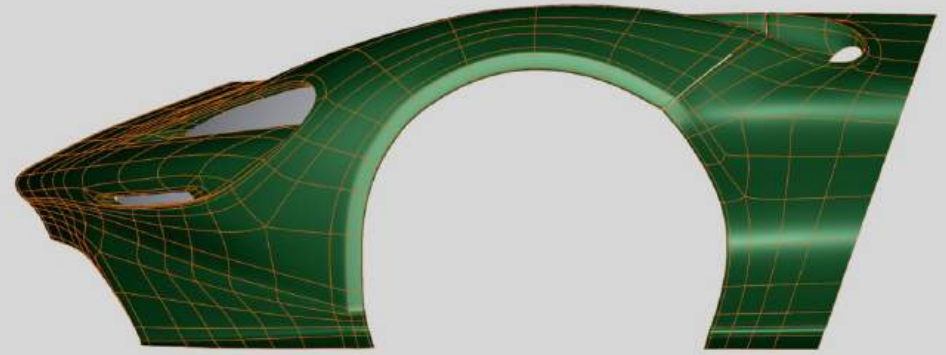
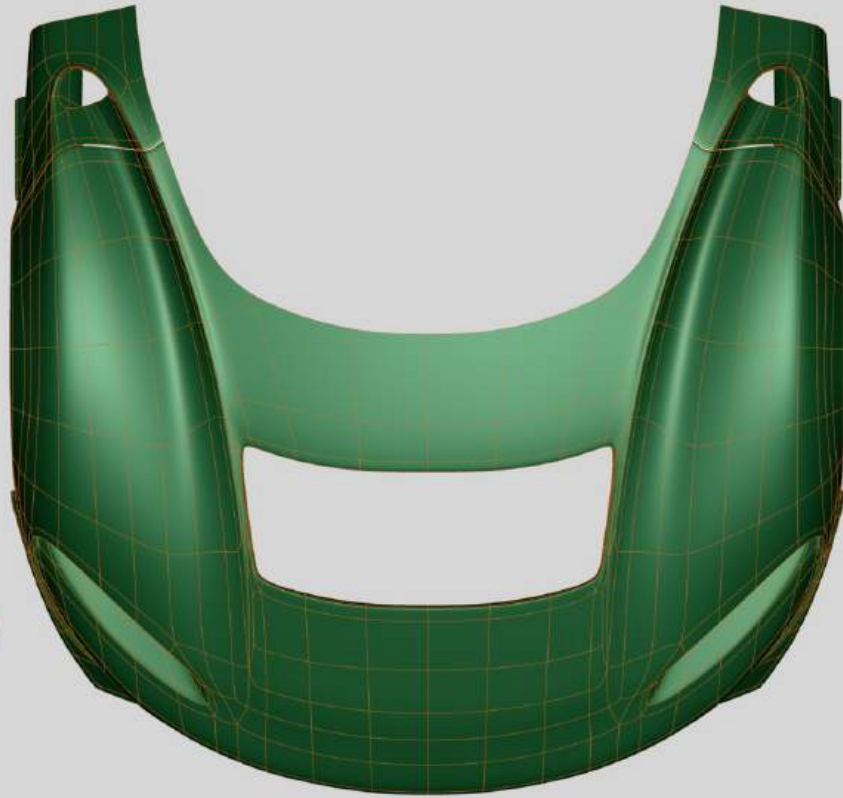
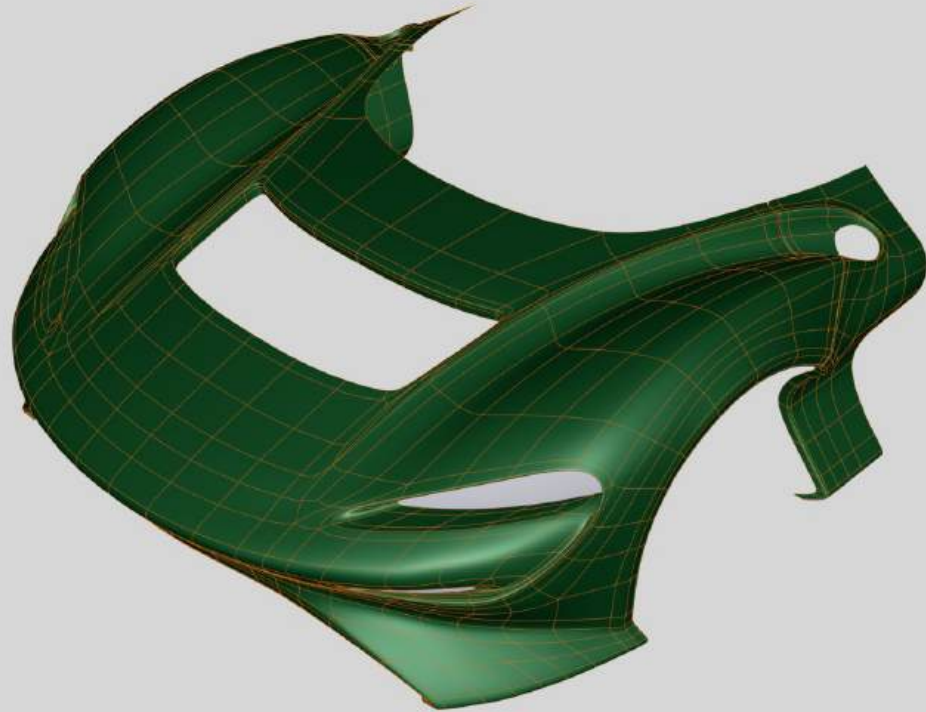


Input : Reference Images

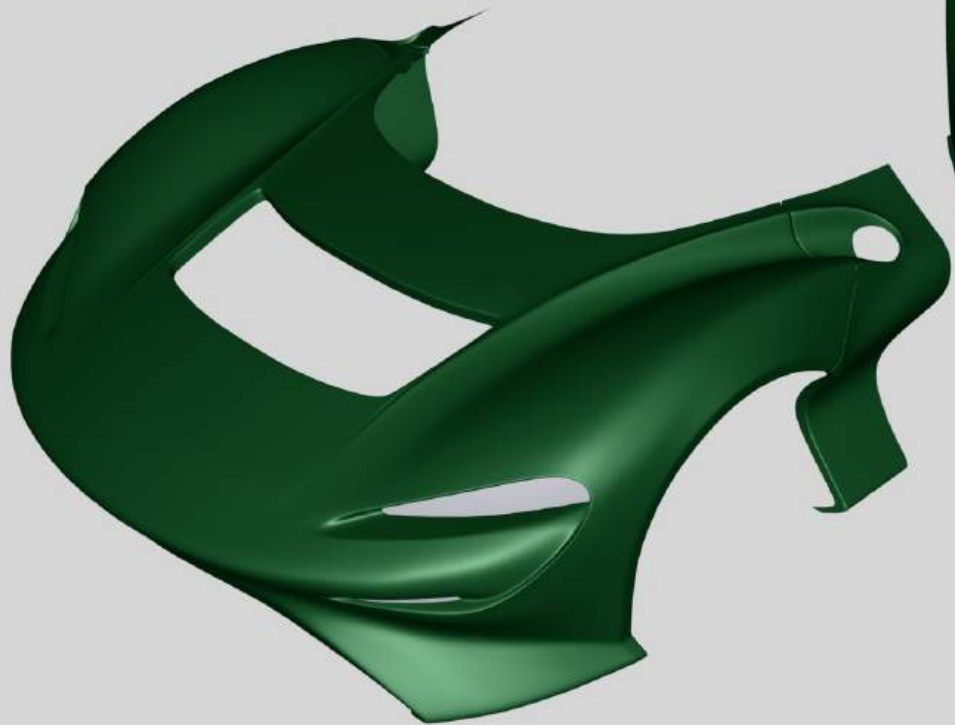
Quick Modelling 02
SubD Box Model



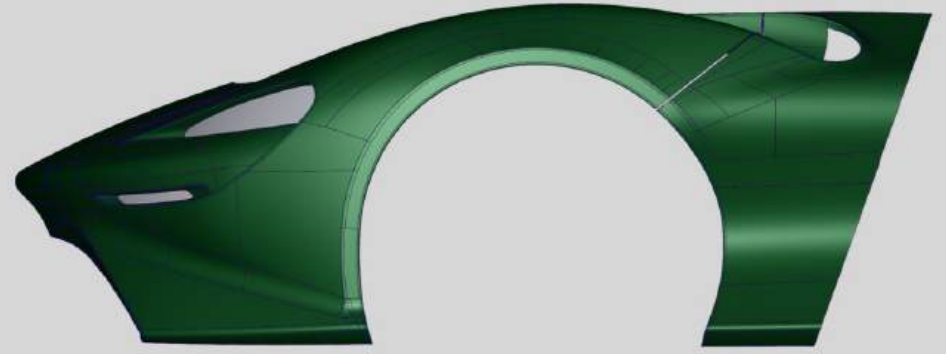
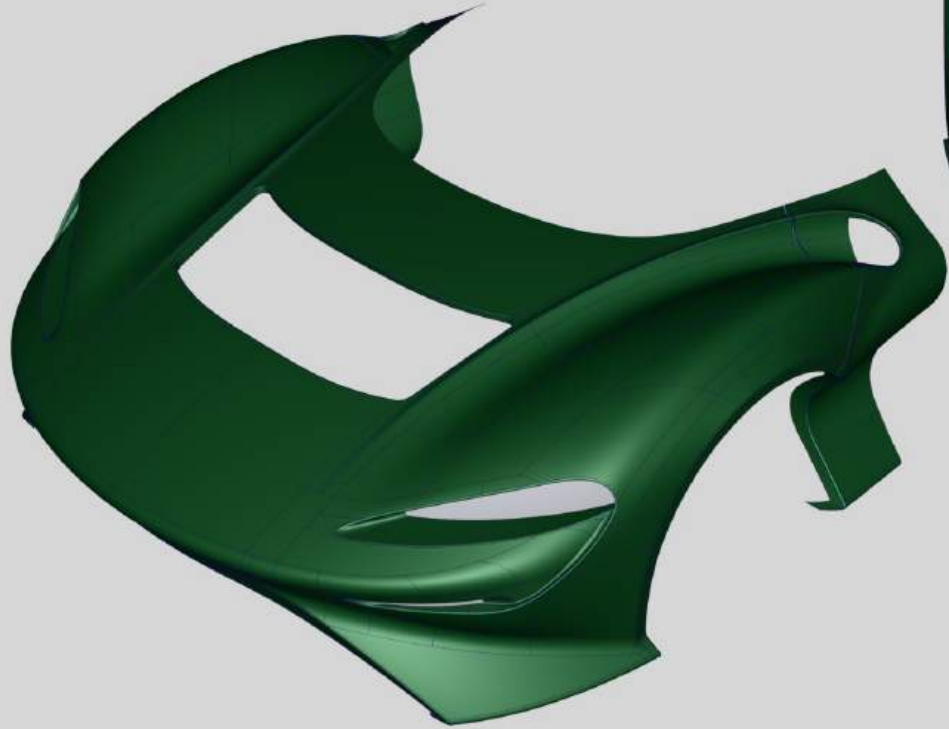
Quick Modelling 02
SubD Smooth Model



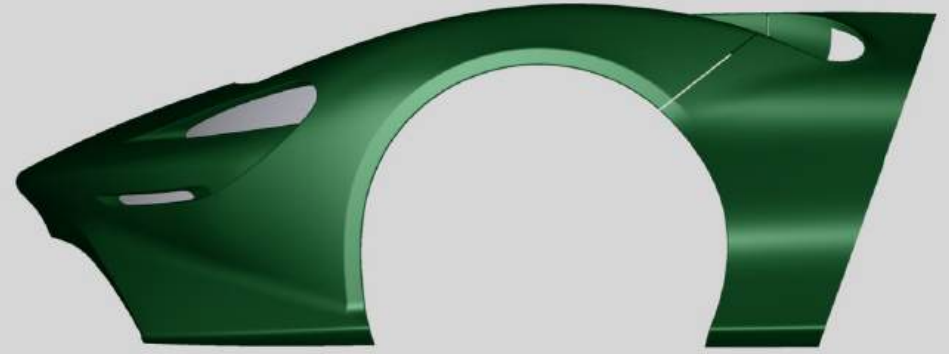
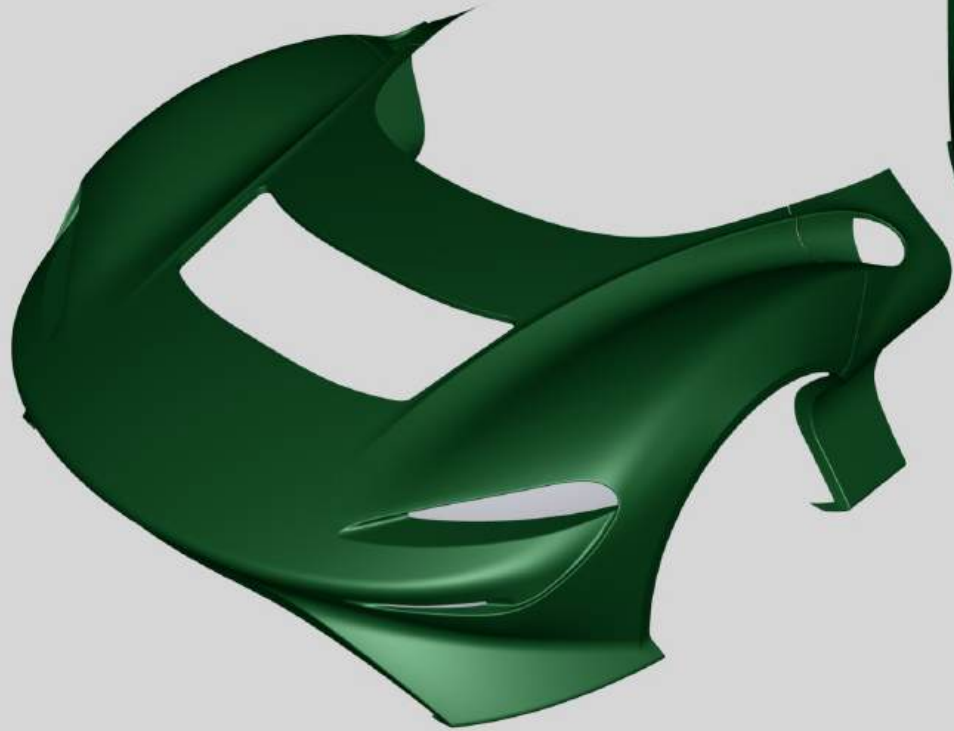
Quick Modelling 02
SubD Model



Quick Modelling 02
Nurbs Model Patch Layout



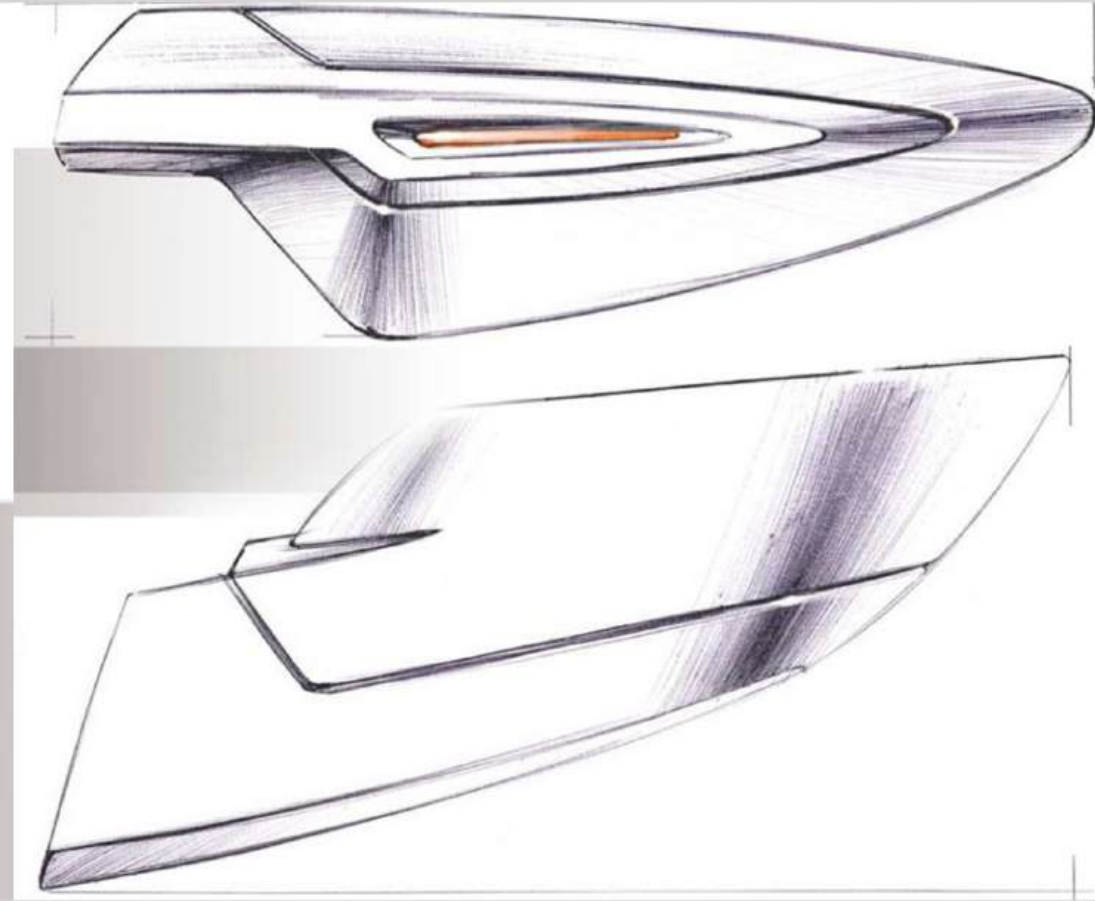
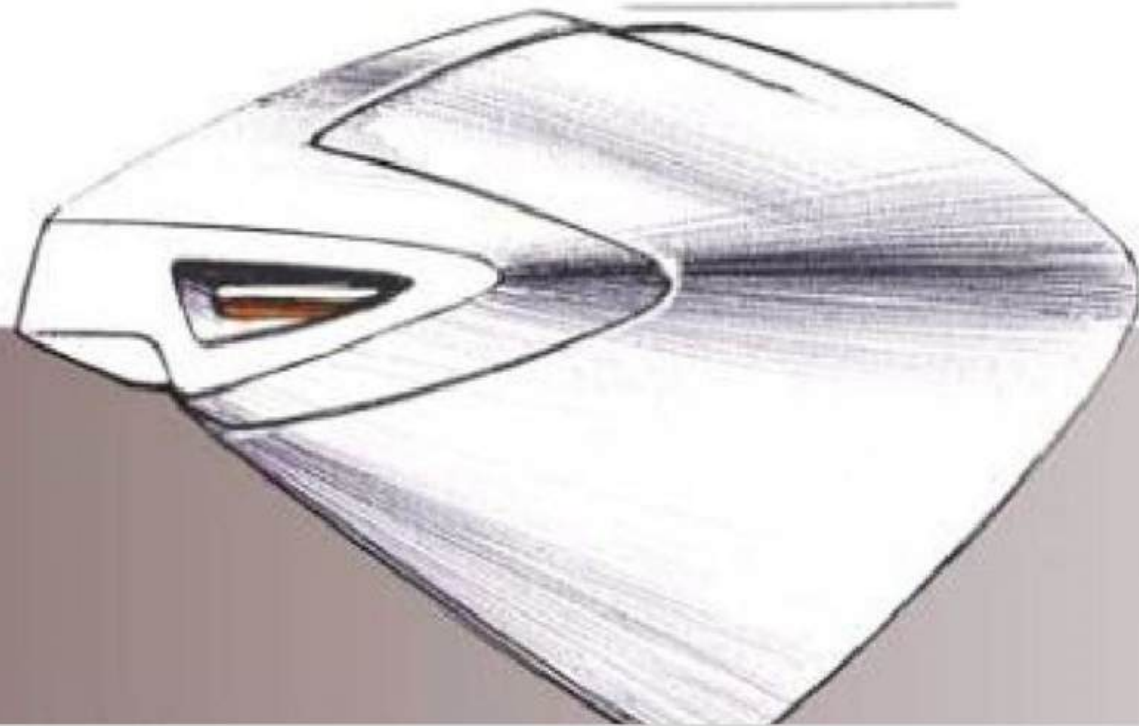
Quick Modelling 02
Nurbs Model



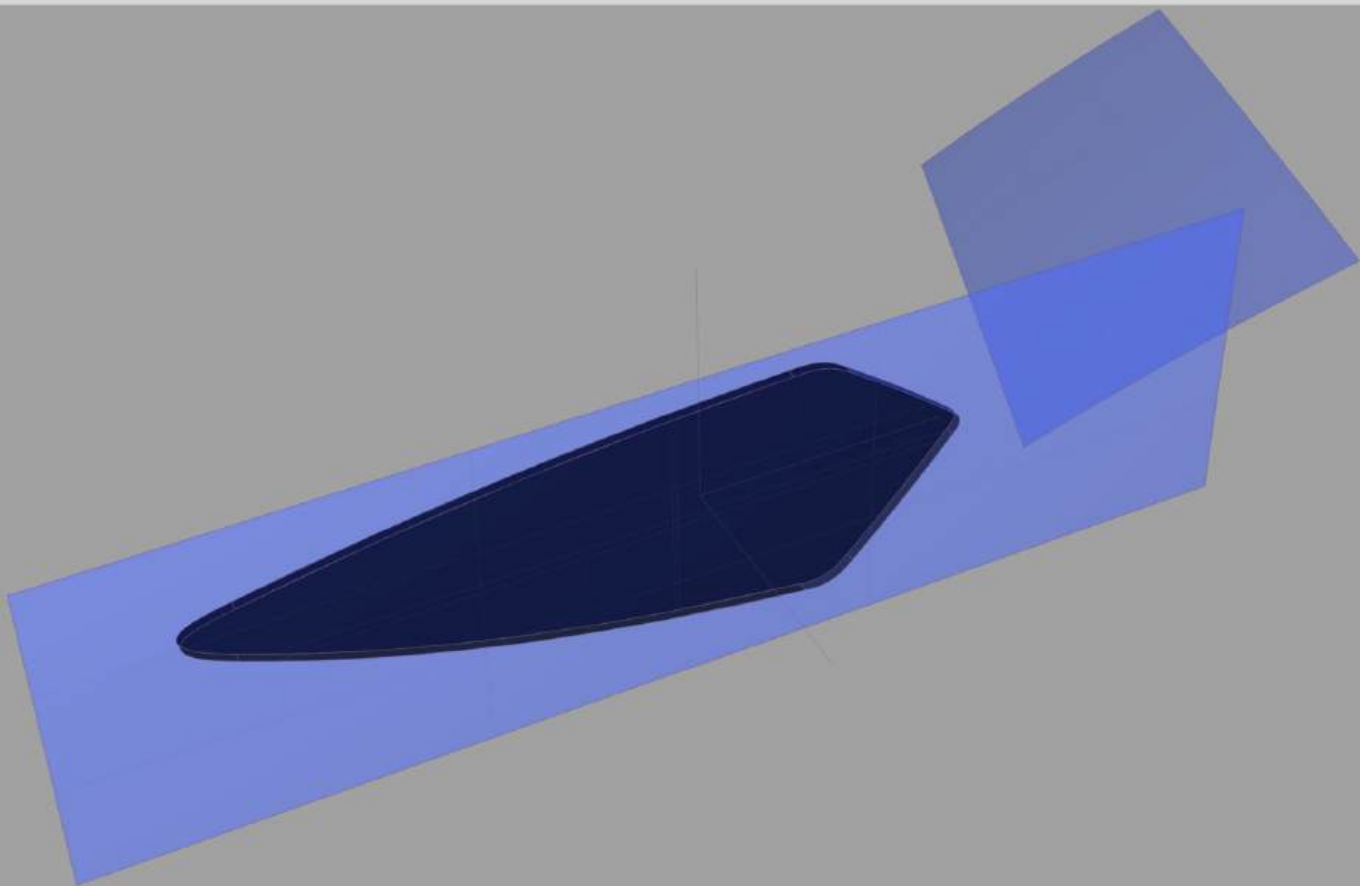
Quick Modelling 03

Rear View Mirror - Sketch Modelling

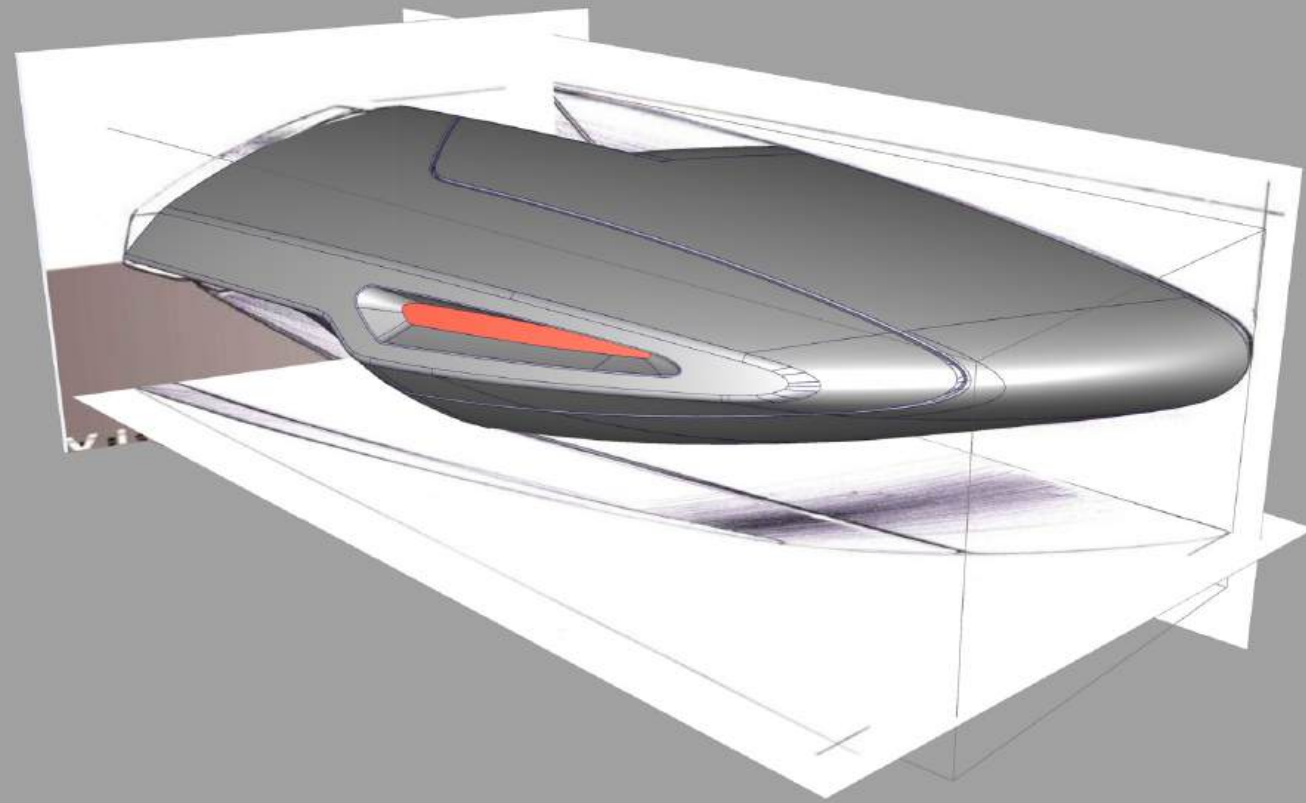
Quick Sketch Modelling with the aim to assess the relevance of the proposed style volume



Input : Reference Sketches

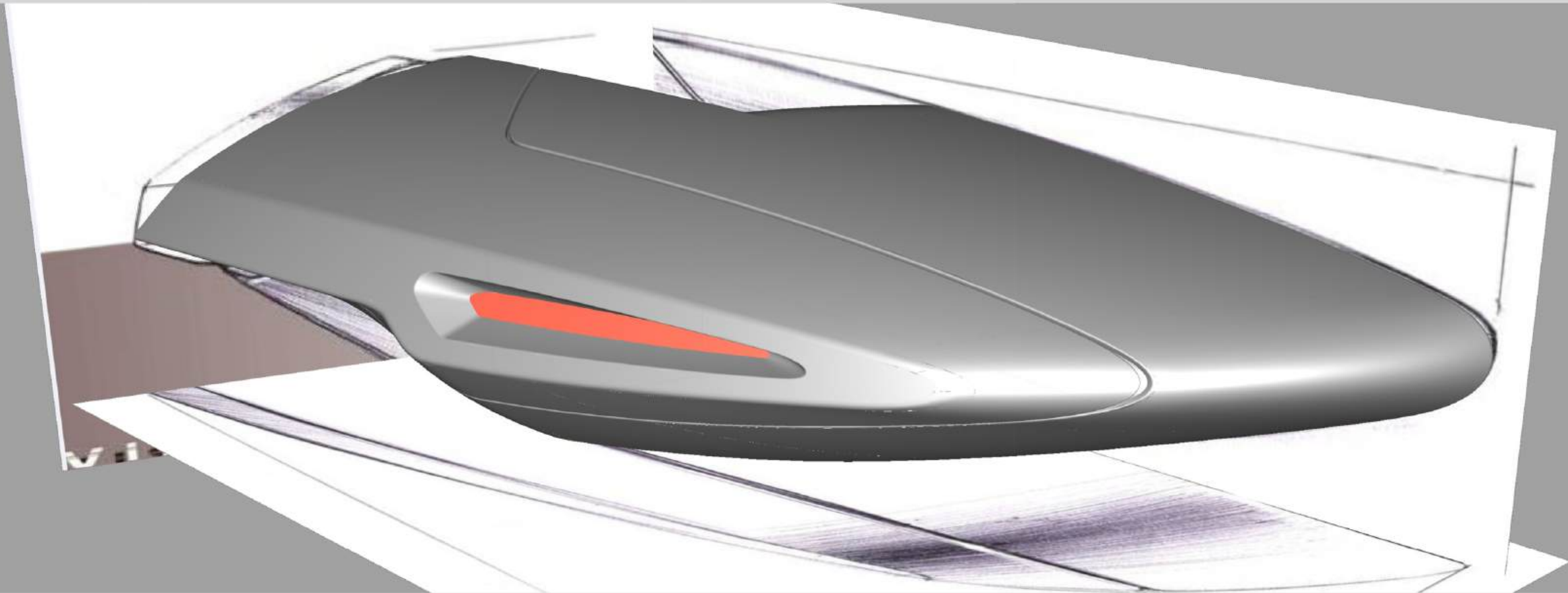


Input : Mirror and Axes Reference

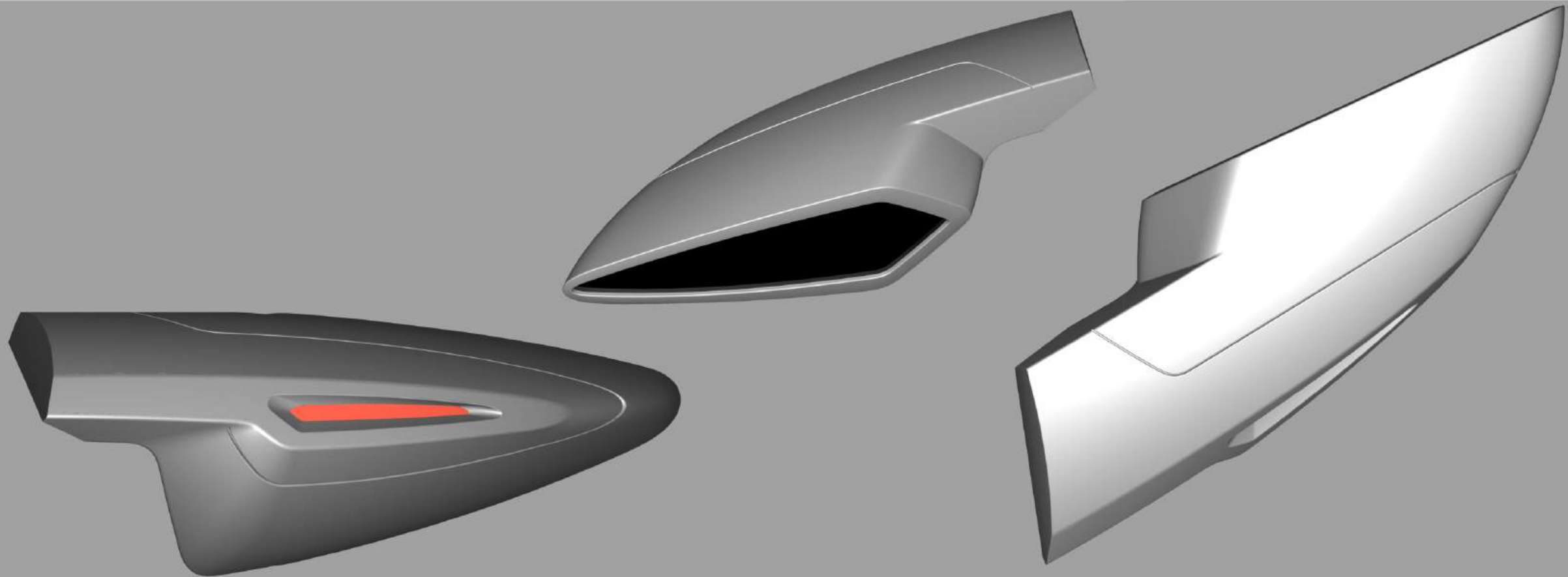


Sketch Modelling Volume Patch Layout

Quick Modelling 03
Alias Hardware Shader Model



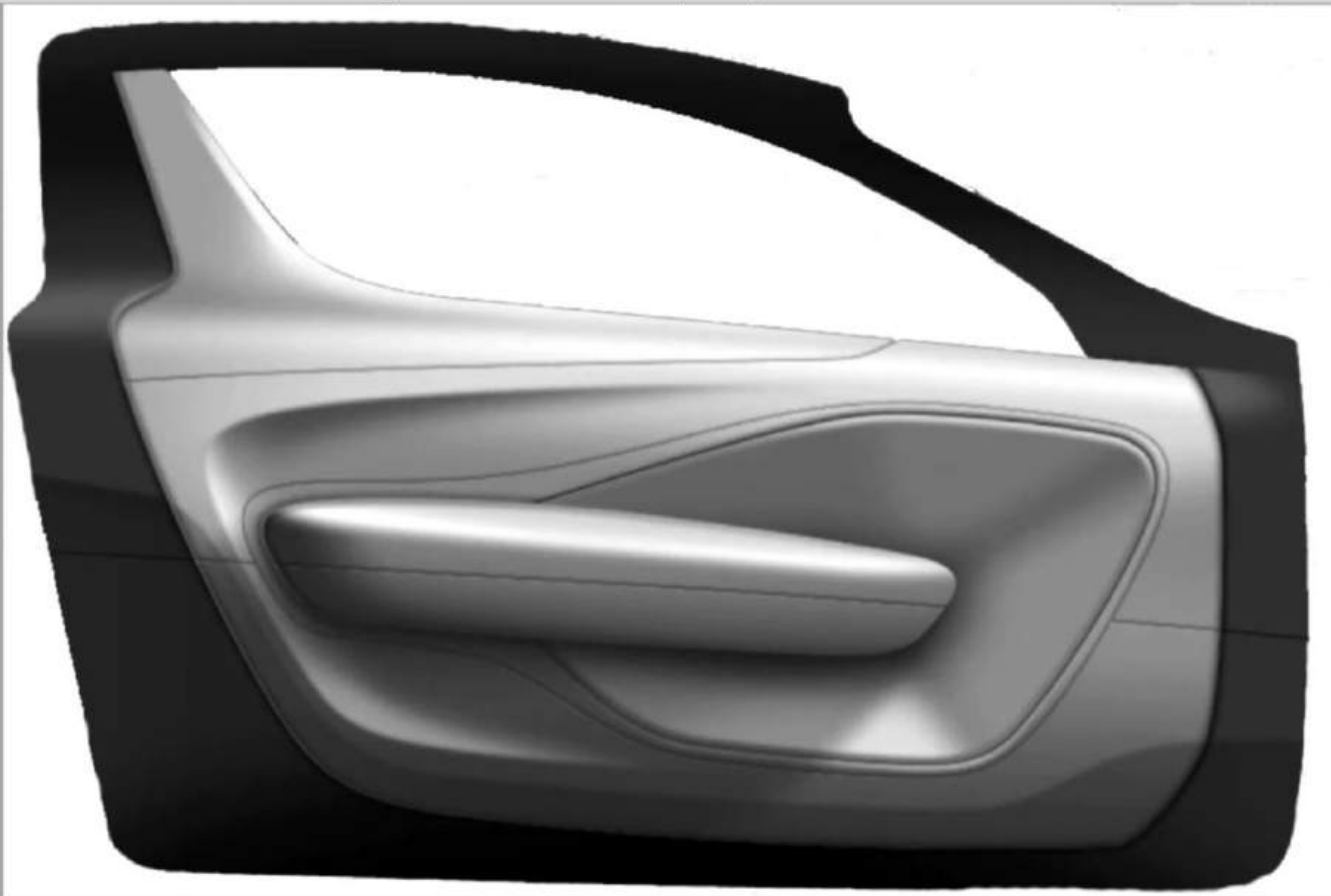
Quick Modelling 03
Alias Hardware Shader Model



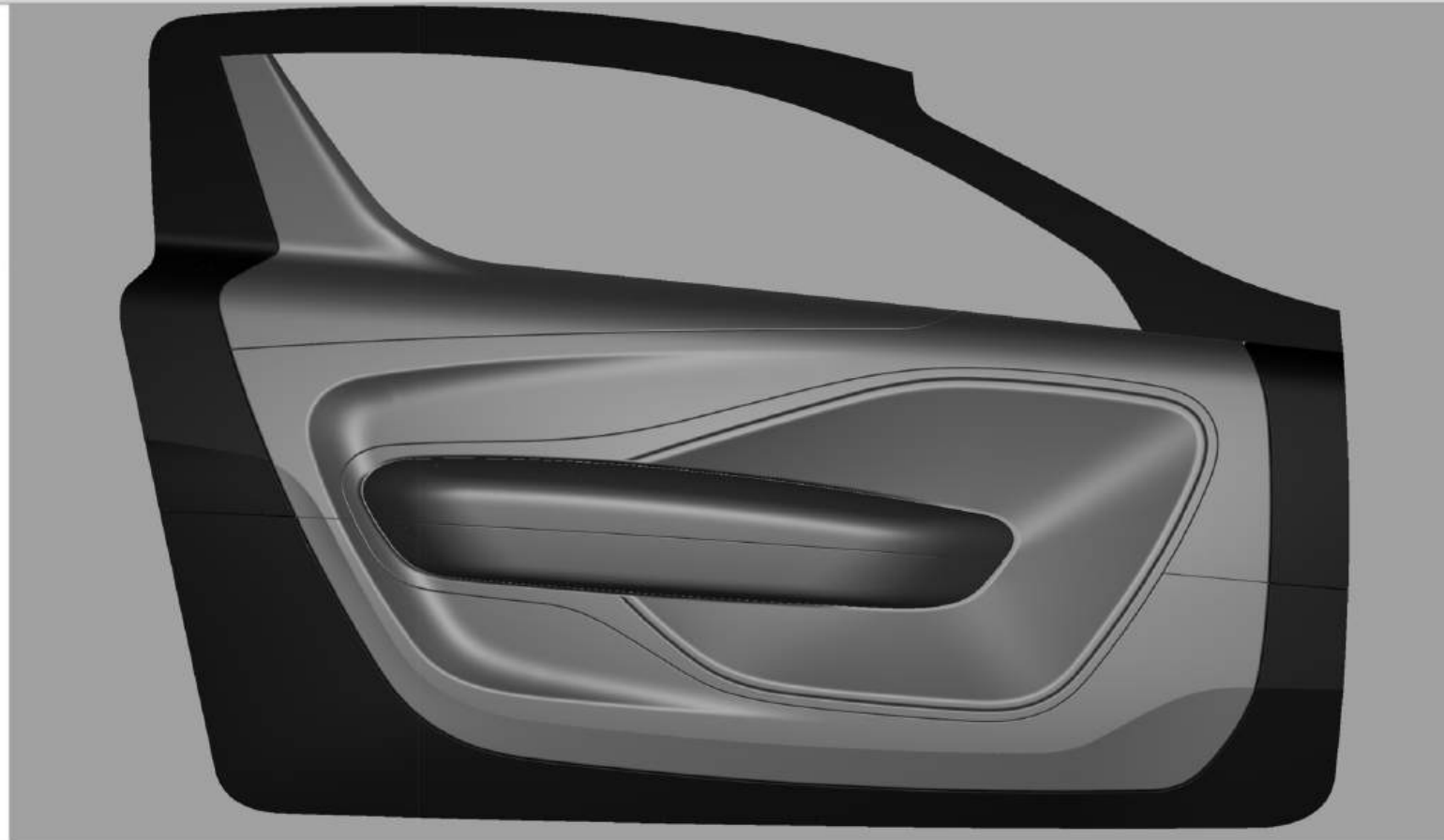
Quick Modelling 04

Door Trim - Sketch Modelling

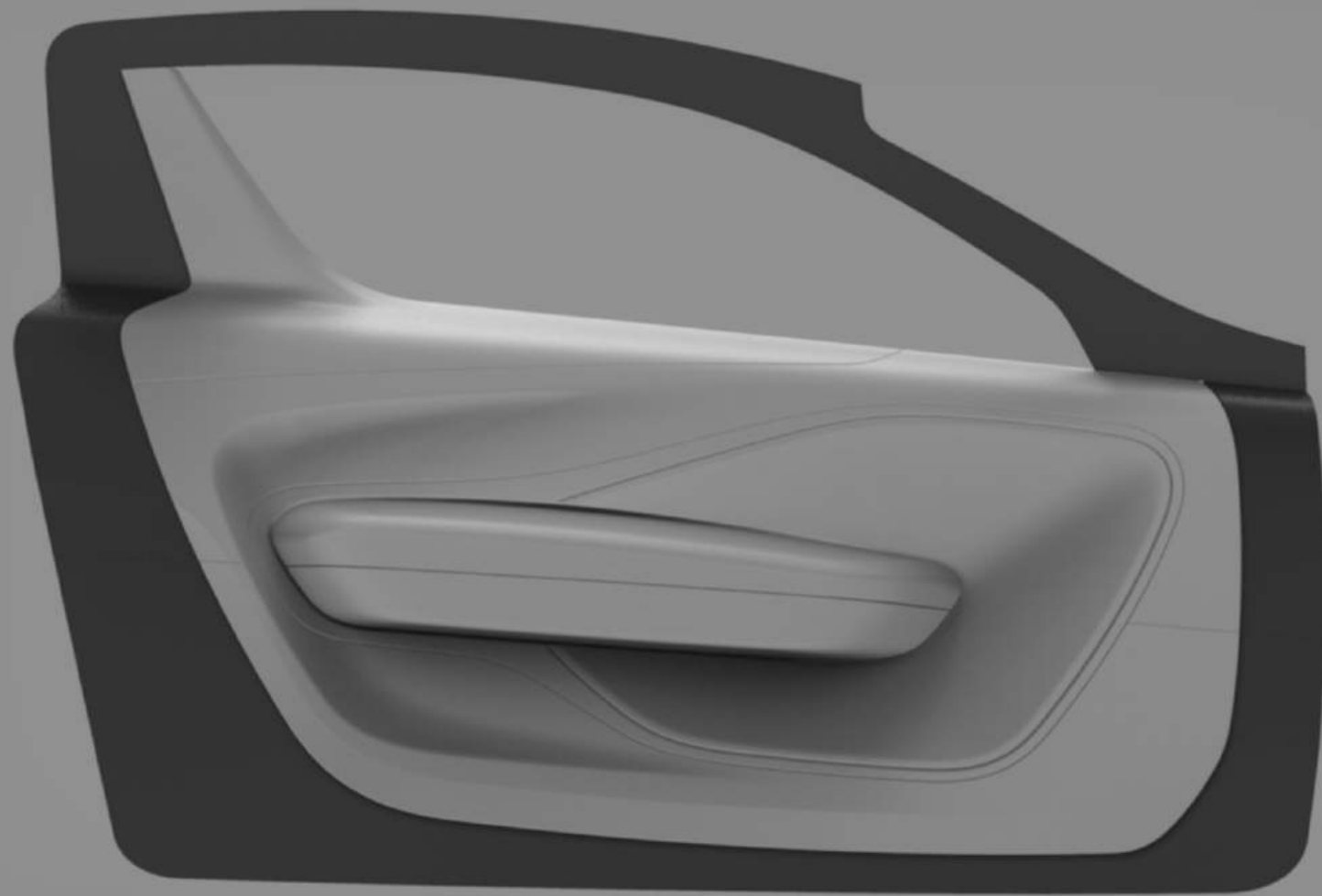
Quick Sketch Modelling of the Door Trim as per input sketch



Input : Reference Image



Alias Hardware Shader



Blender Render

Render Process



Note: The 3D model used is a free download from sketchfab.com.
This 3d data was used to experiment colour, material and finishes during the cycles Render process.

Blender Render

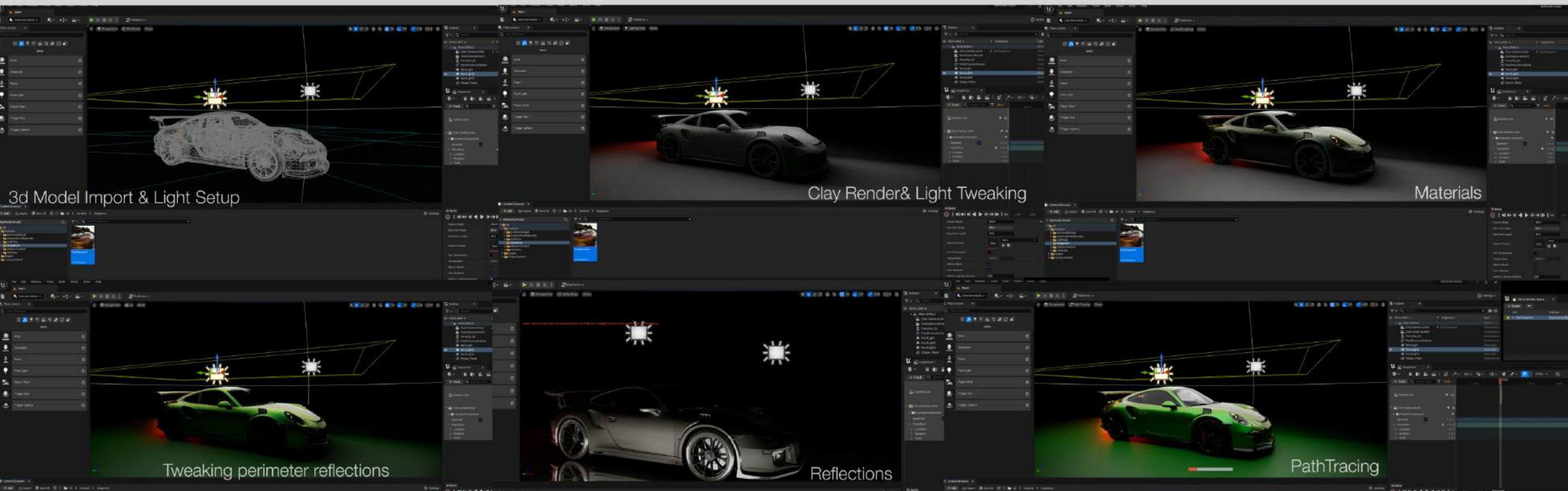
Cycles Render



Note: The 3D model used is a free download from sketchfab.com.
This 3d data was used to experiment colour, material and finishes during the cycles Render process.

Unreal Engine Render

Render Process



Note: The 3D model used is a free download from sketchfab.com.
This 3d data was used to experiment colour, material and finishes during the cycles Render process.

Unreal Engine Render

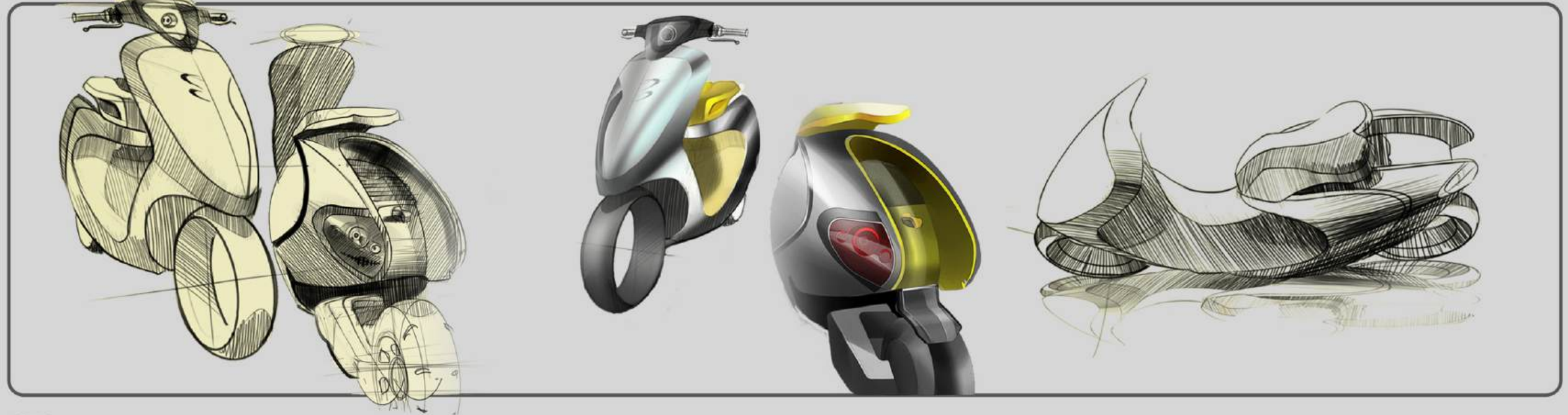


Note: The 3D model used is a free download from sketchfab.com.
This 3d data was used to experiment colour, material and finishes during the cycles Render process.

PROJECTS



Volume Refinement by Transportation Design Team



01

PEPPY RIDE

Design a Unisex scooter
Team Project

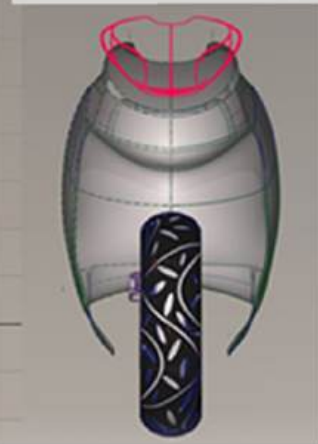
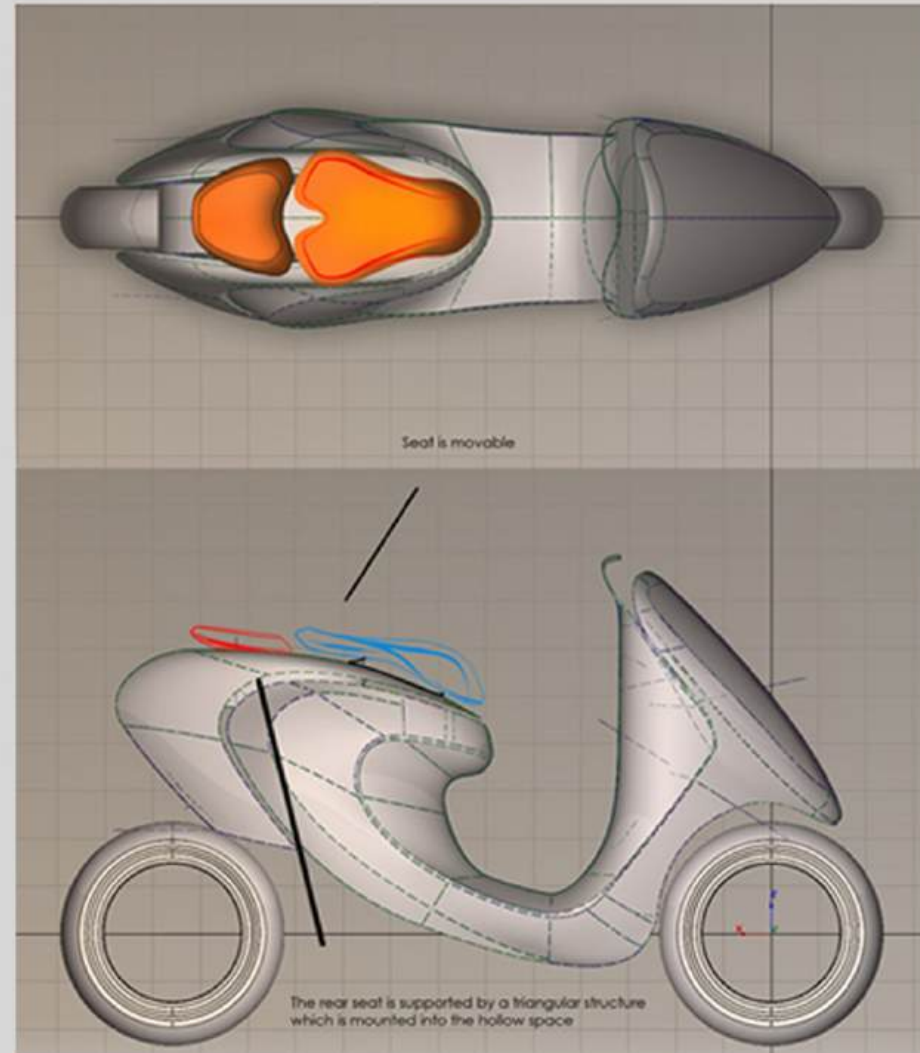
SKETCH
MODELLING

Transportation Designers
Raunaq Babbar(Team Lead),
Akshay Pardeshi,
Manojna Bellur,
Siddhartha Kazami

Digital Designers
Anand Shetye,
Joji Isaac Abraham

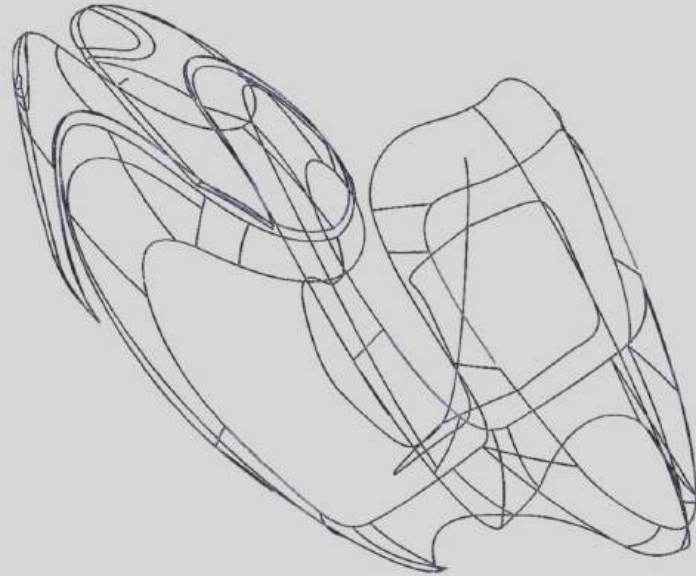
[illegible]

A diagram of a traditional Chinese garment, possibly a robe or jacket, featuring a decorative blue patterned collar and a blue floral patterned sleeve. A black arrow points to the collar area.

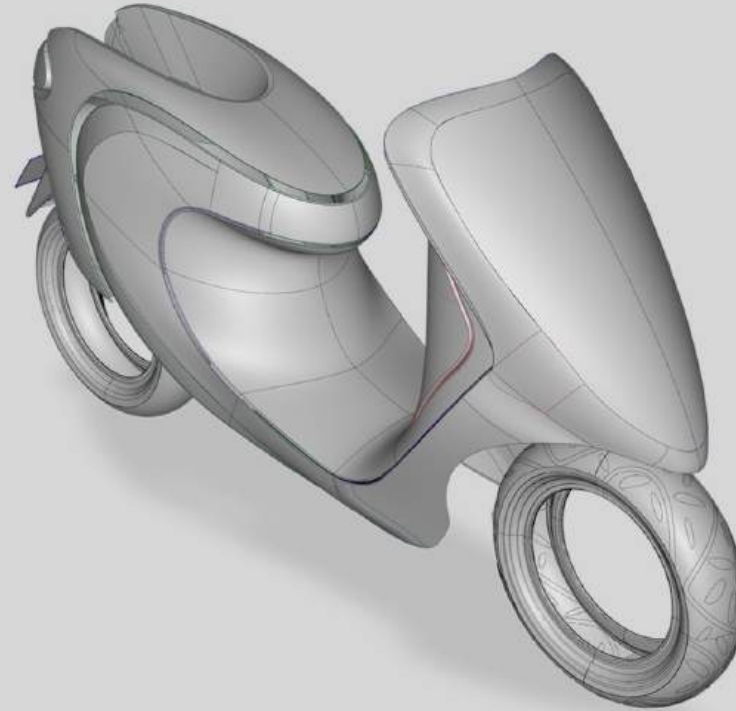


Process

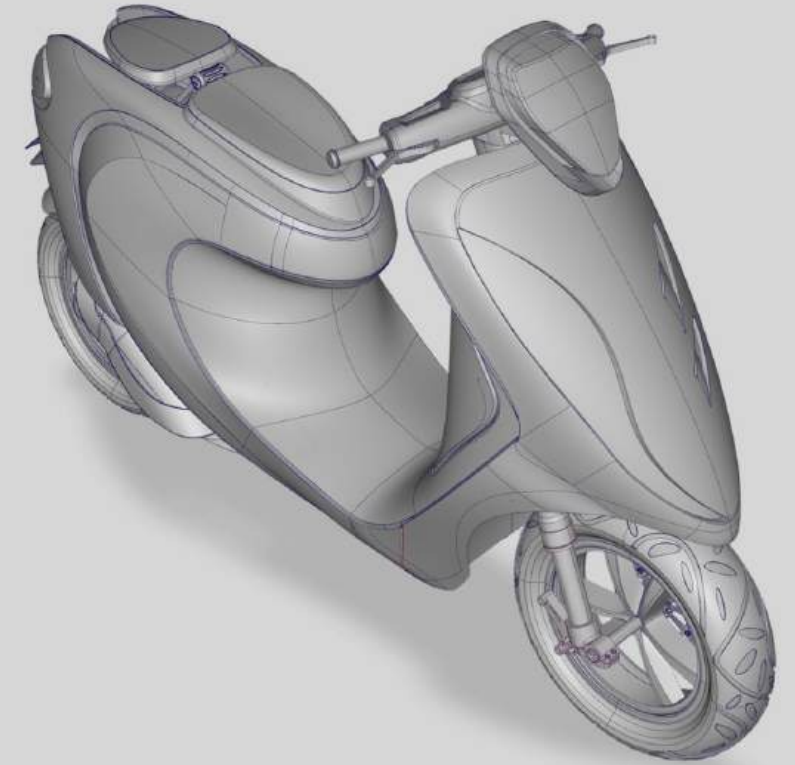
Building curve network



Building basic surfaces



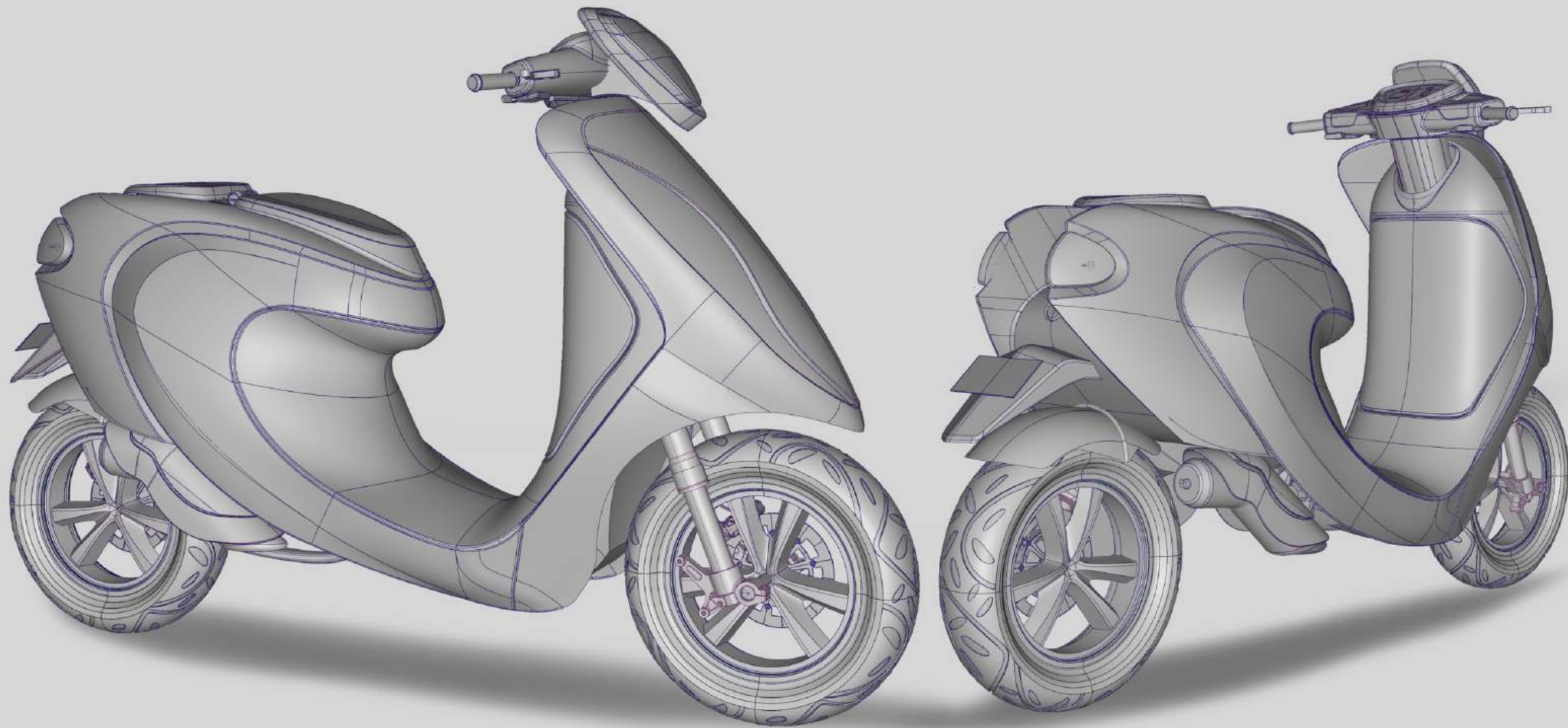
Adding details & shutlines



3D Development / Experience...

Involves constant interaction within the Digital Designers and the Transportation Designers. Transportation Designers uses 3D models with basic surfaces to sketch and develop the details.

Final Model





Parts Modelled are Coloured



Rendered in V Ray. Post Production in Photoshop.



Rendered in V Ray. Post Production in Photoshop.



02

FAIRLADY Z

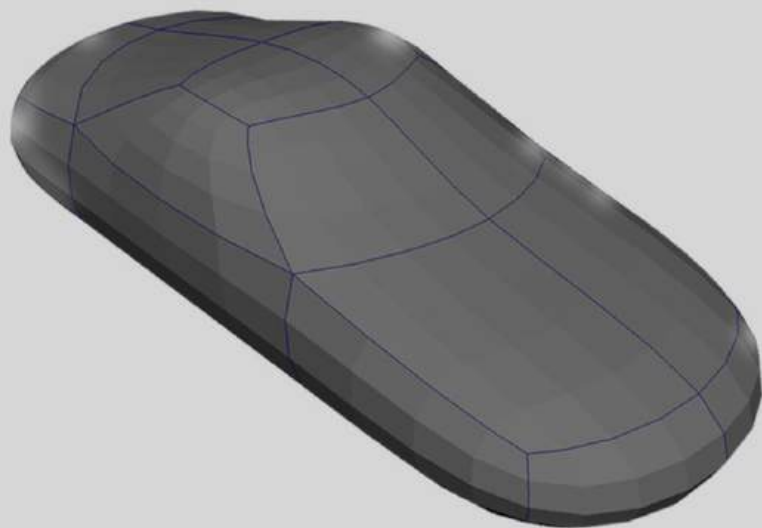
Remodelling Nissan 350Z in MAYA
Personal Project

*POLYGONAL
MODELLING*

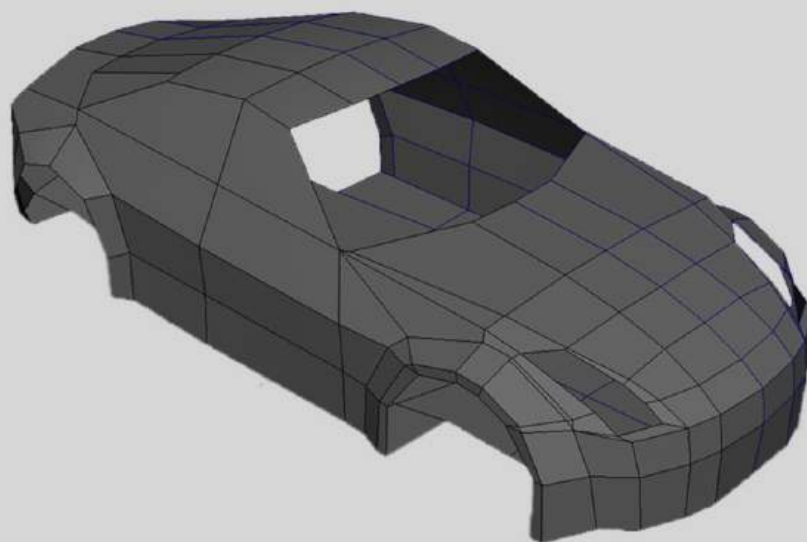


Process

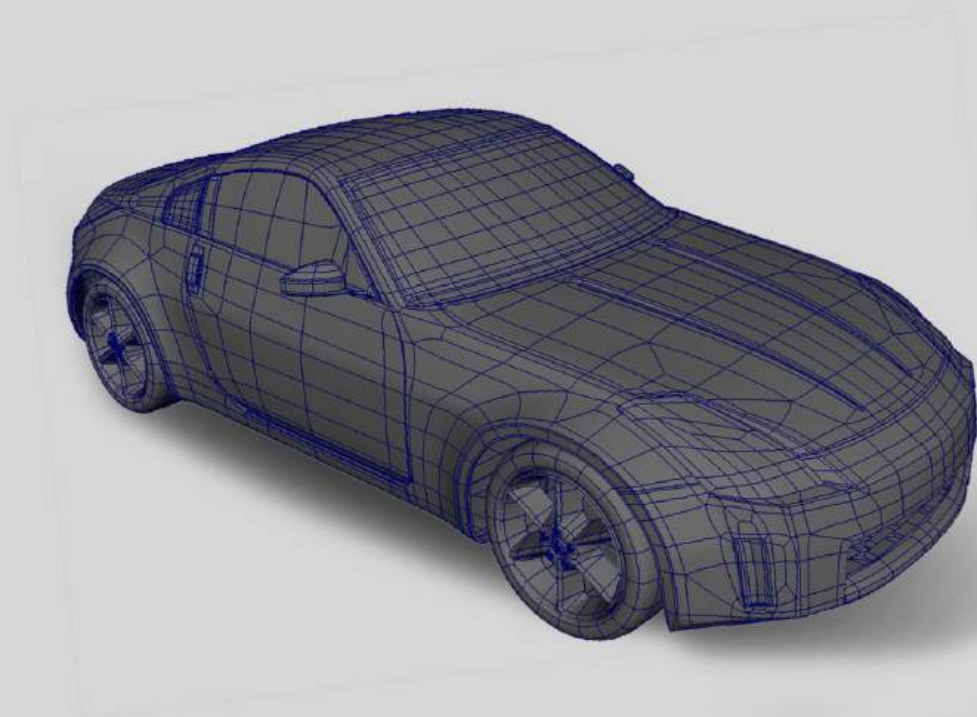
Blocking the volume



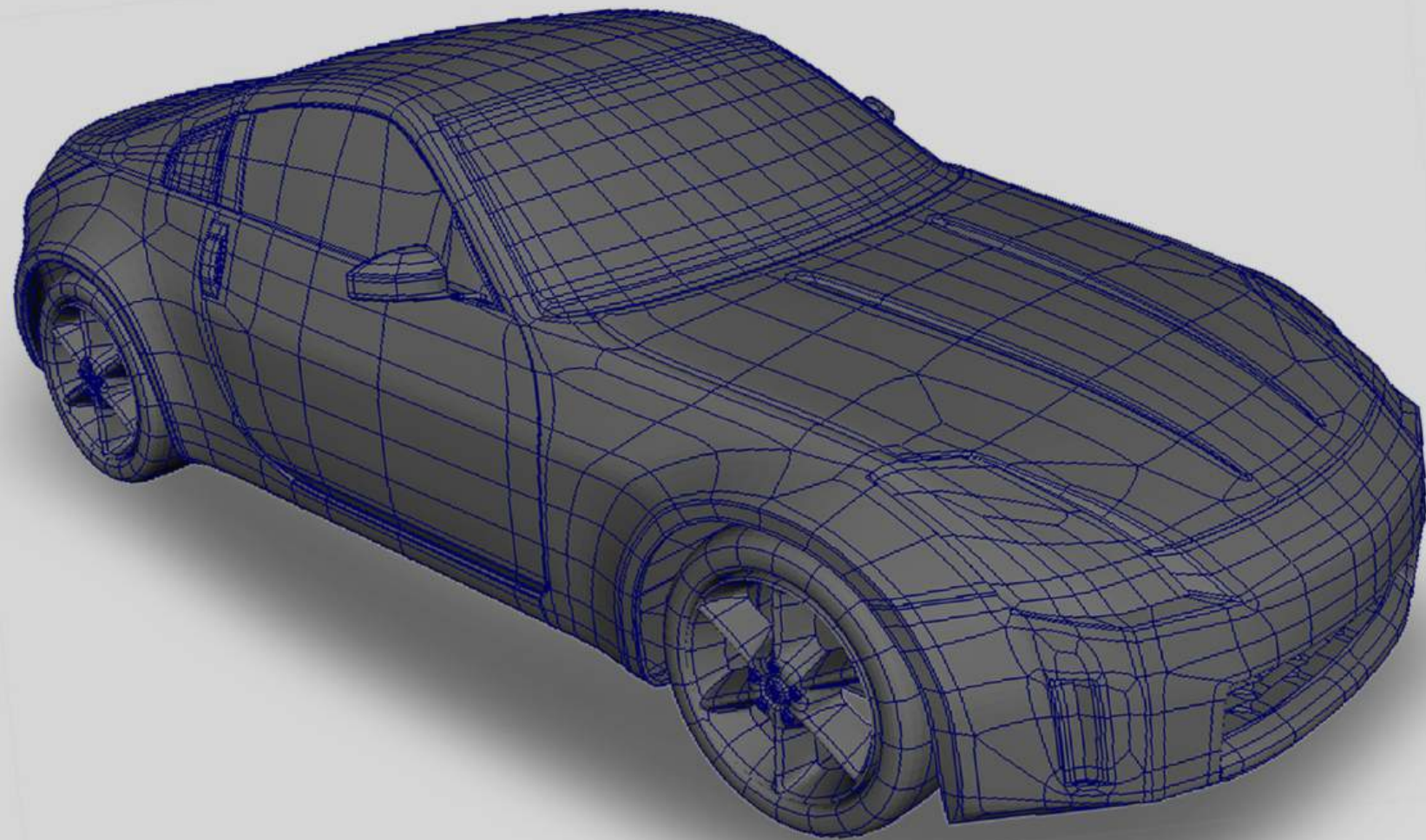
Separating Parts

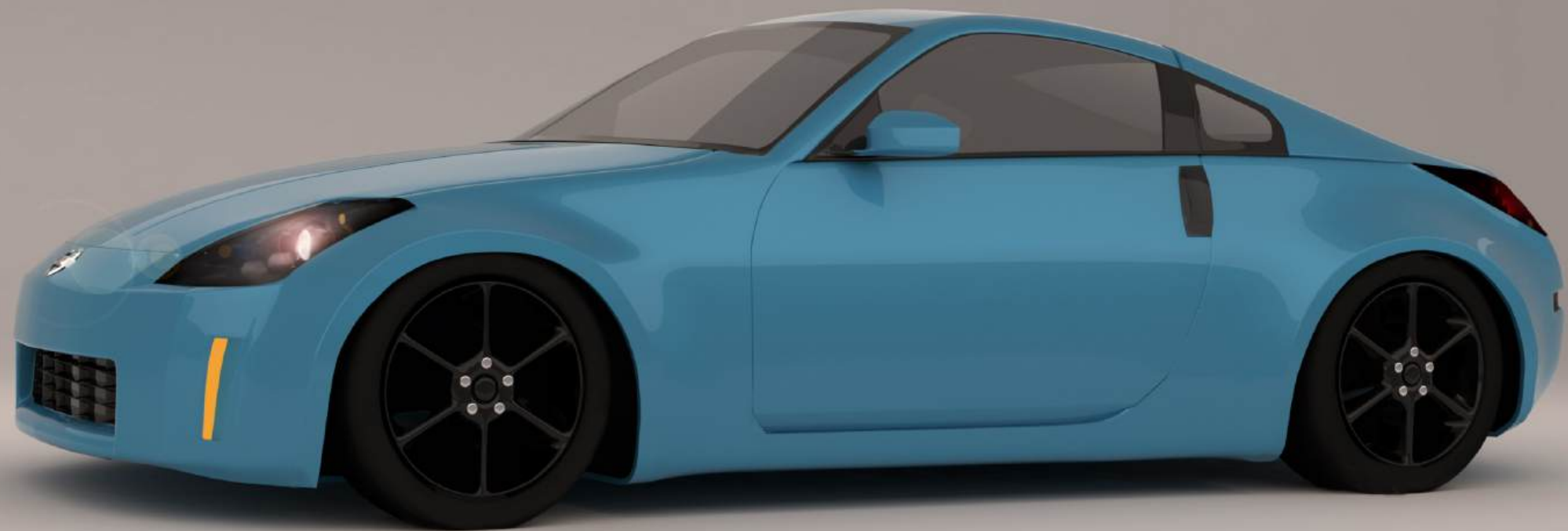


Adding details & shutlines



Final Model





Rendered in V Ray. Post Production in Photoshop.



Rendered in V Ray. Post Production in Photoshop.



Rendered in Keyshot. Post Production in Photoshop.

HURDLES



REQUIREMENTS

Bold
Strong
Flexible Arms
Go Anywhere

INSPIRATION



03

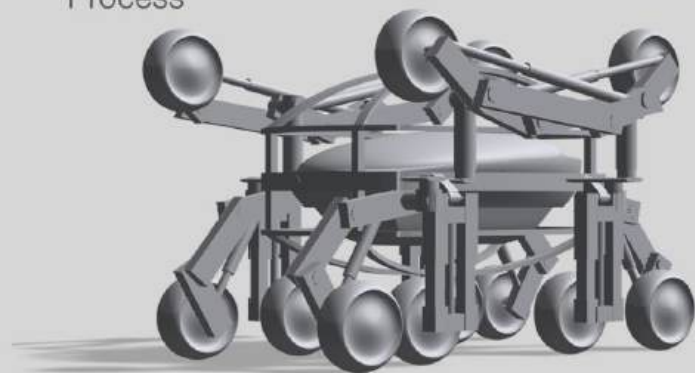
EXPLORE MARS

Design a Mars Exploratory Vehicle

Personal Project done during the MasterClass by MICHAL JELINEK

*CONCEPT
MODELLING*

Process



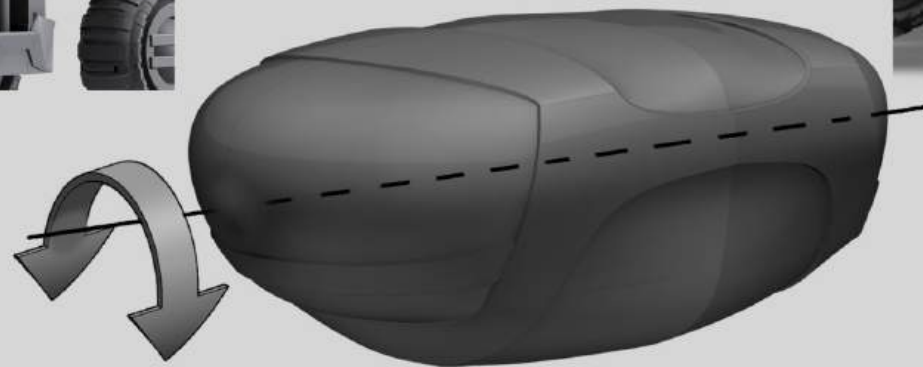
Feasibility & Constraints of features

Features



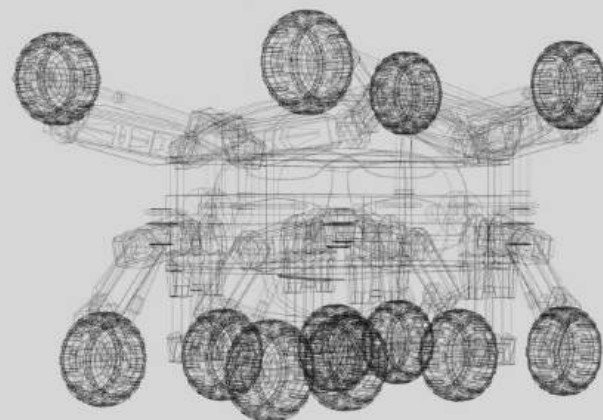
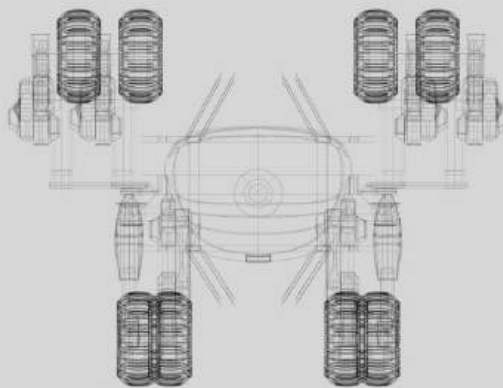
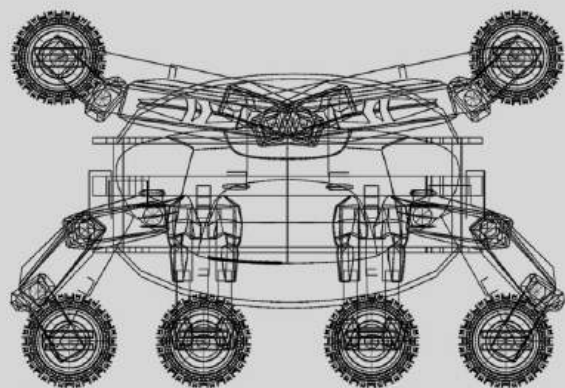
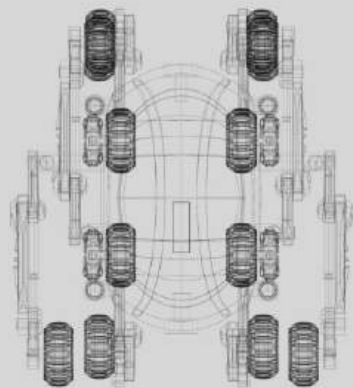
Strong Arms

Independent & Rotating Cabin

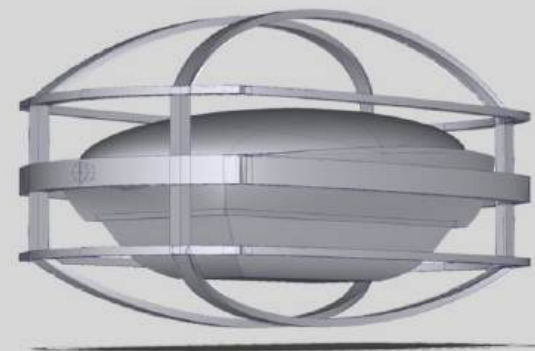


All Terrain Wheels

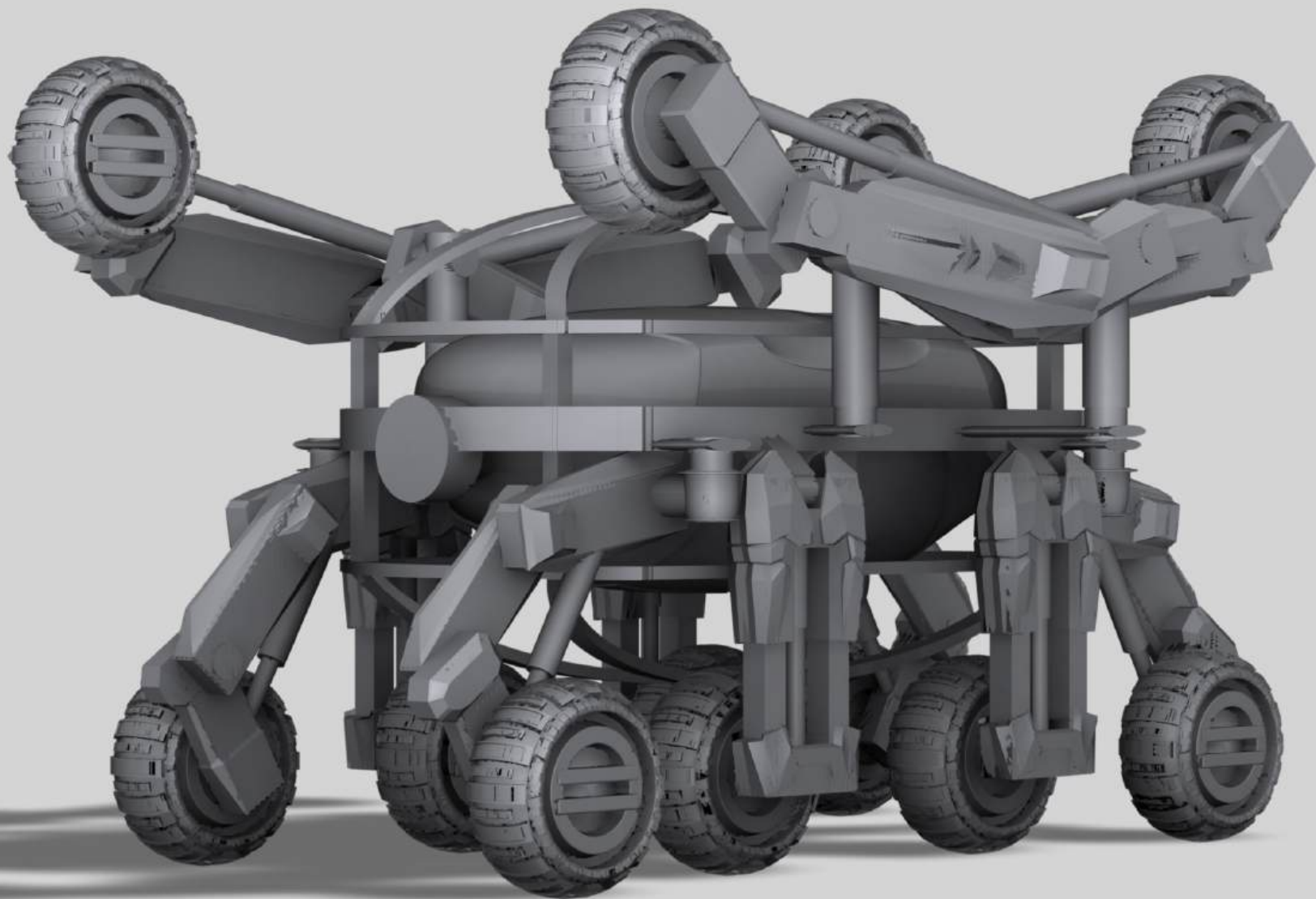
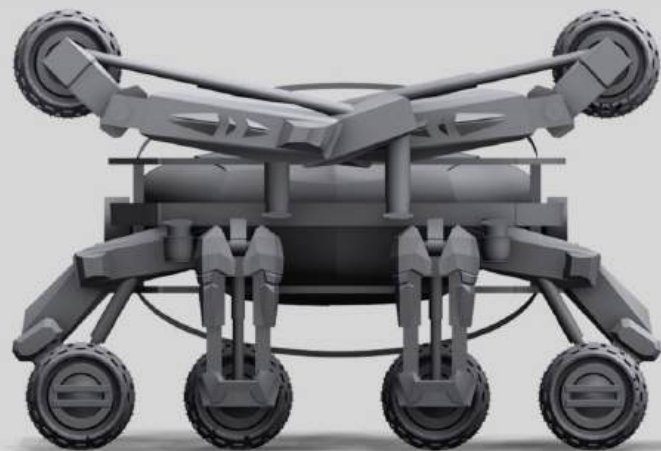
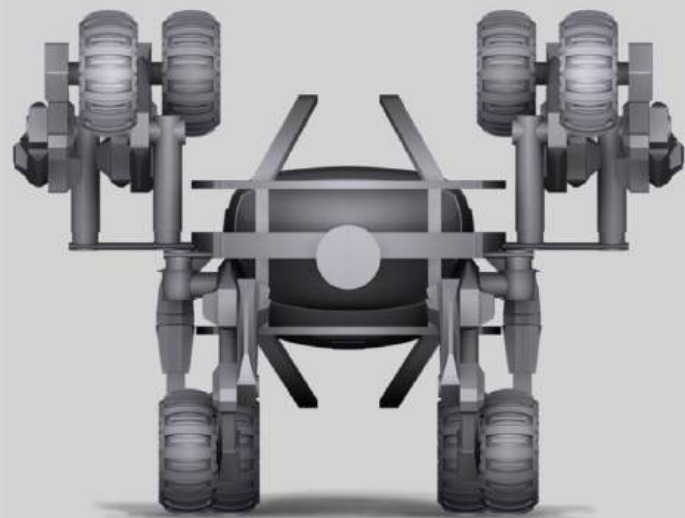
Package development



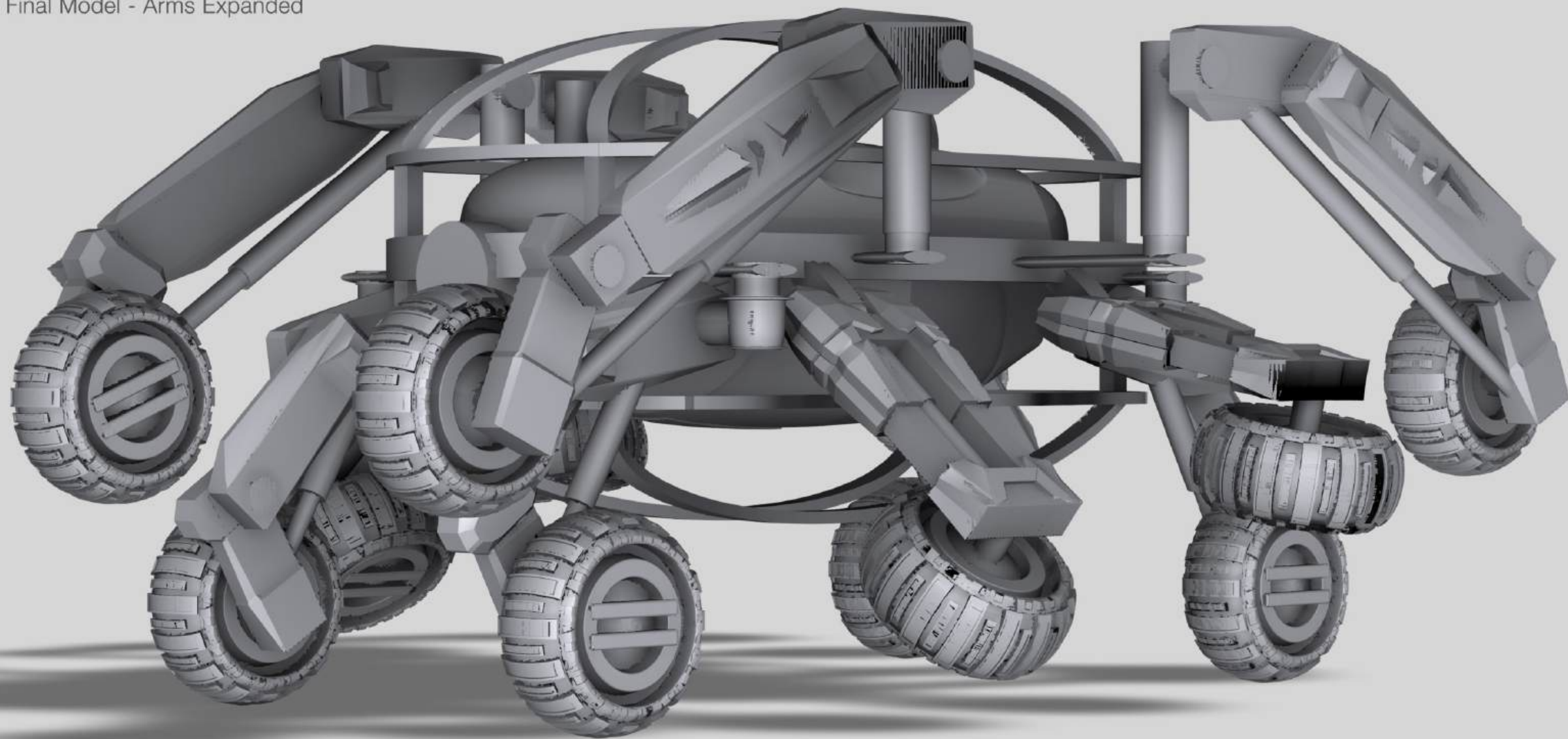
Functionality Aspect

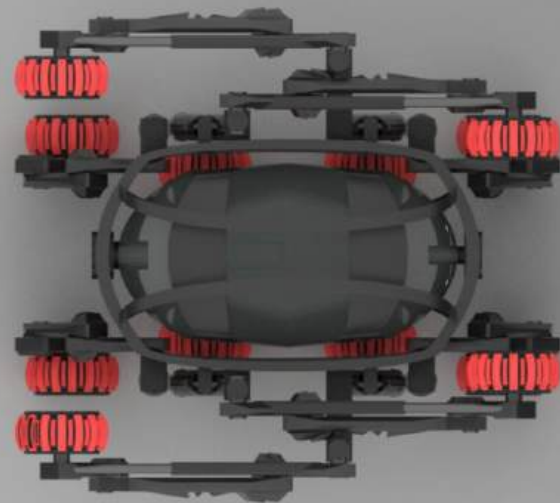
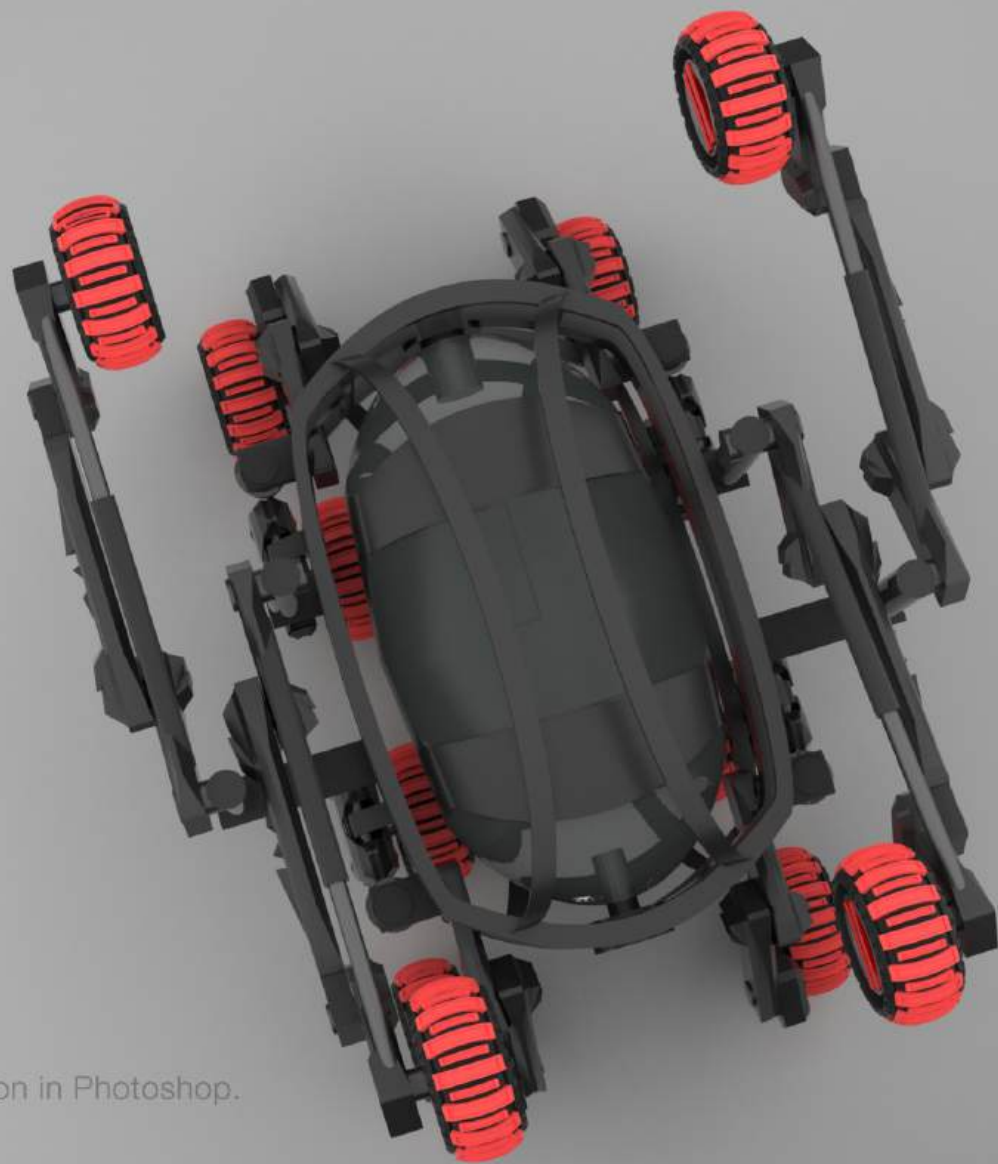


Final Model



Final Model - Arms Expanded

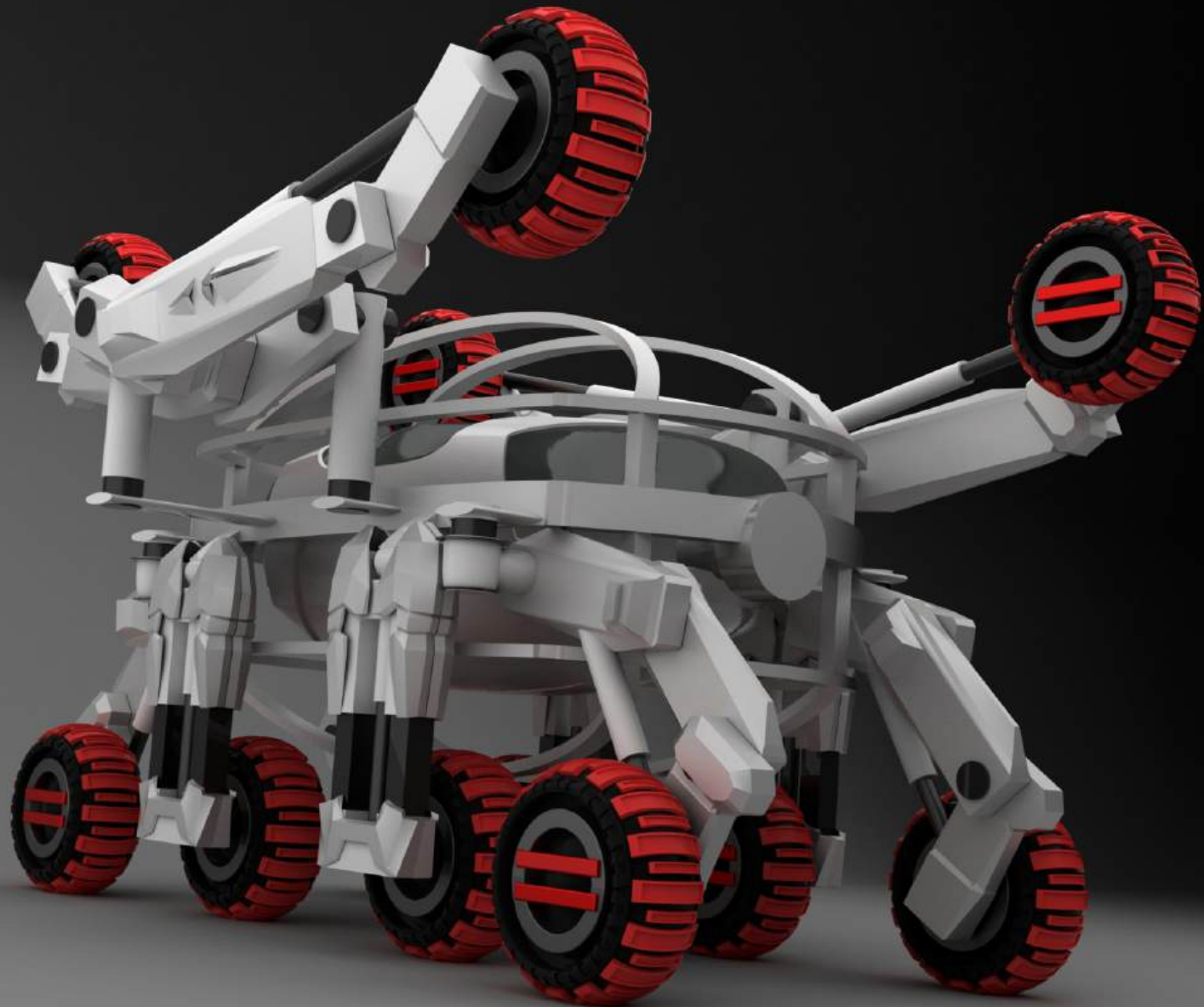




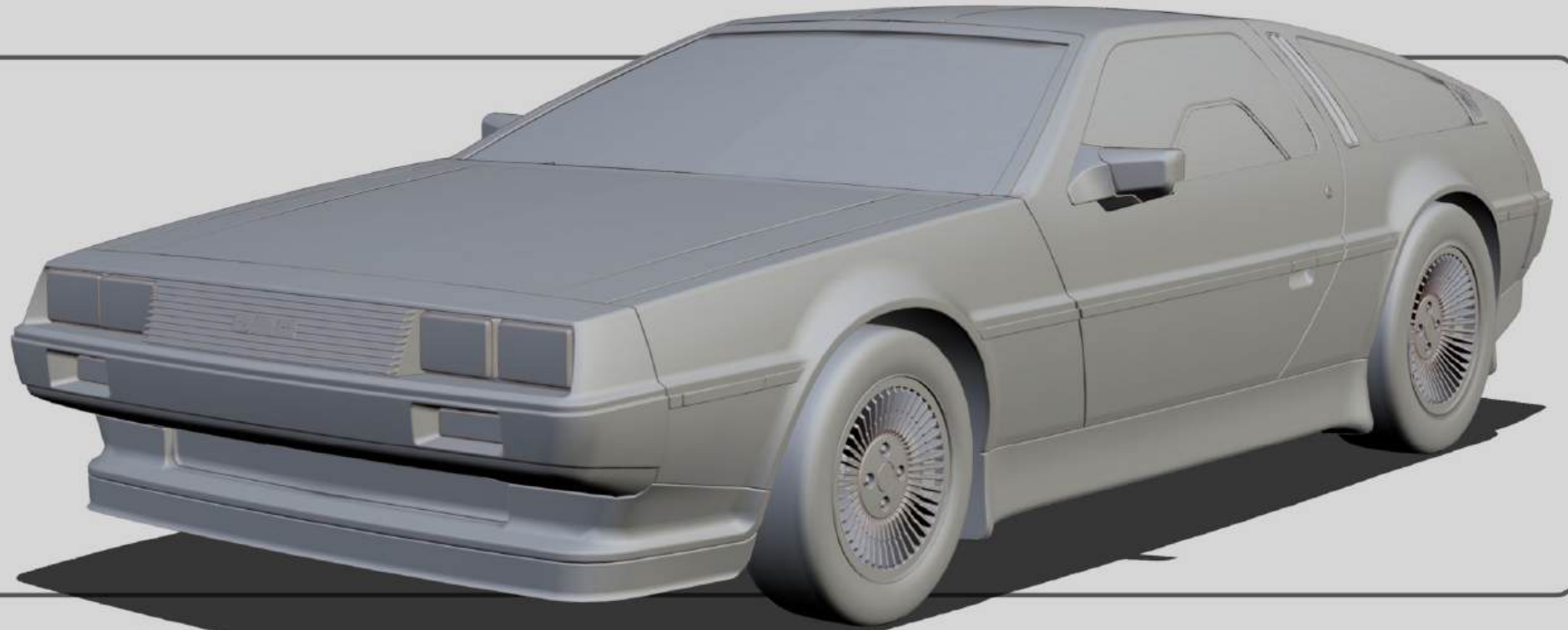
Rendered in V Ray. Post Production in Photoshop.



Rendered in V Ray. Post Production in Photoshop.



Rendered in V Ray. Post Production in Photoshop.



04

FUTURE FROM PAST

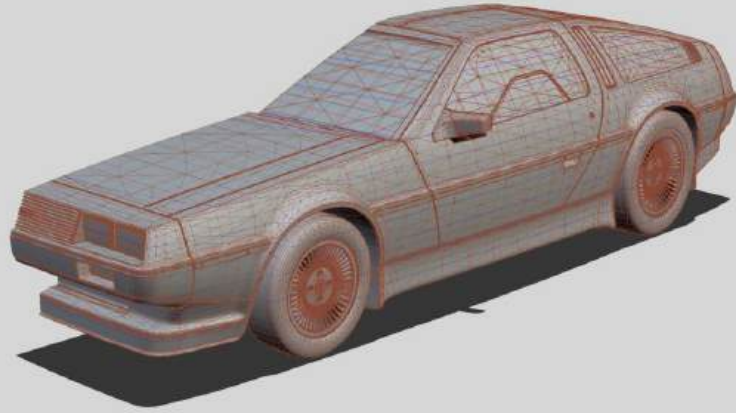
Remodelling of DMC DeLorean with single span surfaces

Personal Project done during Internship at TECHNICON DESIGN, RUSSELSHEIM, GERMANY

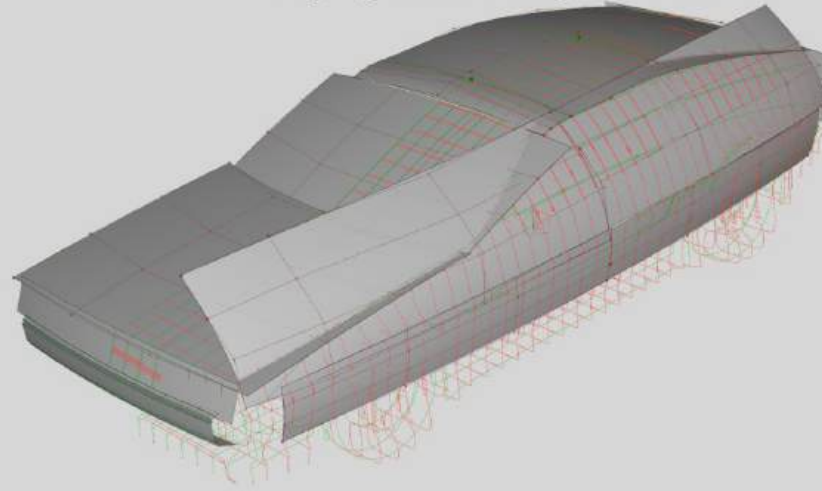
*SCAN DATA
MODELLING*

Process

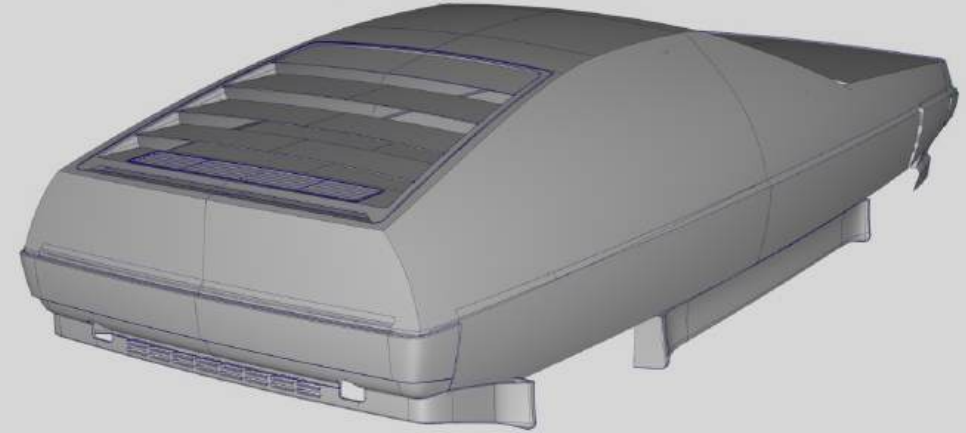
1. Applying section curves on Scan Data given



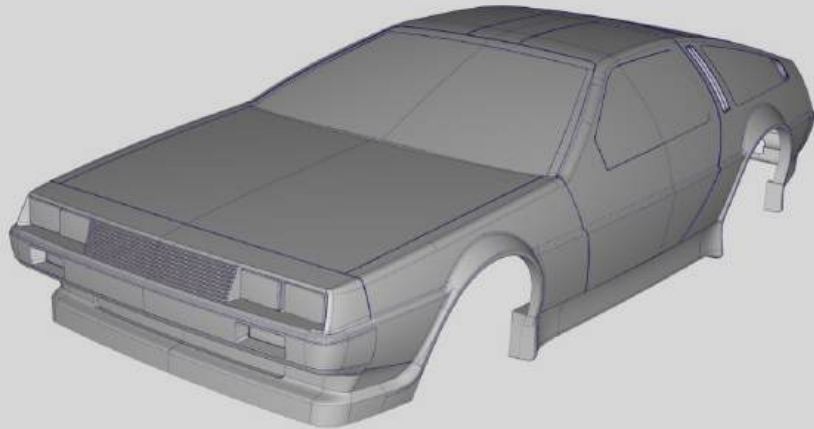
2. Aligning surfaces along section curves



3. Closing Global Volume



4. Adding details & fillets



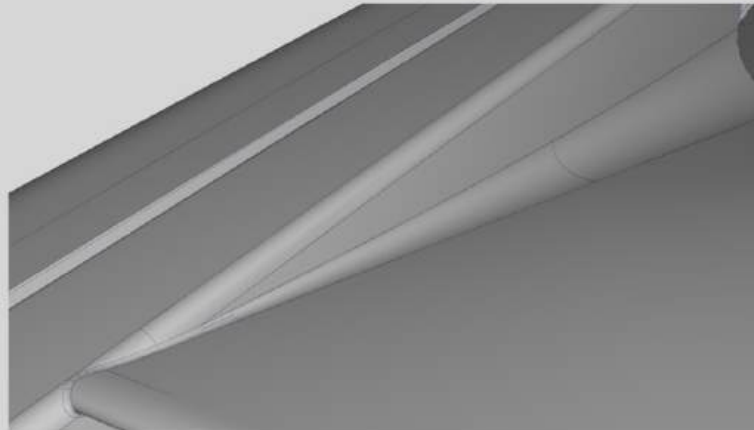
5. Checking highlights using zebra shader



What I Learned / Experience...

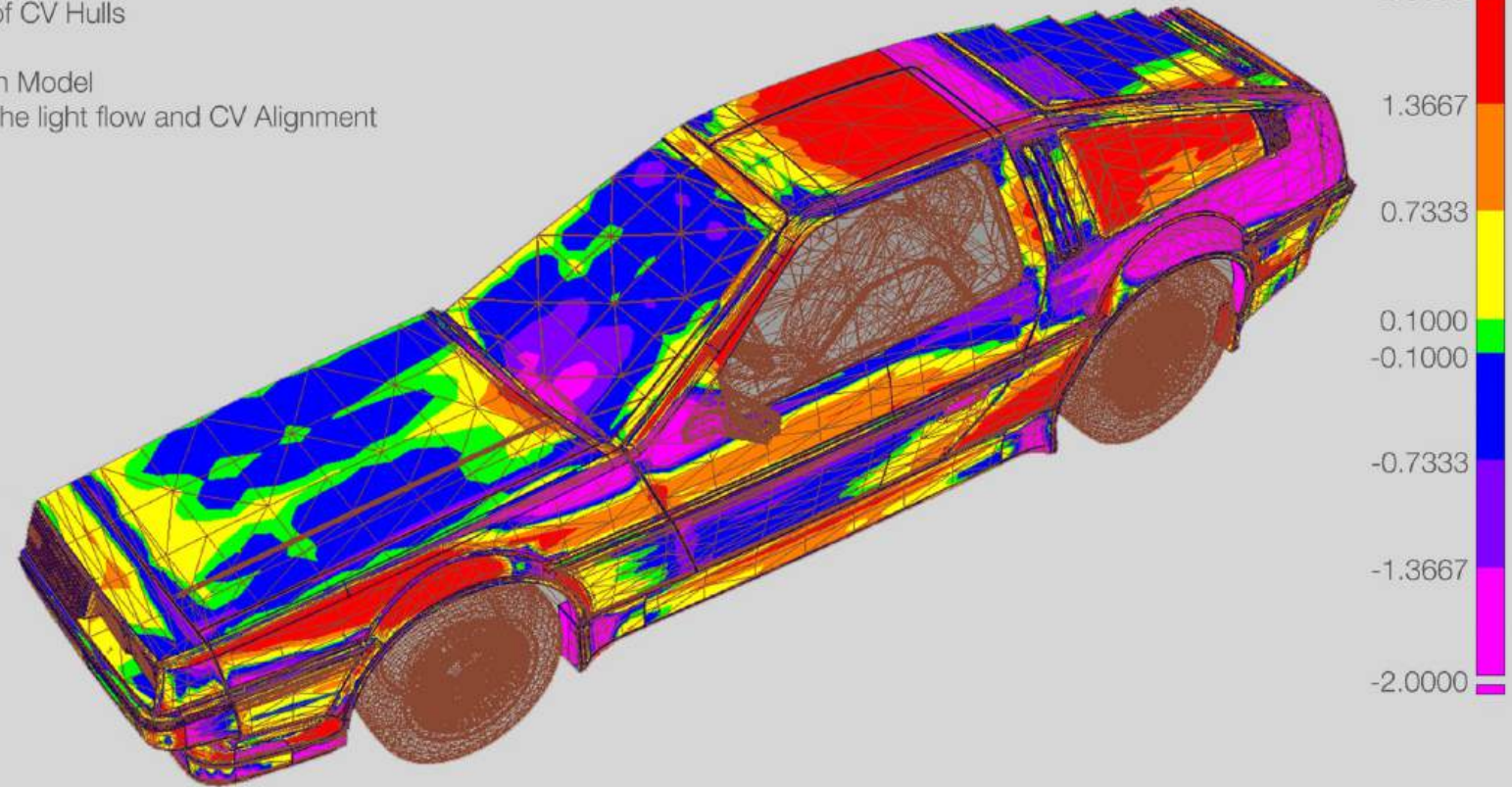


Detailing with "Y" fillets



Corner Solving

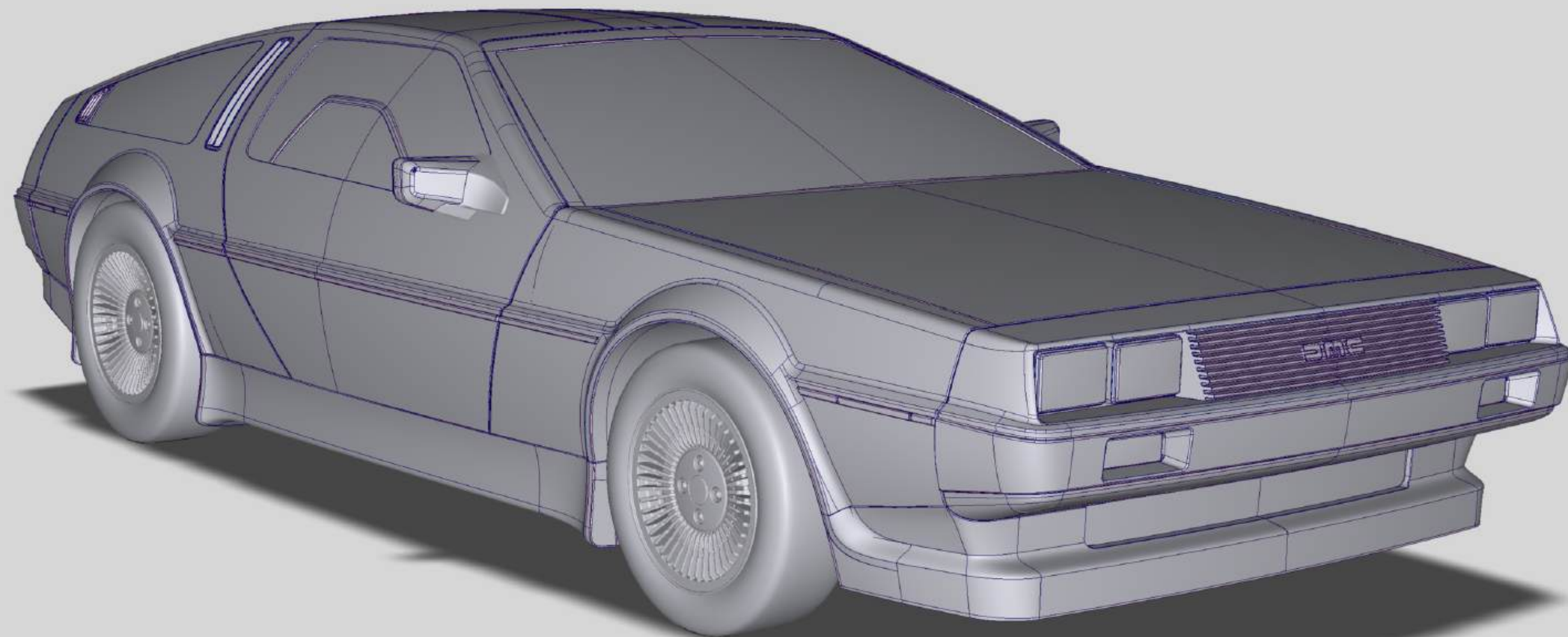
- Aligning slabs close to the section curves of the scan model
- Restricting/Limiting the usage of CV Hulls
- Solving corners
- Keeping fillets close to the Scan Model
- Building surfaces by checking the light flow and CV Alignment



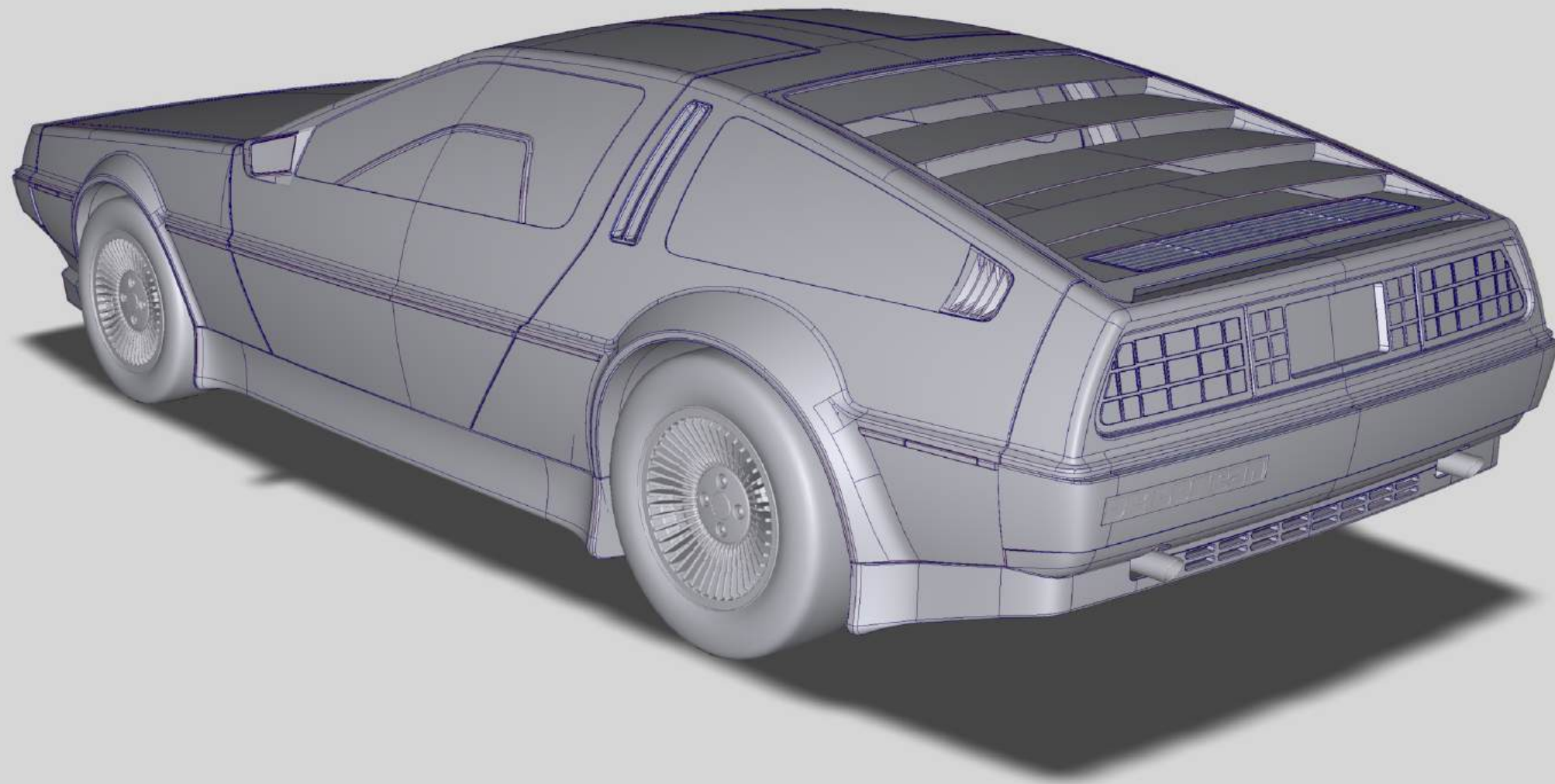
Deviation Map

Involves cross checking the extend of deviation of surfaces from the mesh using deviation map. The deviation after correcting the flaws of mesh are also visible towards the rear.

Final Model

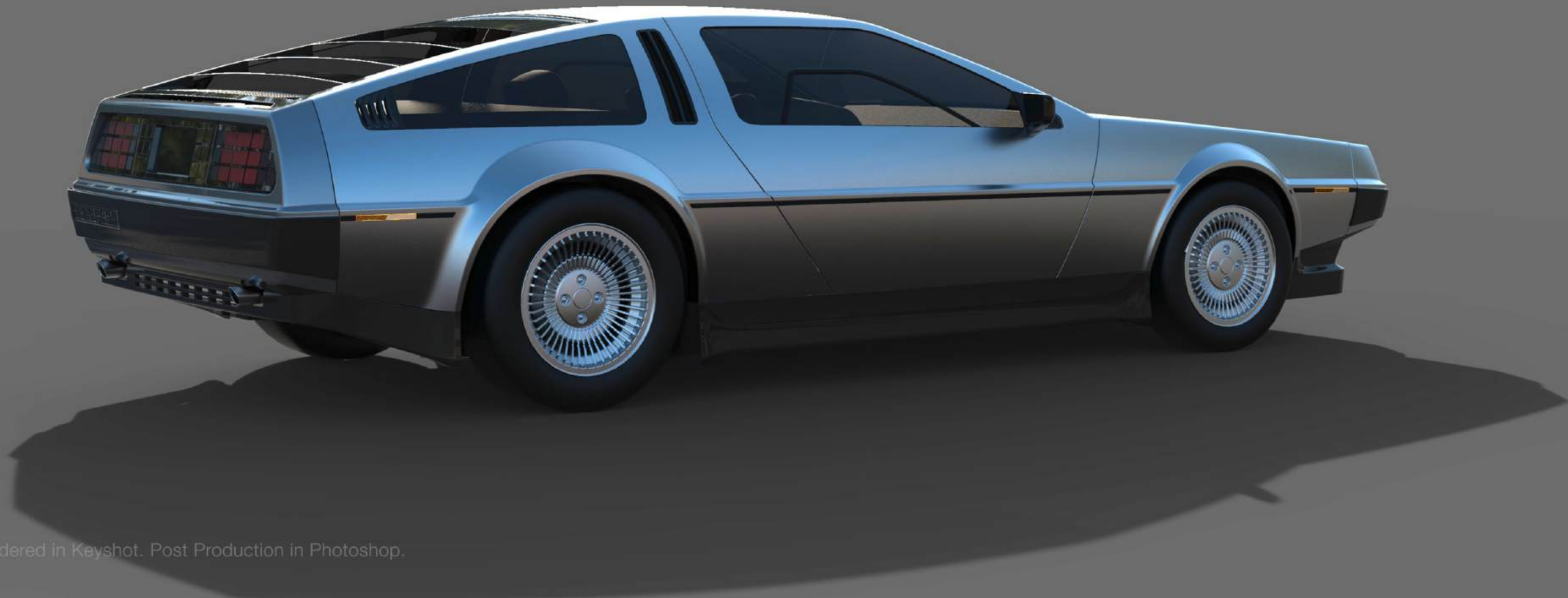


Final Model





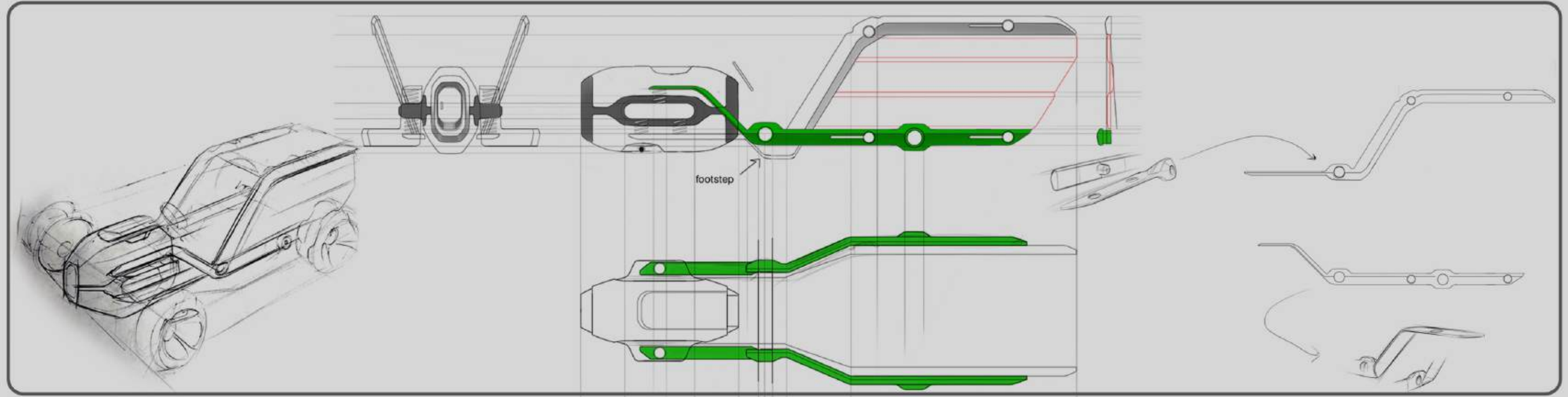
Rendered in Keyshot. Post Production in Photoshop.



Rendered in Keyshot. Post Production in Photoshop.



Rendered in Keyshot. Post Production in Photoshop.



05

MOBILITY FOR ALL

Google community vehicle for the underserved parts of India
Team Project

DESIGN
SOLUTION

MICHELIN CHALLENGE DESIGN 2016

FIRST PRIZE WINNER

Role - Digital Designer
Inputs regarding feasibility & Suggest Design solutions
along with 3D Modelling & Visualization

Scenarios & Design Solutions

TODAY

TARGET
FARMER COMMUNITY
UNDERSERVED
RURAL INDIA

80% OF INDIA ARE FARMERS,
WITH MOSTLY POOR FARMERS

BETTER FARMING?

FIND OTHER SOURCE?

BAD ROADS AND FAR OFF HOSPITALS
ARE AMONGST THE MAJOR PROBLEMS
OF RURAL INDIA

INTENTION: TO FIND A SOLUTION THAT FITS BEST SUITS THE FARMER AND HIS IMMEDIATE COMMUNITY

2025

WHAT IF?
GOOGLE CONNECTS FARM VEHICLE SO THAT THEY CAN ACT AS EMERGENCY VEHICLES TO ?

Google WIFI LOON

AGRI NET

CITIZEN CREDIT

WHAT IF?
FARMERS EARN CREDITS FOR THE PROGRAM THAT ALLOW THEM TO PURCHASE HIGH QUALITY SEEDS AT A SUBSIDIZED RATE?

URBANE SEEDS

CITIZEN CREDIT ACCEPTD

BETTER SEEDS

SESAON FARMING

OFF SEASON TAXI

WHAT IF?
FARM VEHICLE + TAXI

+ EMERGENCY UTILITY.

+ CONNECT
The vehicle is connected to the loon balloon that deploys the nearest vehicle to the emergency spot

+ DROP DOWN FLOOR
The rear section of the vehicle drops down to allow easy access.

+ DIAGNOSE
Farming assistance through google farming program
Medical assistance during emergency service

+ SUSPENSION
The chassis structure itself acts as suspension to overcome the challenge of bad road specially in an emergency situation
The rear carrier is floating through wire on the frame, so the least of road & engine vibration is transferred to the people on board.

removable screen

intuitive solutions

modular

+ FARM UTILITY.

+ENGINE AS POWER SOURCE

+A FARM VEHICLE
The vehicle plays the role of a farm vehicle where it can be attached to equipments and also carry produce from the harvest.

robust & strong

+DETACHABLE HEADLAMPS
For community streetlight

+PASSENGER CARRIER
The rear deck transforms into a people carrier allowing the farmer an extra income source during off-season

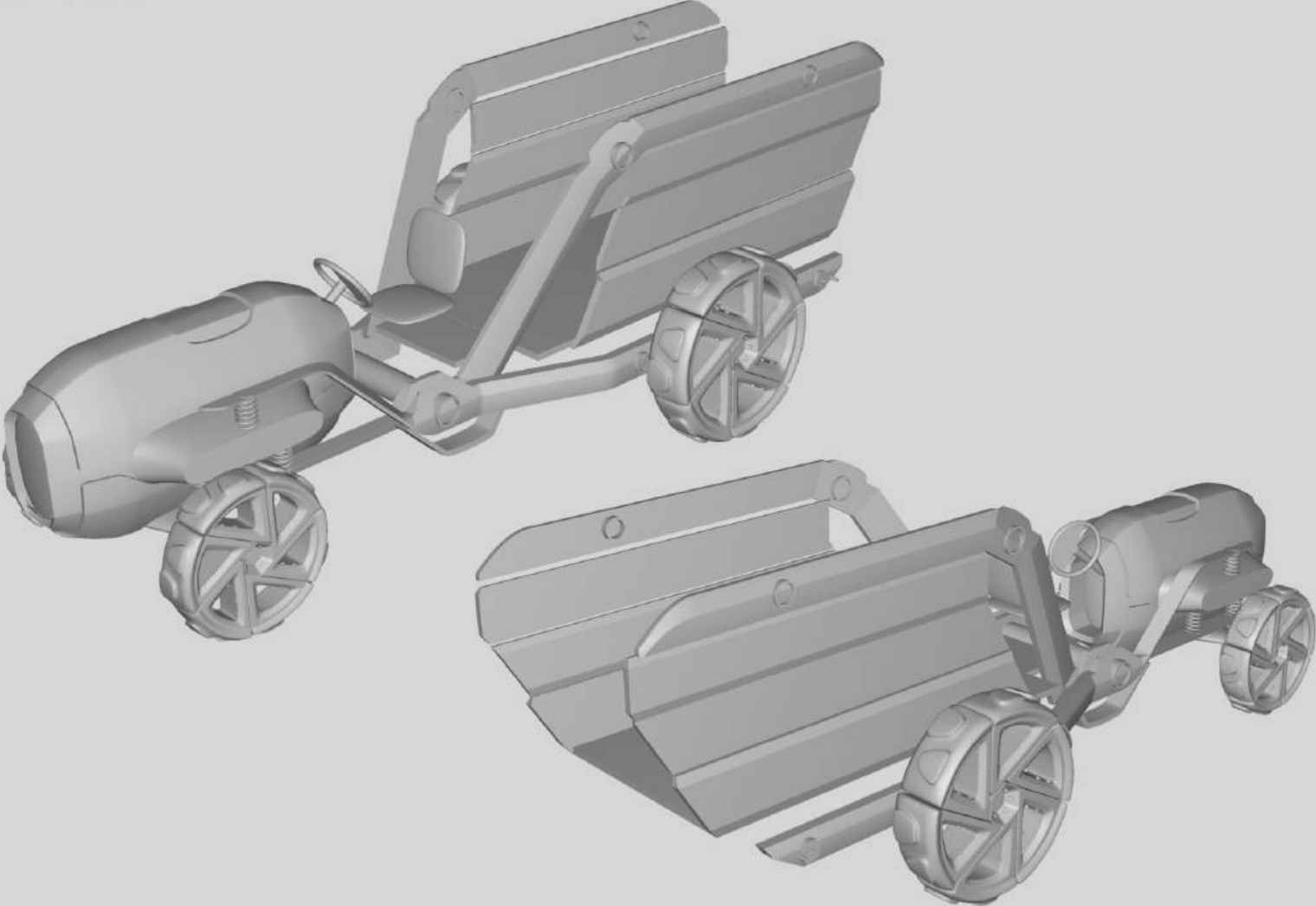
+MODULAR
The modularity of the rear section makes its useful in multiple scenarios

Intuitive design

cost effective solutions

simple structure

Final Model



autoblog

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New Cars

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WINNERS OF 2016 MICHELIN CHALLENGE DESIGN RETHINK MOBILITY

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cardesignnews

HOME CARS DESIGNERS AWARDS PARTNERS LINKED SHOW REPORTS EVENTS FOR

TOKYO 15

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Home - Cities - Pune - Pune students win award for Google Community Vehicle

Pune students win award for Google Community Vehicle

Dass and his team had earned patents for many of the parts.

Google Community Vehicle, a multi-purpose farm vehicle designed by four Pune students, has won the first prize in the Michelin Challenge, an international design competition. The design envisages the connected vehicle to function as an ambulance in case of emergencies as well as act as a passenger vehicle if needed.

Consisting of Rajdeepak Dass, Abin Murara Shikhi, Sunny Doss and Jai Bhat, the winning team are from the Pune-based DSK International School of Design. Dass said that they had started working on the project in February and submitted the project in May this year.

Dass said that their design leverages the Google Loon Balloon technology for their

CITIES

Google's internet balloons are in the air over the world's most remote areas.

Google's internet balloons are in the air over the world's most remote areas.

Google's internet balloons are in the air over the world's most remote areas.

EXPRESS NEWS SERVICE

PUNE, SEPTEMBER 9

GOOGLE Community Vehicle, a multi-purpose farm vehicle designed by four Pune students, has won the first prize in the Michelin Challenge, an international design competition. The design envisages the connected vehicle to function as an ambulance in case of emergencies as well as act as a passenger vehicle if needed.

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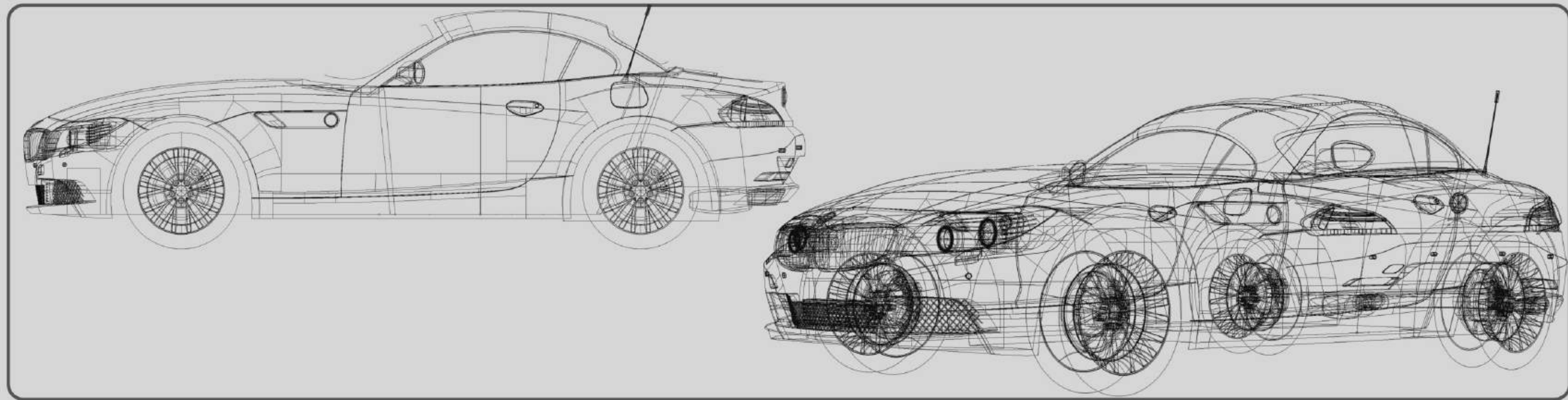
Rendered in VRED.

Rendered in VRED. Post Production in Photoshop.



Rendered in VRED





06

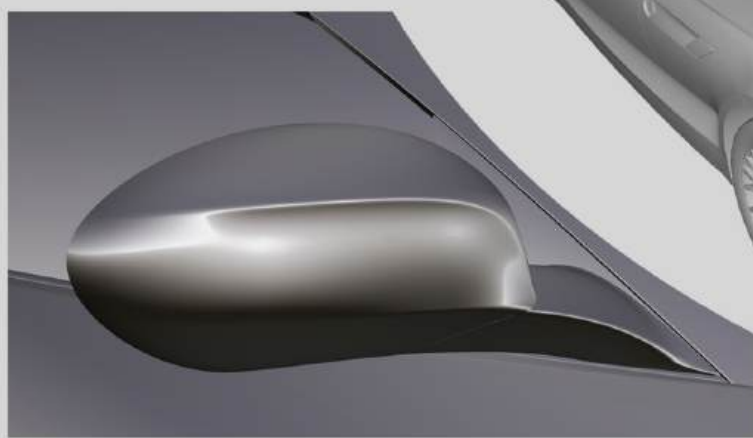
THE ROADSTER

Modelling BMW Z4 with Class A surfacing
Personal Project

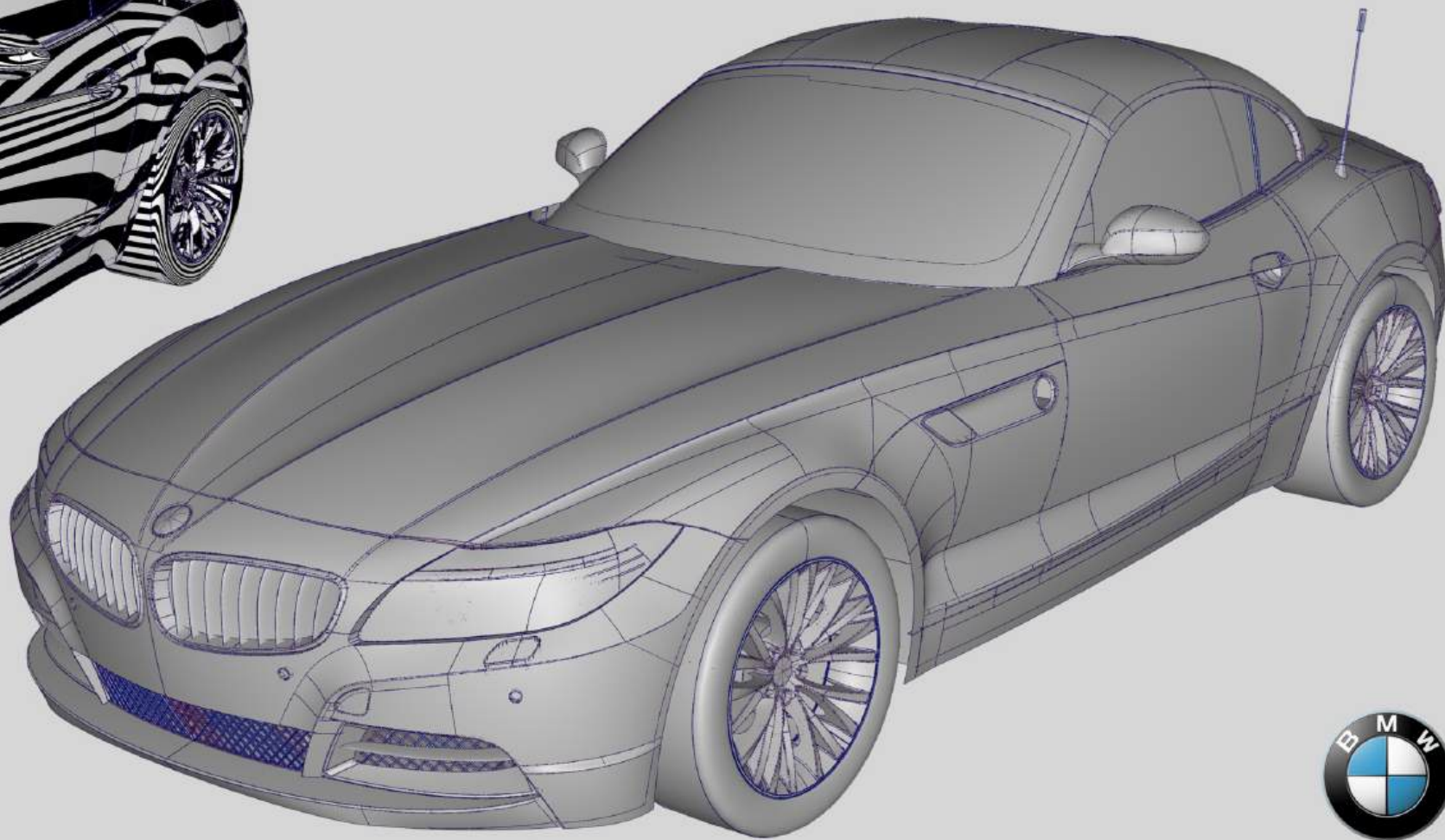
*CLASS A
MODELLING*



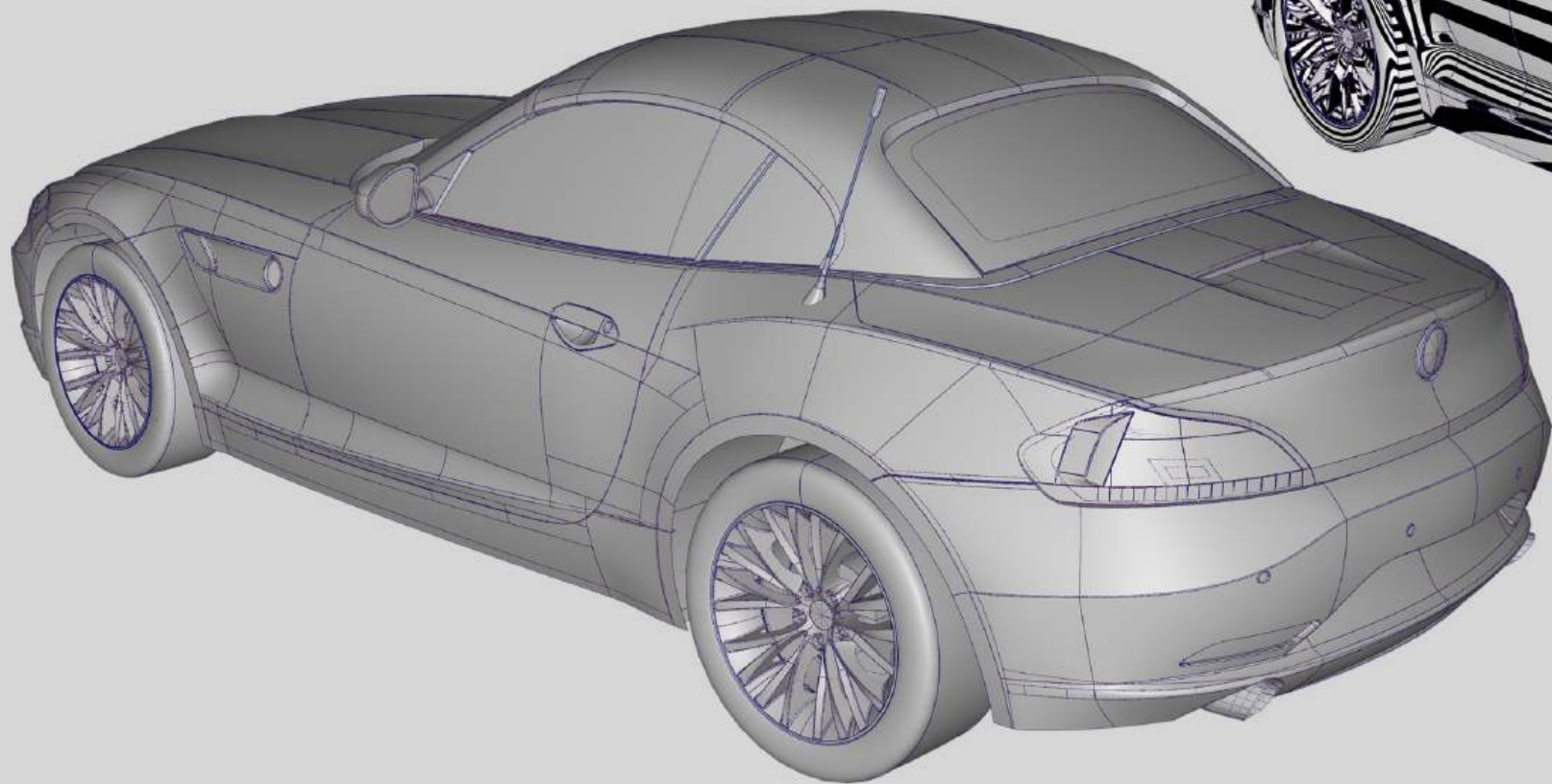
Details



Final Model



Final Model





Rendered in Keyshot. Post Production in Photoshop.



Rendered in Keyshot. Post Production in Photoshop.



Rendered in Keyshot. Post Production in Photoshop.



JOJI ISAAC ABRAHAM

DIGITAL DESIGNER - AUTOMOTIVE SURFACING
ASPIRELI - DUBAI
Nov 2023 - Present

Looking out for opportunities to utilize my skills and competencies as a Lead Digital Designer that offers professional growth while being resourcefull and innovative.

PREVIOUS EXPERIENCE

INFO

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isaac.joji@gmail.com
linkedin.com/in/jojisaacabraham
behance.net/jojiaabraham



DESIGN AWARDS

Michelin Challenge Design 2016
1st Prize
Team Project, Role : Digital Designer

FORD - UK

on consultancy through *Contechs UK and Satven India*
Digital Modelling Consultant - Specialist Mar 2023 - Nov 2023

TATA MOTORS DESIGN, Pune

Lead - CAS Modelling, Digital Design Aug 2018 - Mar 2023
Senior Manager - Design Centre Dec 2017 - Jul 2018
Digital Designer Sep 2016 - Nov 2017

Dassault Systèmes - 3DEXCITE, Pune

3DPLM Global Services (3DGS)
Digital Designer Dec 2015 - Aug 2016 (Permanent)
Feb 2015 - Dec 2015 (Contract)

TECHNICON DESIGN GmbH, Russelsheim, Germany

Alias Modelling Intern Jul 2013 - Dec 2013

EDUCATION

Institut Supérieur du Design (ISD)
Rubika France | India campus

Digital Design Management
(Industrial Design) (2012-2015)

Federal Institute of Science and
Technology (FISAT) Kerala, India

Bachelor of Technology in Computer
Science and Engineering (2005-2009)

SKILL SET

Near Future Goals

Blender Parametric Modelling
VR Modelling using Gravity Sketch

3D Modelling

Alias Nurbs
Alias SubD
Maya
Blender

Rendering

VRED
3DEXCITE DELTAGEN
Vray in 3DS Max
Unreal Engine
Keyshot

Compositing & Post Production

Adobe Illustrator
Adobe Photoshop
Adobe Premier Pro
Adobe After Effects

Managerial

Analysis & Co-ordination
Problem Solving
Team Management
Tight Deliveries

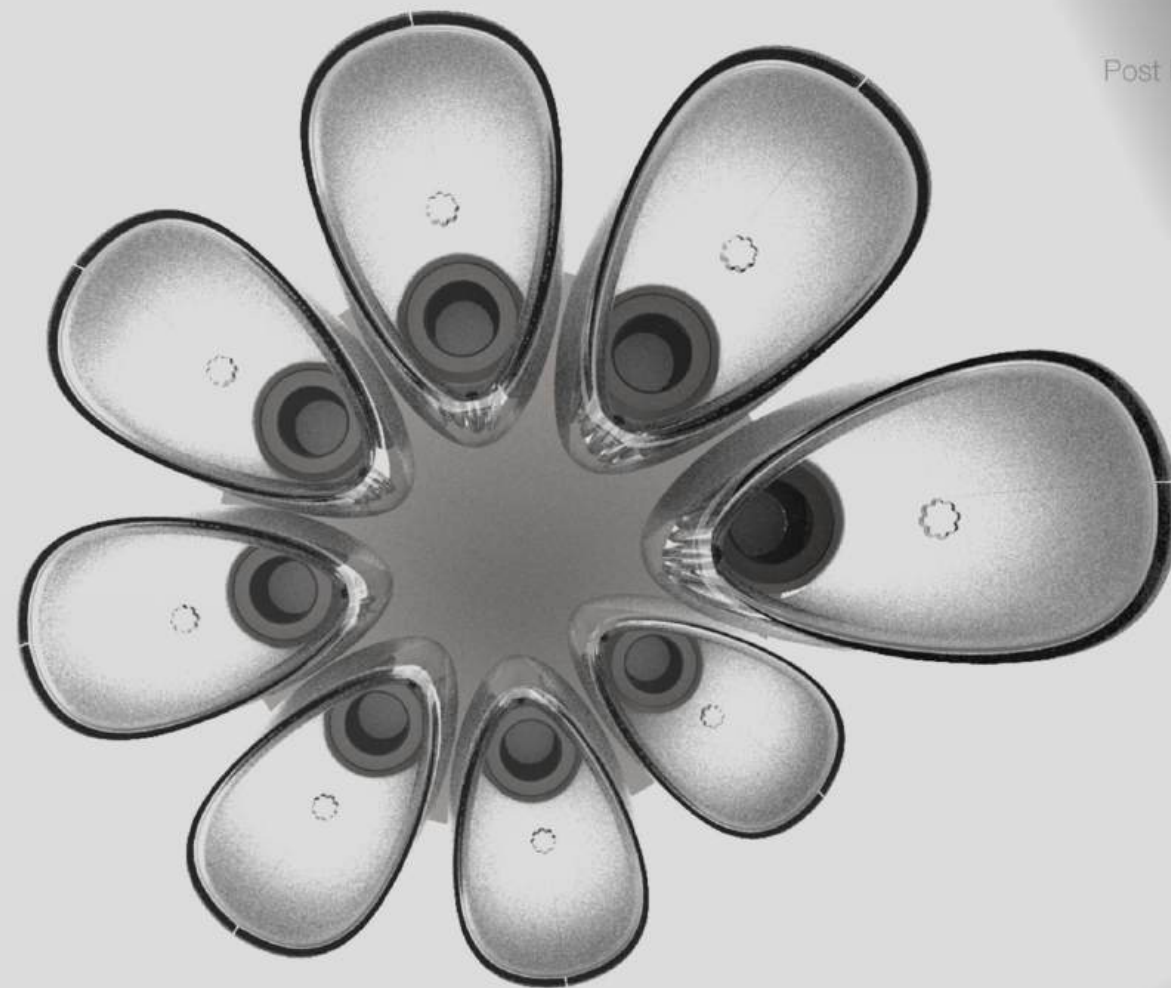
Physical Modelling

Clay Modelling

Rendered in Keyshot.
Post Production in Photoshop.




THANK YOU!
FOR YOUR TIME



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