

PROJECT 3

Refresh of Scooty Pept

SPONSORED PROJECT by **TVS**

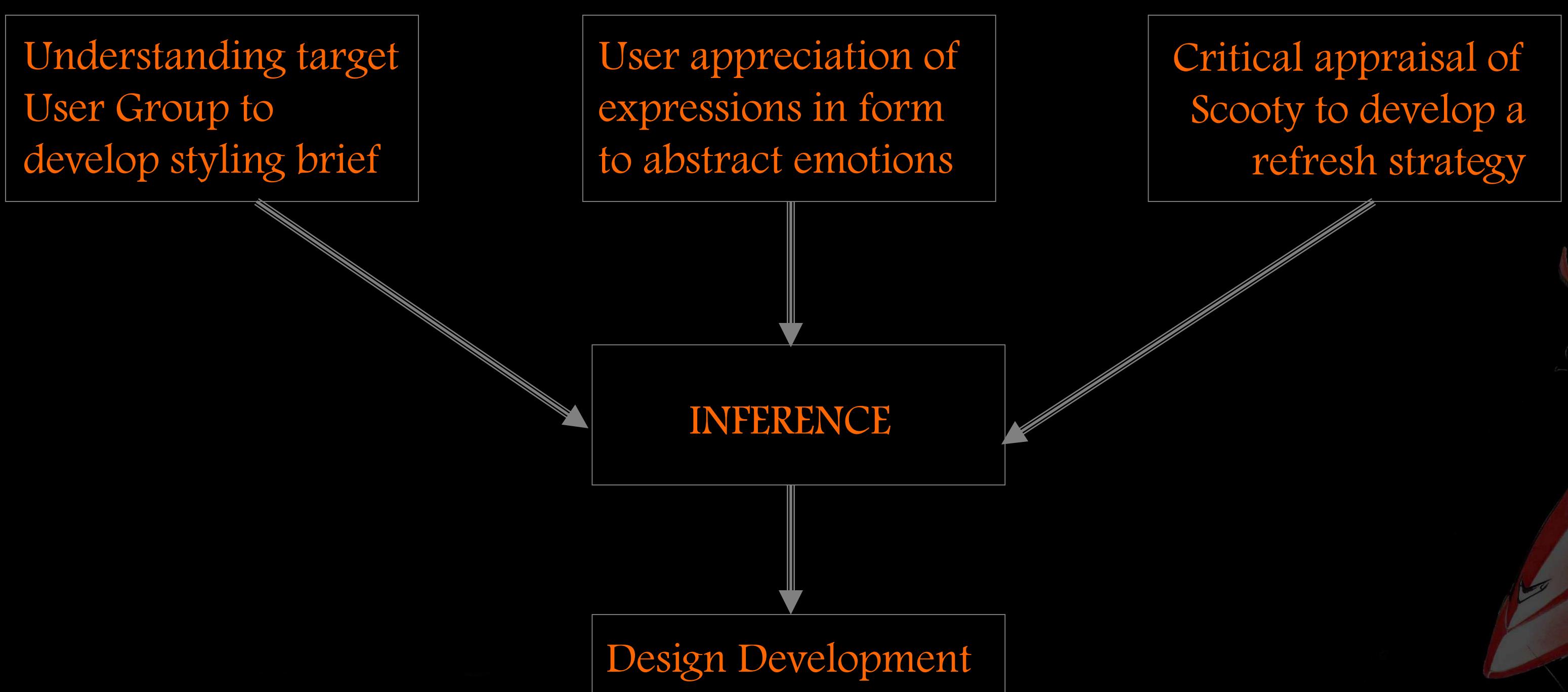
Presented by Vinatha

Guided by Mr. Makrand Kulkarni (TVS)

Prof. V P Bapat (IDC)

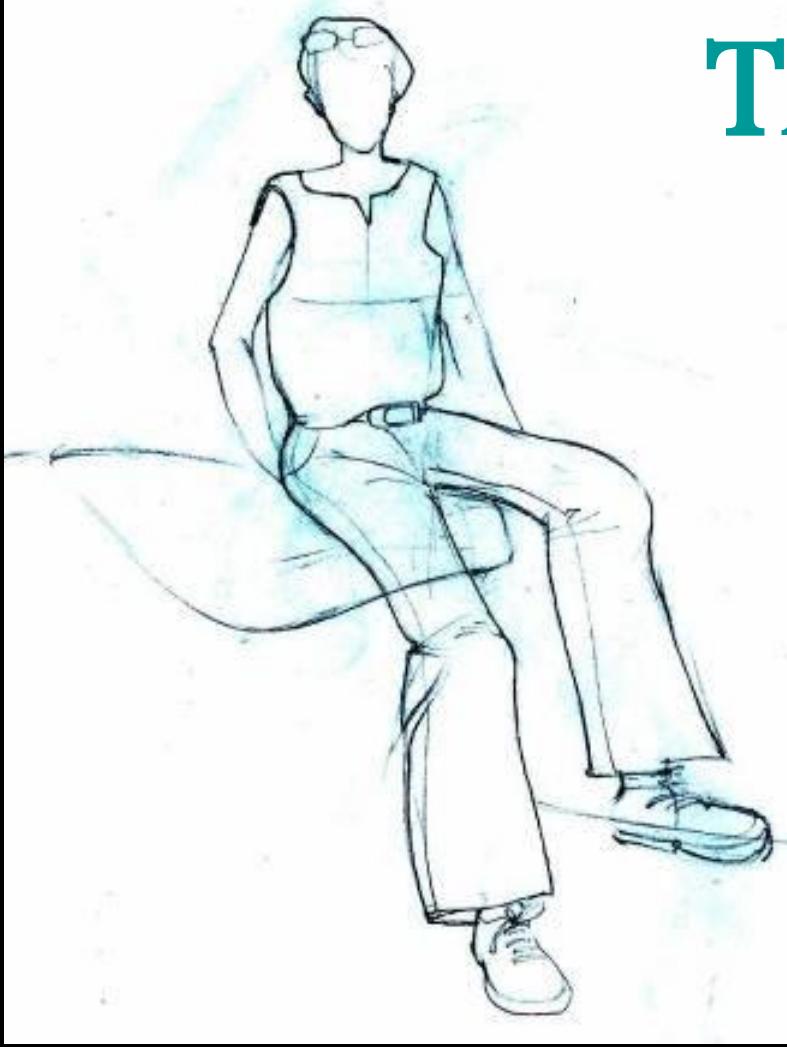


DESIGN PROCESS



TARGET USER GROUP

Fair Sex of age group 18 – 25 years
College students / Young professionals
Single



Lifestyle

Fast and trendy
Youthful
Energetic

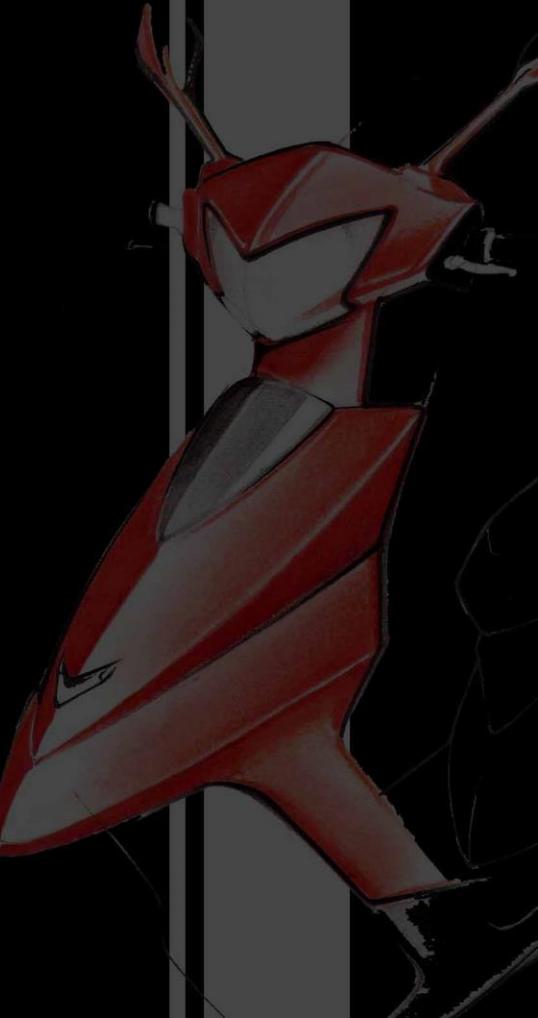
Accessories

Tech-savvy
Minimal styling
Brand conscious
Jewellery ~Modern

Apparel

Executives prefer formal wear
College girls preference:
Sporty comfortable
Ethnic Indian wear
(salwar)

TARGET USER GROUP



Emotional Needs

Vehicle that reflects their personality

Image of oneself riding the vehicle is dear to them

Trust for a brand and its identity in market or fellow users

Need for customisation of vehicle



Functional Needs

Safety on the road

Easy maintenance

Best mileage

Better user amenities

Weight of vehicle

Easiness to ride

Size or compactness



Development of a styling brief

What a vehicle means to the user?

It is a **statement of her character**
It is an emphasis on what she envisions herself to be



What does Scooty PEP + convey?

I am **girlish** and I am **cute**
I like **fancy looking** products
I am **independent**
I am **young, vibrant** and **fun-loving**
I care for my looks

Attempted to analyze and come up with an inference as to what features in the Scooty made people describe the vehicle as such

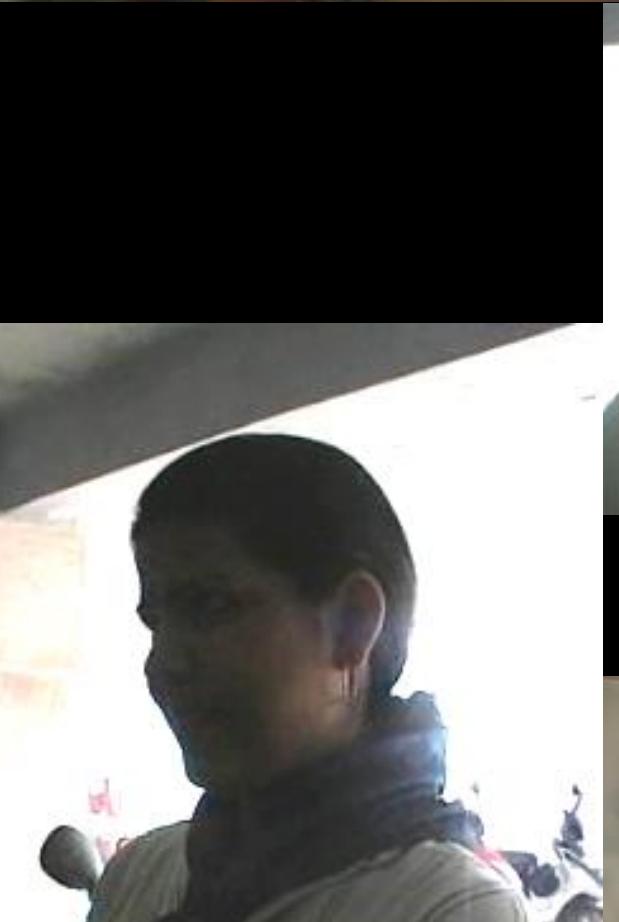
- Use of very **vibrant** and **young** colors
- Cheerful head lamp with **jewel** treatment
- “**Assertive in the face**” Stance
- **Soft** body form
- Too many surface transitions emphasized by change in colors too
- Very **feminine** waist line
- Silver lower panel has a strong **fancy** character



“It's a typical **Barbie doll** vehicle – looks very fancy”



“I think the **Scooty** looks **cute** on the road”



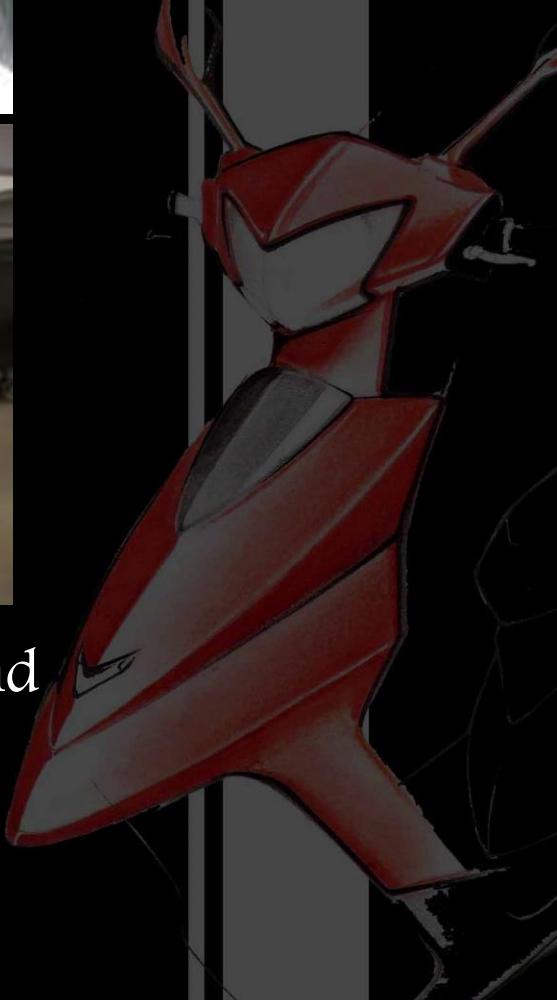
“Scooty **doesn't** look **elegant** but rather very **flirtatious**”



“I am **daring** person...The vehicle **doesn't** have the **crispness** of a DIO”



“being **hefty**, think that **Scooty** **doesn't** suit my **built**. But it **does** look **good** on the **road**.”



“It looks **ridiculous**”

TARGET USER GROUP

INFERENCE

Need for a fresh look

Change towards Crisp, Dynamic

Elegant

Less fancy

Modern

Young and vibrant

Styling brief

To design Scooty pep in strict lines of refresh with a conscious effort to maintain the youthful energy that is intrinsic to Scooty styling. This would be done in two definite directions, one being more '**sporty and dynamic**' and the other '**Elegant and modern**'.



USER APPRECIATION OF EXPRESSION IN FORM

WHY?

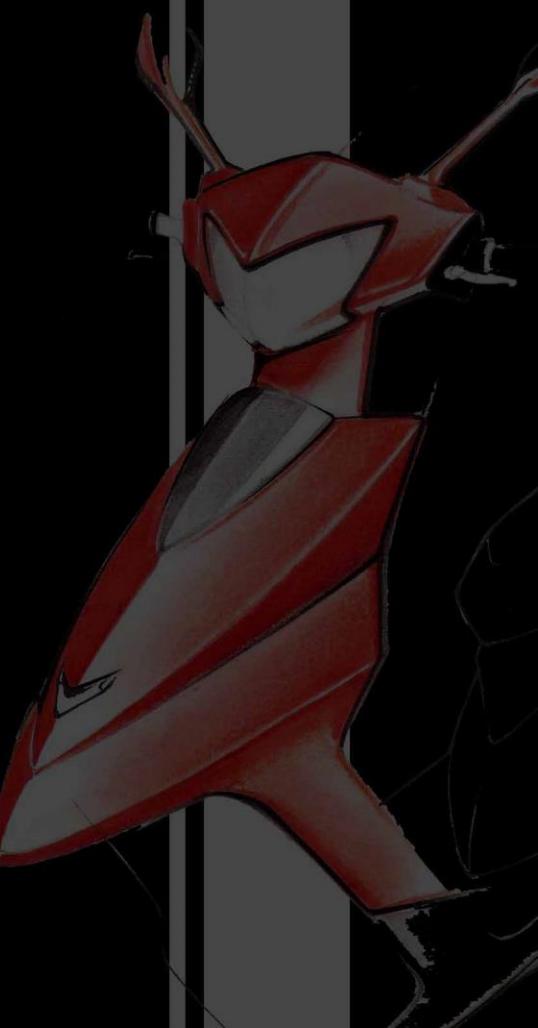
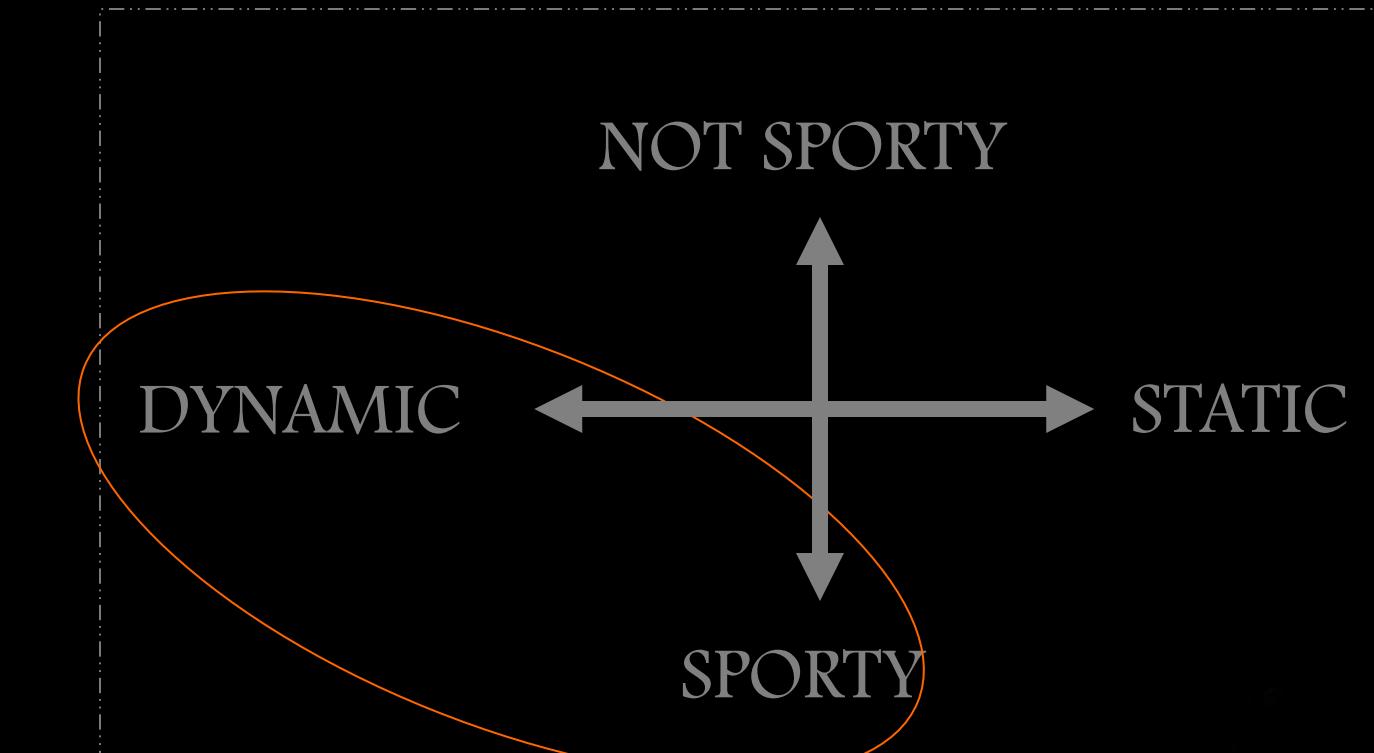
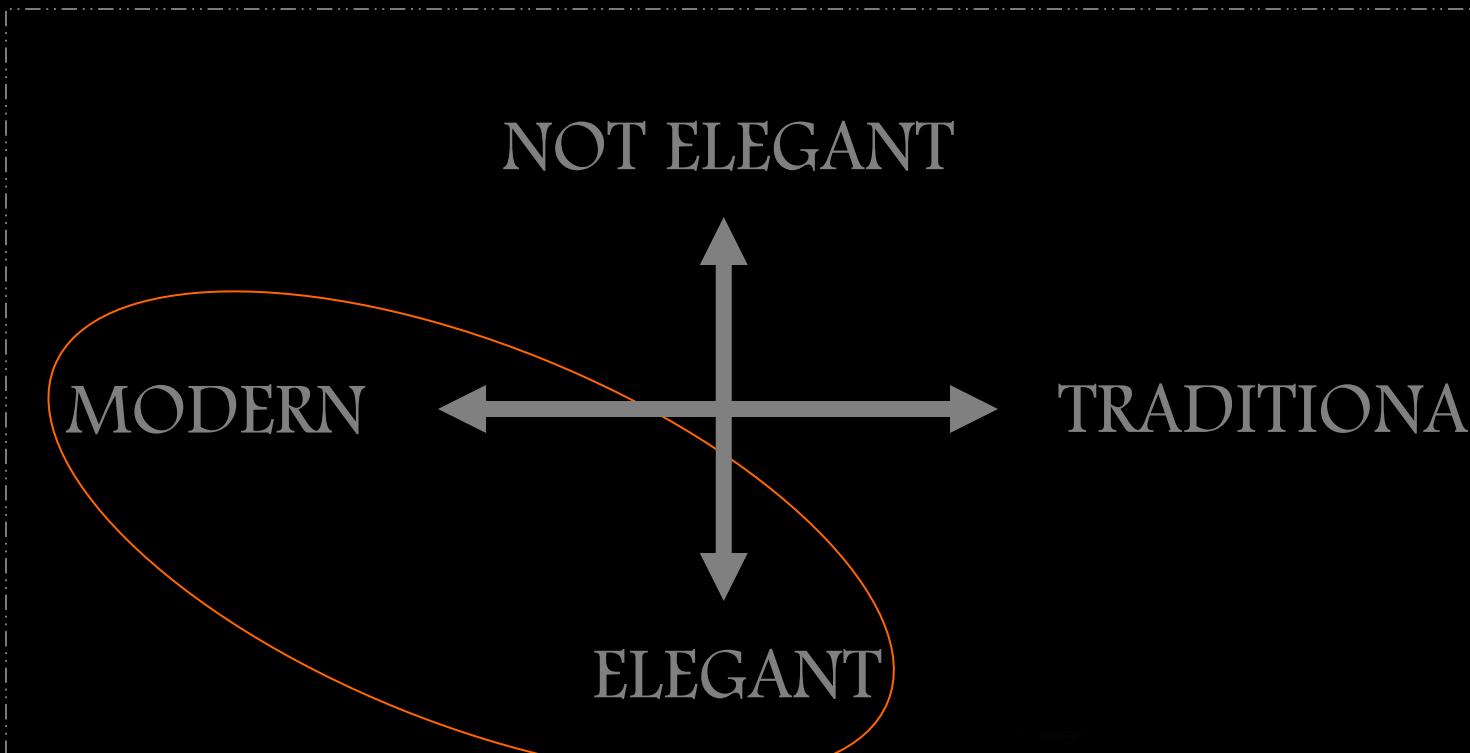
To understand what users meant by expressions like Sportiness and Elegance

To abstract the characteristic visual cues of the qualities users were looking for in a vehicle.

HOW?

Two sets of image cards (size 10 X 7.5 cm) of products that stood for two expressions namely Sportiness and elegance were made.

User survey was conducted to get feedback on how they rated products in terms of emotions they conveyed



not sporty



INFERENCE

- Streamlined body with flowy lines
- Sense of movement
- Dynamic stance
- Surface is treated with colors to have high contrast, bright vibrant colors with either white or black
- Matte texture of surface



not elegant



INFERENCE

- Flushed surface joints and minimalist details
- Pure shapes / forms
- Very little surface break up
- Smooth surface transition
- Colors that are light and soothing to the eye



CRITICAL APPRAISAL OF SCOOTY



Qualities maintained

Intrinsic Qualities

Trendy colour scheme

Light – overall width

Soft and Bulbous

Feminine

Recessed shoulder ~ sleek

Assertive in the face stance

Prominent neck curvature

Heavy rear half

Prominent highlight in front

Tapered nose instead of fender

Too many surface transitions

Tail lamp derivative of flow lines

Thick supports for mirror

Qualities refreshed

Crisp and sharp

Light Rear Half

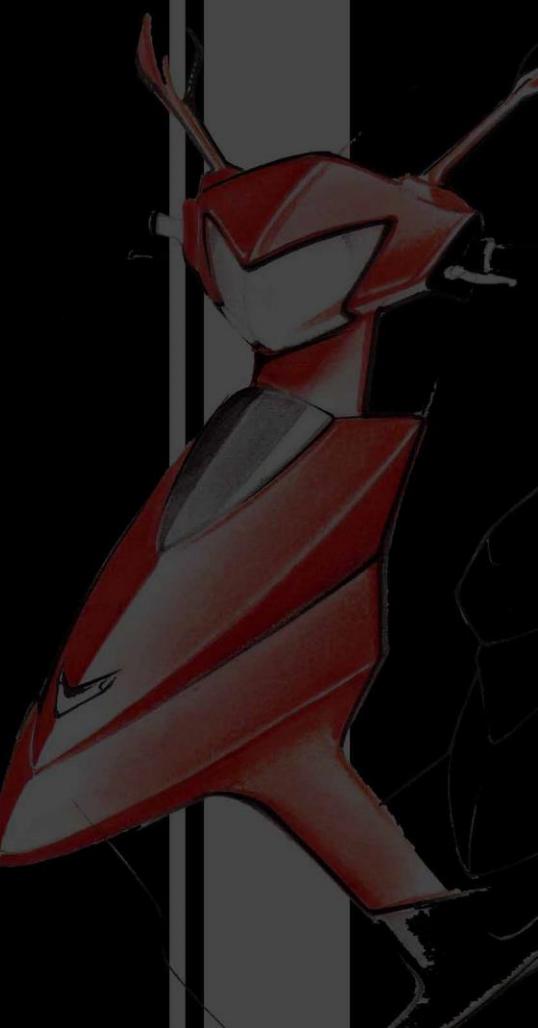
Reduced taper to suit flow lines

Reduced surface transition

Thin supports

Mass
Movement
Balance
Stance
Proportion
Features

Refresh DESIGN







Design Strategies



To give the vehicle a fresh look in strict lines of a refresh
A sporty dynamic stance which is the new age attitude
Except for the supporting grey front panel, all the other body parts of Scooty has been altered to have cutting edge style.



Stance and movement

The vehicle has a dynamic stance which radiates youthful energy. The head lamp carries happy assertive attitude

The vehicle is sleek and slender and bears an overall lightness





Mass & Balance

Tight surfaces and bold edges which sort of lifts the vehicle visually conveys lightness of the form and gives it a slender outline





Proportion

The rear half of Scooty look very massive for its slender front-half. This visual disparity has been corrected





Features



The nose has been cut short by 40mm and even the edge of the wheel well has been treated to add to the over all dynamism.

The surface transition at the lower end has been resolved by a edge feature which is also coherent with the other feature lines



The mirror unlike Scooty's which is very soft, is sharper and the holder is sleek

The head lamp has maintained the same edge lines but appears smaller and cute for the treatment of surfaces.

The characteristic Scooty head stance can be traced to its neck curvature and this has been maintained true to its original





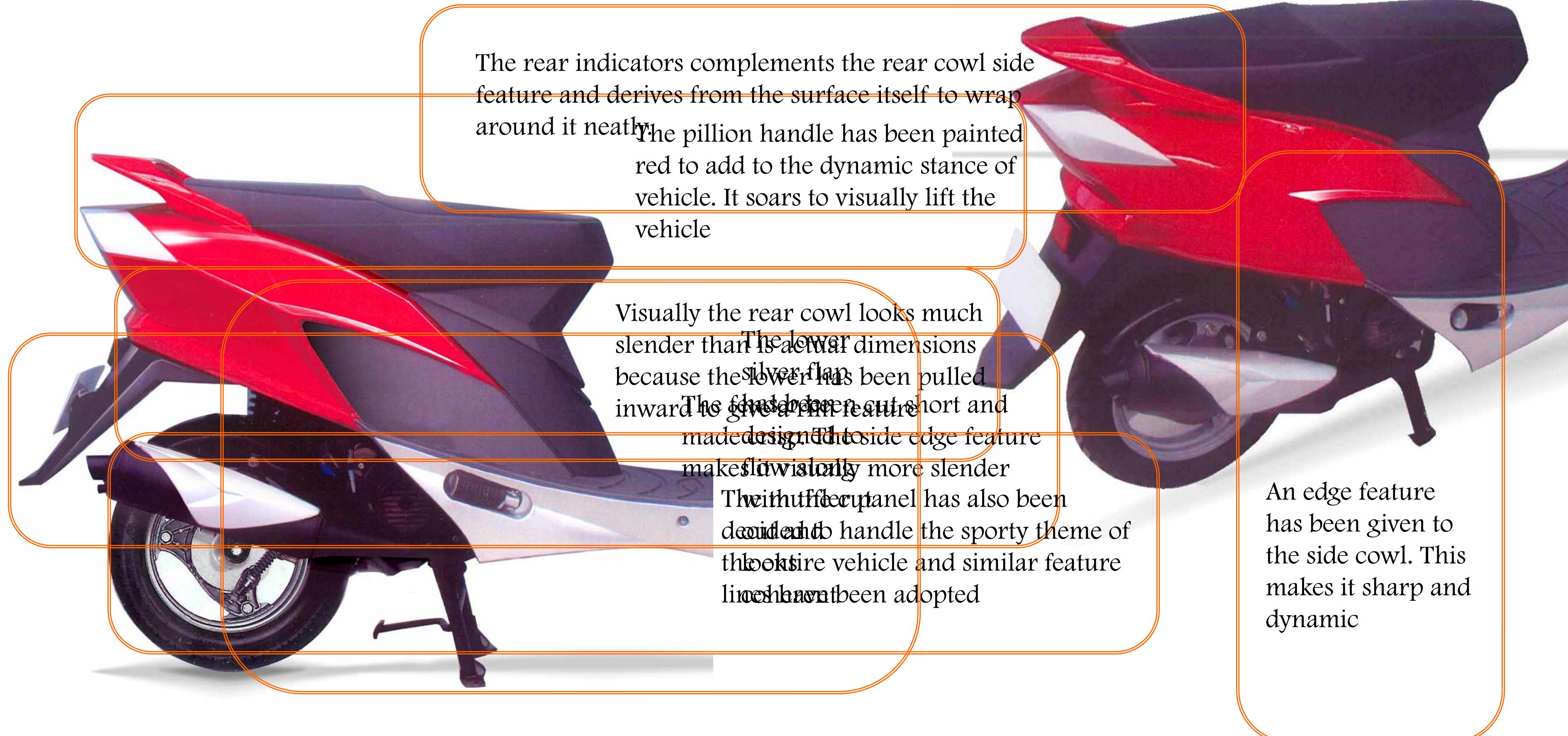
The size and depth of the chest has been decided so that the surface has a natural intersection with the red panel.

The seat has been made crisp and sharp to suit overall body language. The front half has been reduced by 10mm and

The indicators have been decided on the silver panel for two main reasons. While designing the front panel and this has been taken that the nameplate can have a different position.

- It gives a clear unhindered highlight on the red panel but the red panel and the same kind of panel that has
- It also reduces the complexity of the panel which is also there in the back of the vehicle
- It reduces the amount of silver area
- It also gets a clearance of 240mm lamp to lamp.
- Visually it carries a mean attitude





The rear indicators complement the rear cowl side feature and derive from the surface itself to wrap around it neatly. The pillion handle has been painted red to add to the dynamic stance of the vehicle. It soars to visually lift the vehicle

Visually the rear cowl looks much slender than its actual dimensions because the lower flap has been pulled inward. The side cowl feature is short and made design. The side edge feature makes it visually more slender. The side fairing panel has also been designed to handle the sporty theme of the vehicle and similar feature lines have been adopted

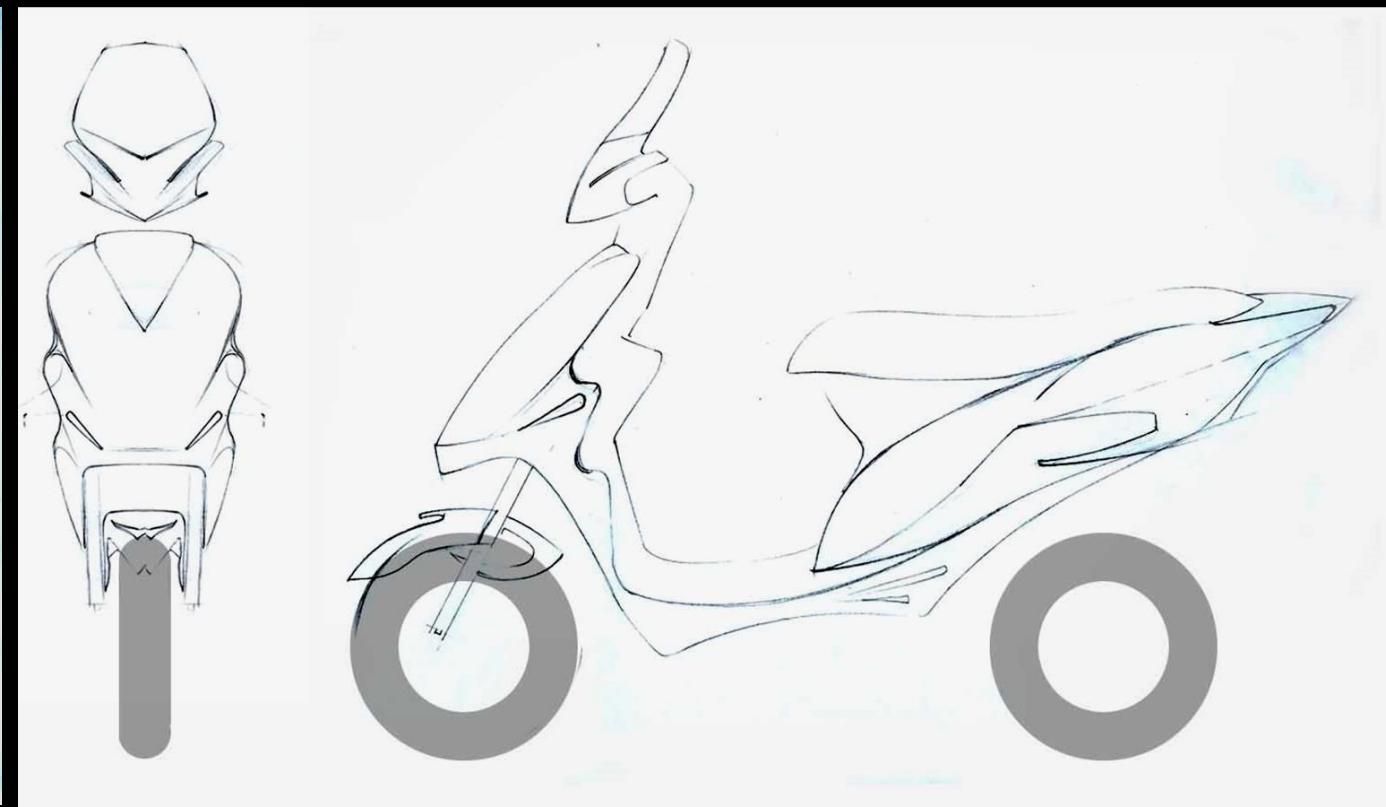
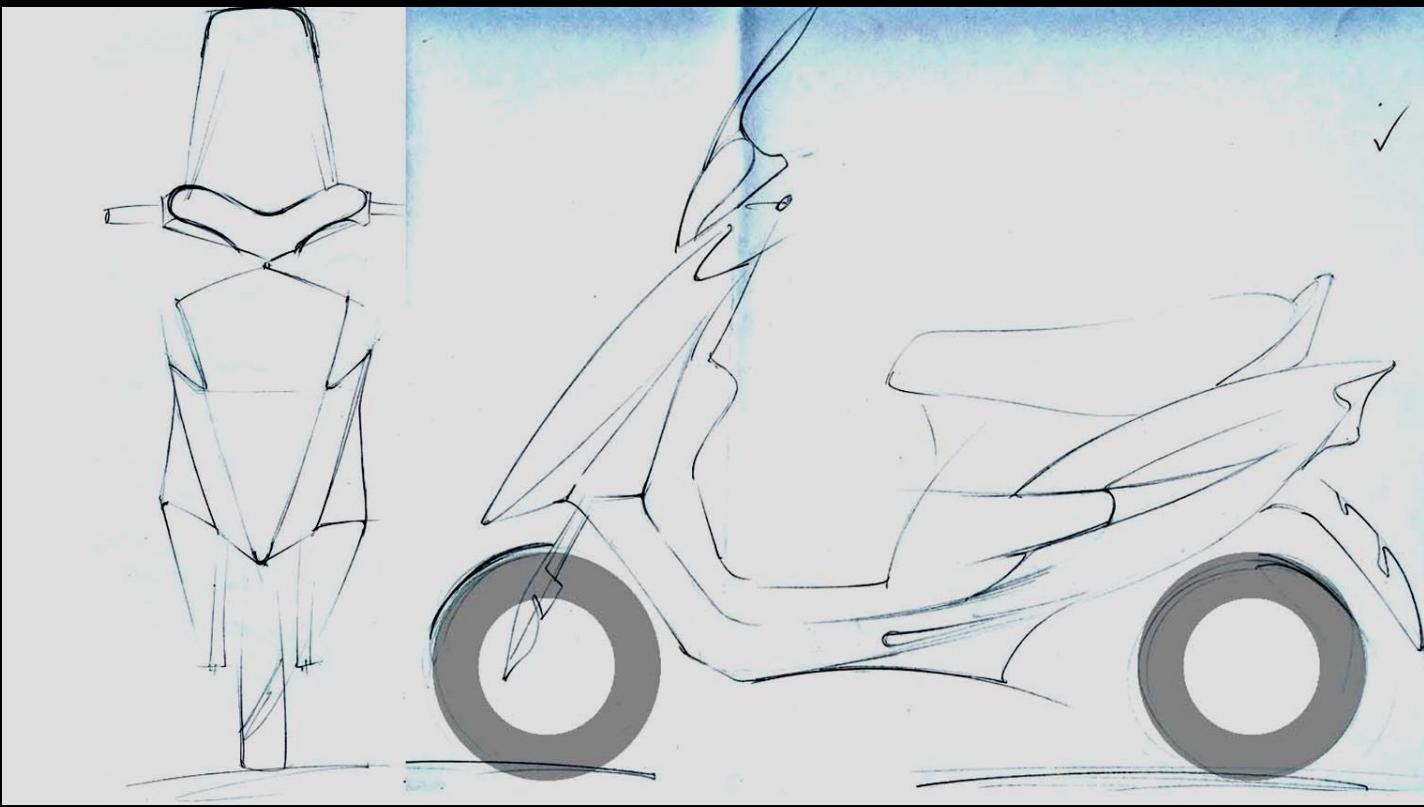
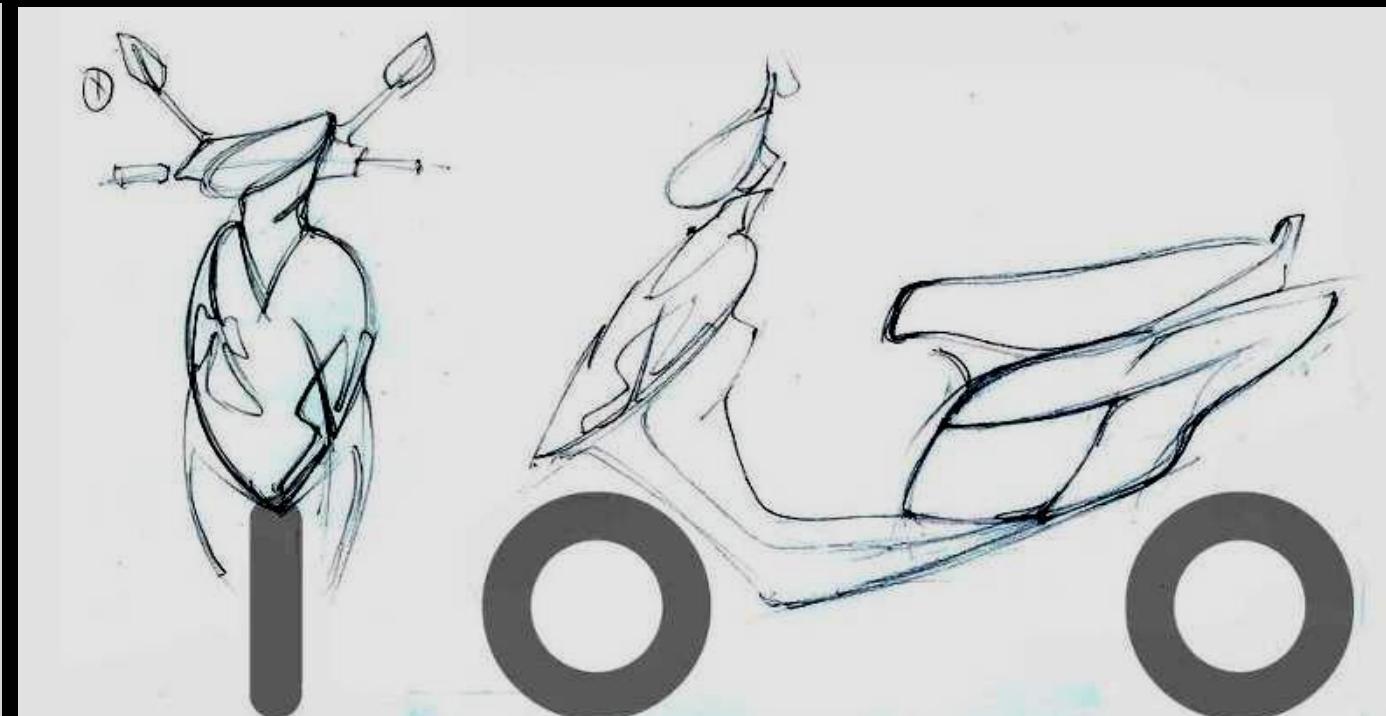
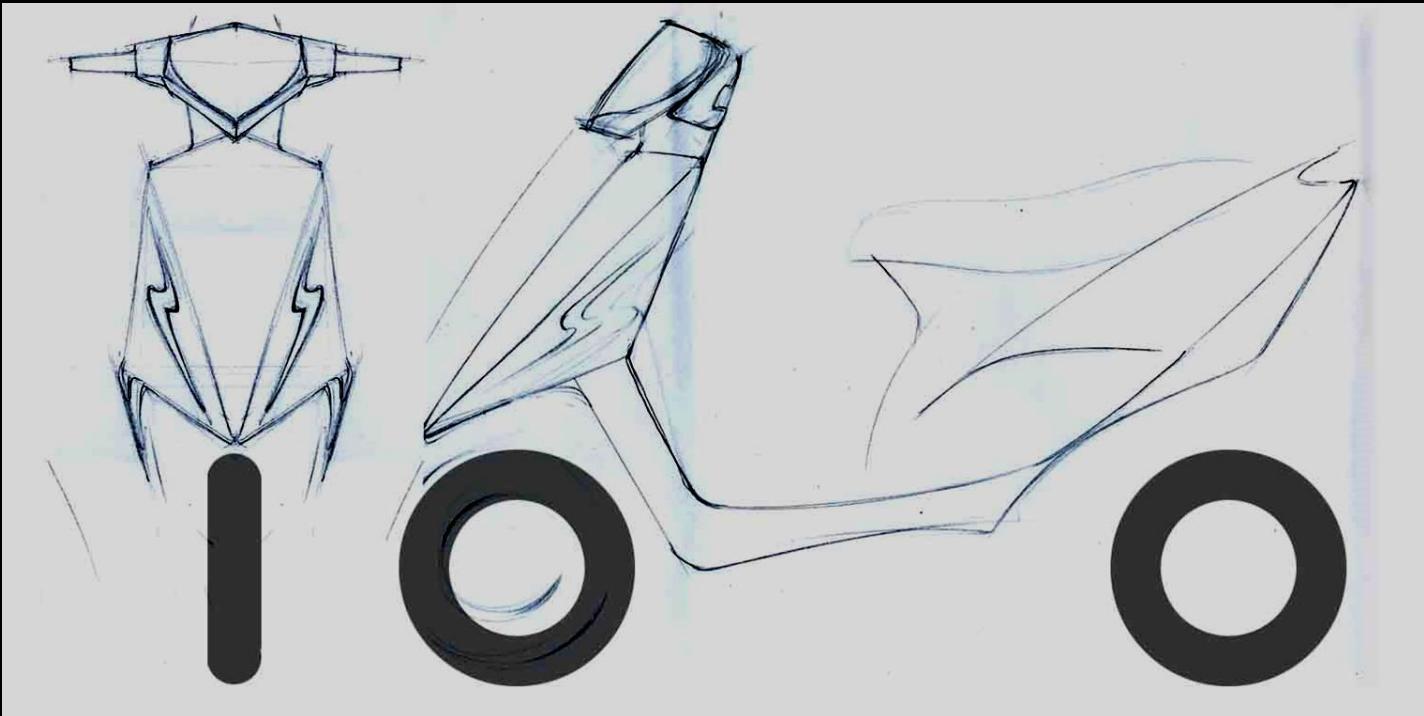
An edge feature has been given to the side cowl. This makes it sharp and dynamic

Design development



FORM EXPLORATION

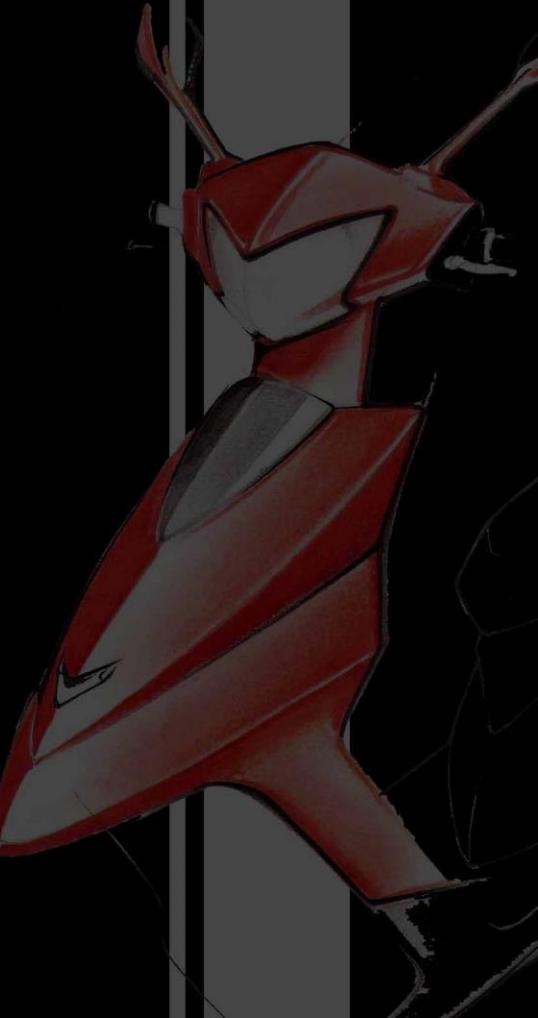
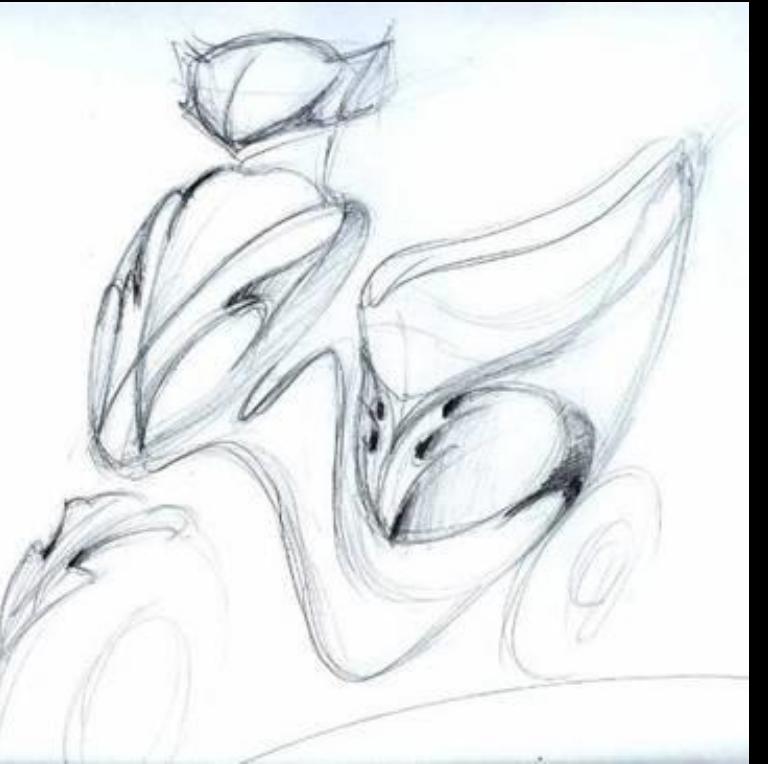
Initial explorations were unbiased; not in any particular direction
Few of them selected to develop in definite directions



FROM EXPLORATION

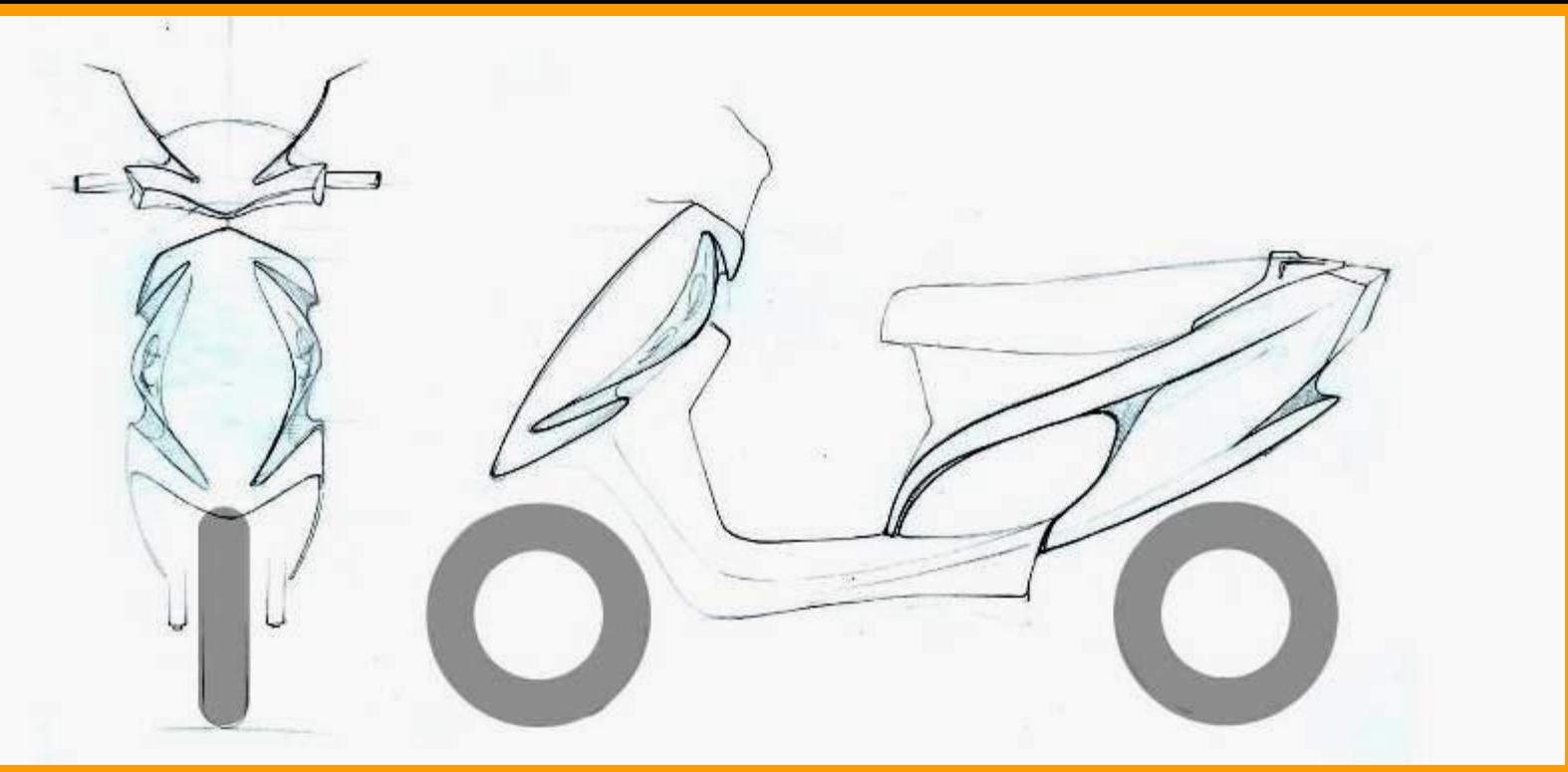
IDEATION IN SPECIFIC DIRECTION ~ SPORTY

Out of over 50 sketches made during ideation phase selected few are used to explain the process

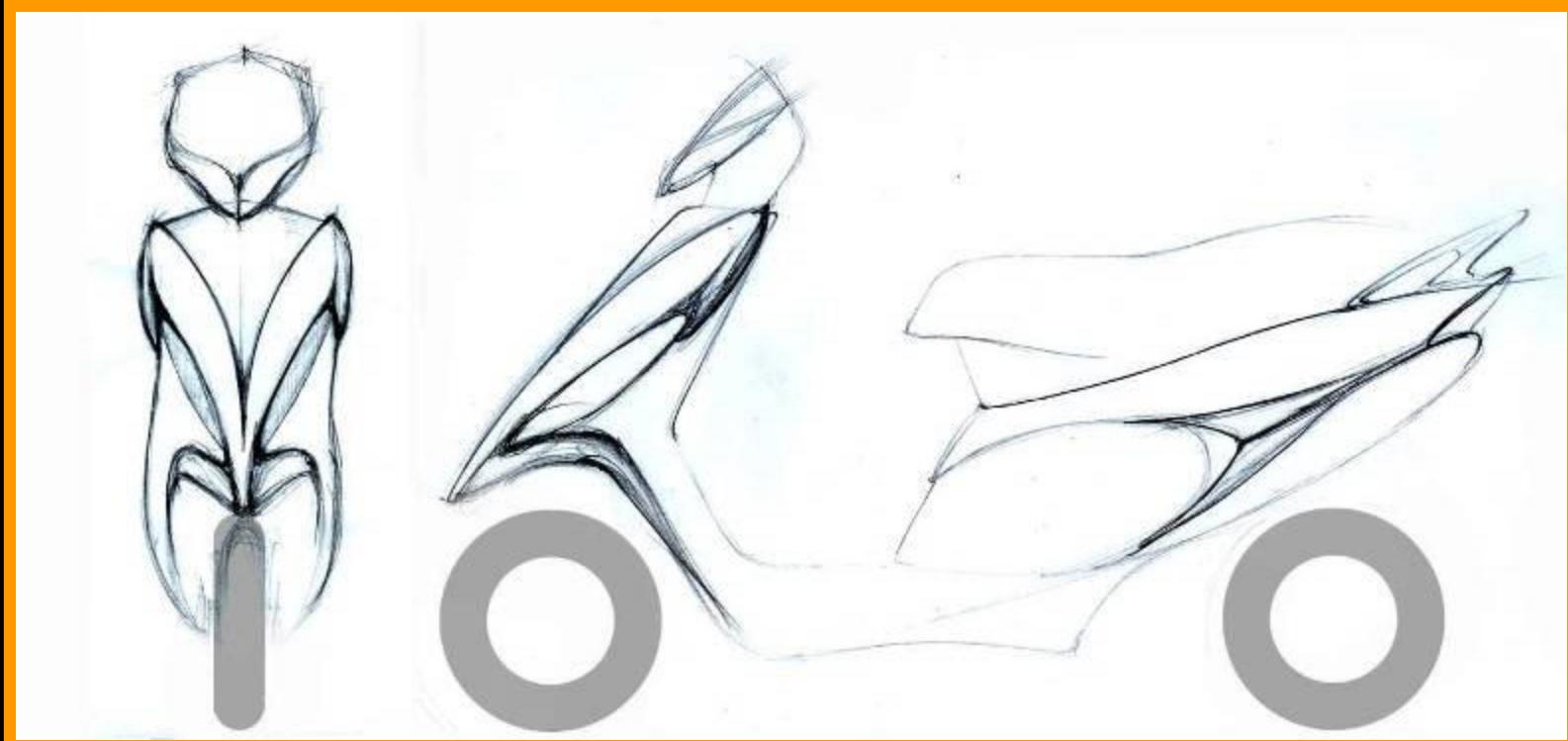


IDEATION IN SPECIFIC DIRECTION ~ SPORTY

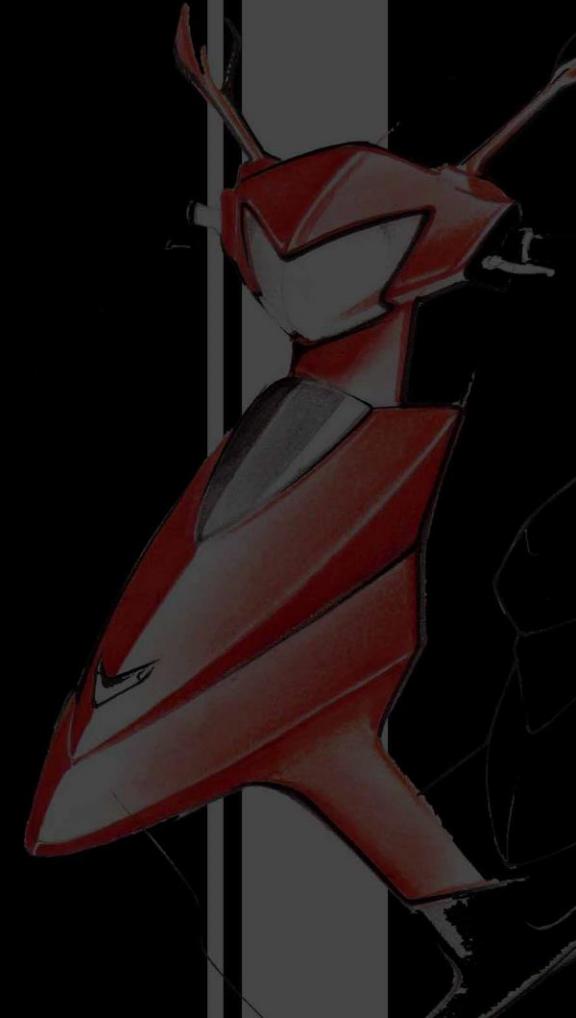
IDEATION



Frontal expression of an Urban insect with a dynamic identity
Soft edges
flow lines and sharp cut outs gives it an aggressive look

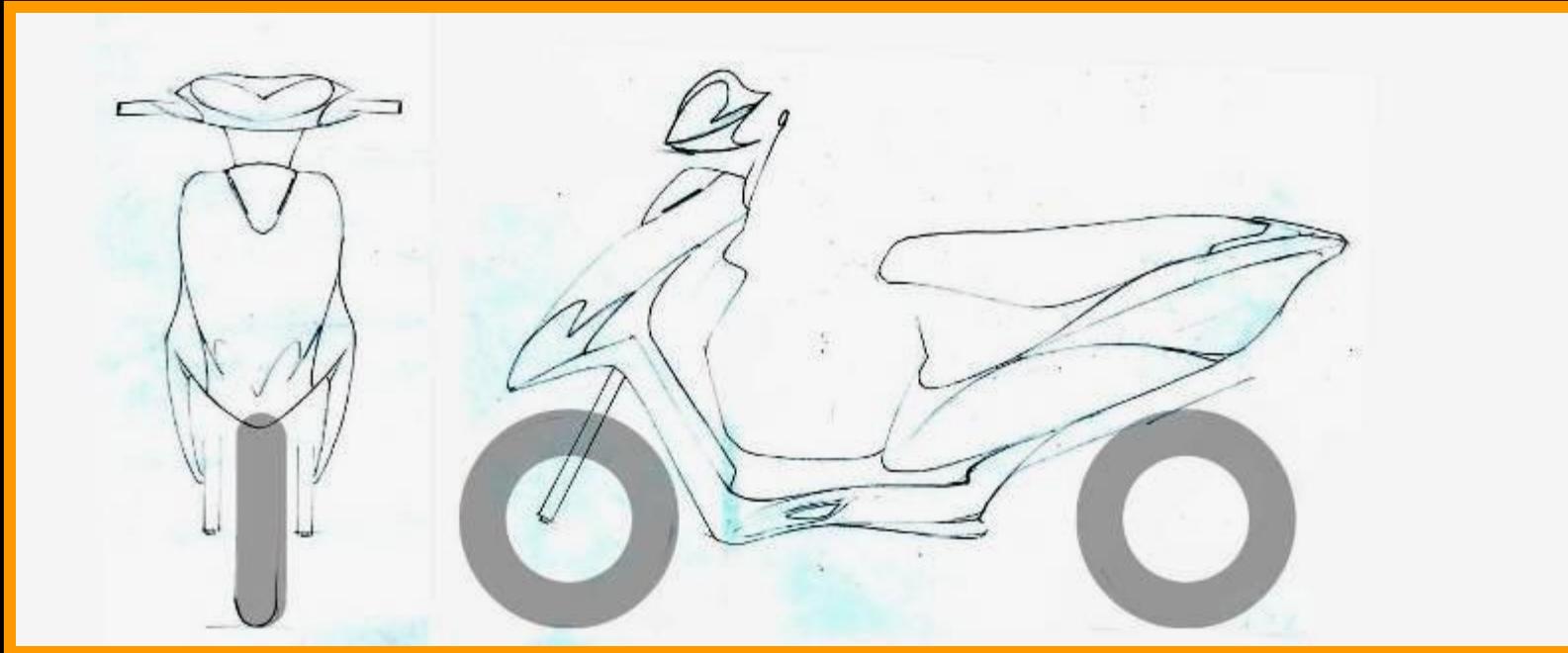


Aggressive and muscular ready to pounce
Angle of head gives it aggressive stance
Swiftness rendered due to lightness of rear
Sense of movement achieved due to streamlining of rear

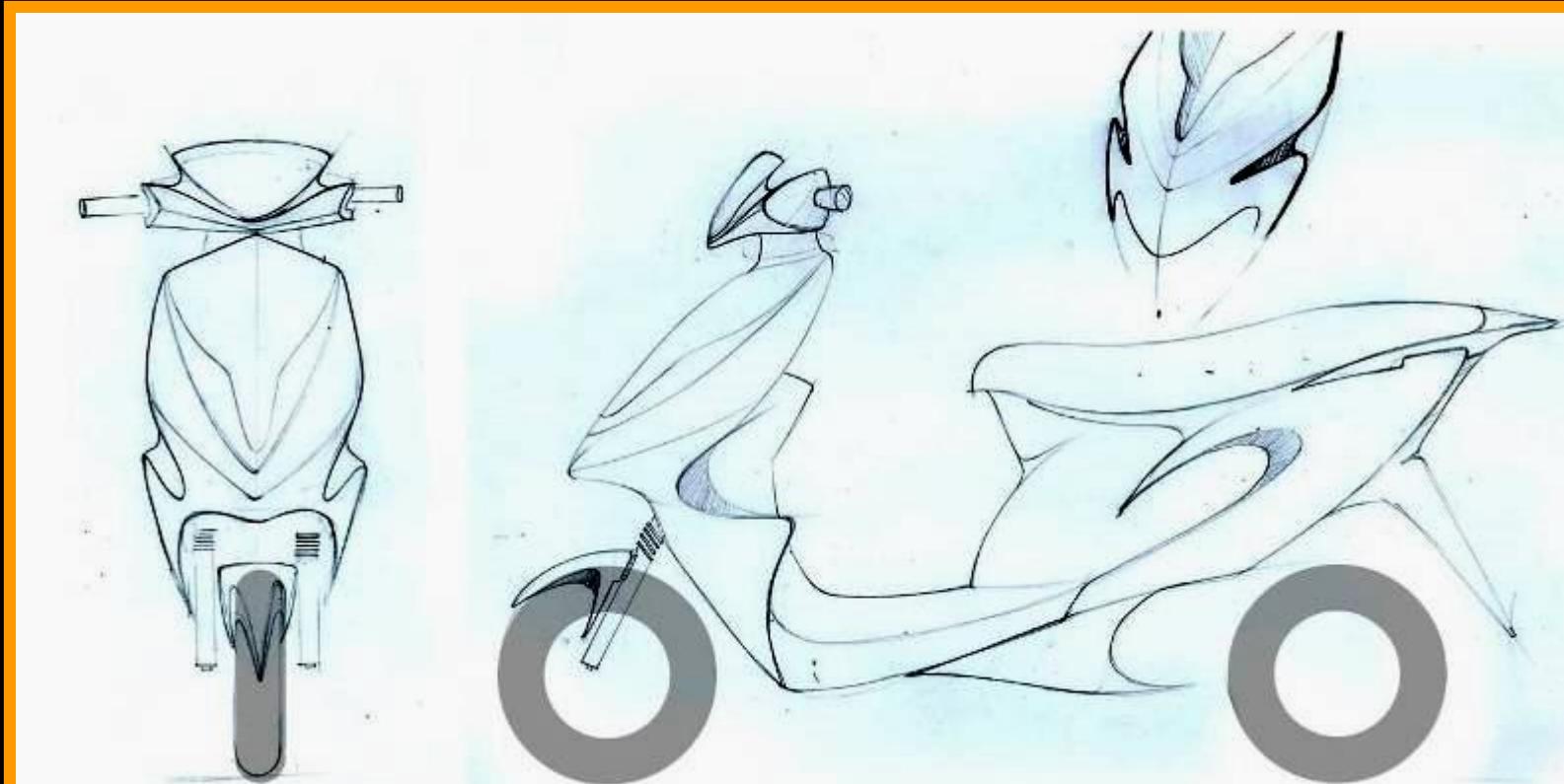


IDEATION IN SPECIFIC DIRECTION ~ SPORTY

IDEATION



Soft feminine body panel gets a dynamic flair to it due to
head lamp treatment
Frontal expression

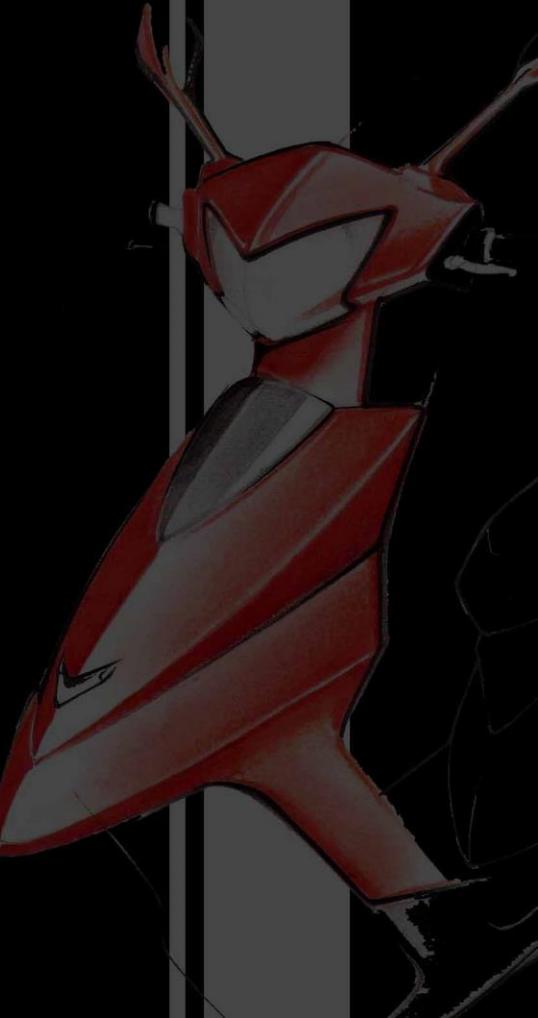
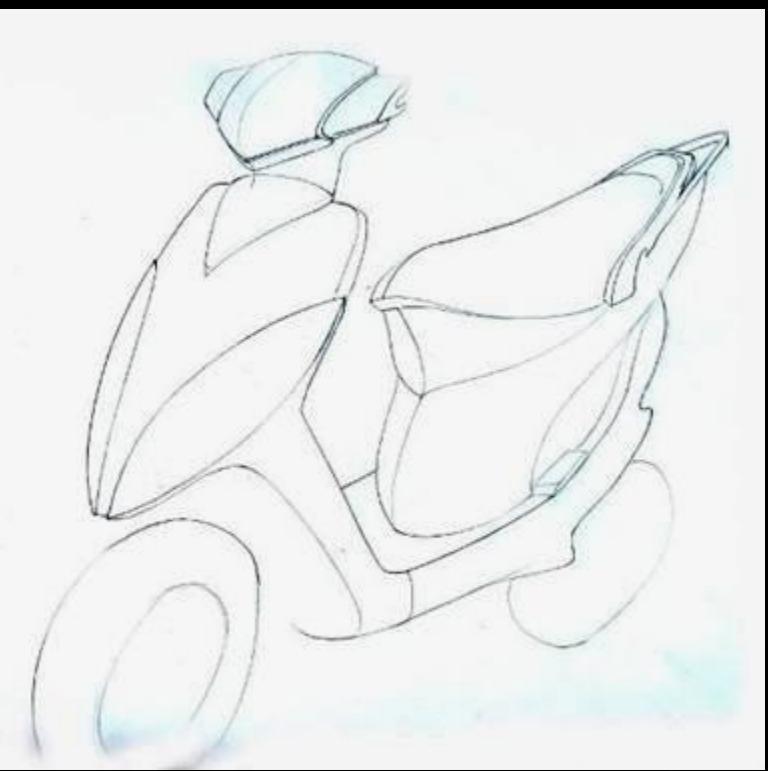
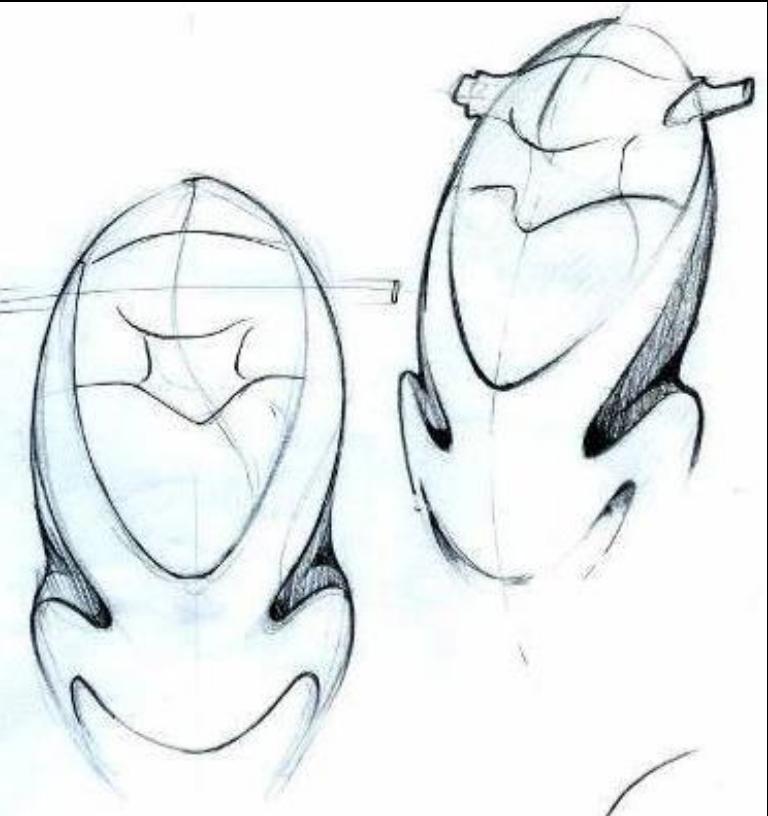


Masculine nature attained by increased shoulder width,
Smooth surface transitions make it sporty and full of life
Surface behaviour treatment



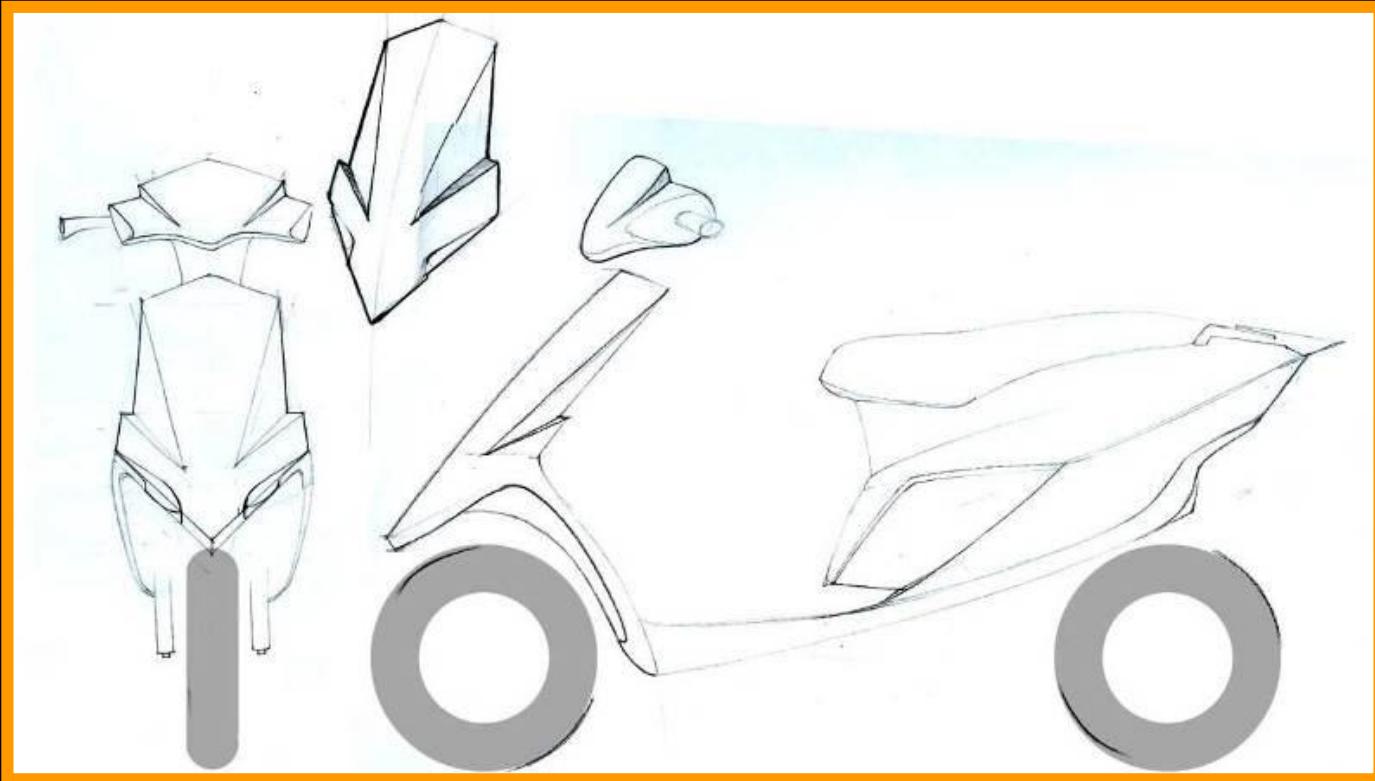
IDEATION IN SPECIFIC DIRECTION ~ ELEGANT

Out of over 50 sketches made during ideation phase selected few are used to explain the process

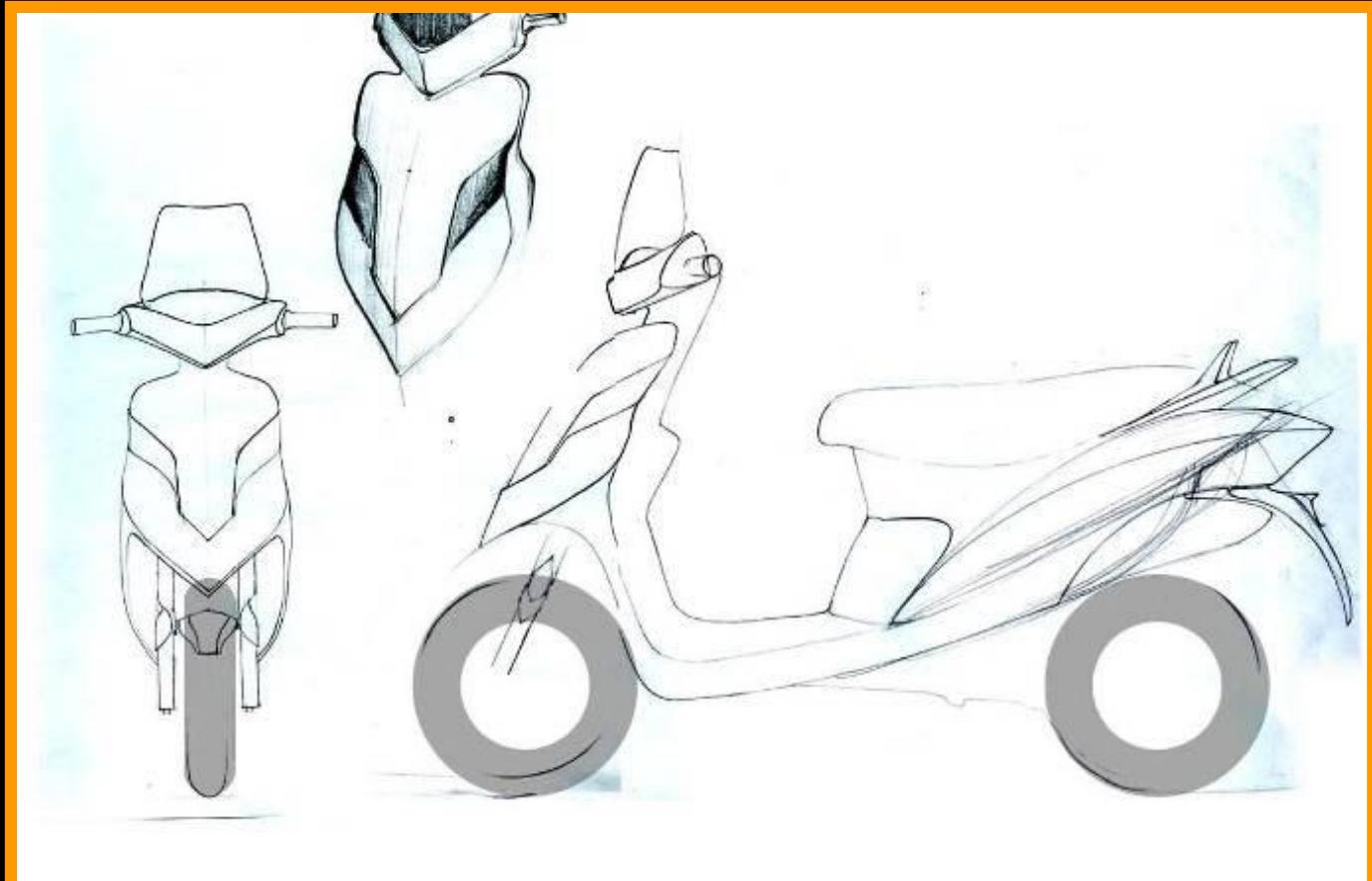


IDEATION IN SPECIFIC DIRECTION ~ ELEGANT

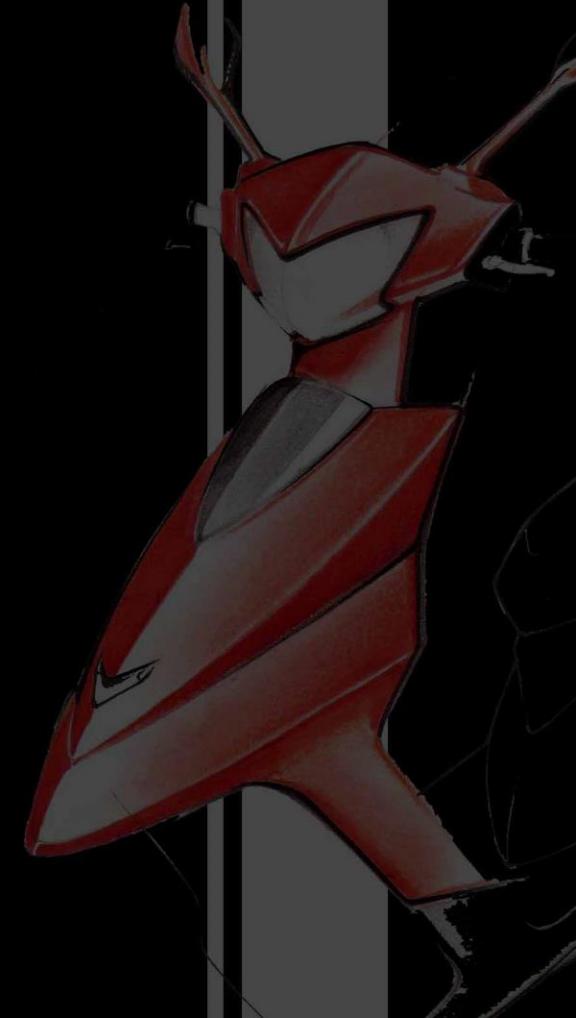
IDEATION



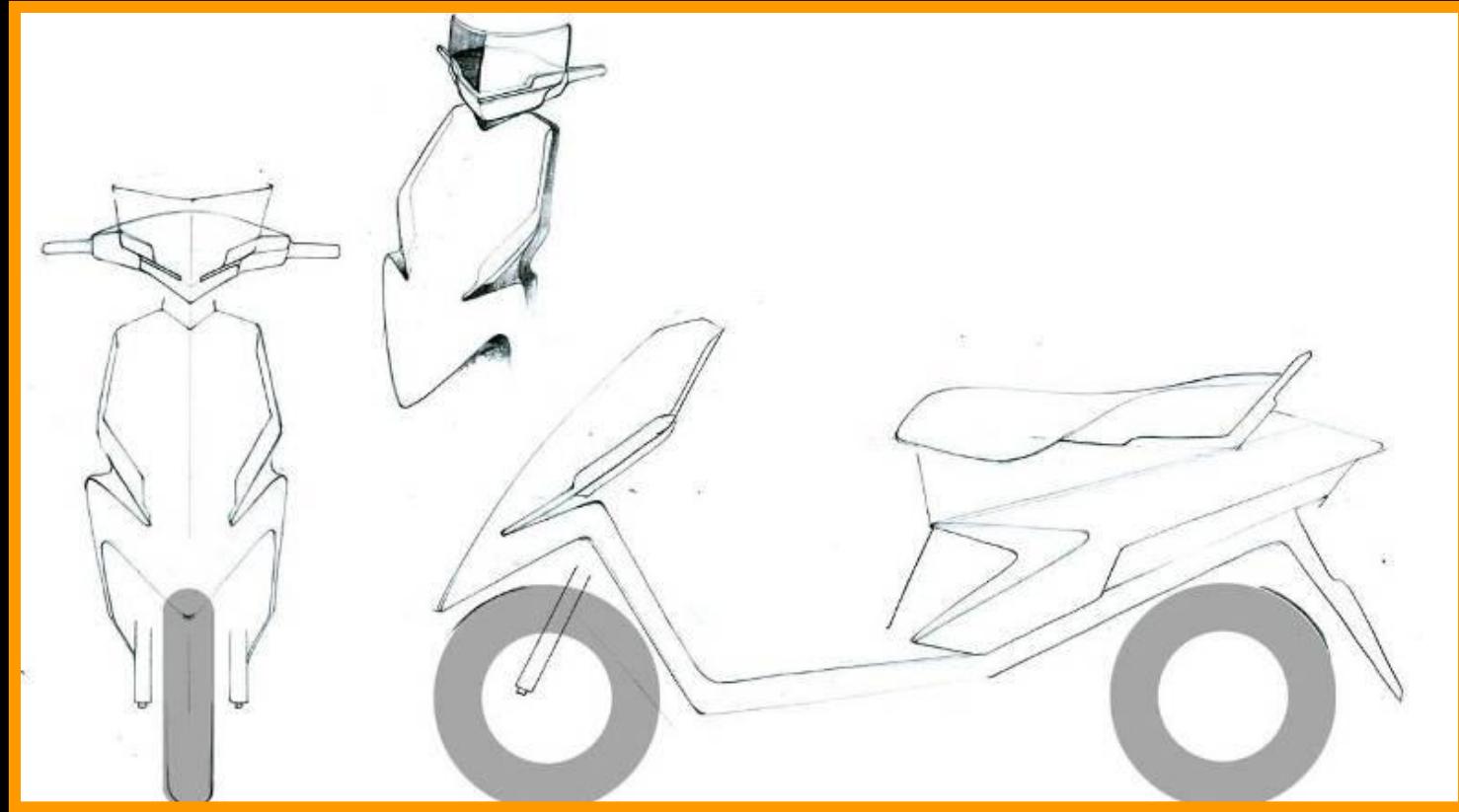
Edge styling is used to attain a sharp and light form. The simplicity of surface gives it an elegance. But the rear is heavy



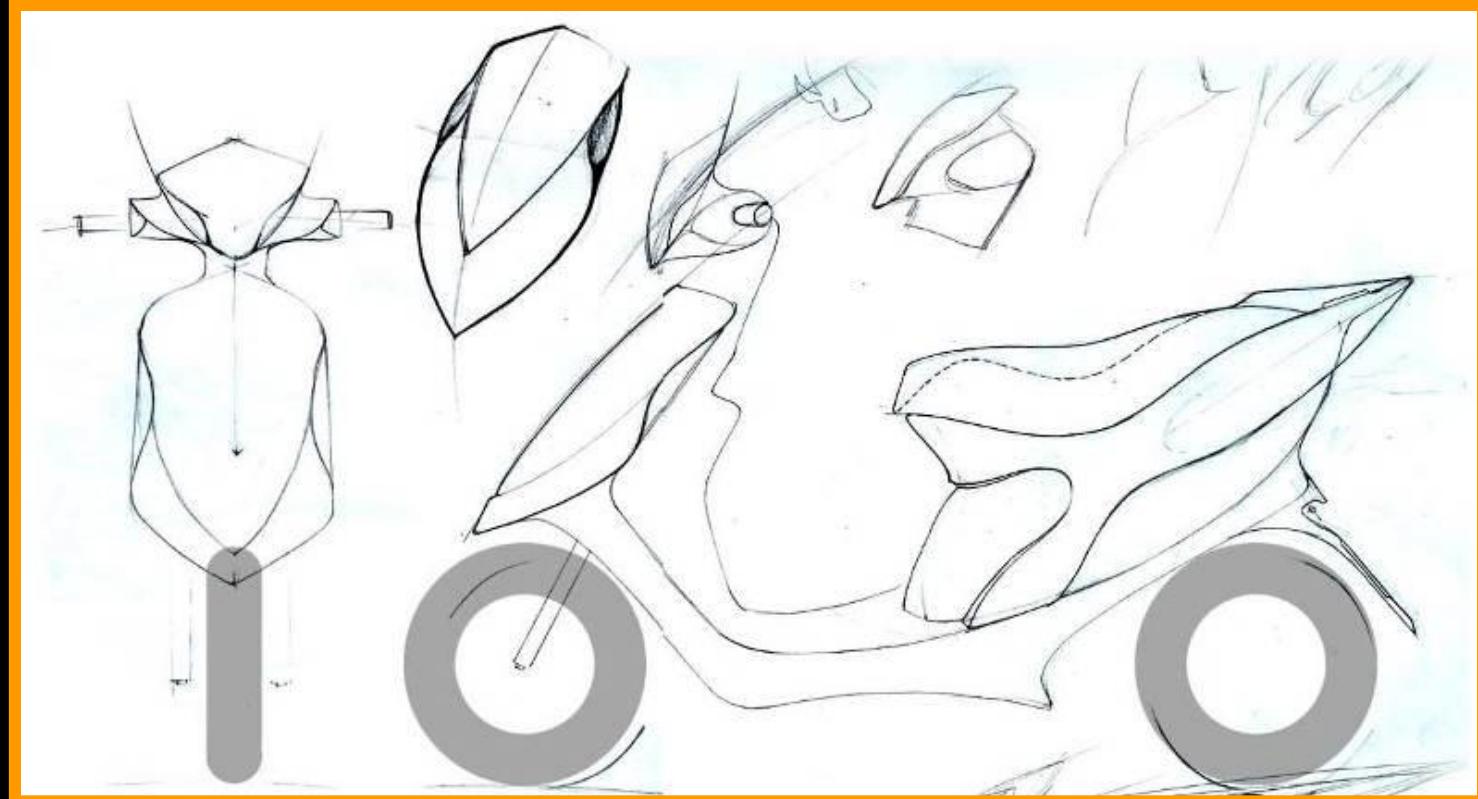
Surface transition kept to the minimum by variation in depth instead of side cut out. The rear half is very heavy and needs correction. Name plate can be incorporated.



IDEATION IN SPECIFIC DIRECTION ~ ELEGANT

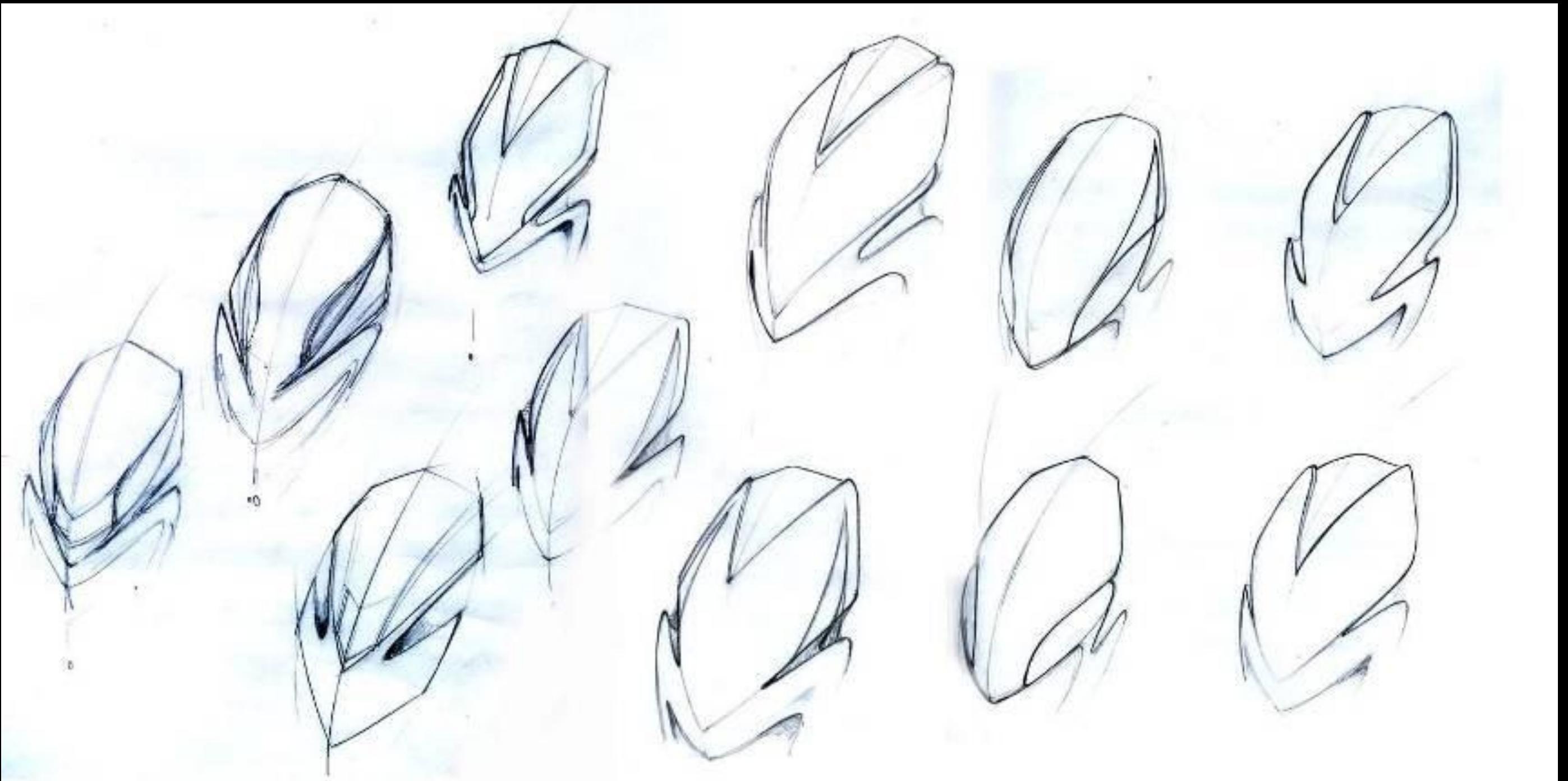


Sleek, tech-savvy and elegant. The surface is maintained as one through out with sleek indicators at the sides. Clean lines well tight over a slim mass makes it a expression of youthful elegance

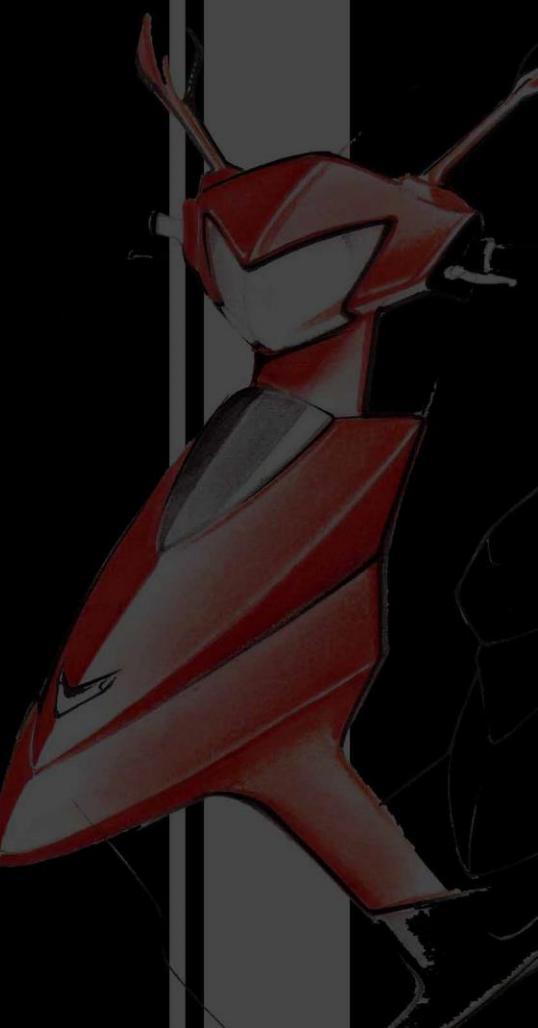


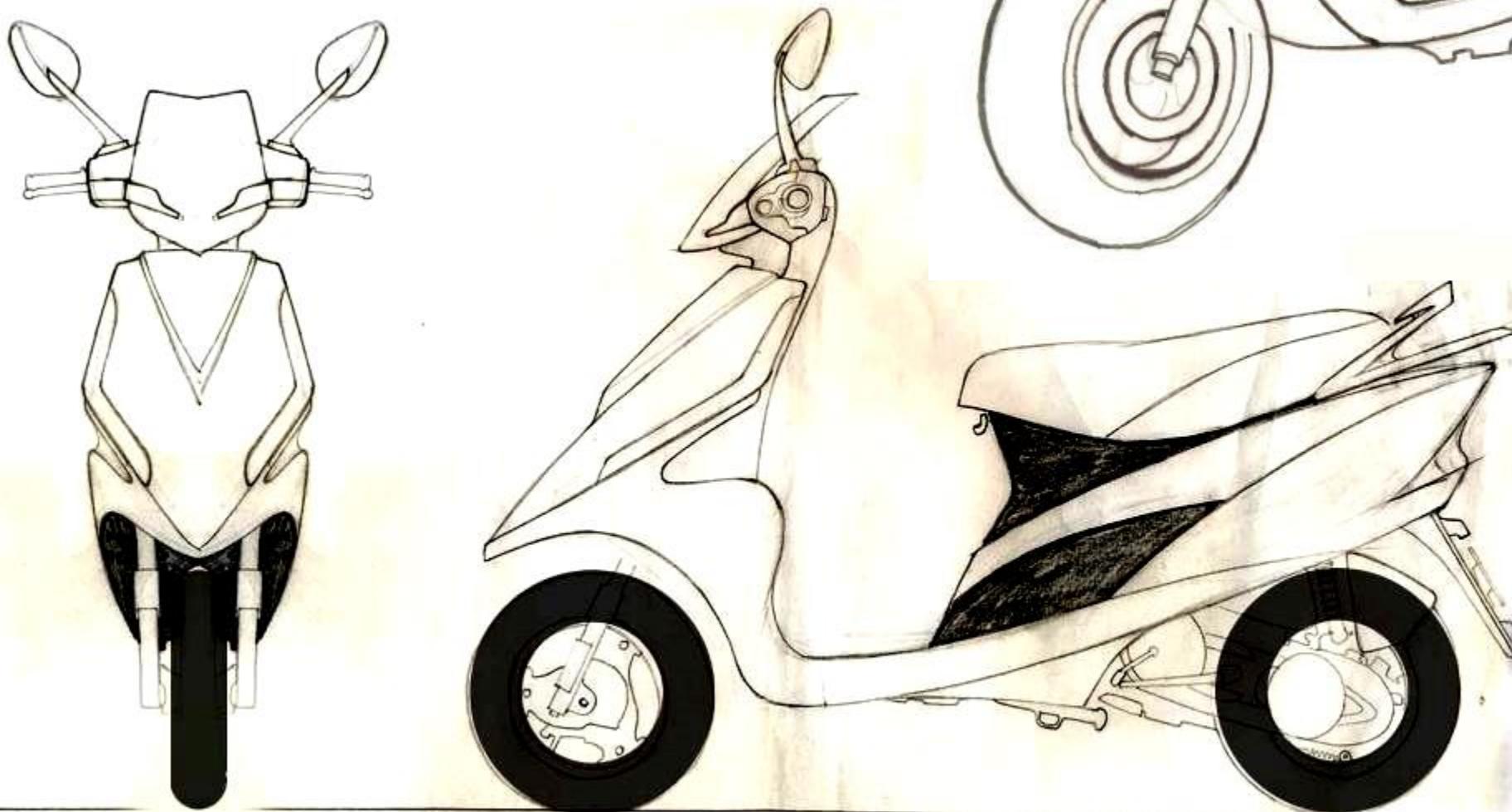
Minimum surface transition used to capture the essence of Scooty pep. The inclination of head varied to do away with the reserved nature of the former sketch. The rear panel partition lines are exaggerated.



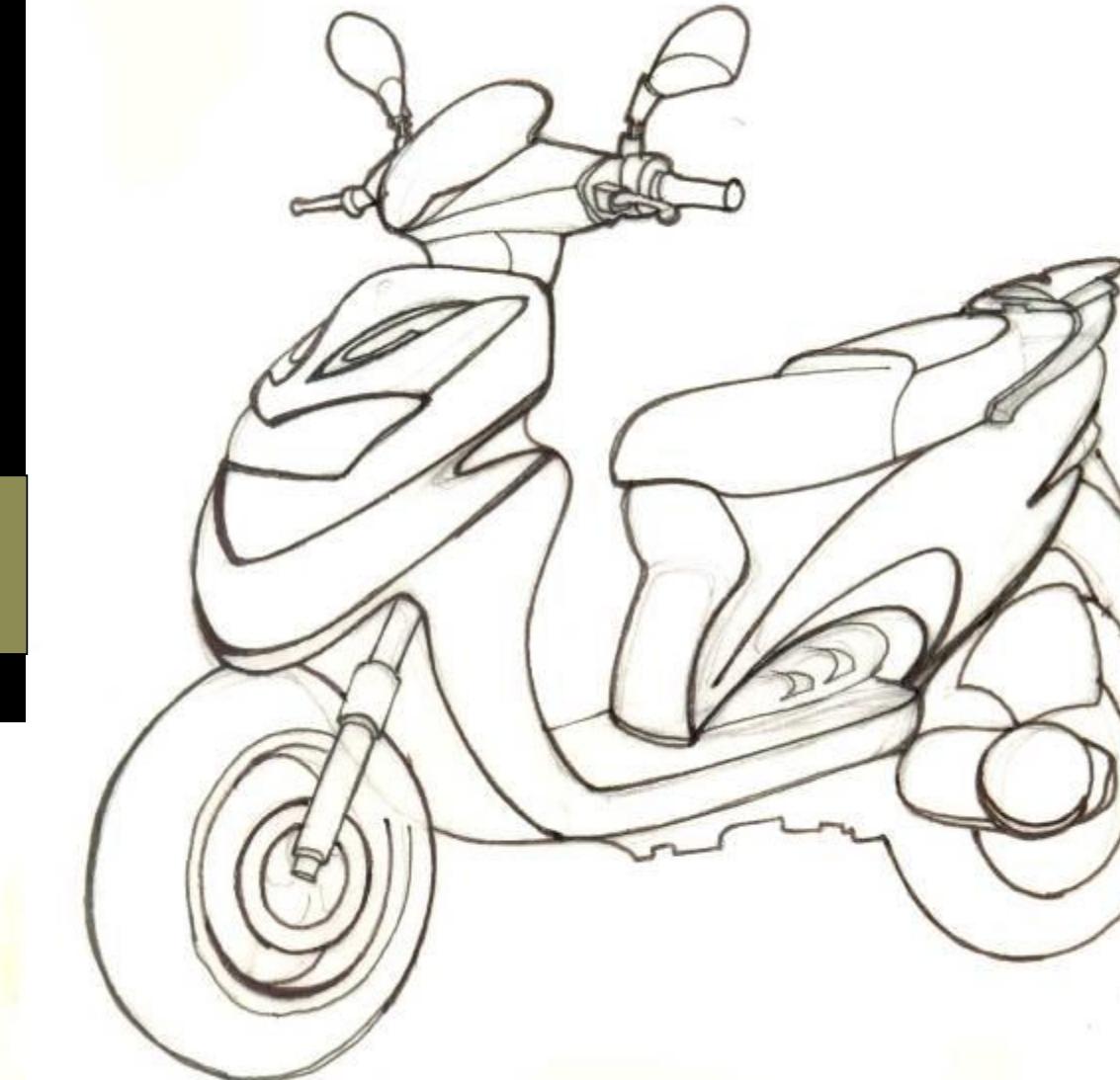


CONCEPTUALISATION

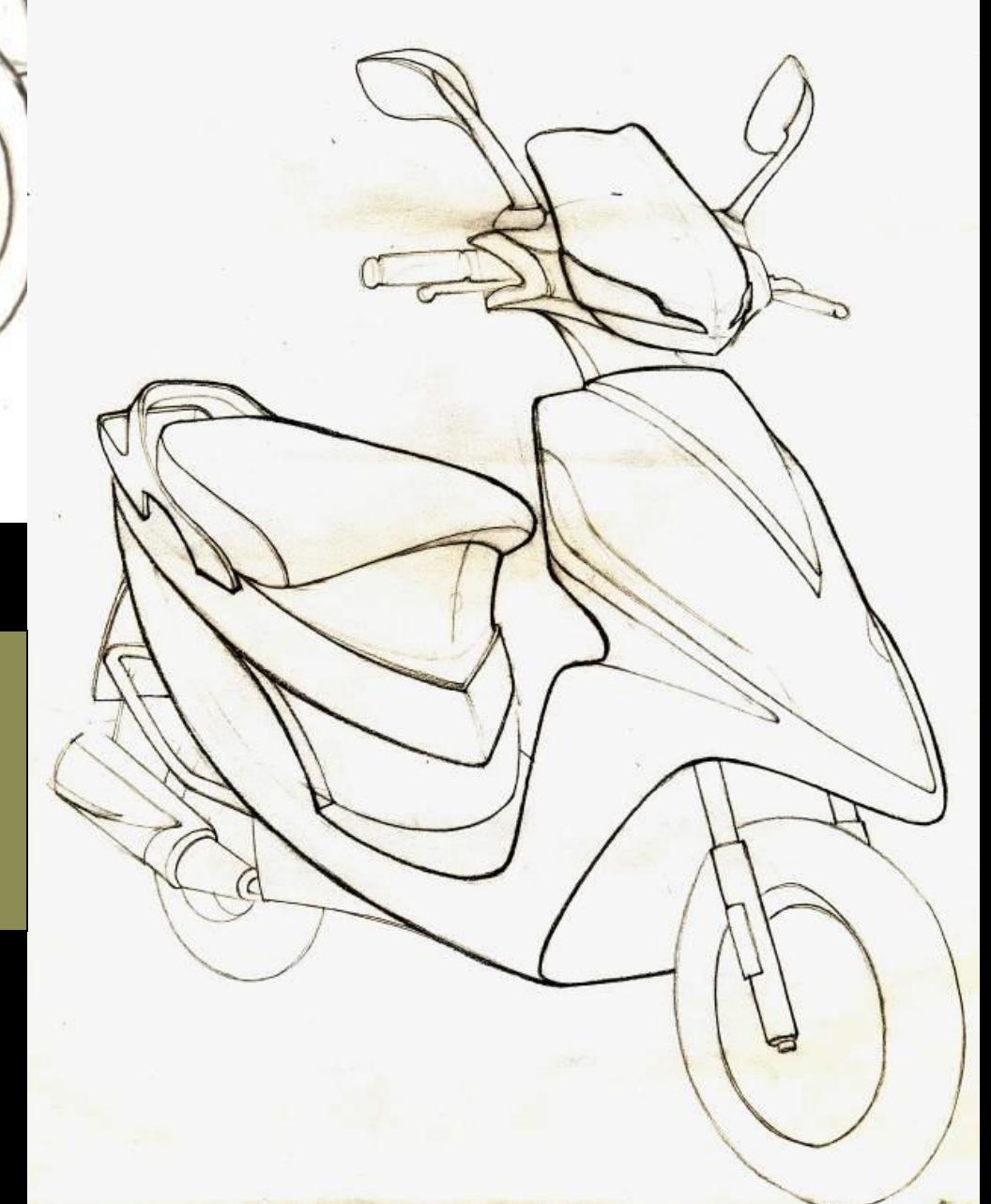




Prominent wavy surface transition to break front panel

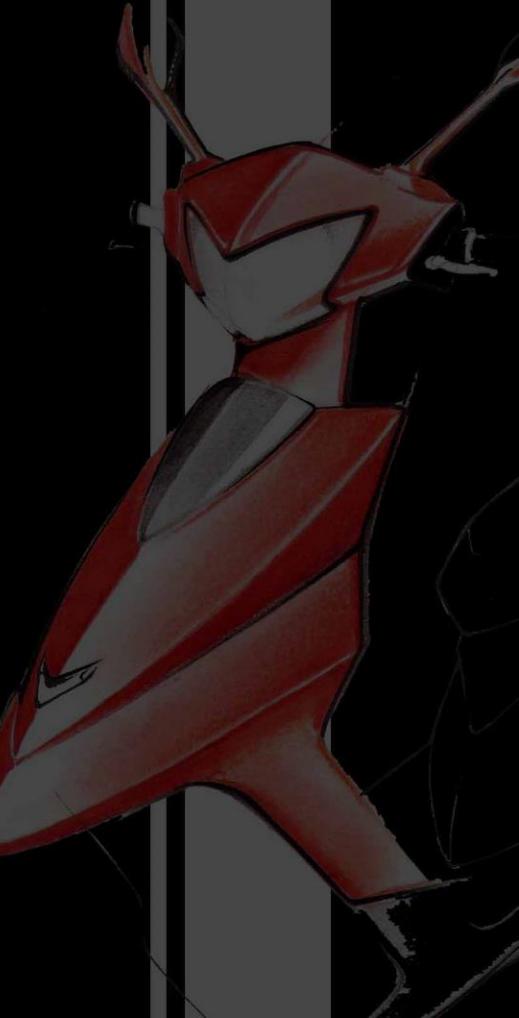


Long indicators to adorn side lengths



A trend setter in its style

Seamless fairing with silver eye holders



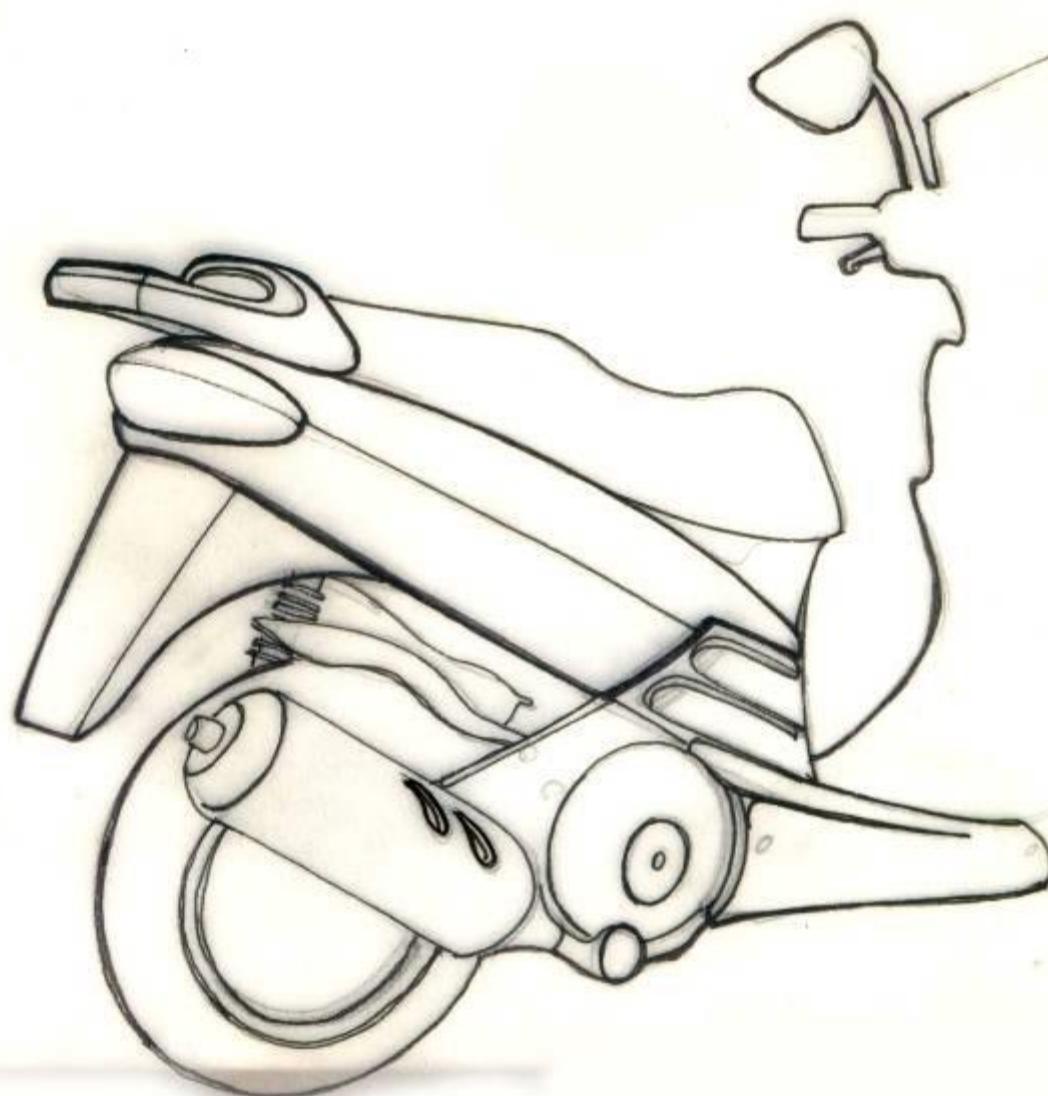
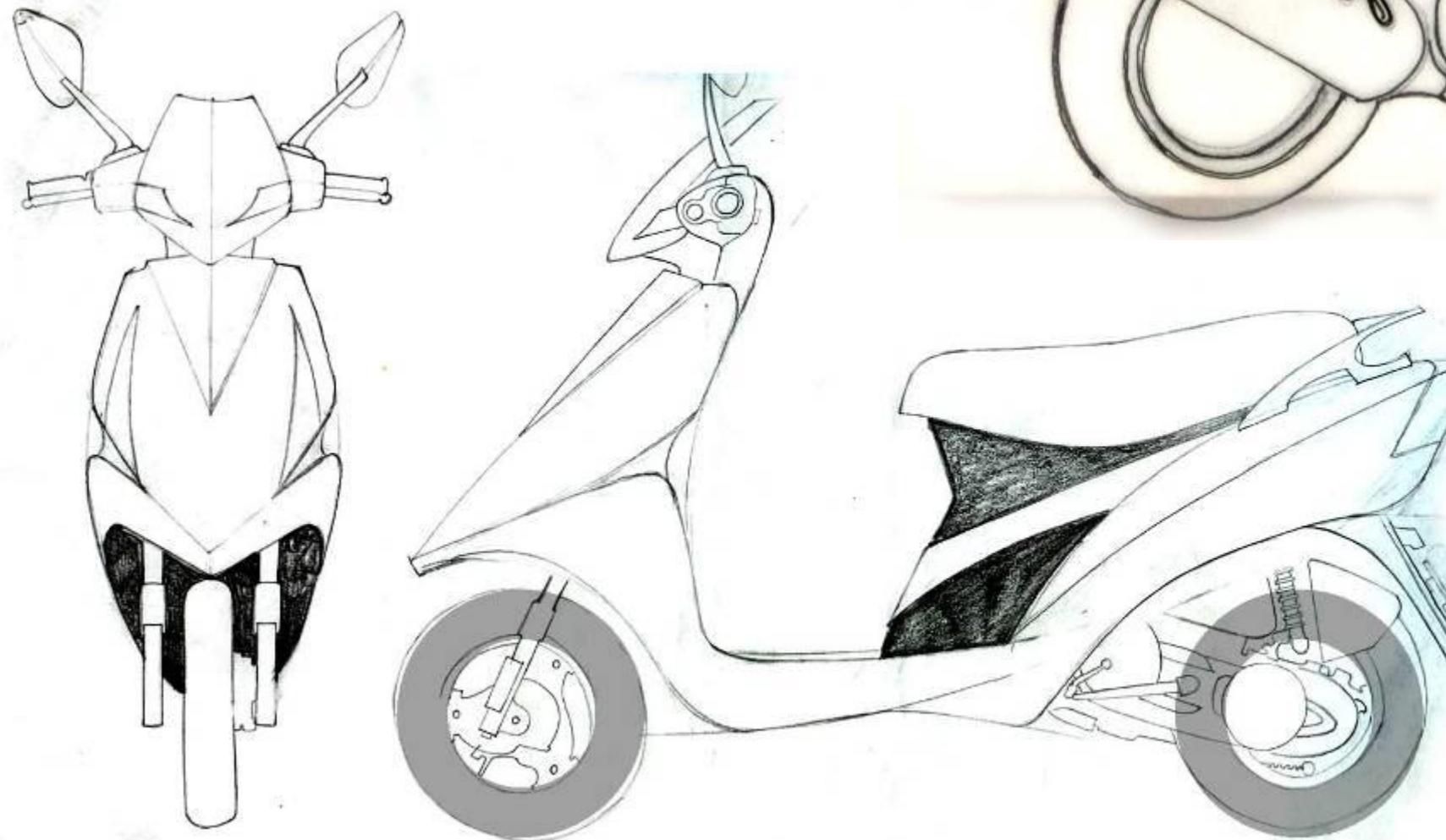
CONCEPT 1/01 - Sporty

CONCEPT 1/02 - Sporty

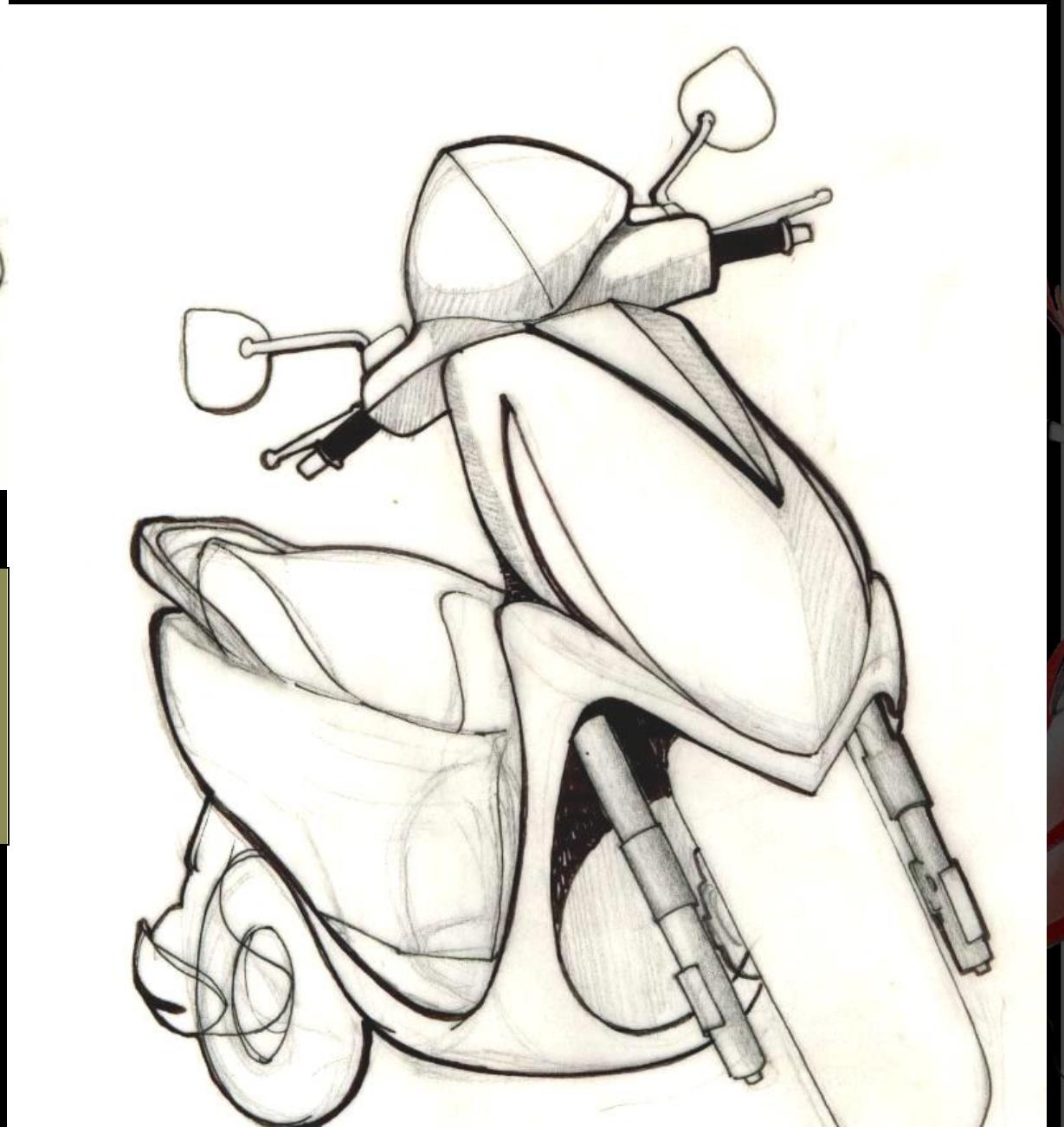
Dynamic stance

More aggressive than sporty

Mean looking head lamp

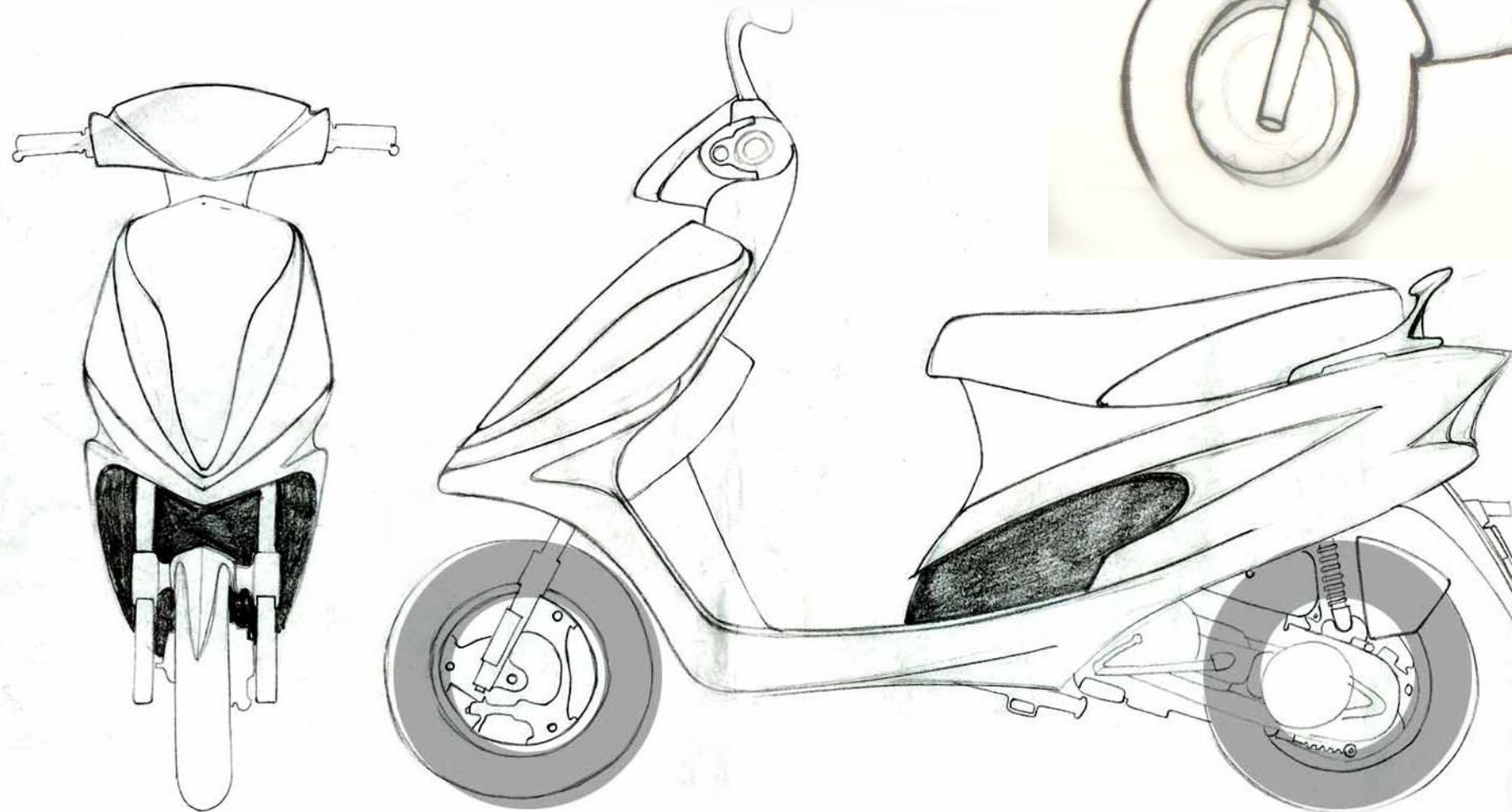


Long
indicators
placed away
from side

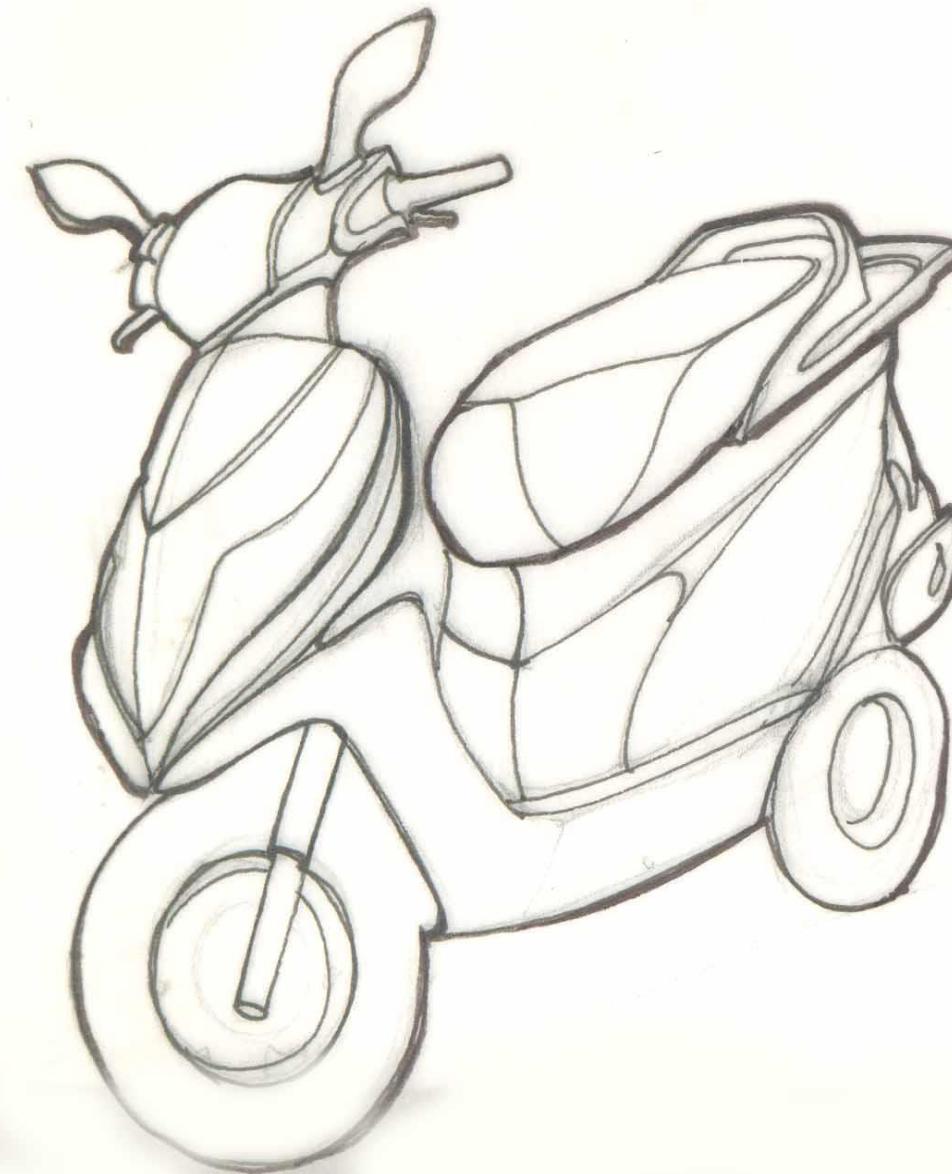


Rear – too many surface transitions

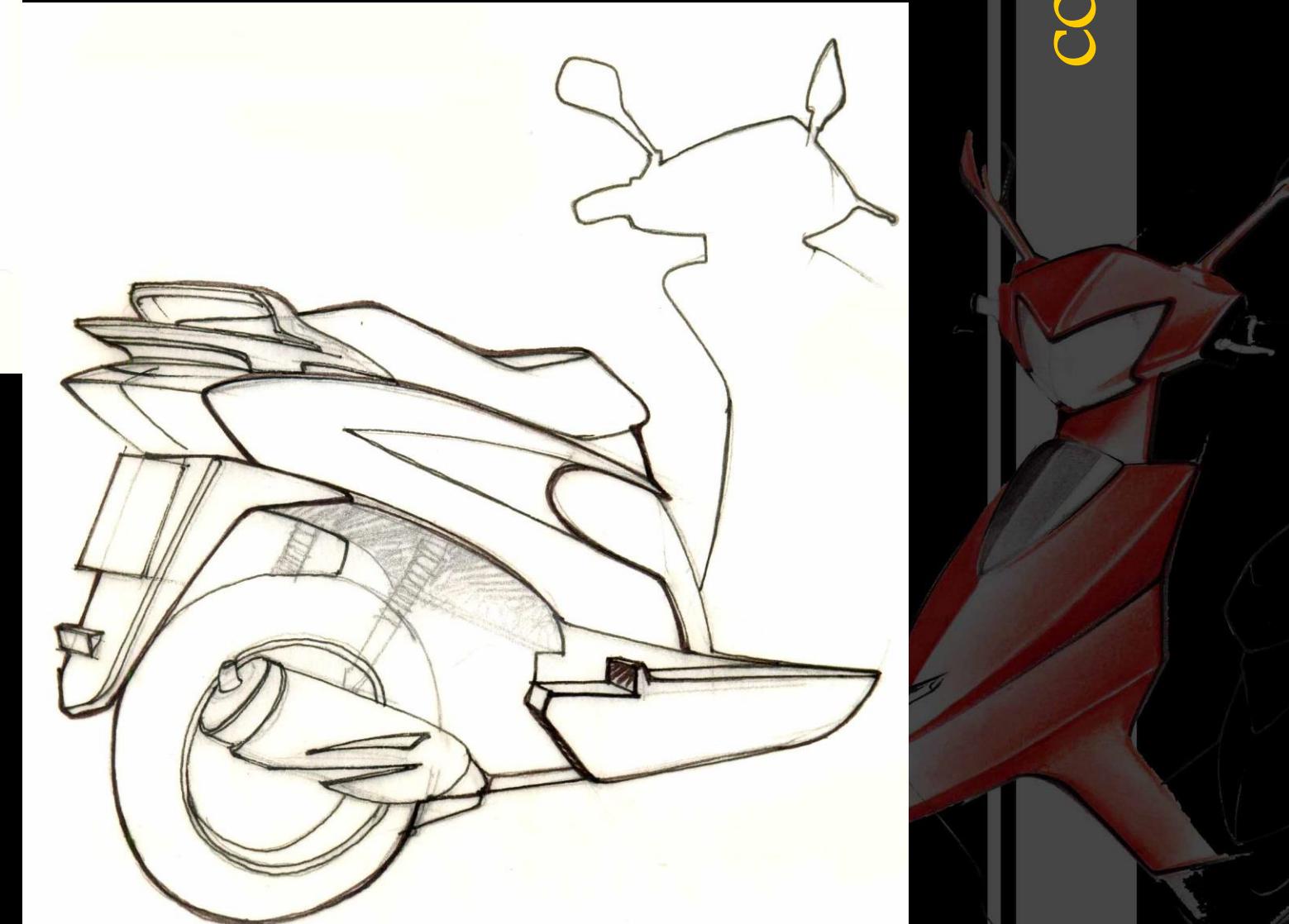
Front panel too curvaceous ~ heavy



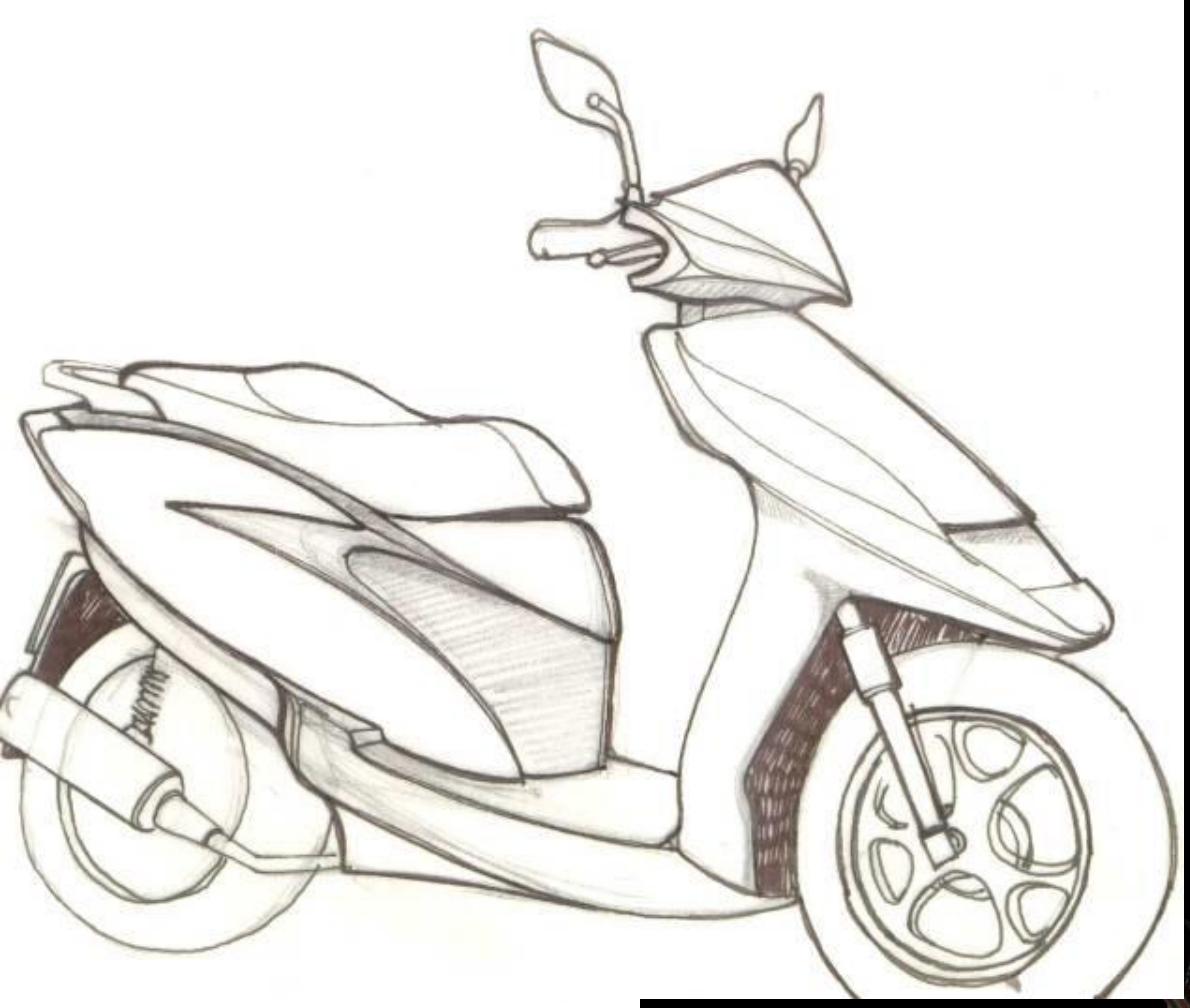
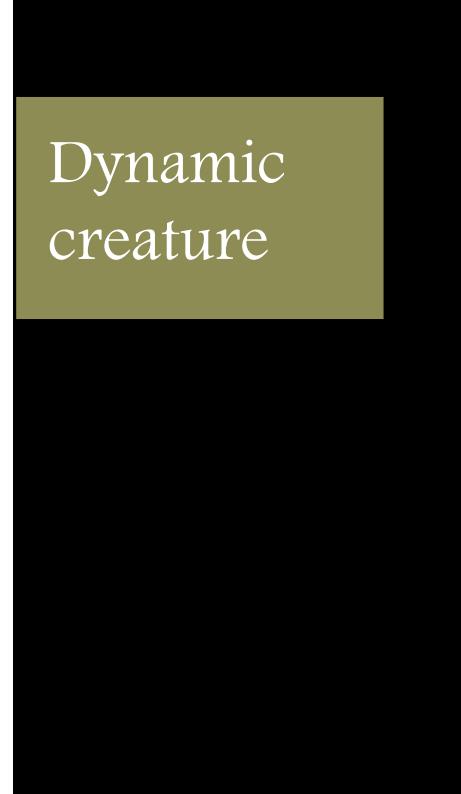
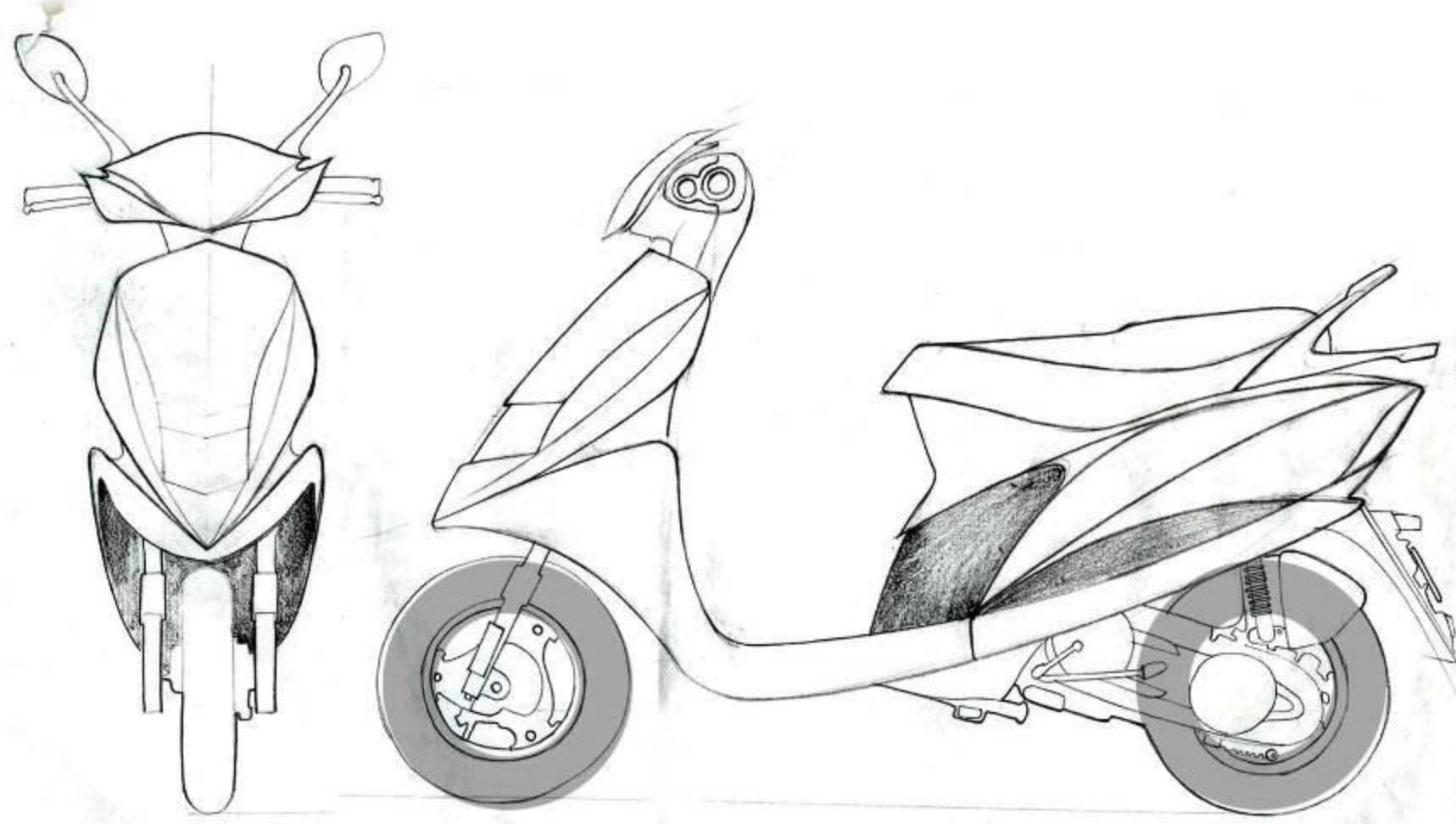
front panels have surface transitions that dictates a sporty overtone to satiate the needs of the younger generation



rear mass is balanced and the muscular pinch at the rear gives a dynamic attitude



CONCEPT 1/03- Sporty



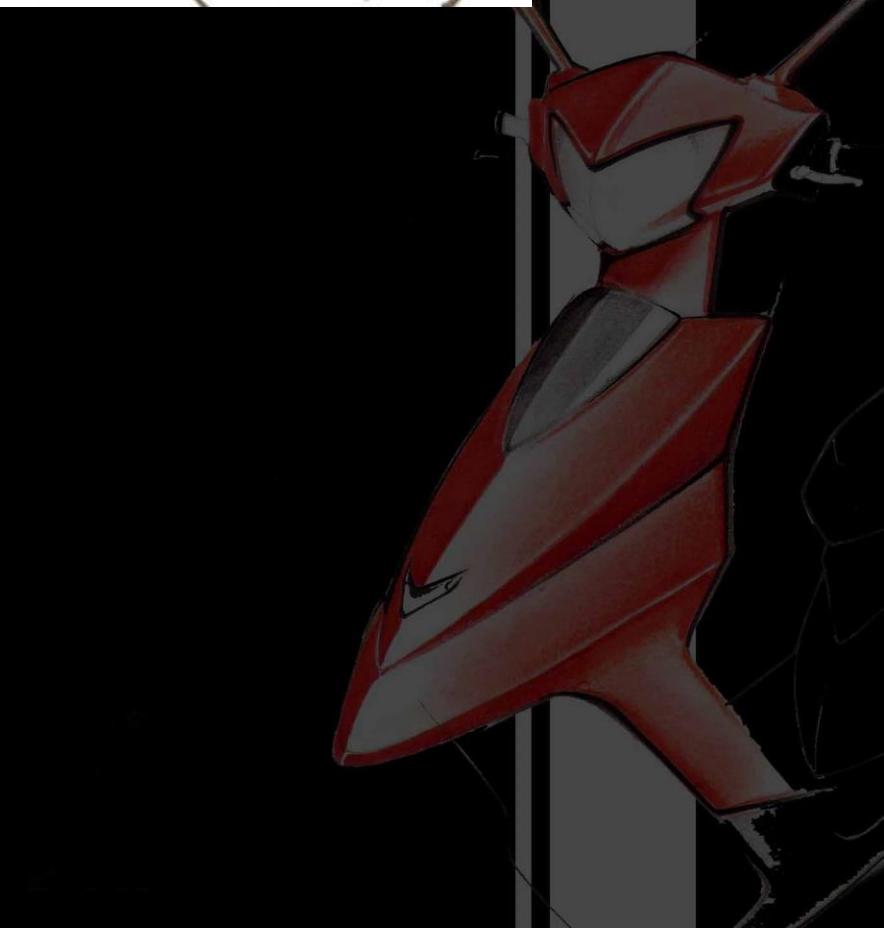
CONCEPT 1/04 ~ Sporty

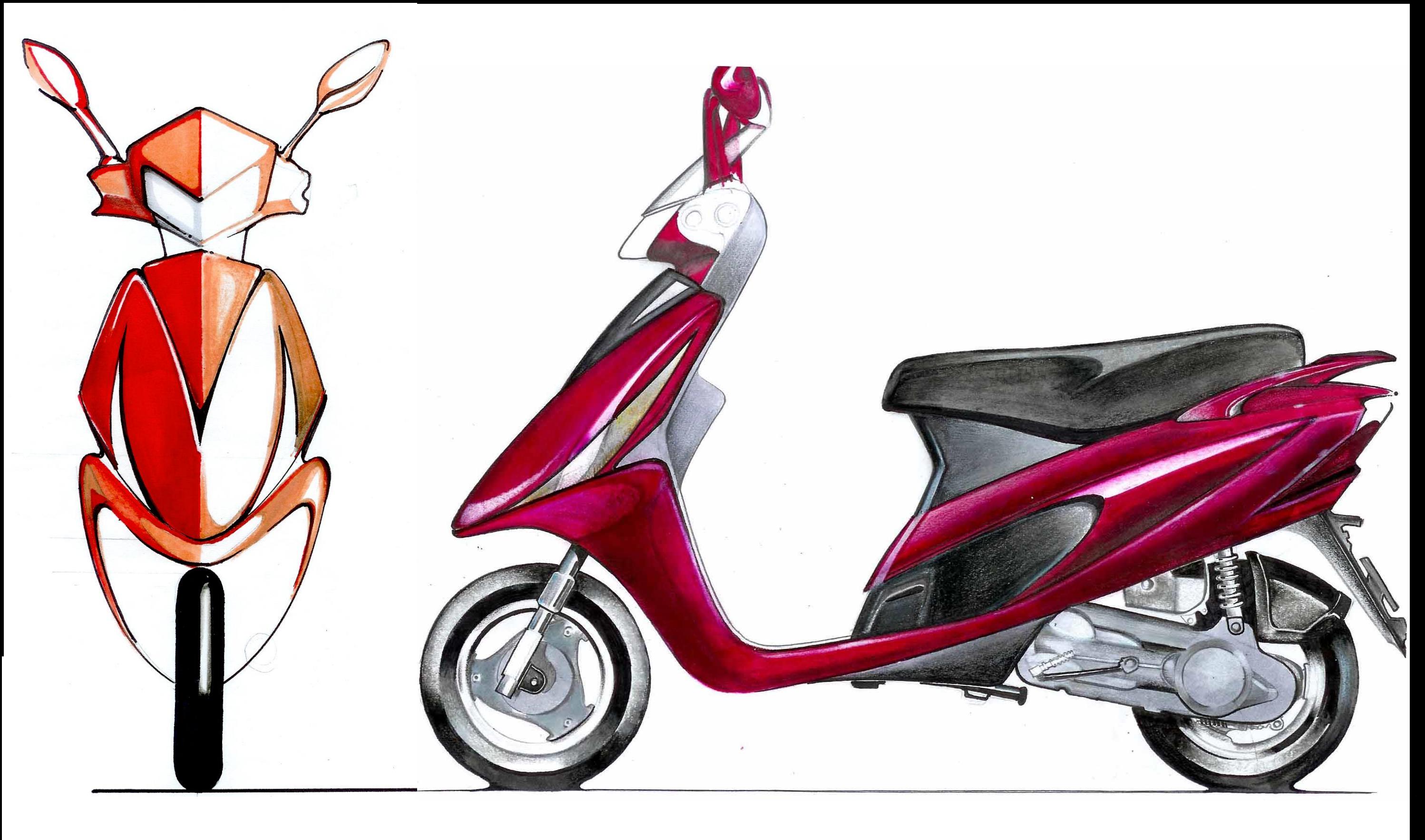
Razor sharp edge styling

Thin indicator lamps

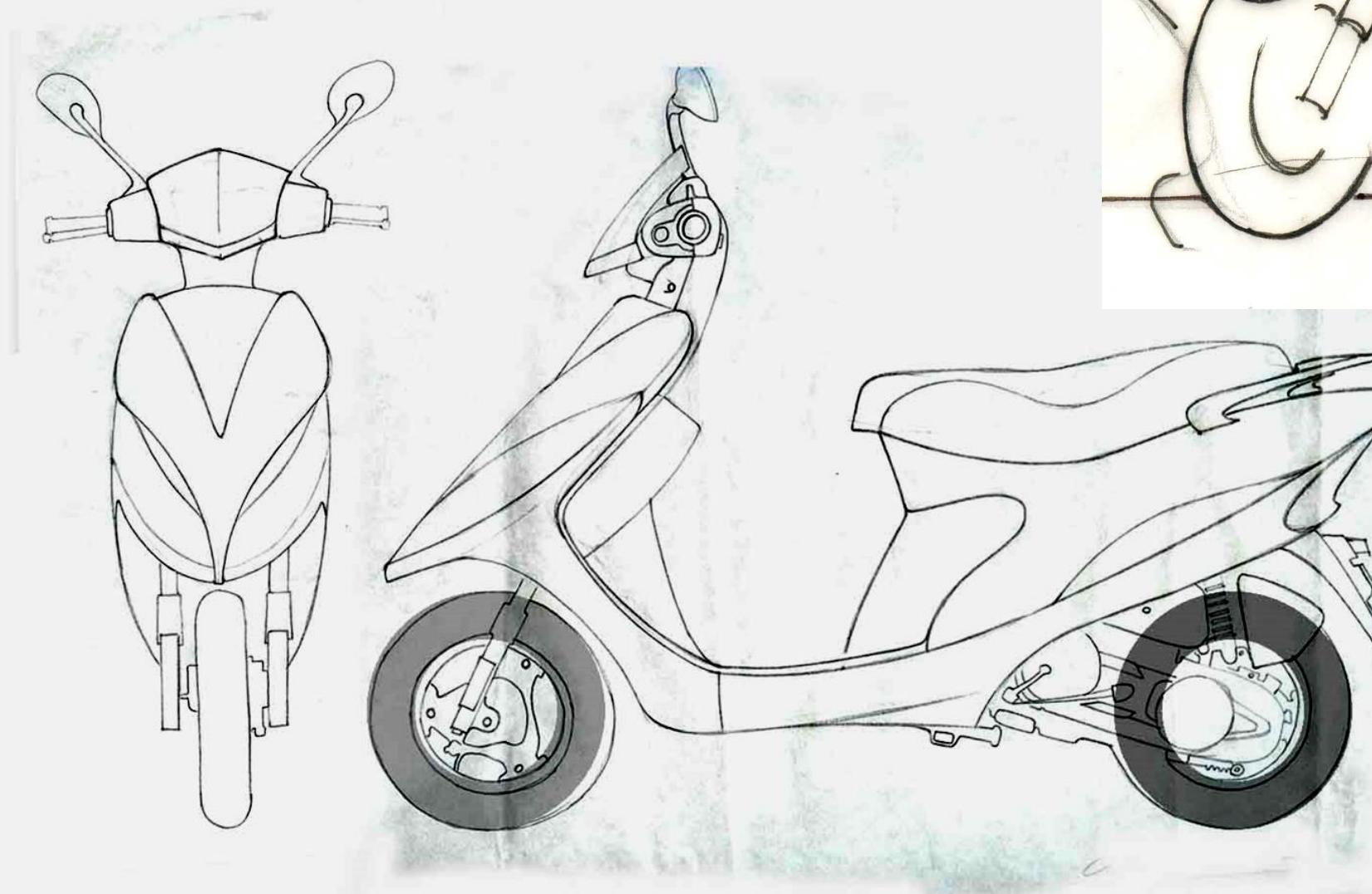
Thou rear flow lines are good
it looks bulky

Name board integrated with
front panel

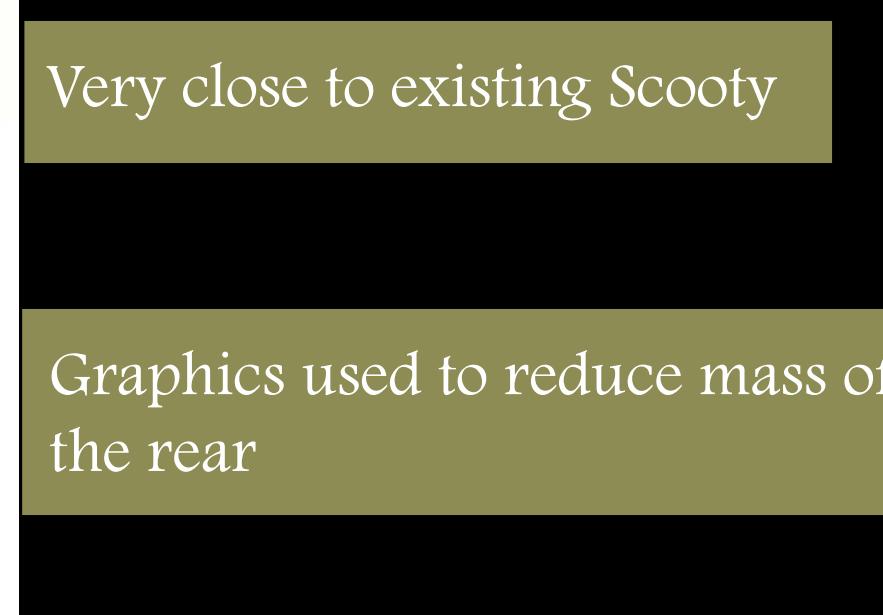
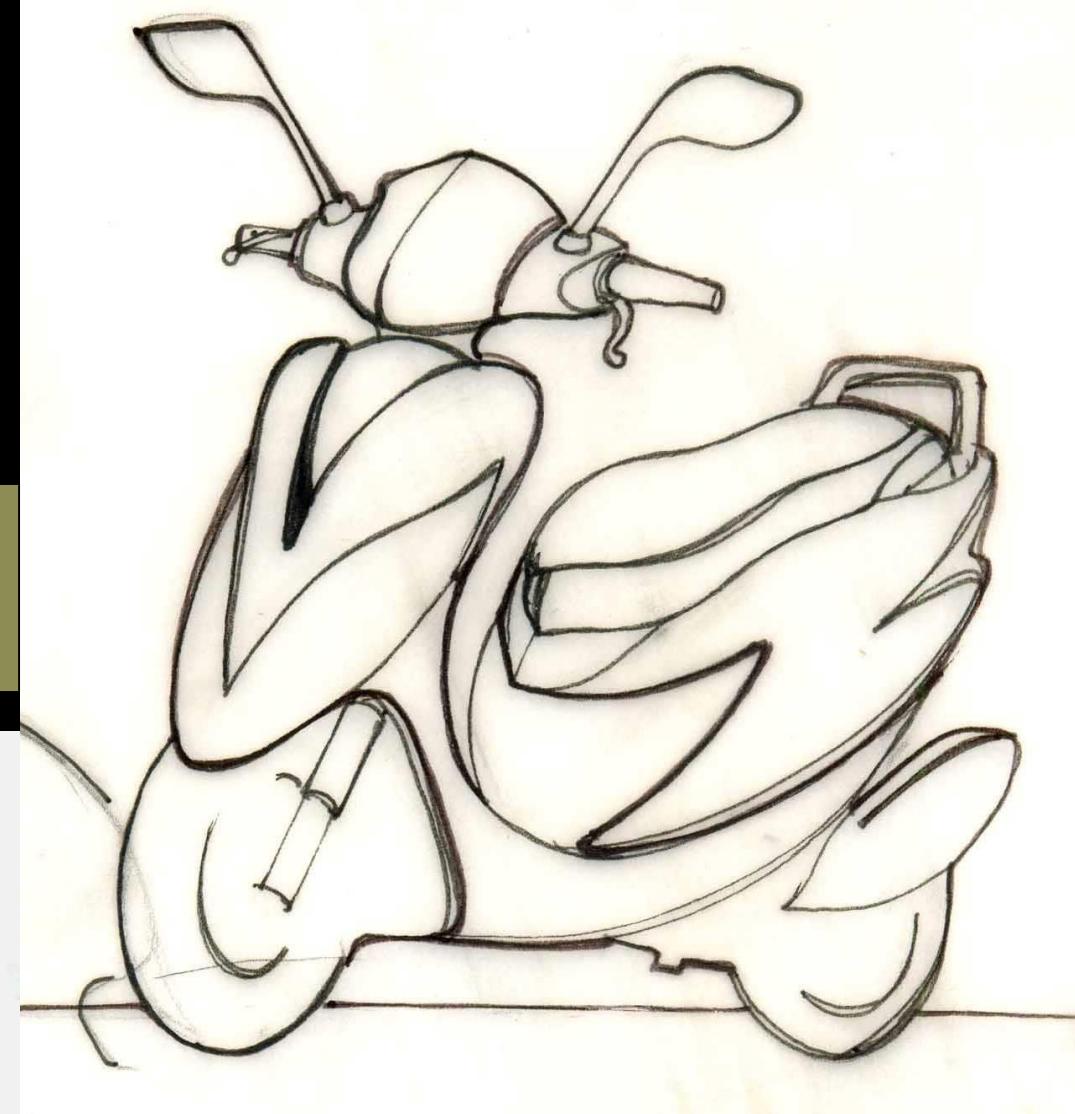




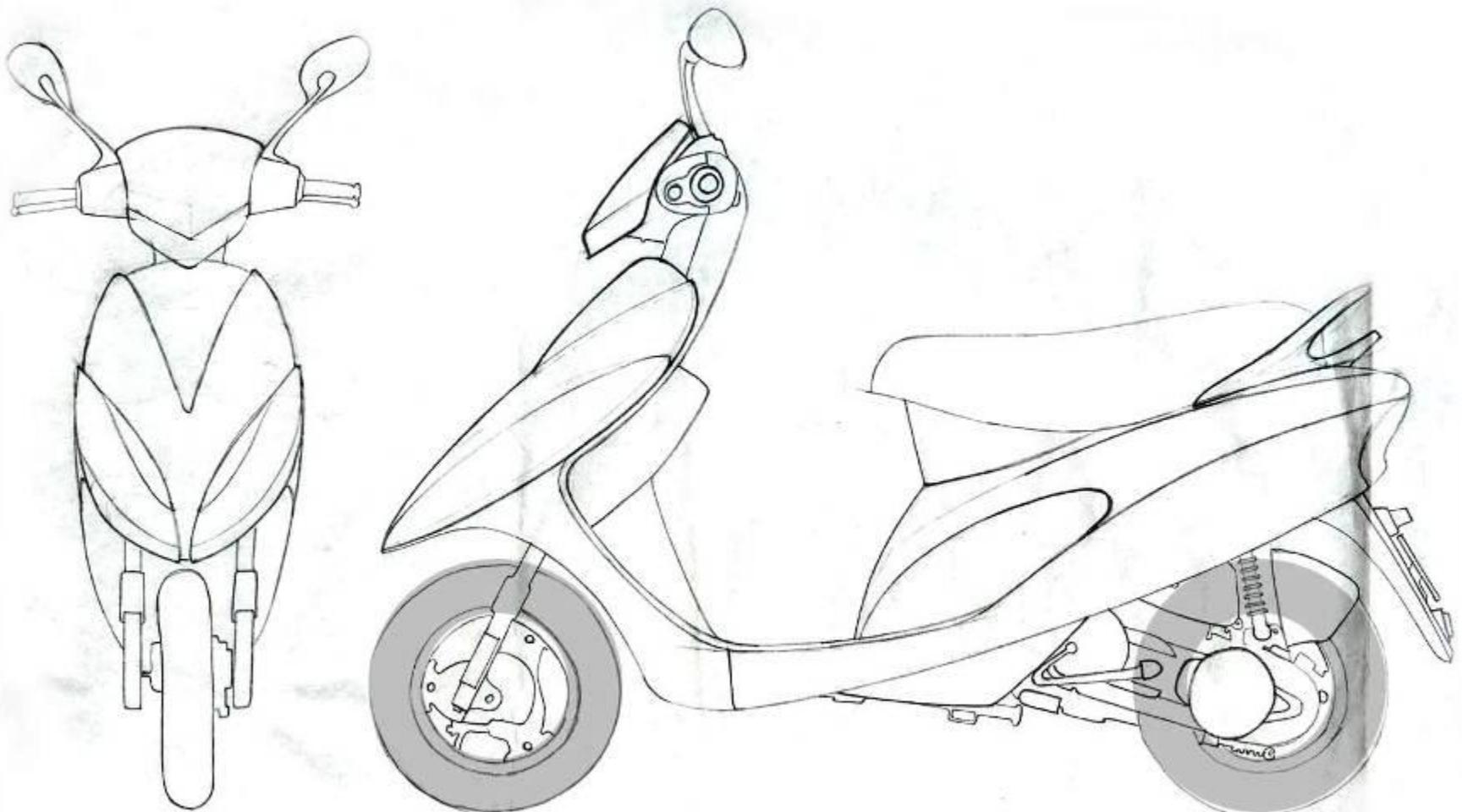
FINAL CONCEPT - Sporty



An option with more sharper lines to make it look modern



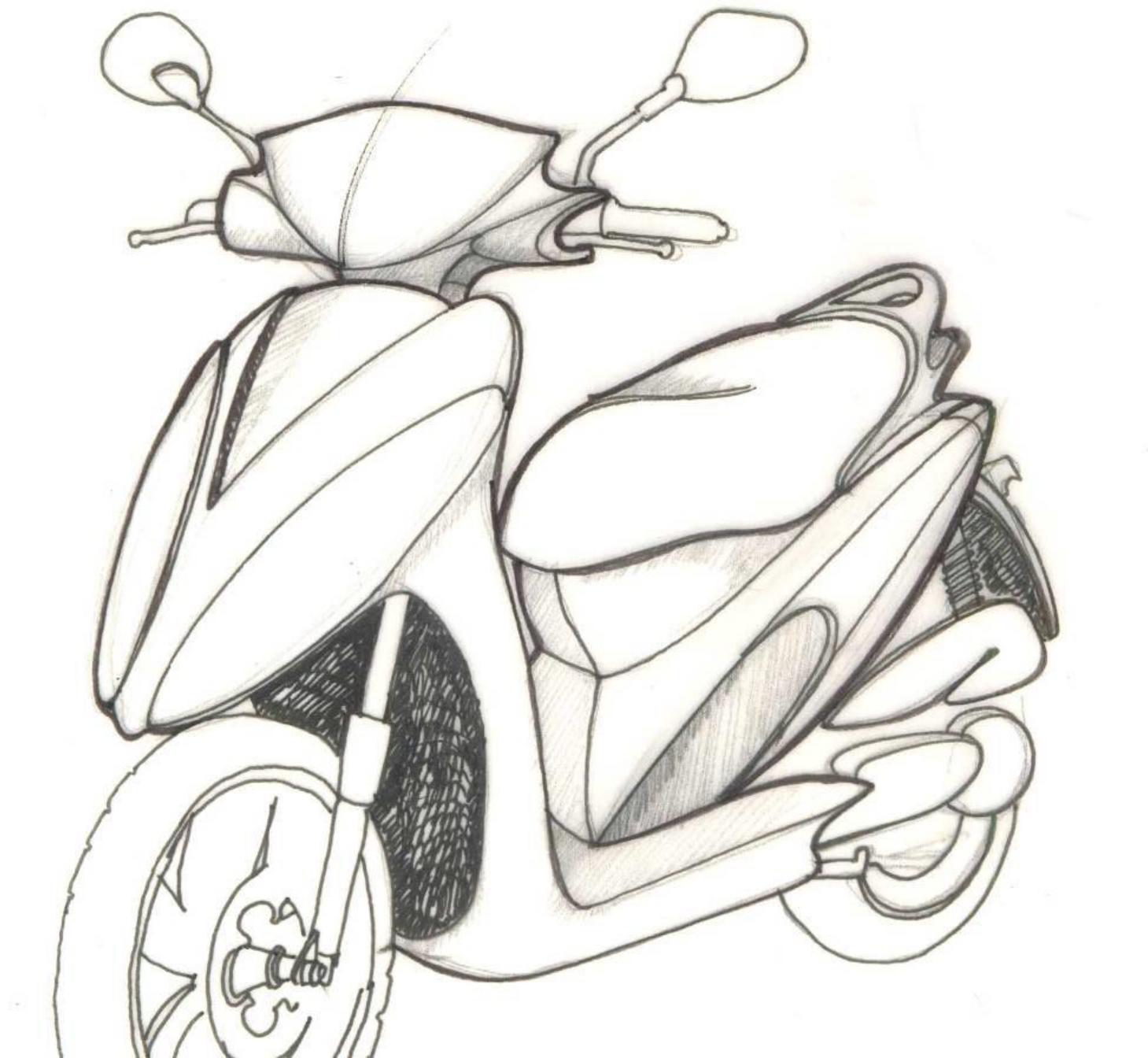
CONCEPT 2/01 ~ Elegant



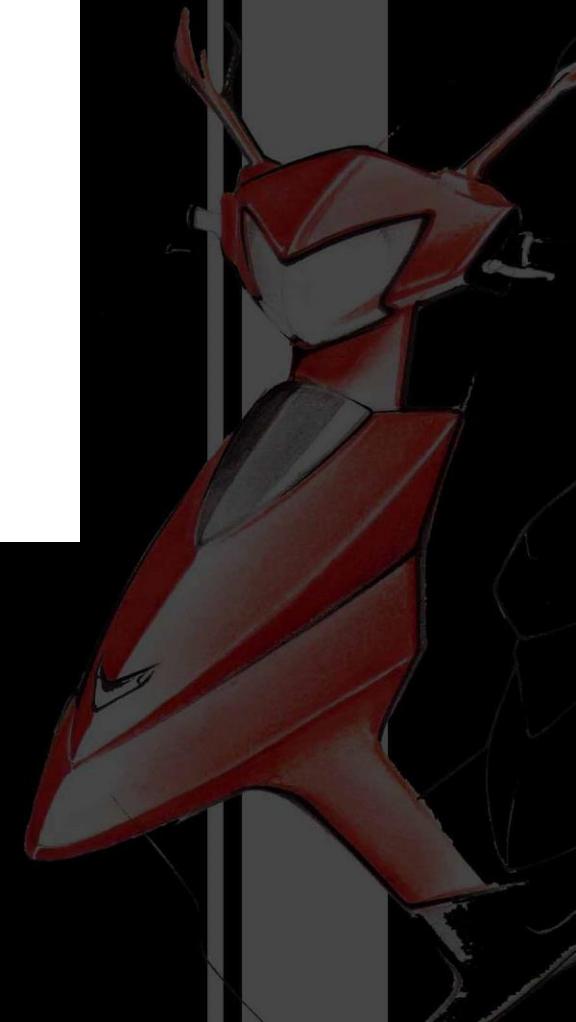
Simple curves to get streamlined surface

Indicators thin and standing out of front panel

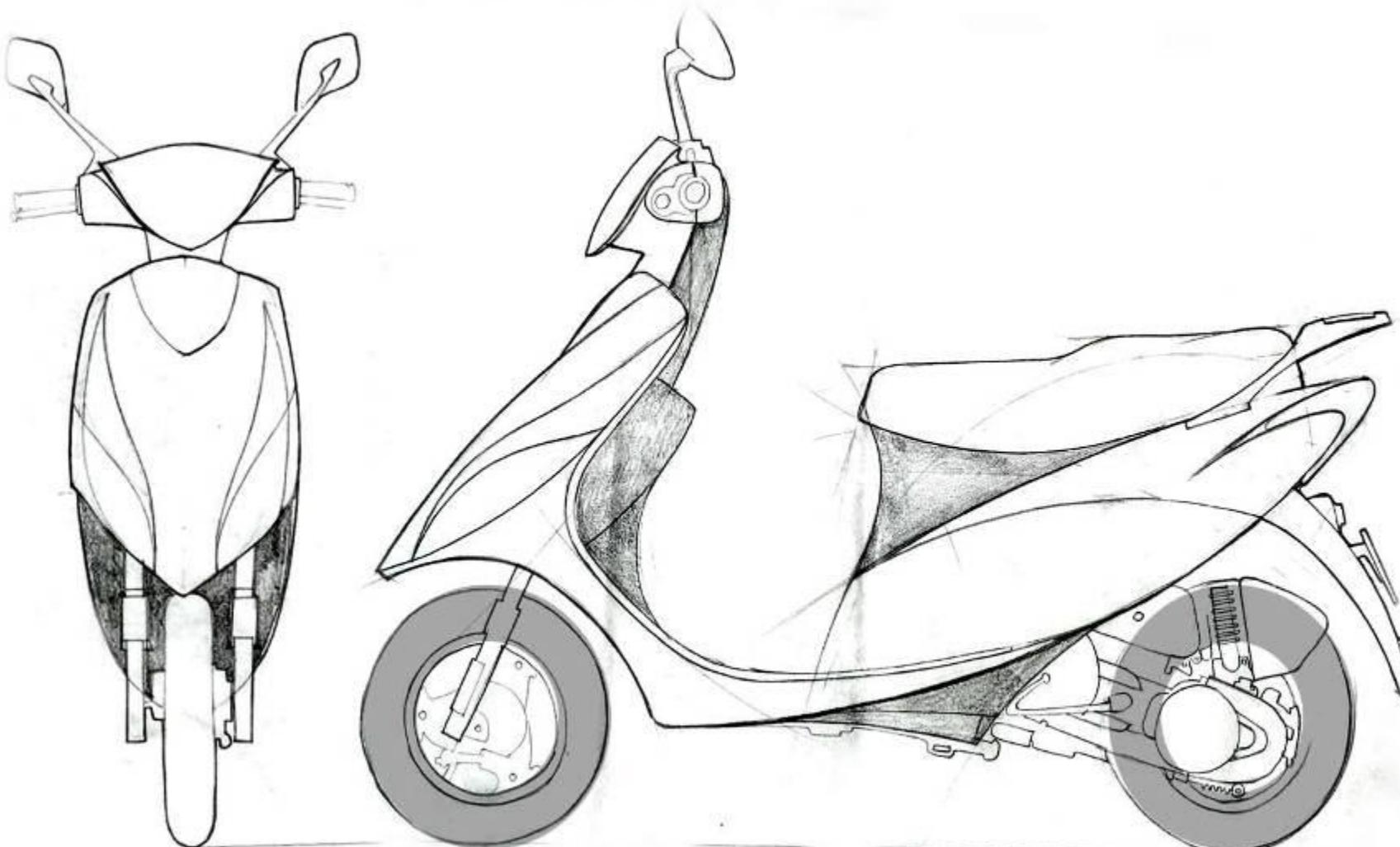
Front panel resolved to look more feminine and elegant



Rear mass ideally reduced



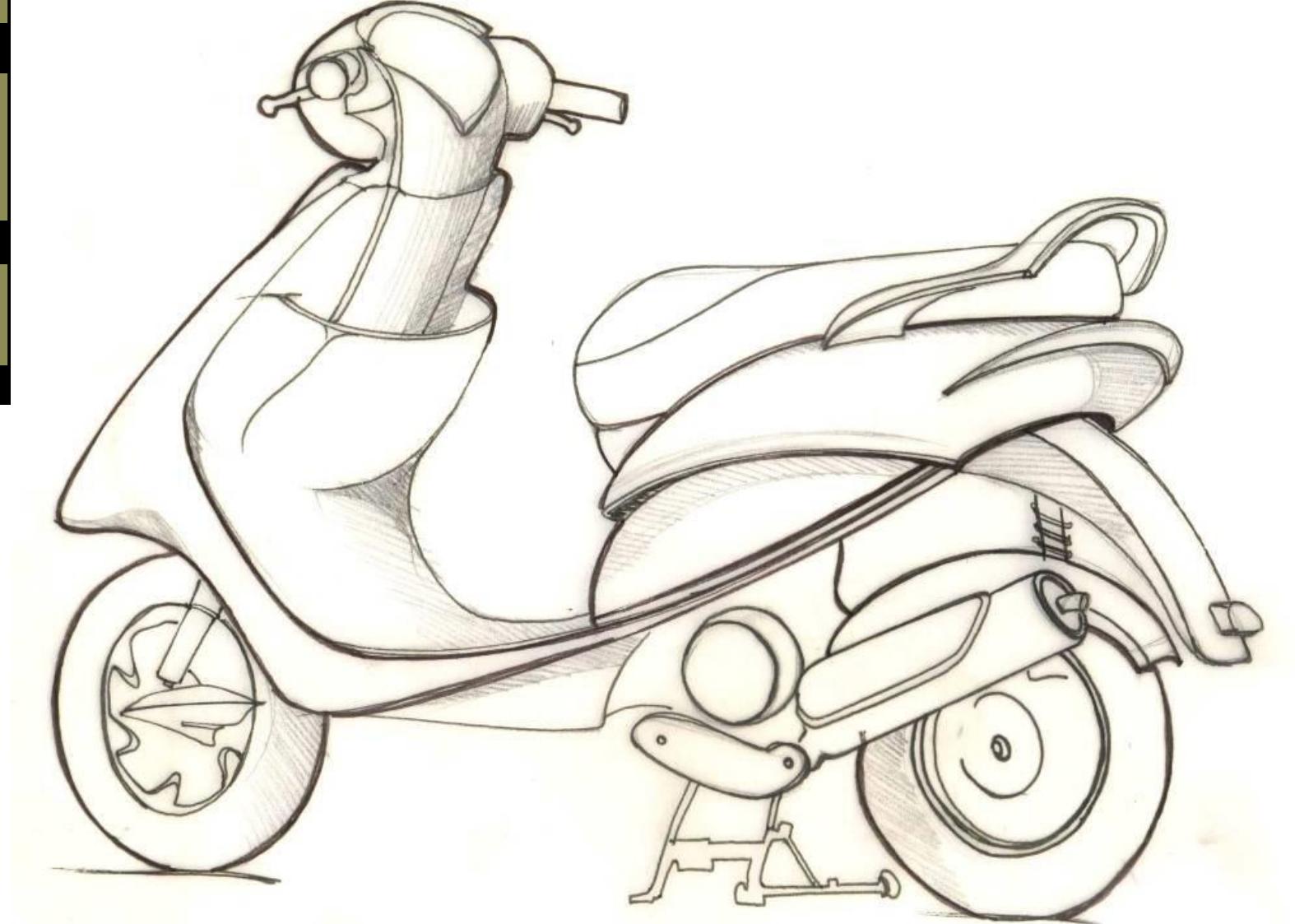
CONCEPT 2/02 ~ Elegant



Simple curves to get streamlined surface

Feminine curves of indicator made long to look modern

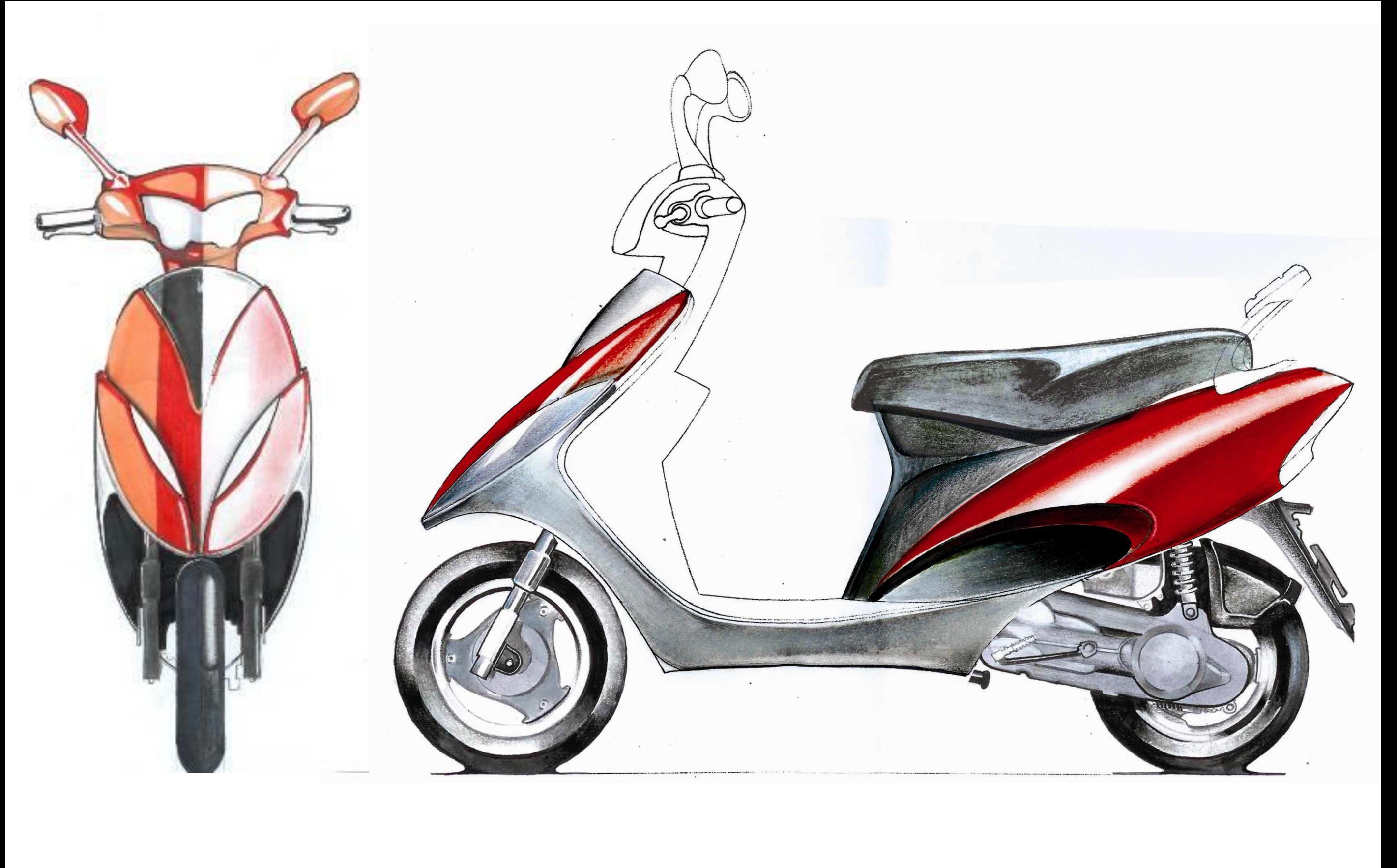
Front panel too wide



Rear half cut by midway curve continued to fender

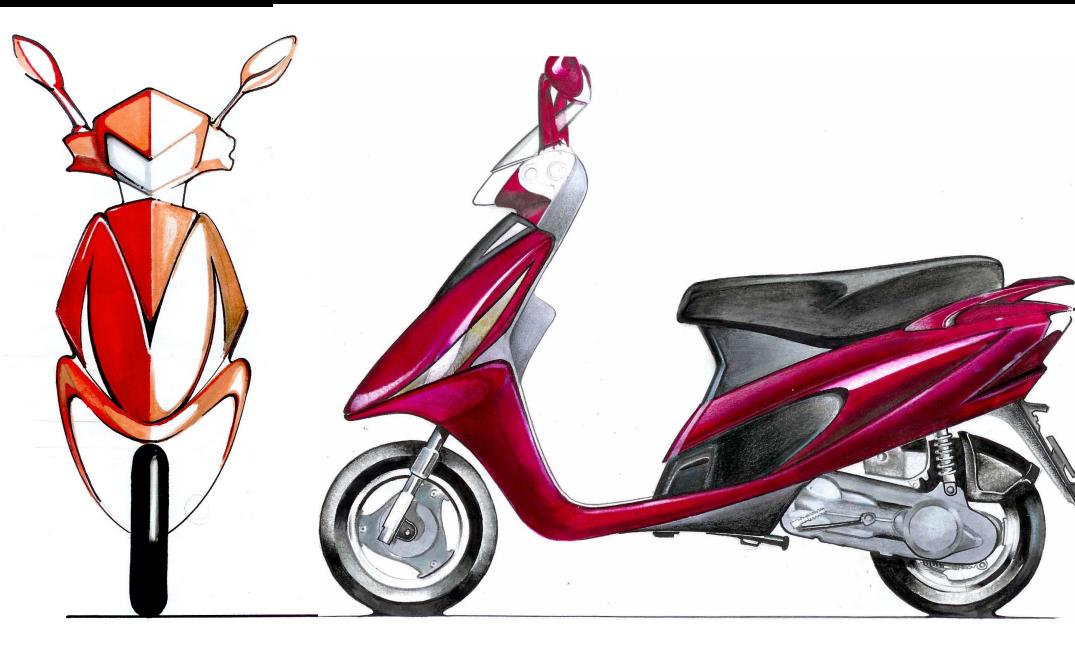
Allows for pillion rider leg space

CONCEPT 2/03 ~ Elegant



FINAL CONCEPT - Elegant

FINAL CONCEPT ~ SPORTY



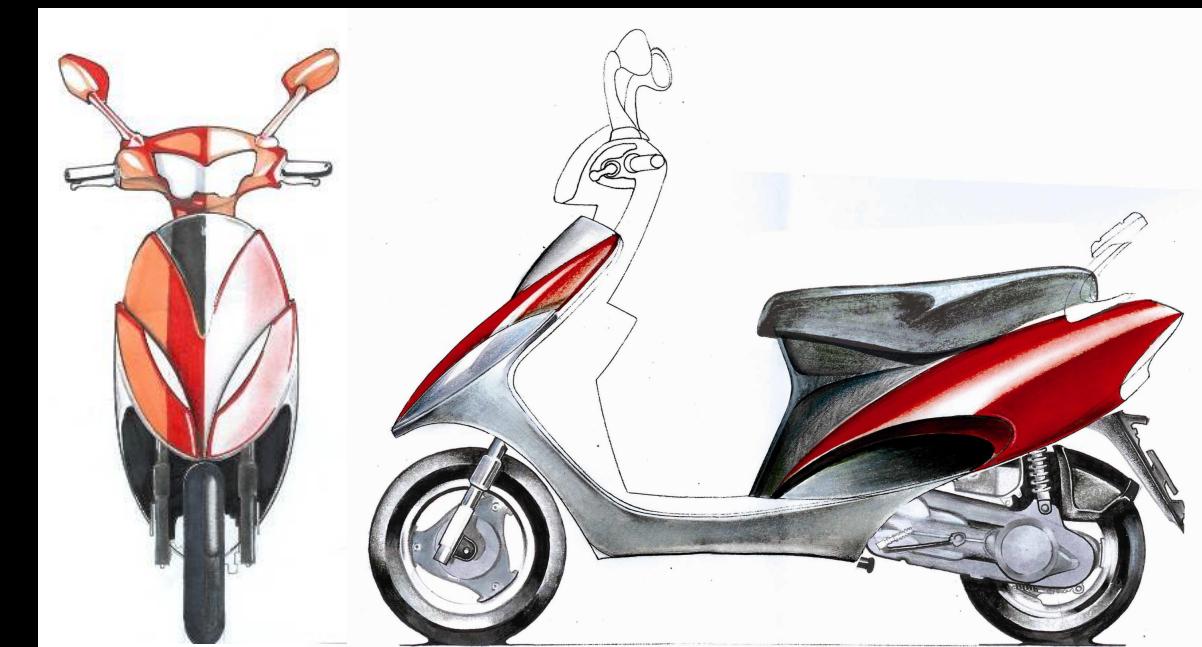
The dynamic features give a sleek and sharp quality

Maintains the intrinsic qualities with a crisper look.

There is scope for reducing bulk of seat

SPORTY CONCEPT WAS SELECTED FOR FURTHER REFINEMENT

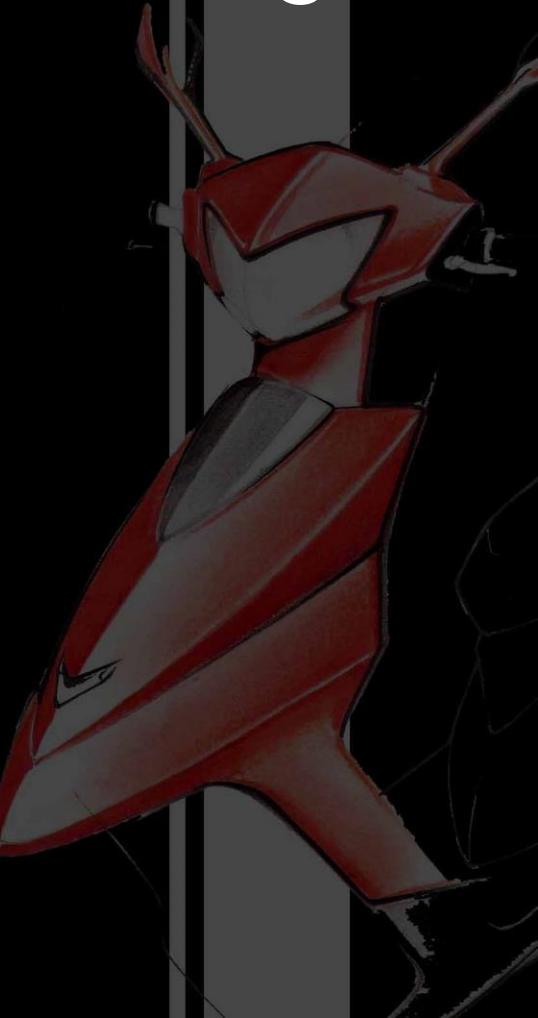
FINAL CONCEPT ~ ELEGANT



The rear looks bulkier than Scooty

Haven't evolved enough for a refresh since lines follow the same soft nature

Seat bulk if reduced will not look appropriate





Concept Refinement



Seat can also be improvised further to look sleek

The muscle on the sides increases the width of the rear half which has to be reduced for sleeker look



The rear half can be made sleeker by removing lower region of rear panel. This also gives a sporty stance

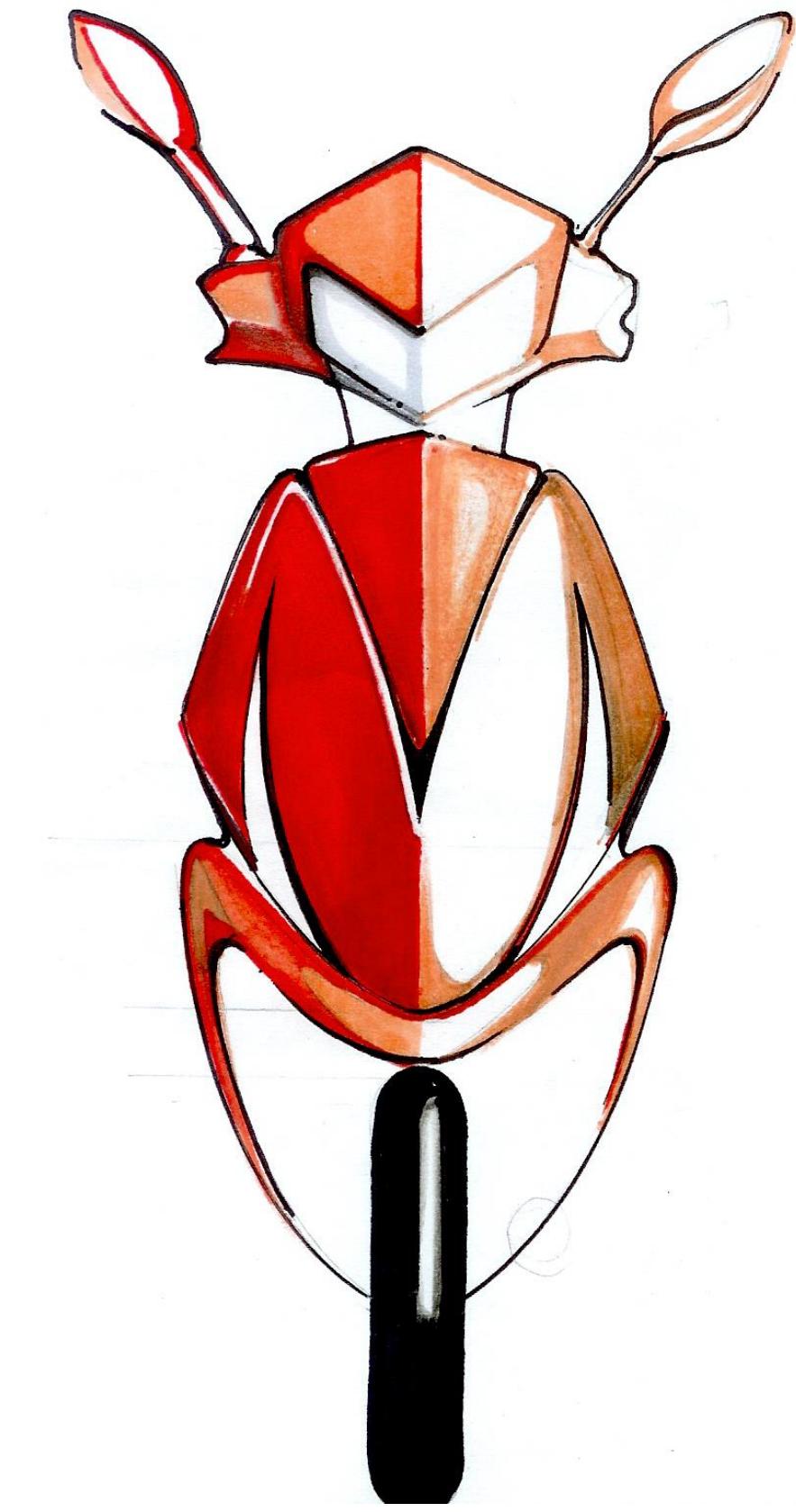
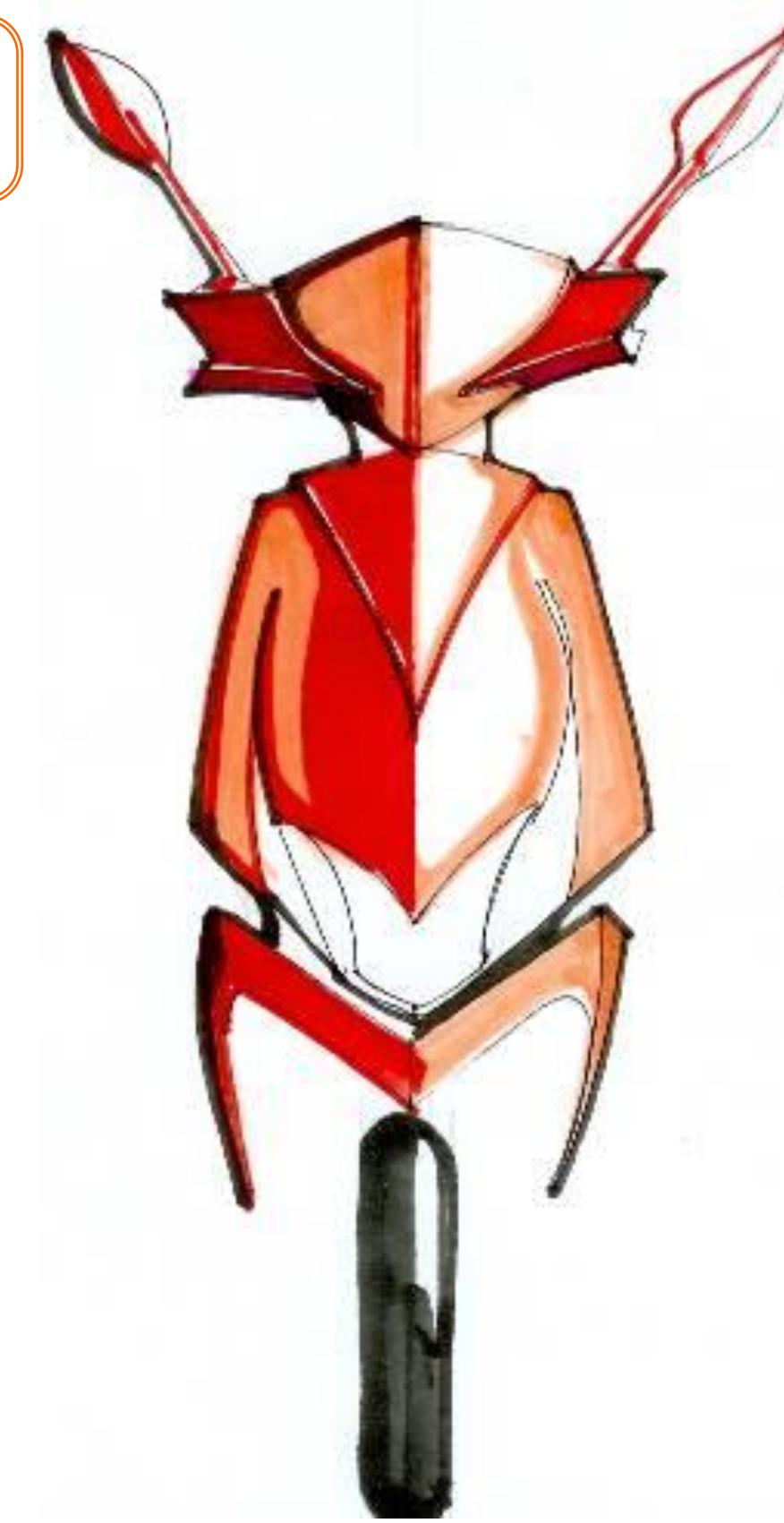


Concept Refinement



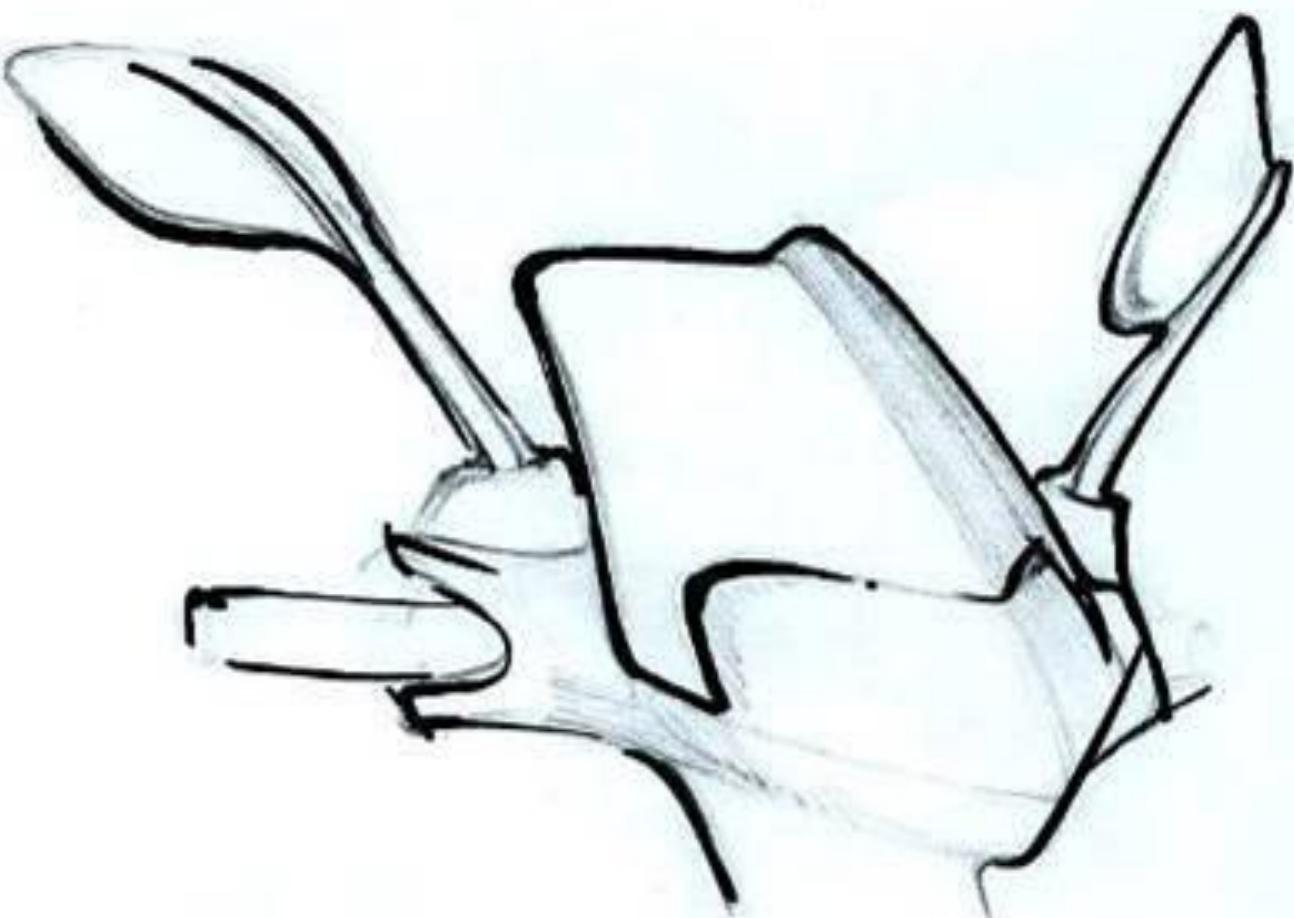
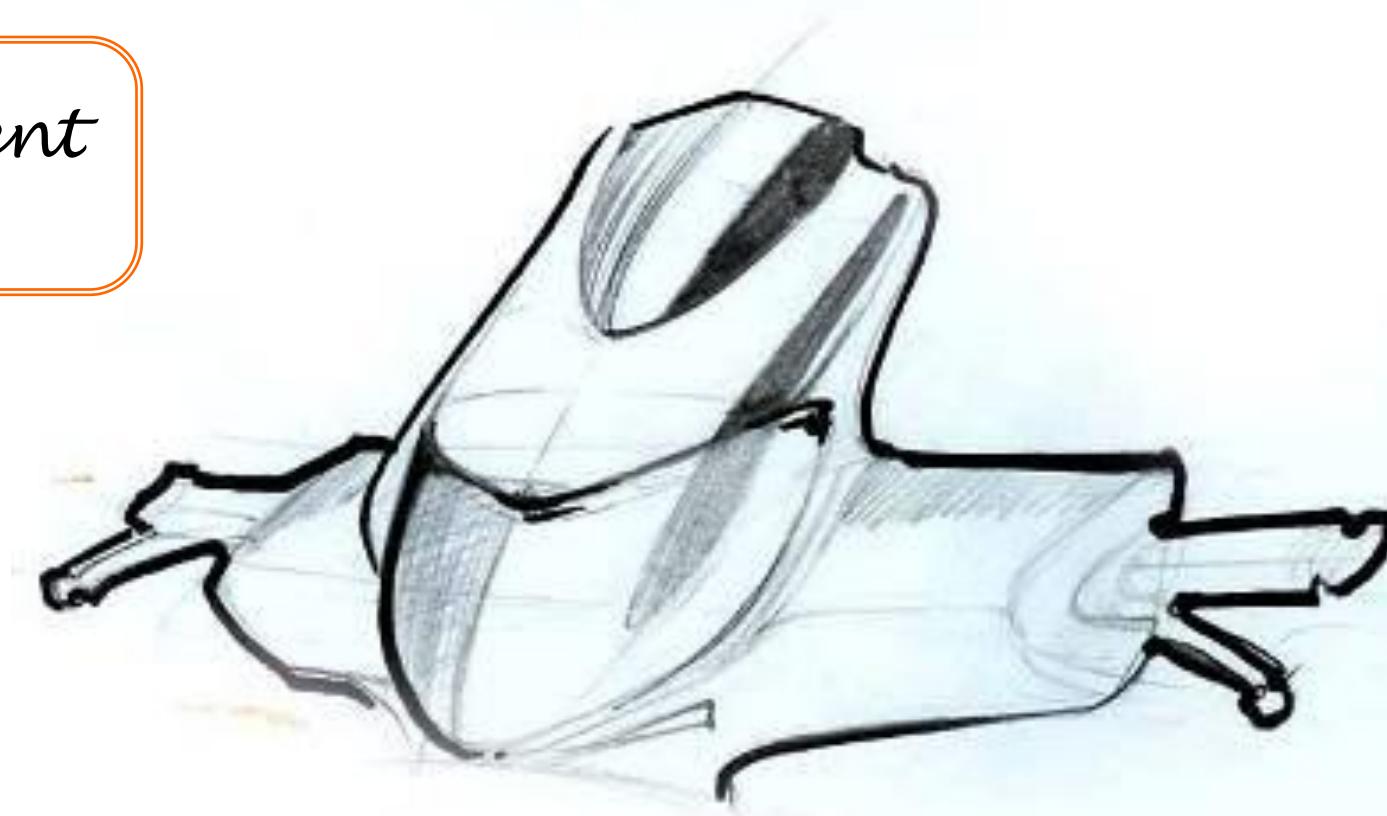


Concept Refinement





Concept Refinement
Head lamp





Clay model - 1



Not the natural intersection of both panels



The lens area has been carved to an assertive in the face attitude. The chin delivers a modern look.

Conflict in surface curves in the three different panels

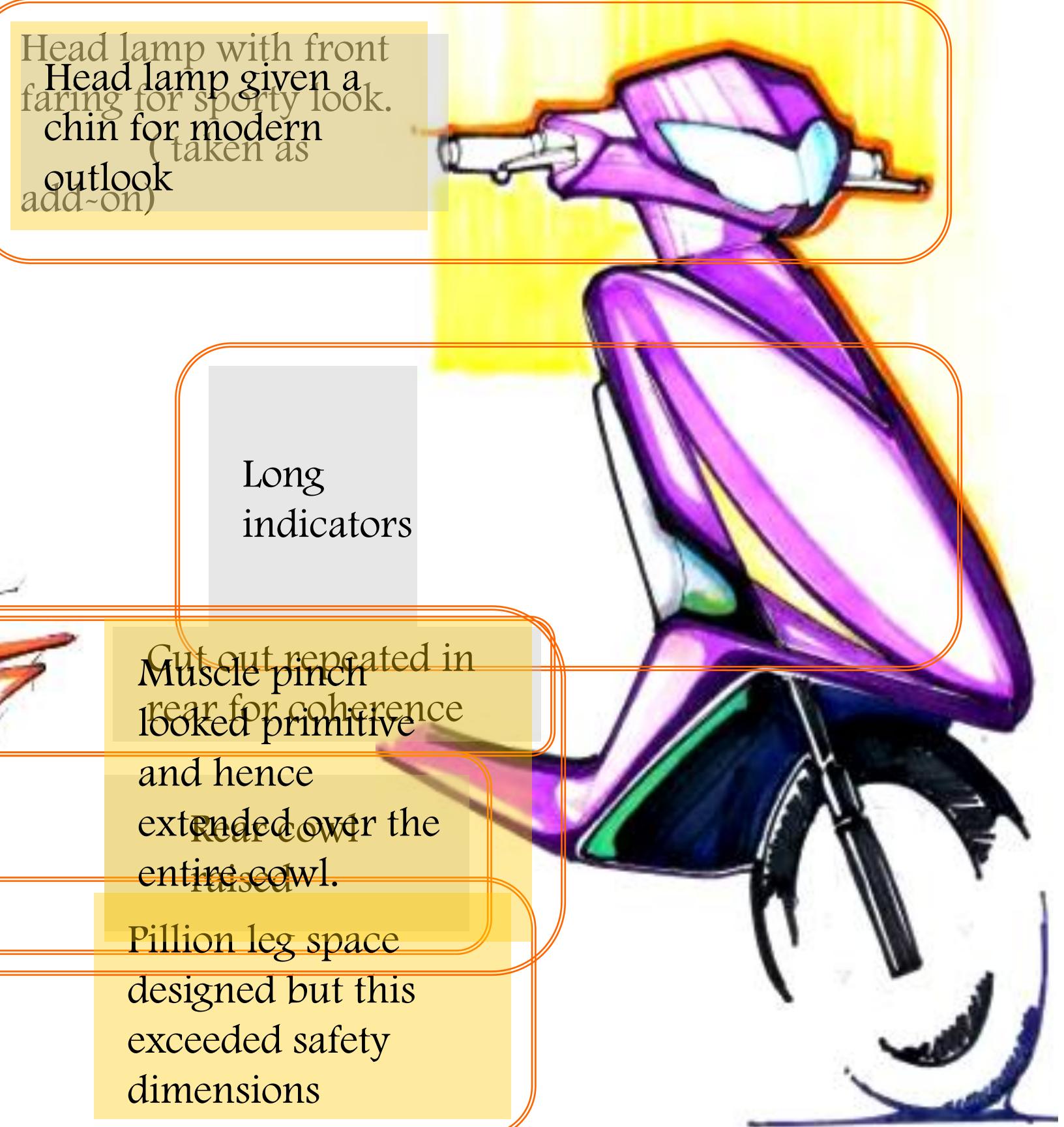
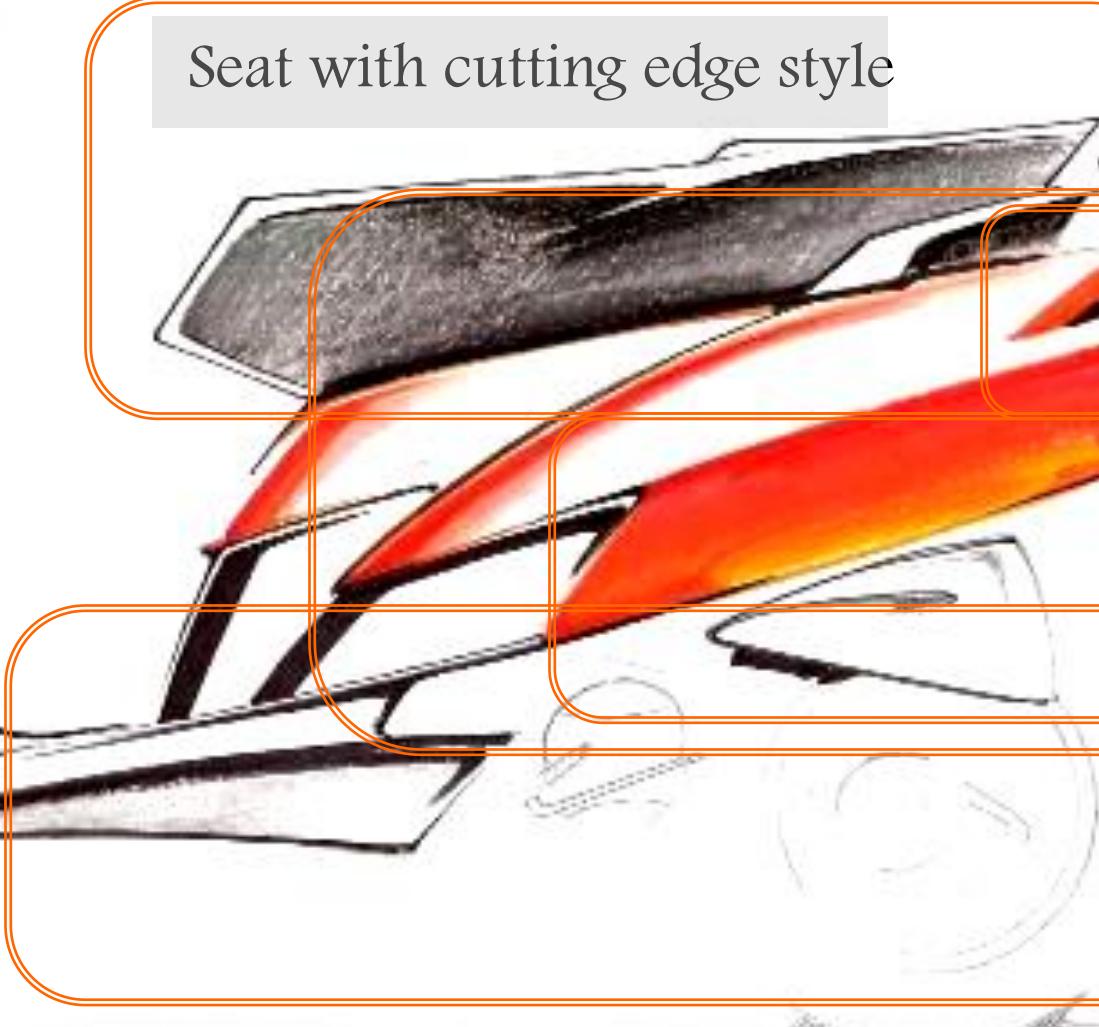
Bulkiness due to surface curvature

pacified by break up

Two surface Attempt to retain the curvatures exploited for nose of Scooty by enhancing the two surface curvature



Clay model - 2



Head lamp with front
faring for sporty look.
chin for modern
(taken as
outlook
add-on)

Long
indicators

Cut out repeated in
rear for coherence
Muscle pinch
looked primitive
and hence
extended over the
entire cowl.

Pillion leg space
designed but this
exceeded safety
dimensions



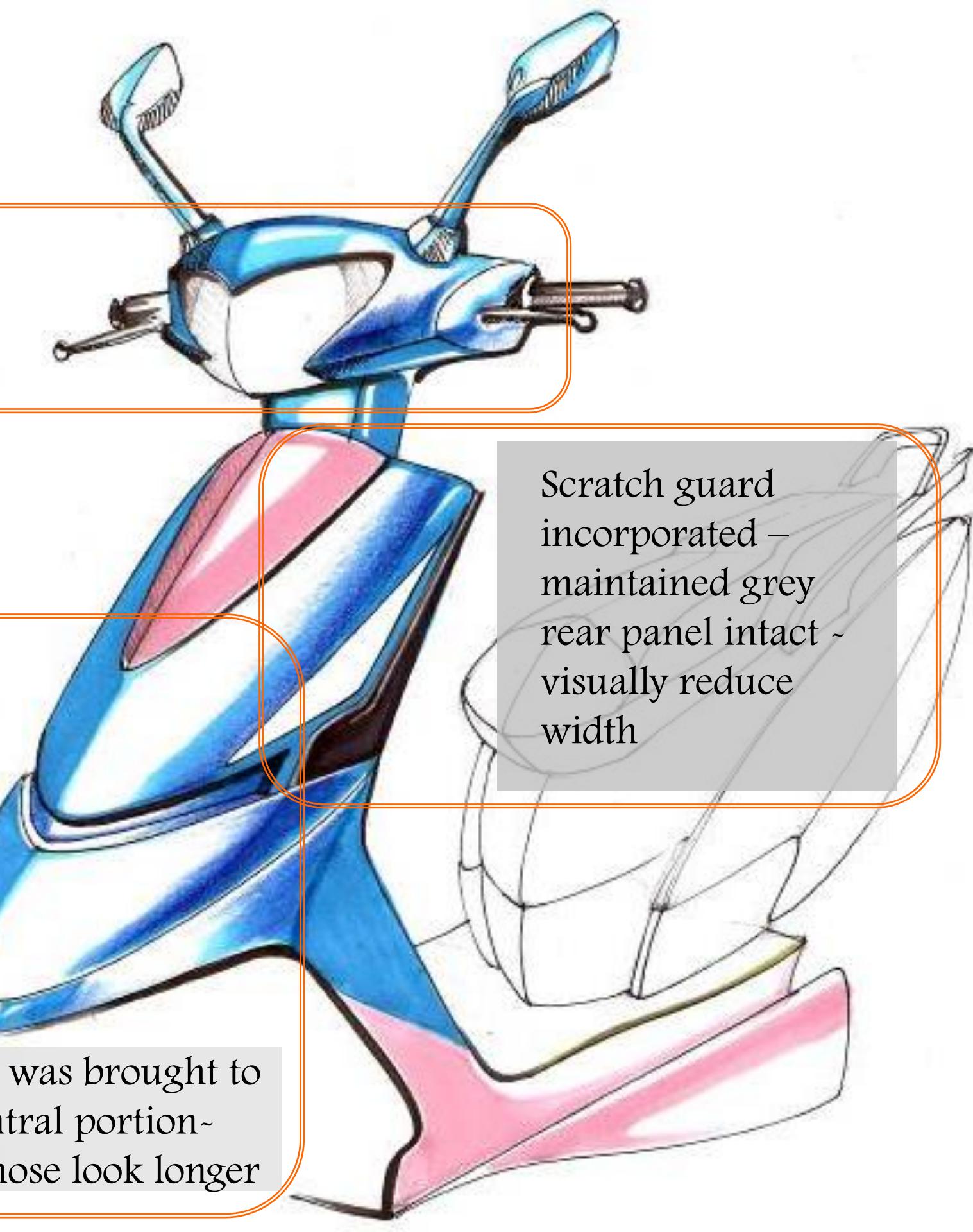
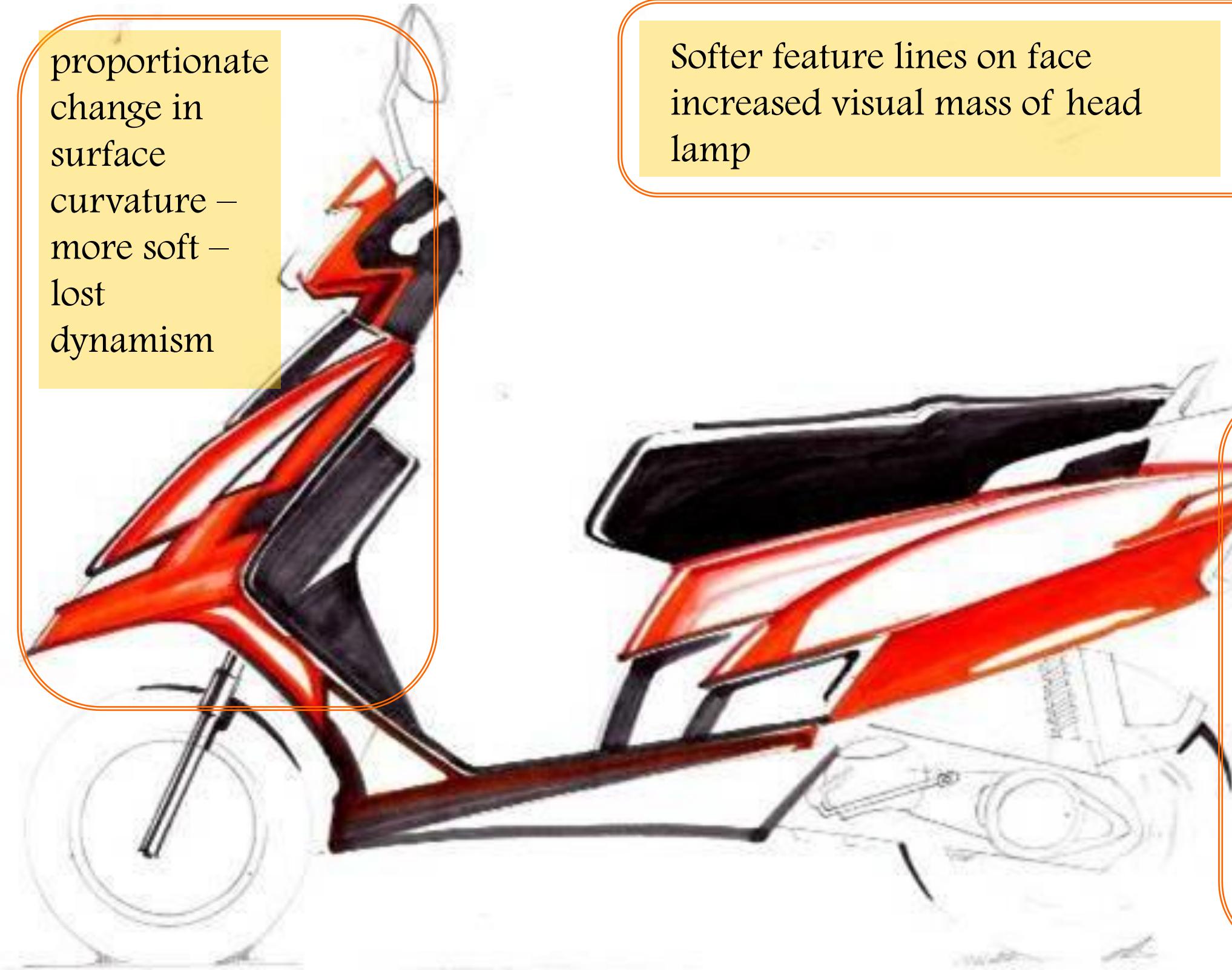
Clay model - 3

proportionate
change in
surface
curvature –
more soft –
lost
dynamism

Softer feature lines on face
increased visual mass of head
lamp

Cutout was brought to
the central portion –
made nose look longer

Scratch guard
incorporated –
maintained grey
rear panel intact ~
visually reduce
width





Clay model - 4

change in surface curvature – more sharp for dynamism

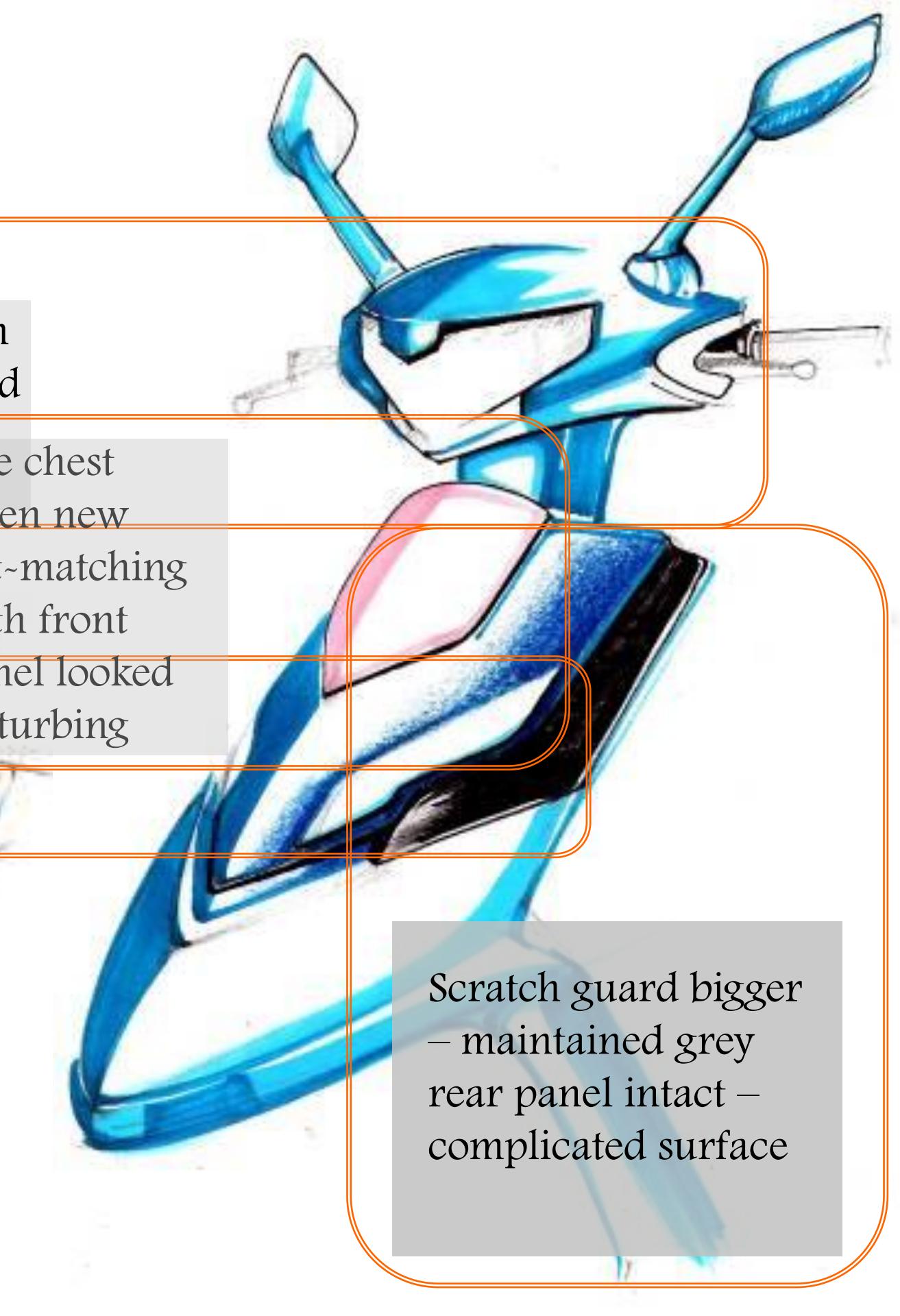
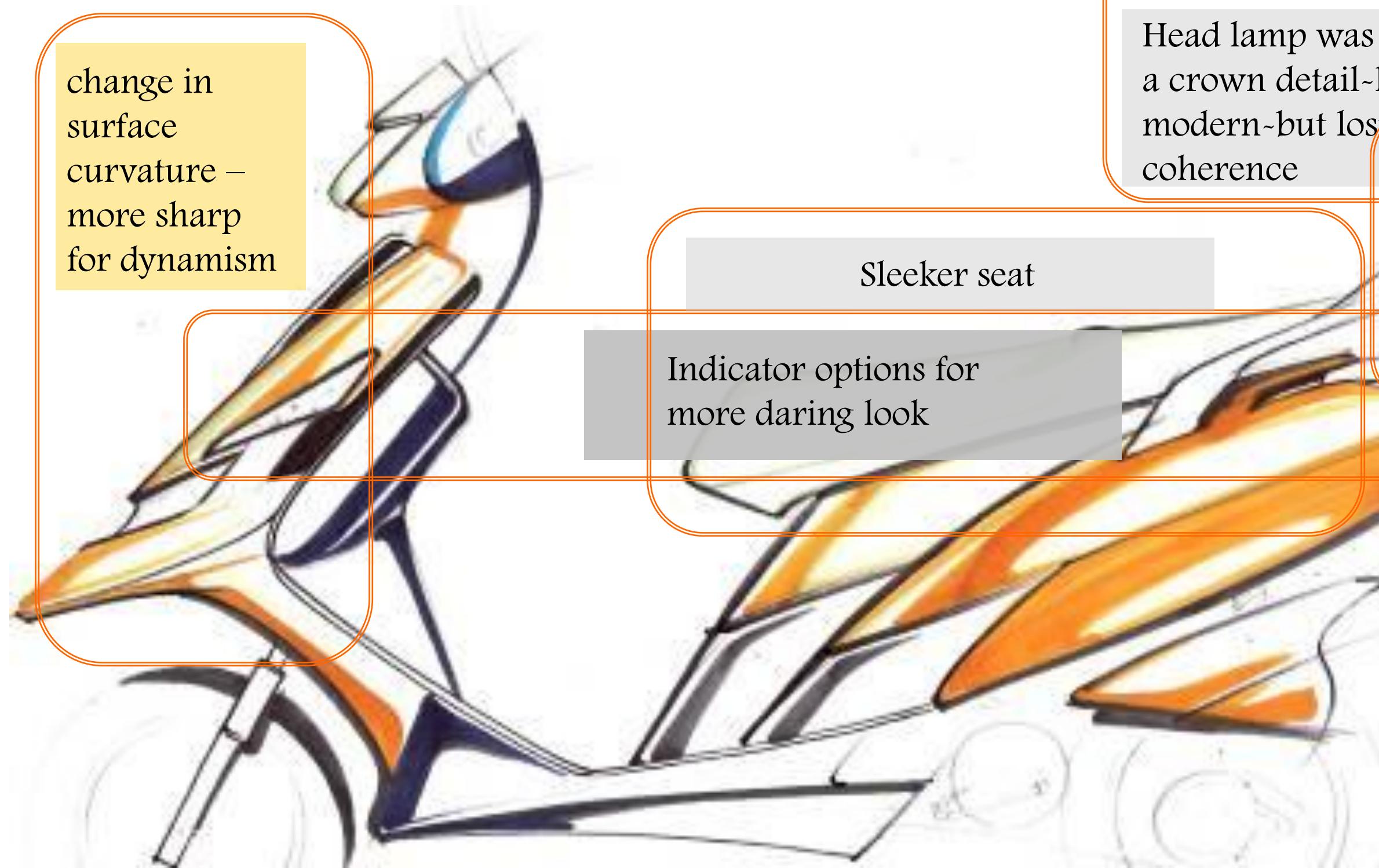
Sleeker seat

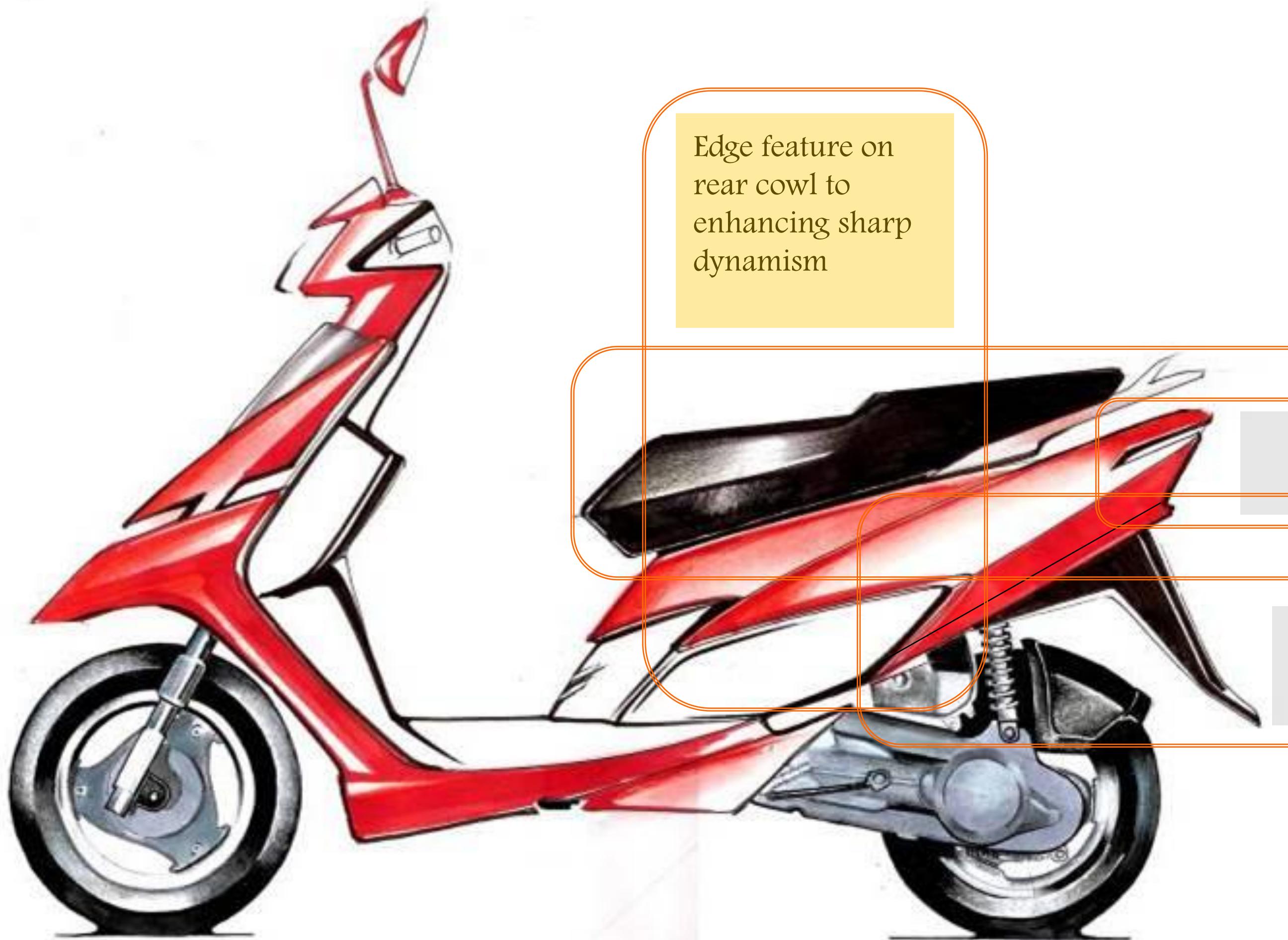
Indicator options for more daring look

Head lamp was given a crown detail-looked modern-but lost coherence

The chest given new cut-matching with front panel looked disturbing

Scratch guard bigger – maintained grey rear panel intact – complicated surface





Clay model - 4

Edge feature on rear cowl to enhancing sharp dynamism

Seat was brought much lower to Rear acute cut top complement front cut out looks very ornamental existing storage space and seat joinery

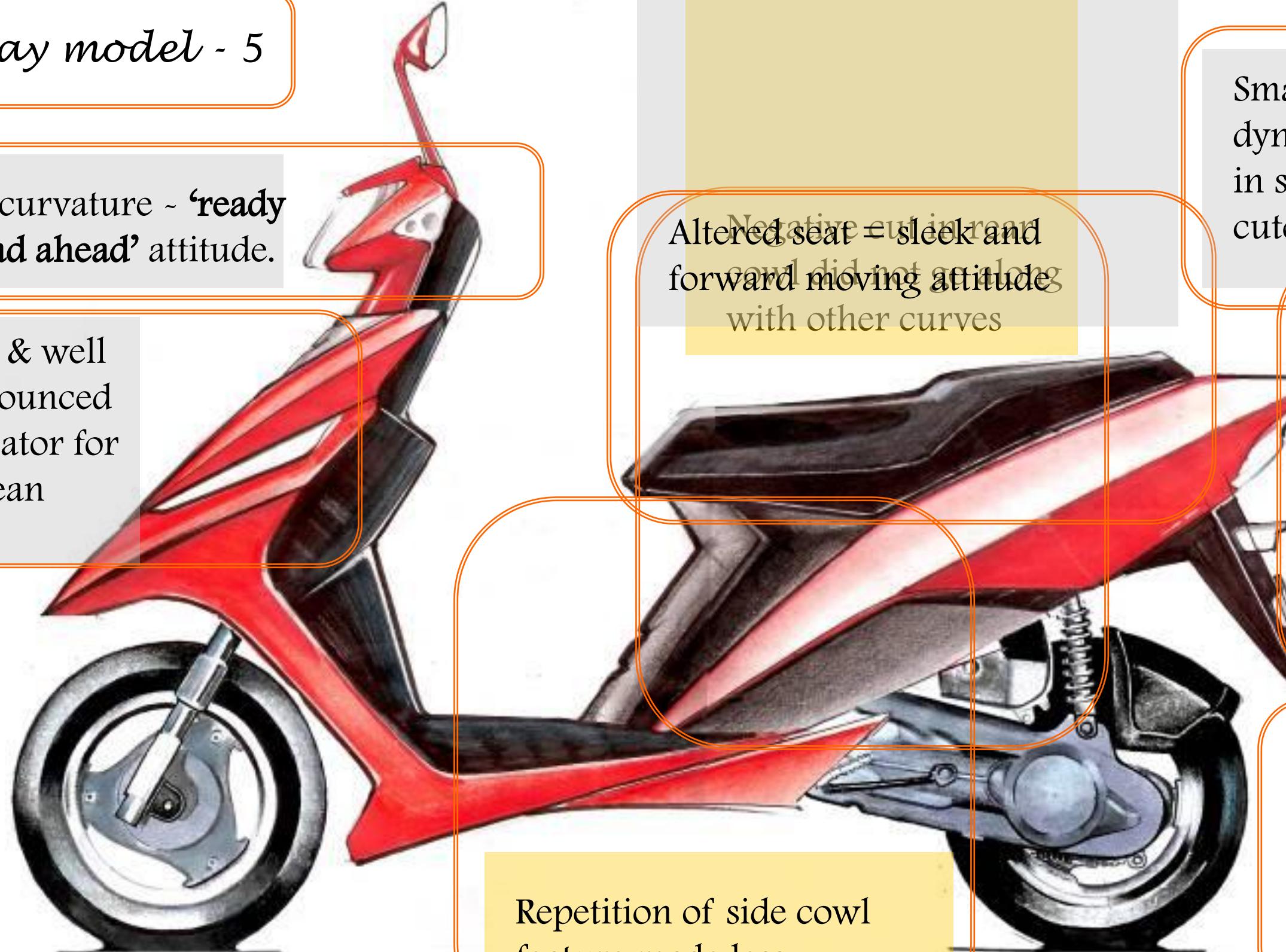
Rear cowl made further sleek –raising cowl+ rim feature



Clay model - 5

Neck curvature ~ 'ready to head ahead' attitude.

Long & well pronounced indicator for a 'mean look'

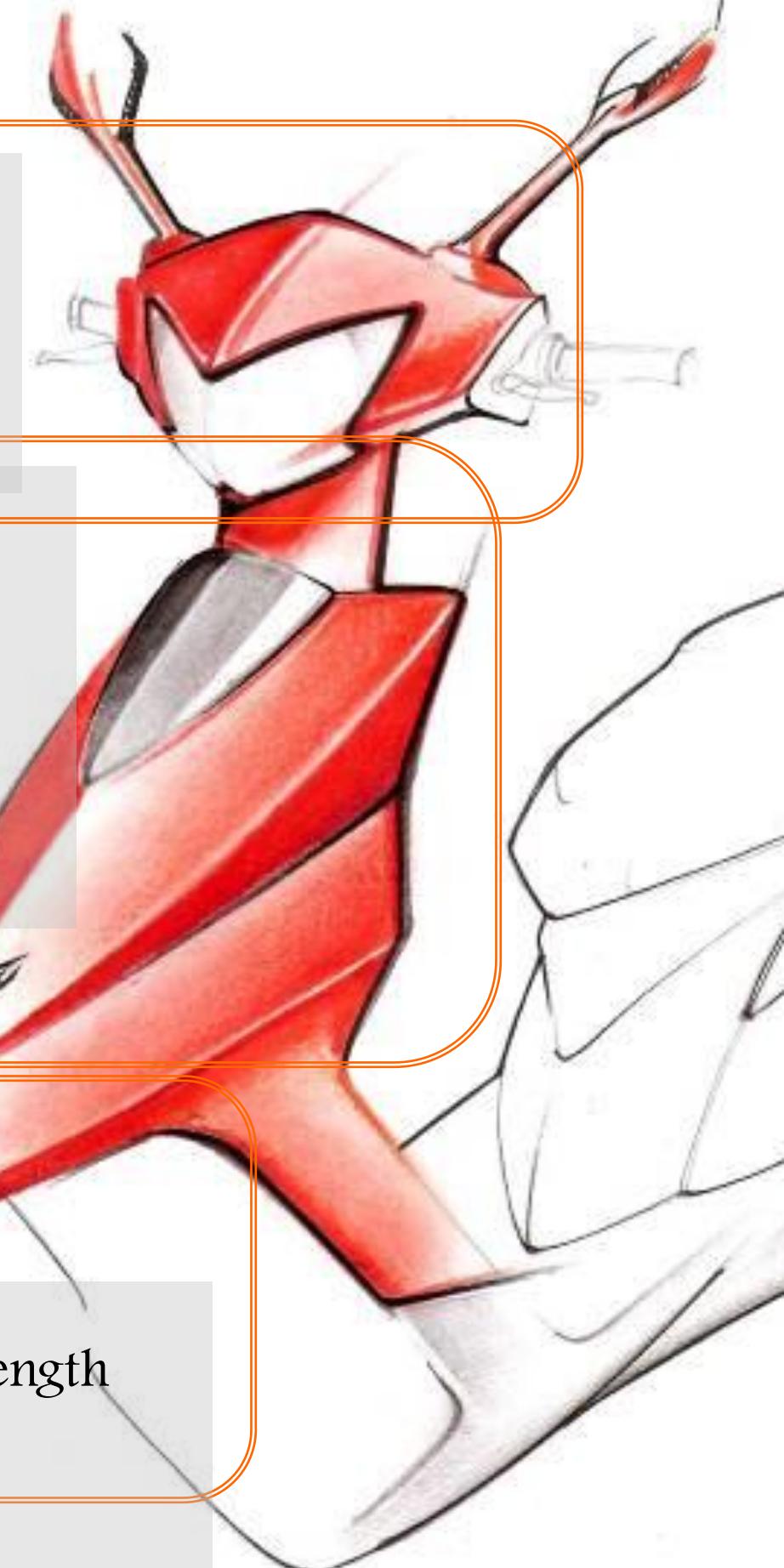


Altered seat = sleek and forward moving attitude with other curves

Smaller head lamp, dynamism developed in surface sweep and cutout curves

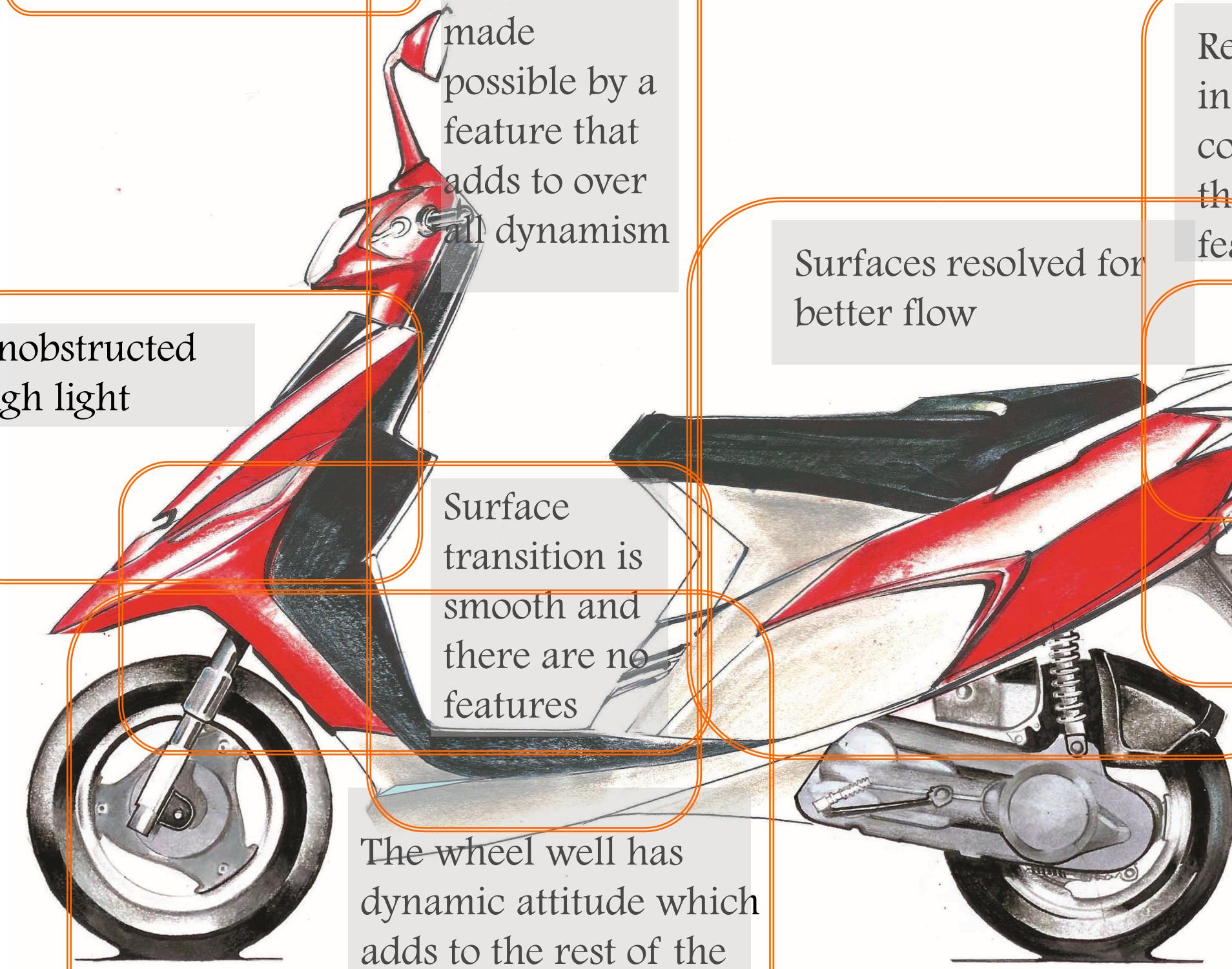
Scratch guard removed and panel itself integrates a sweep to develop a surface breakup

Pointed nose but length reduced





Clay model - 5



Different options for front indicators

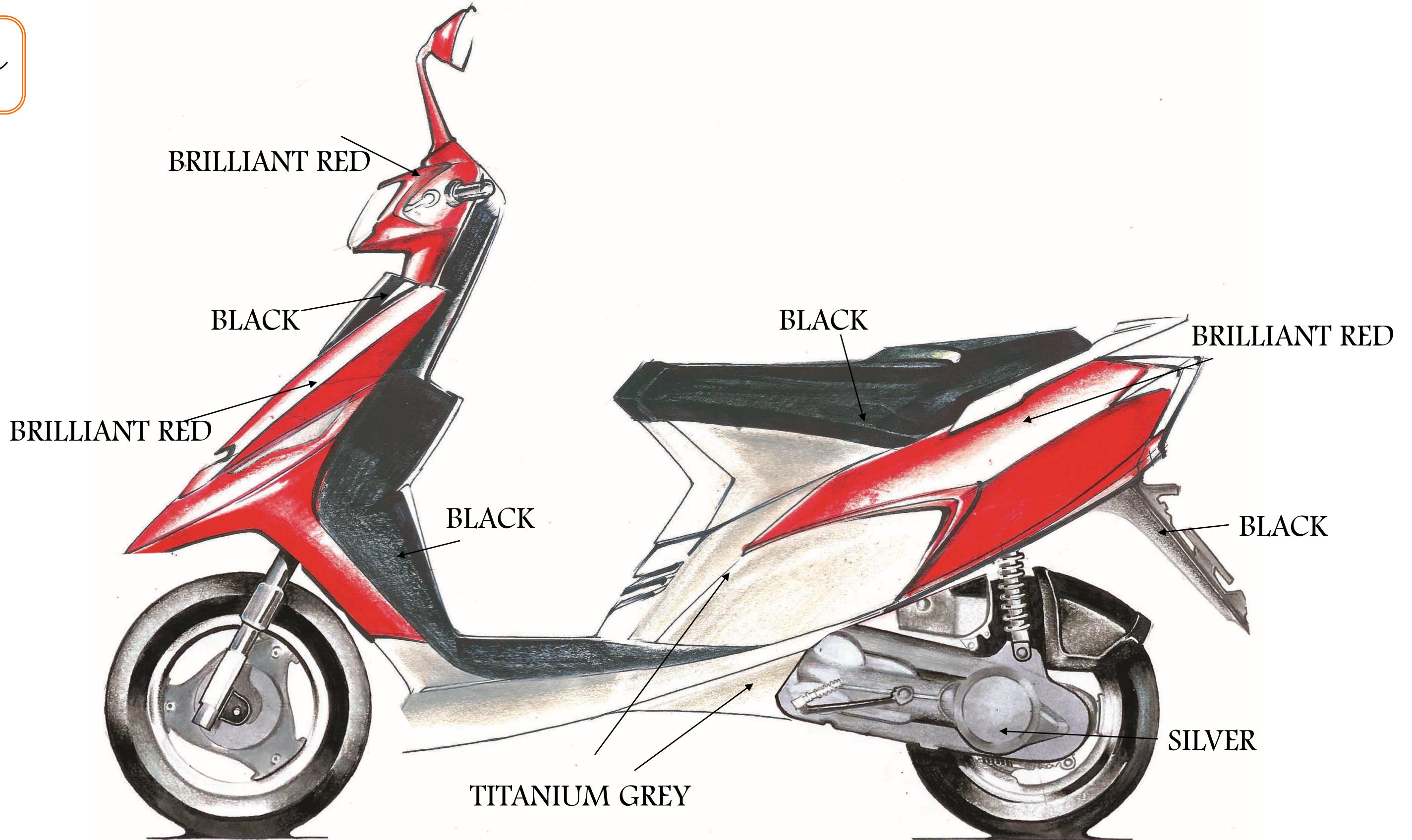


LEARNINGS FROM CLAY MODEL

1. Surfaces needs to be finished before judging surface quality in terms of its own dimension, line quality and surface nature.
2. The same surface can be made convex, concave and planar with out changing the edge of the surface
3. Tape can be used on clay to decide on cut outs and indicator positions. Using a knife to mark on the clay spoils the surface
4. In order to try out various options of surface it is possible to mask the developed surface and then work on it so is is always possible to get back to the initial surface
5. Mirrors can be used to visually assess and perceive the form at a distance
6. The clay model appears smaller when painted. This visual judgement has to be accounted for while making the model.
7. The clay model is placed on a raised platform and level adjusted to work comfortably on various portions. When visually judging the form it is always better to bring down the platform to ground level.

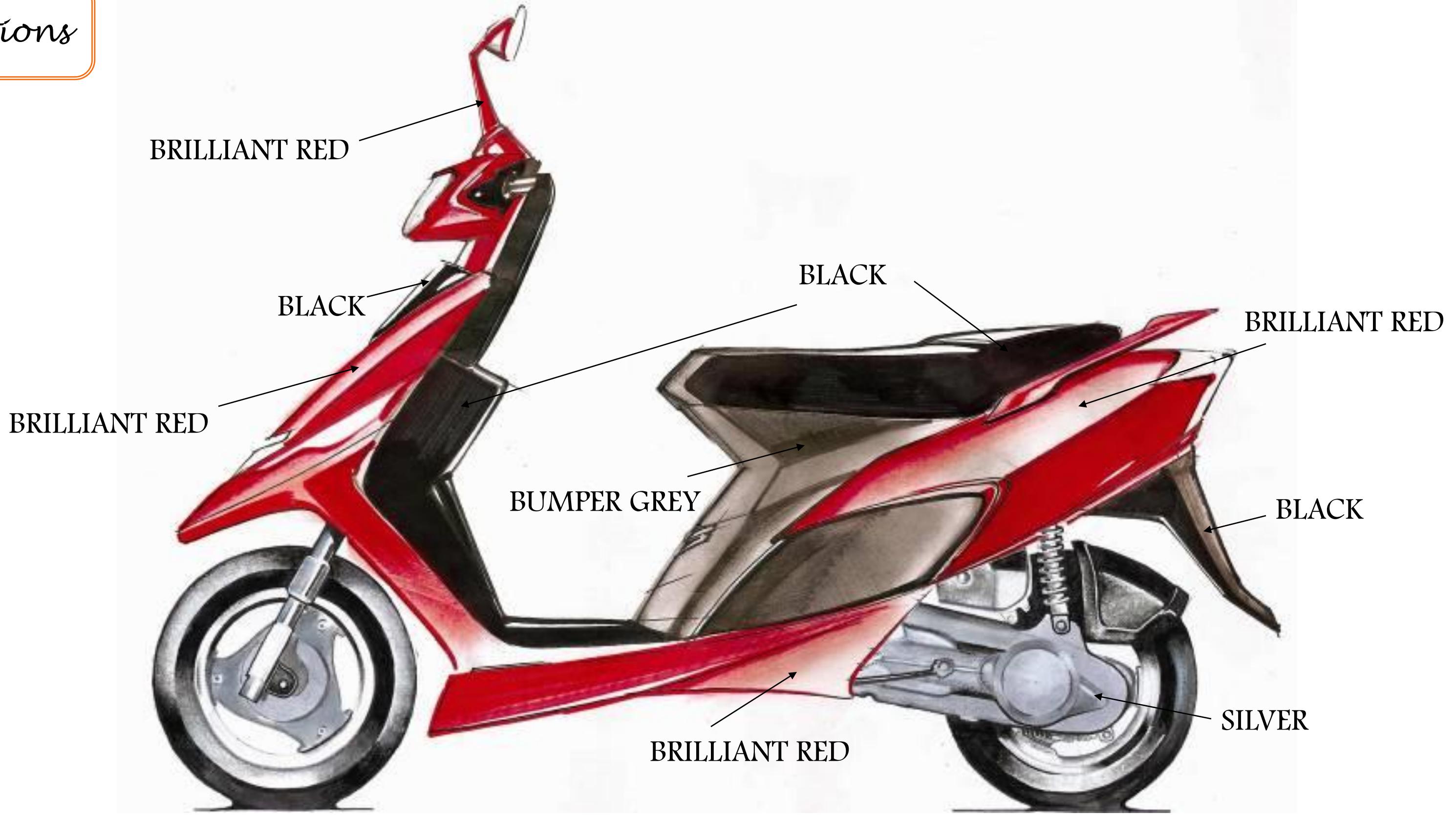


Colour options





Colour options





Painted model



Rear cowl rim could have been better detailed

The supporting grey panel in front needs to be changed in its character to suit the vehicle

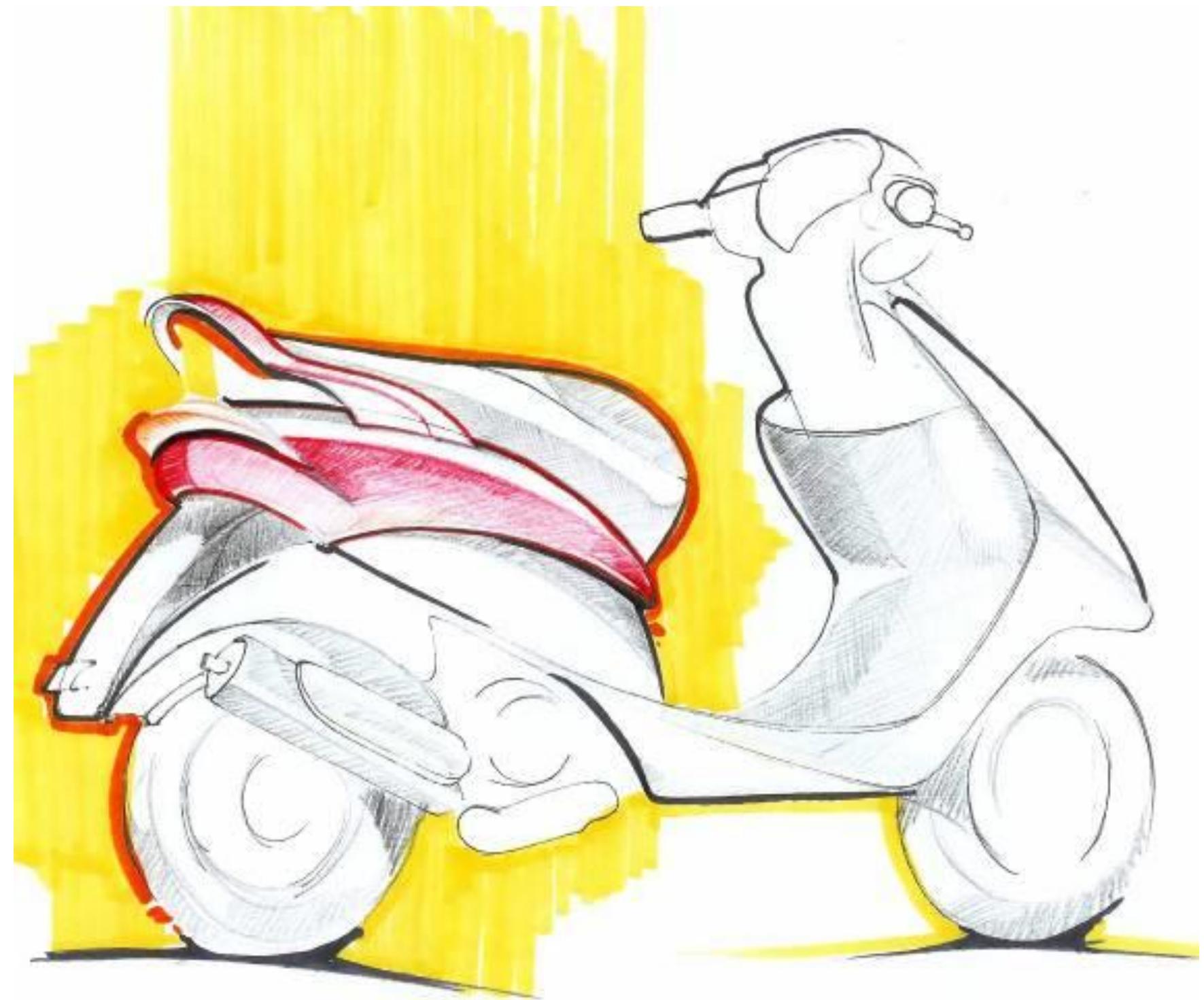
The front panel could have been pulled further in

With due respect to ergonomics changes in seat dimensions can make it look far sportier and dynamic.

While masking the head lamp lost its curvature

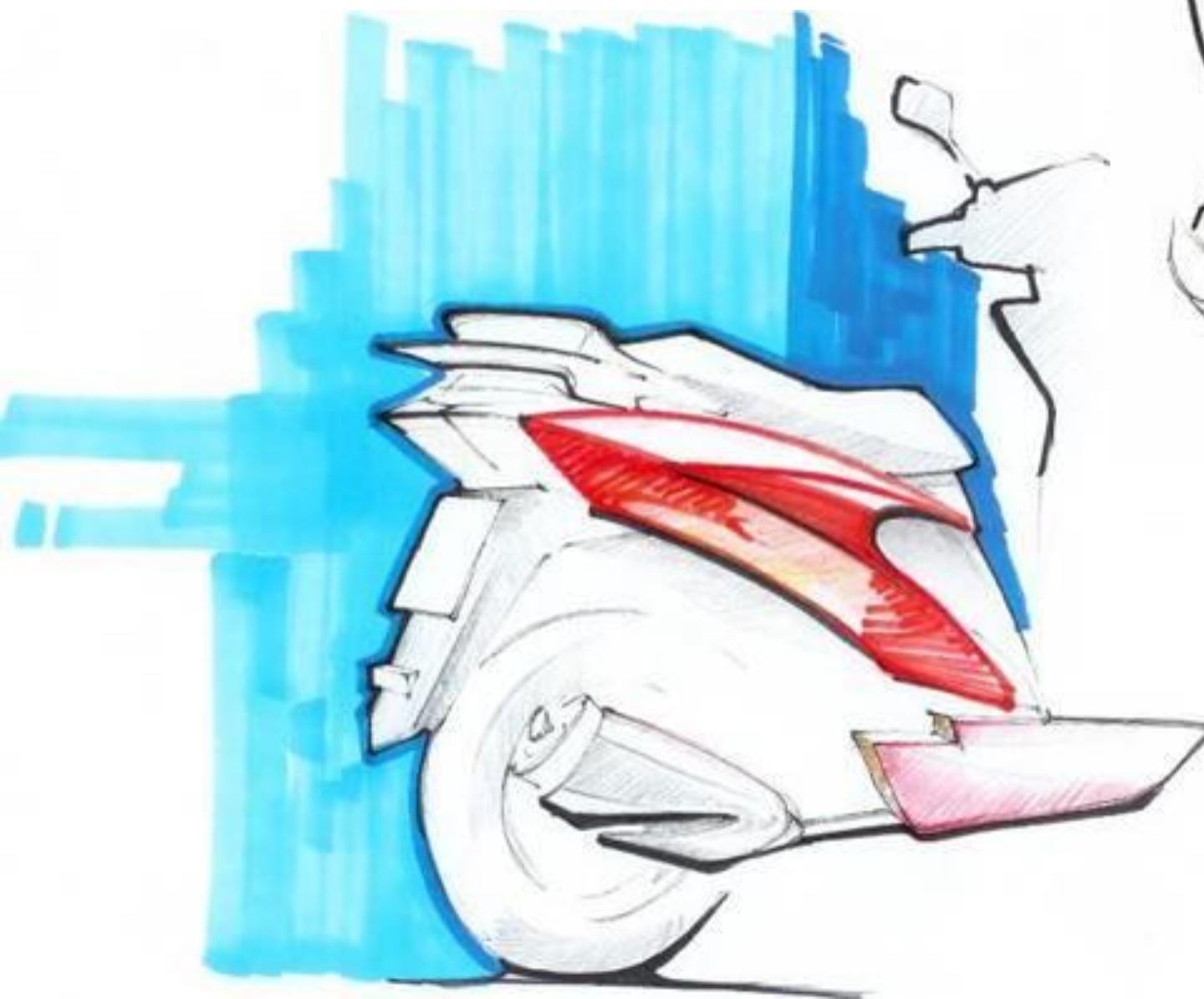


Marker Renderings





Marker Renderings



Dedicated to Mr. Prasad, my Clay sculptor

I would like to thank

Mr. Makrand Kulkarni for guiding and helping me through all stages of the project

Sasidhar, Kannan and Ravi for assisting Mr.Prasad

Mr. Elias Abraham, Head of styling dept. for giving me an opportunity to do this project

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Tabitha for being there