



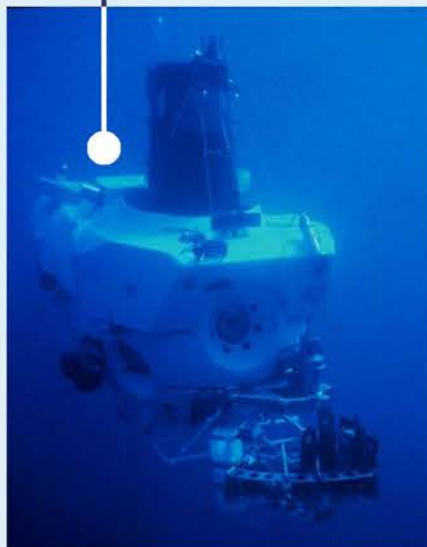
Honda Vortex is a [personal submarine](#). To date, we have explored approximately [five](#) percent of the ocean. Much remains to be learned from exploring the mysteries of the deep. The project goal is to design a future submarine that has both [shallow and deep water exploration](#) capabilities. In this project, I will be focusing on the [interior design](#).



FAMOUS HUMAN OPERATED SUBMERSIBLES

1964

HOV Name: Alvin
Distance: 14,800ft.



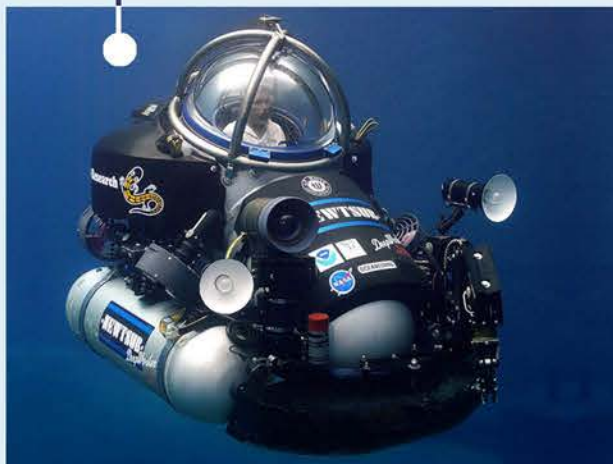
1976

HOV Name: Clelia
Distance: 10,000ft.



1999

HOV Name: Deep Worker
Distance: 3,300ft.



2007

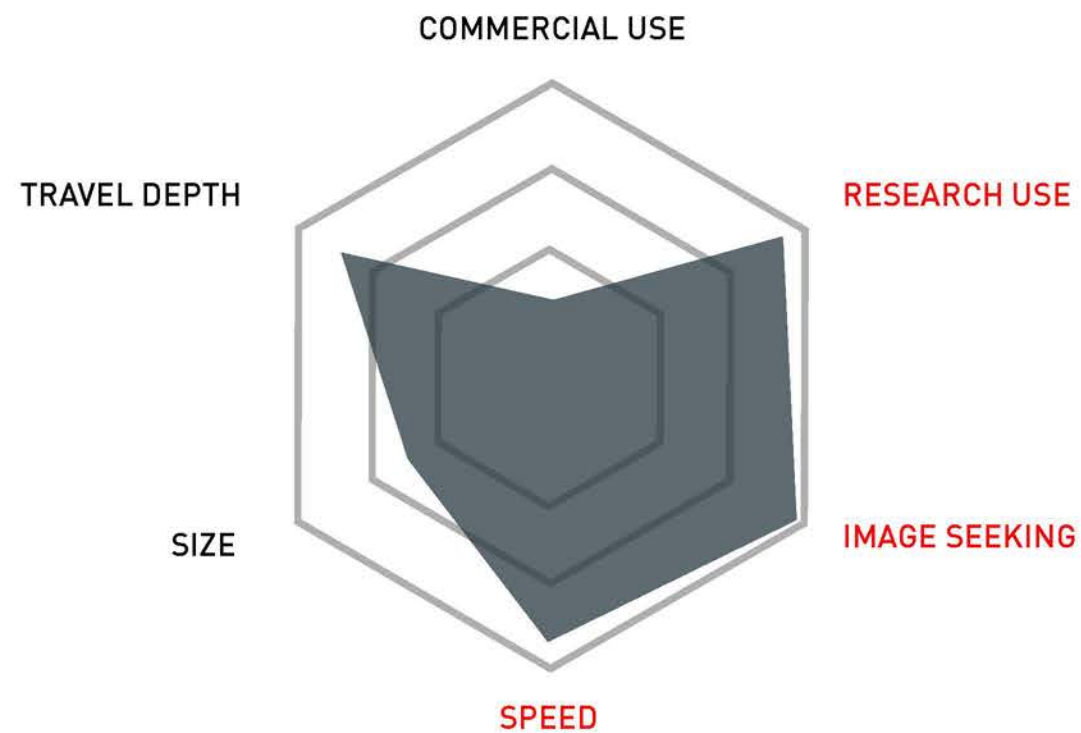
HOV Name: Mir 1&2
Distance: 20,000ft.



2012

HOV Name: Deepsea Challenger
Distance: 35,814ft.





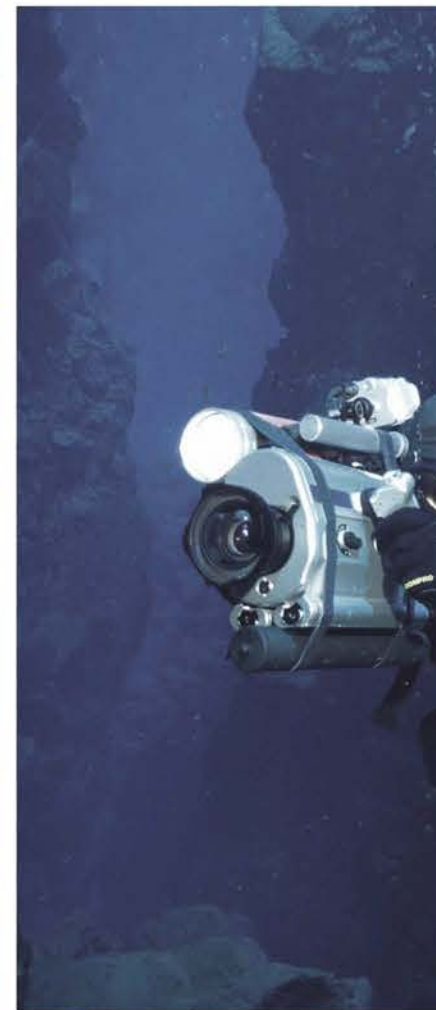
What does Honda Vortex do?

Honda Vortex is a **personal submarine**. Its purpose is to help people to better understand the deep ocean world. The tasks include underwater filming, photography, data collecting, sea floor mapping, and etc.

Why is this different from the other submarines?

Honda Vortex is not only a underwater research vessel, but also offers a whole new driving experience. This project really emphasizes on controlling and the ability to navigate effectively in deep ocean.

Honda has brand image of developing advanced robotics. The interior of Honda Vortex will carry on that, which is to be both high tech and aesthetically pleasing. (For buyers who are the image seekers.)



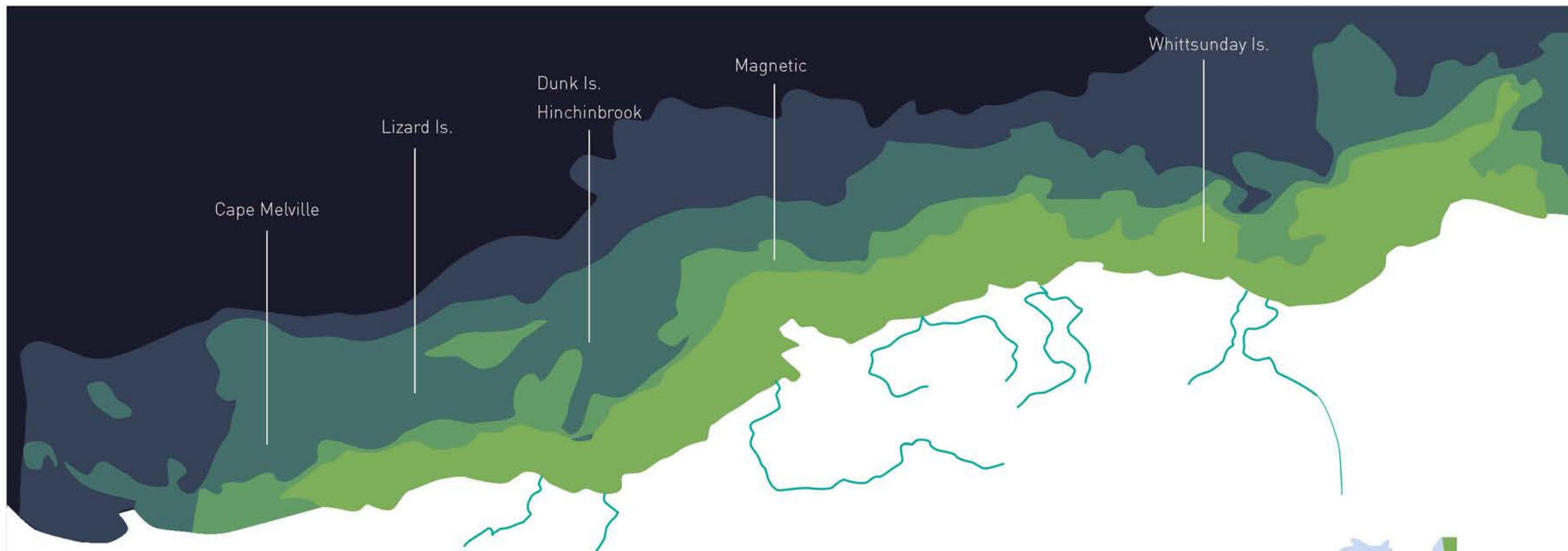


LOCATION: THE GREAT BARRIER REEF - AUSTRALIA

The Great Barrier Reef is the world's largest coral reef system composed of over 2,900 individual reefs and 900 islands stretching for over 2,300 kilometres over an area of approximately 344,400 square kilometres (133,000 sq mi). The reef is located in the Coral Sea, off the coast of Queensland, Australia.

MISSION: RECORD & INVESTIGATE CORAL REEF BLEACHING

Coral bleaching occurs when coral polyps expel algae that live inside their tissues. Normally, coral polyps live in an endosymbiotic relationship with this algae crucial for the health of the coral and the reef. The algae provides up to 90% of the coral's energy. Bleached corals continue to live but begin to starve after bleaching.



DESIGN INSIGHTS:

In order to complete the task, the vehicle needs to be



SMALL FOOTPRINT



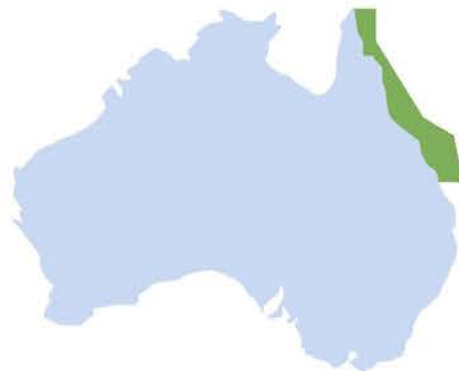
LIGHT WEIGHT

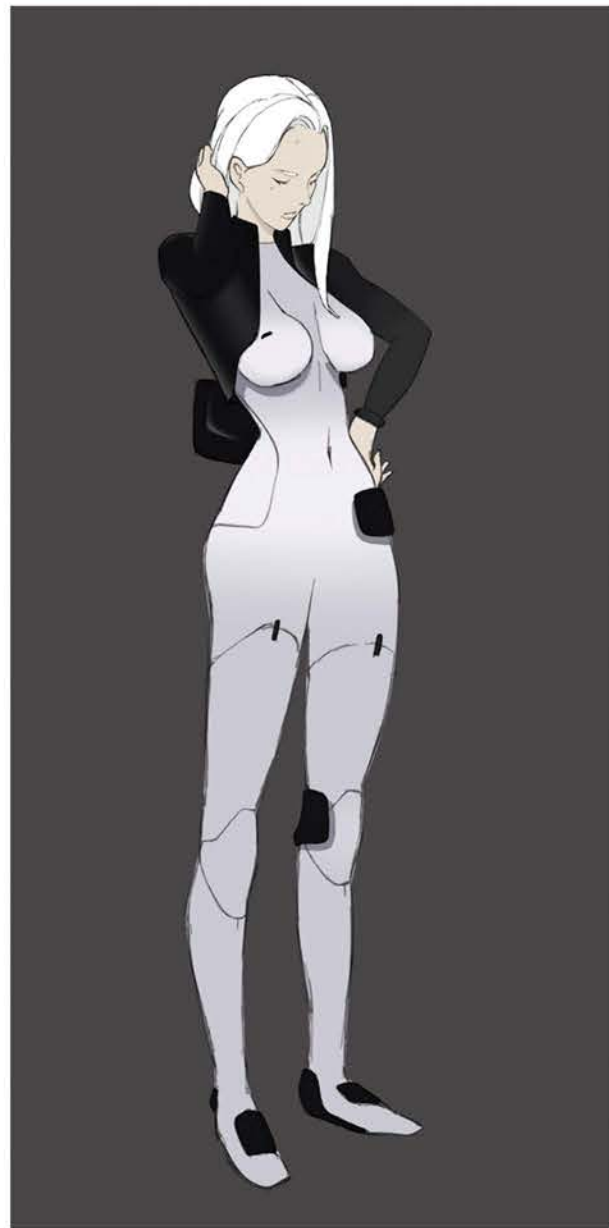


AGILE



GOOD VISIBILITY





SHAUNA COXSEY

Australian Female
Lives in Brisbane

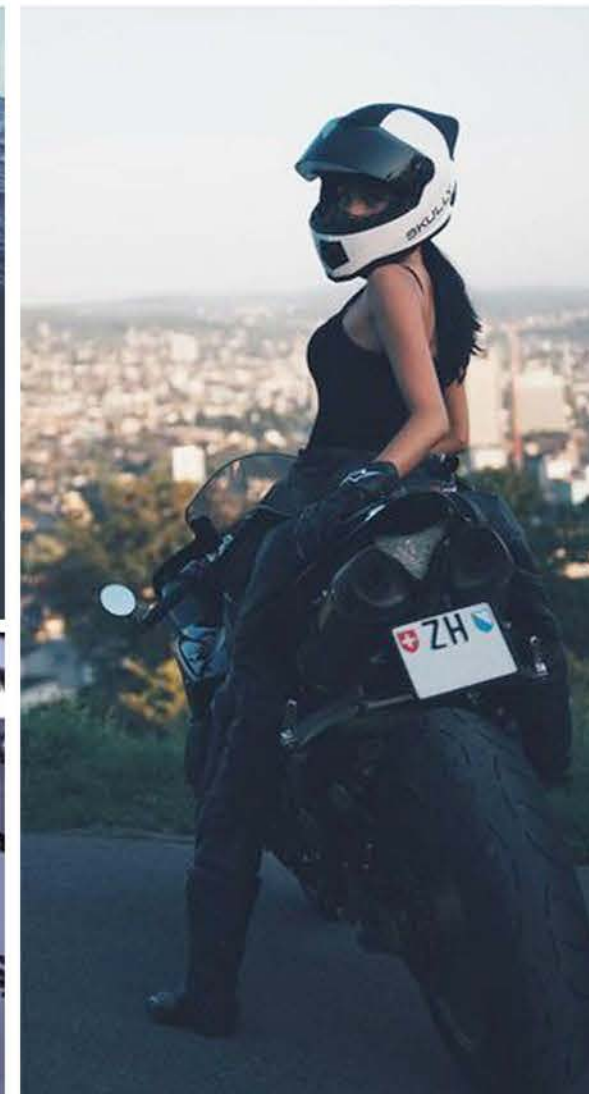
OCCUPATION

- Ocean Scientist
- Environmentalist
- Film Producer

PERSONALITY

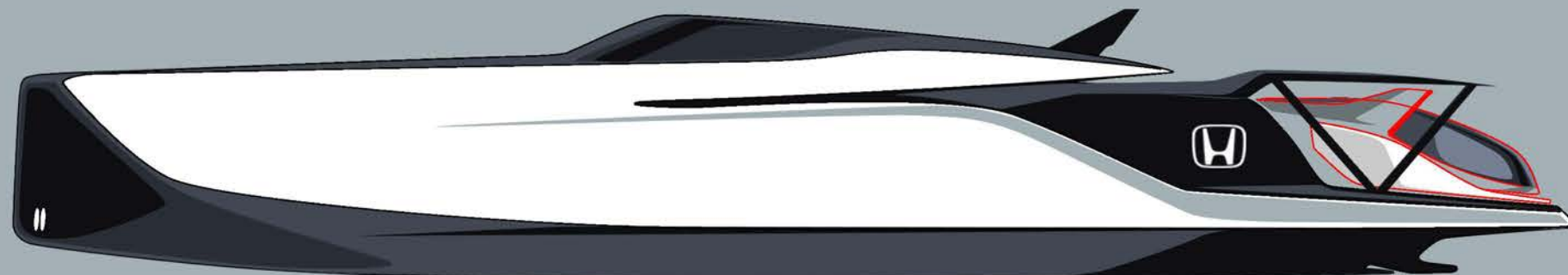
- Active, Outdoor
- Biker
- Extrem sports addict
- Maverick
- Adventurer

Operating a submarine is like traveling in space. I want the interior to reflect the sense of lightweight, clean, and innovative design.





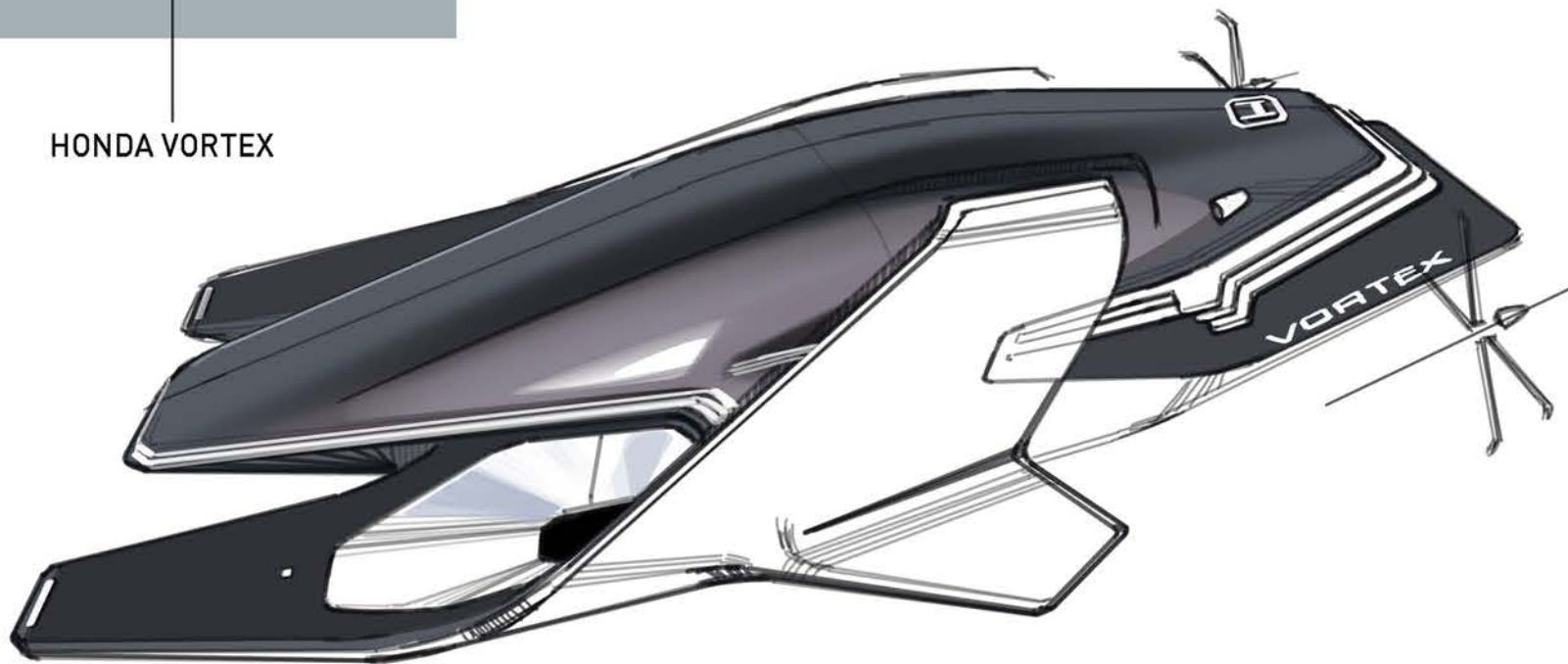
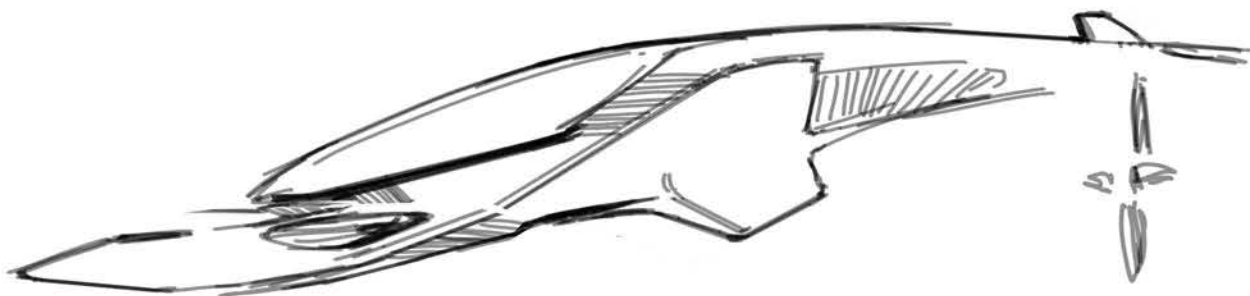
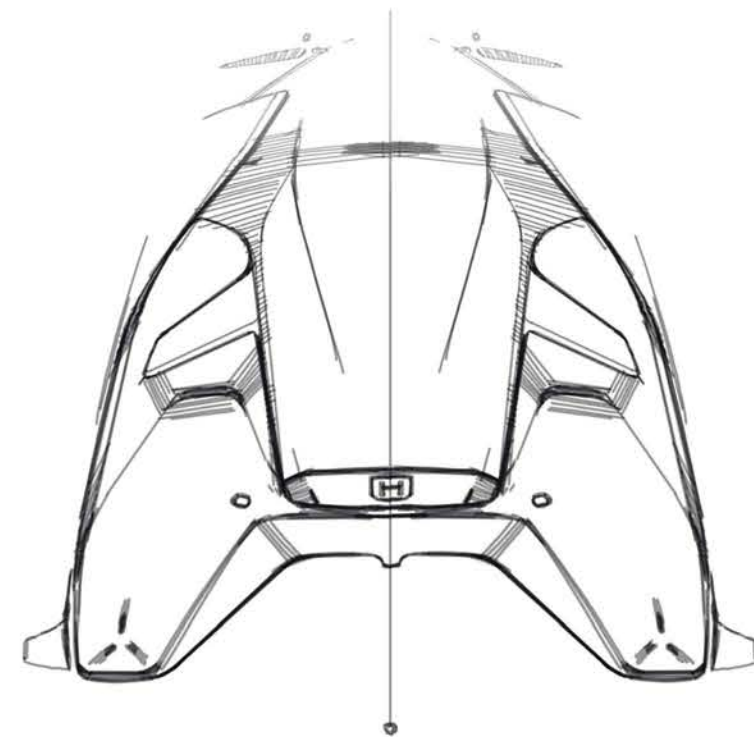
VORTEX - EXTERIOR IDEATION

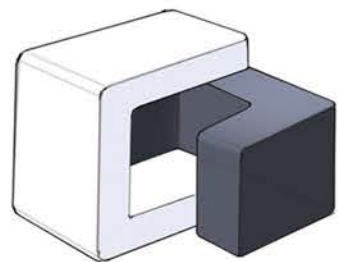
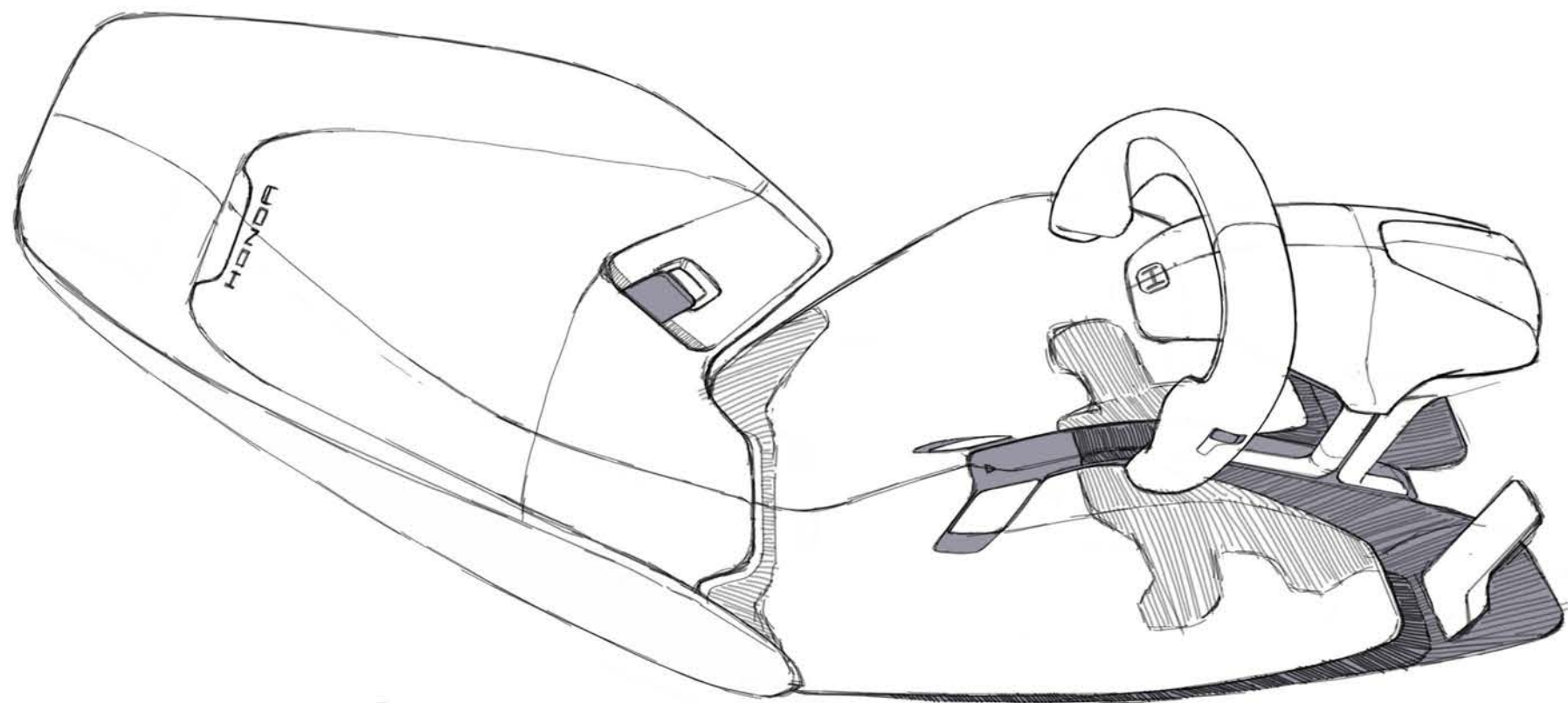


HONDA YACHT

HONDA VORTEX

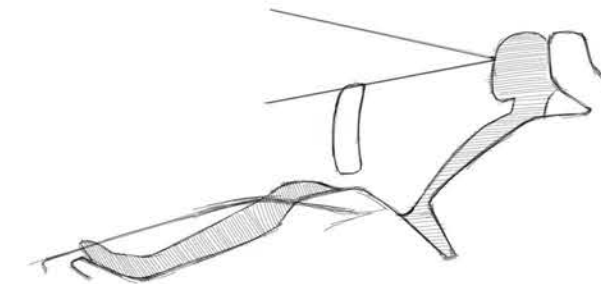
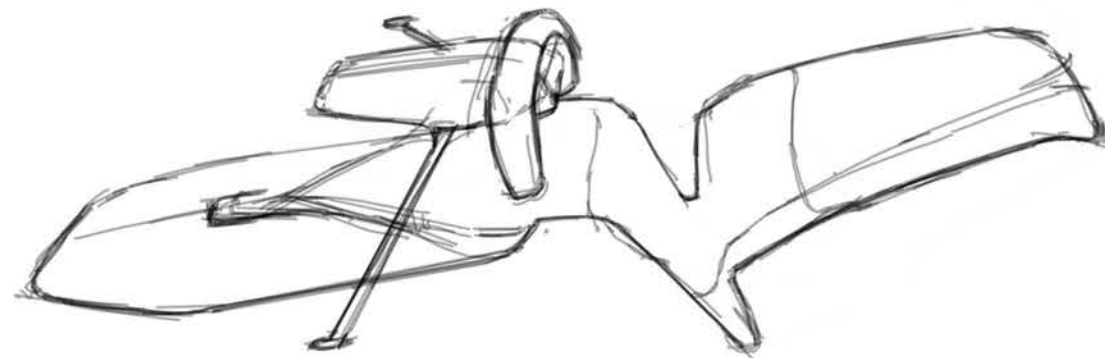
For the exterior of the vehicle, Vortex has a fuselage shape which enables it to swim fast under water. Because of the package of a single occupant, the vehicle is small, and it can be easily carried by smaller yacht.



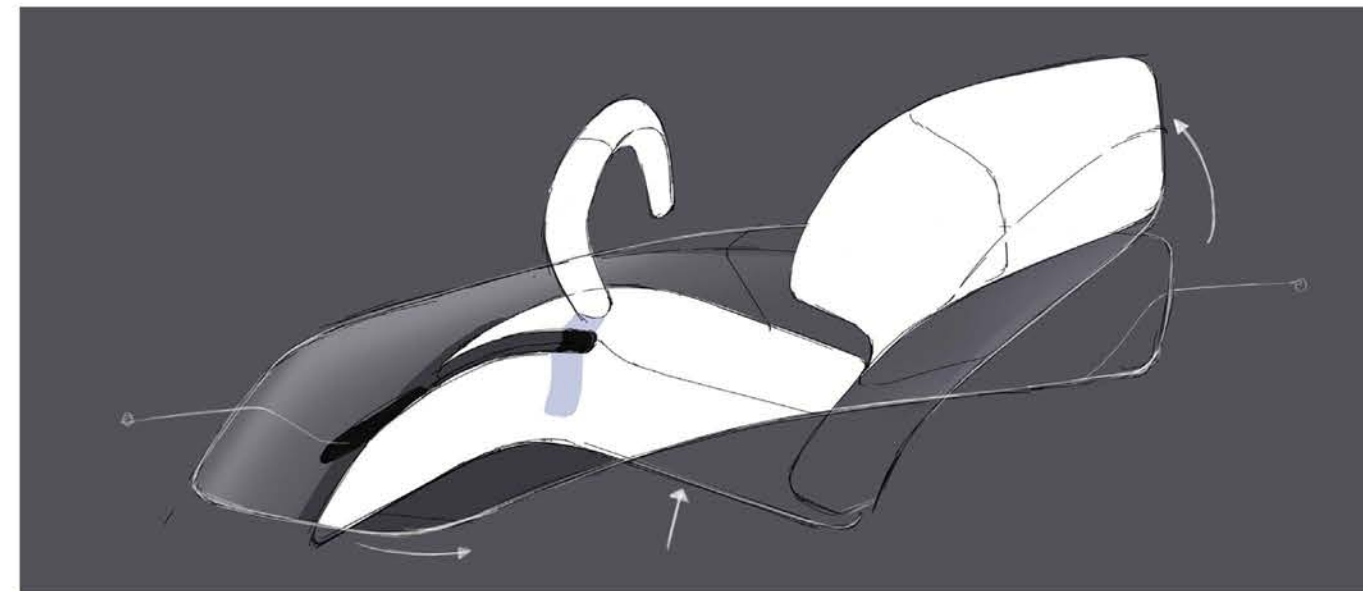


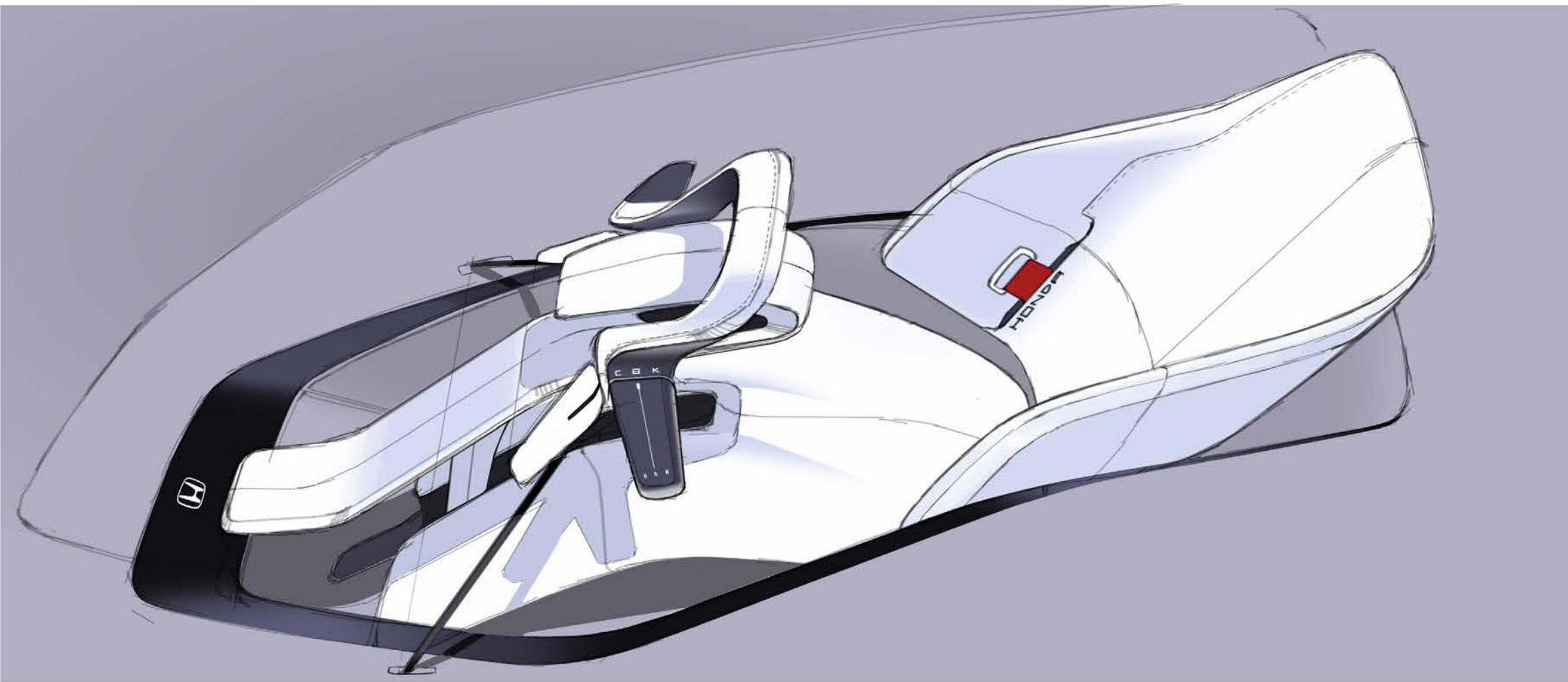
COMBINING + REDUCING = COMPACT INTERIOR

Theme A emphasizes on a traditional sitting posture, the interior is built around the driver. It feels less exciting but more relaxing and comfortable.



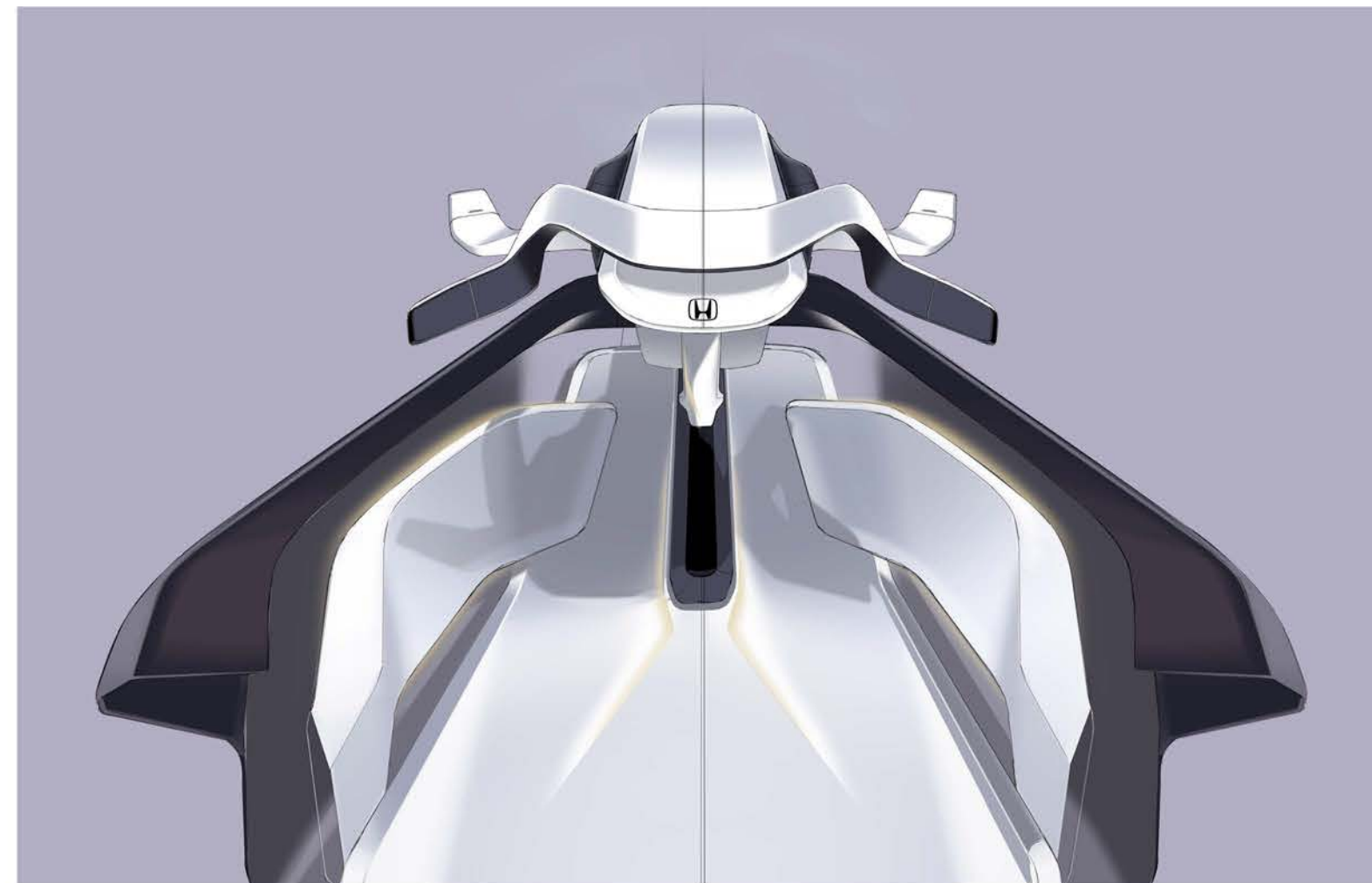
The visibility is not optimal.





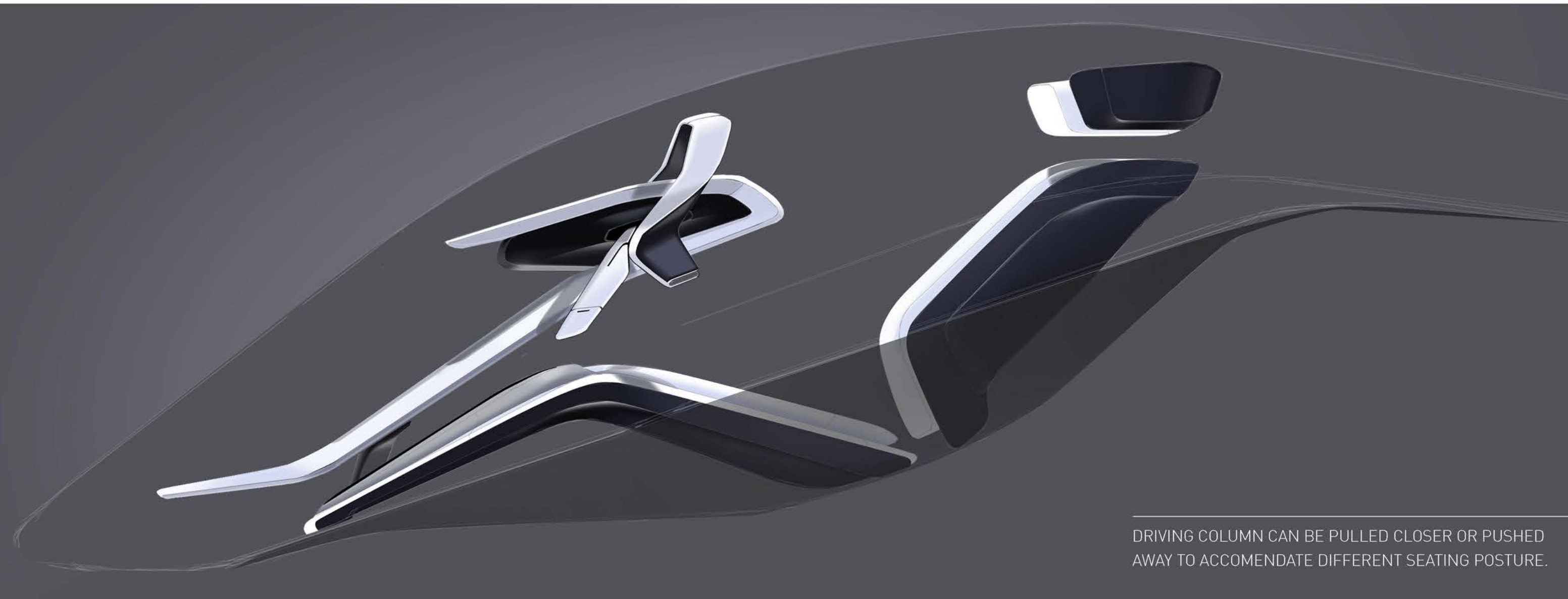
FLOATING DRIVING COLUMN

LIGHT WEIGHT



DRIVER'S VIEW

Instead of using a traditional steering wheel, the design uses a motorcycle steering. Therefore, the vehicle can be handled easily under water.



DRIVING COLUMN CAN BE PULLED CLOSER OR PUSHED AWAY TO ACCOMMODATE DIFFERENT SEATING POSTURE.

VORTEX THEME A



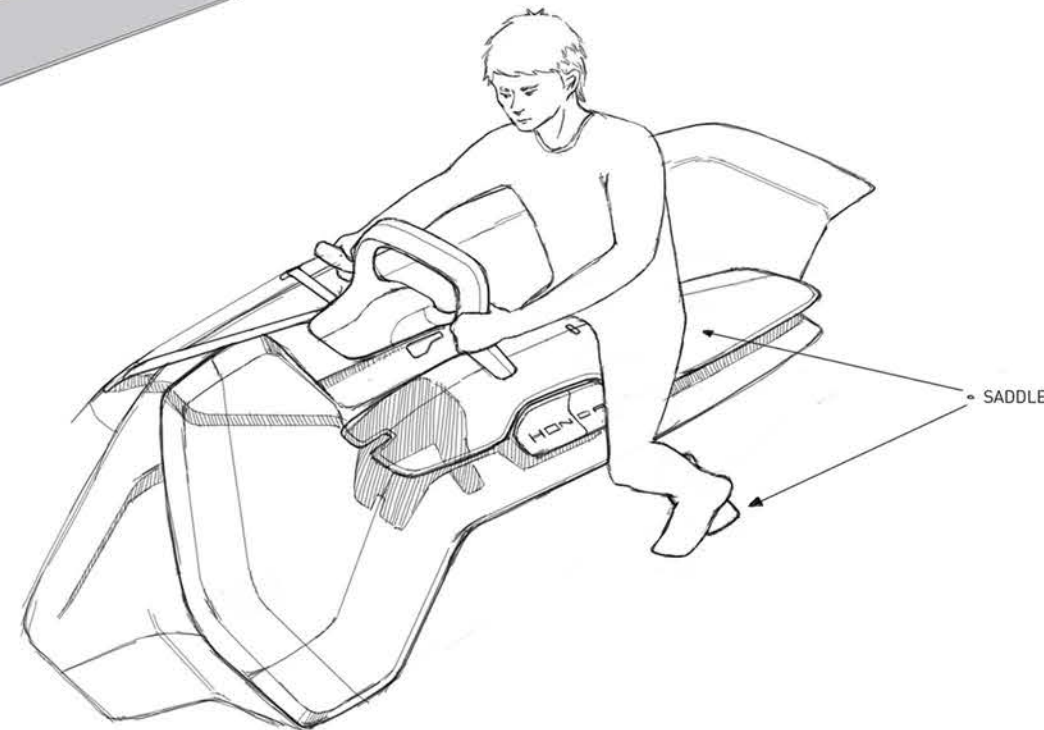
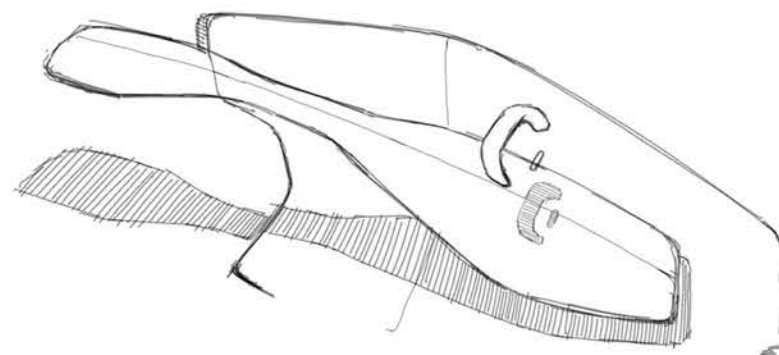
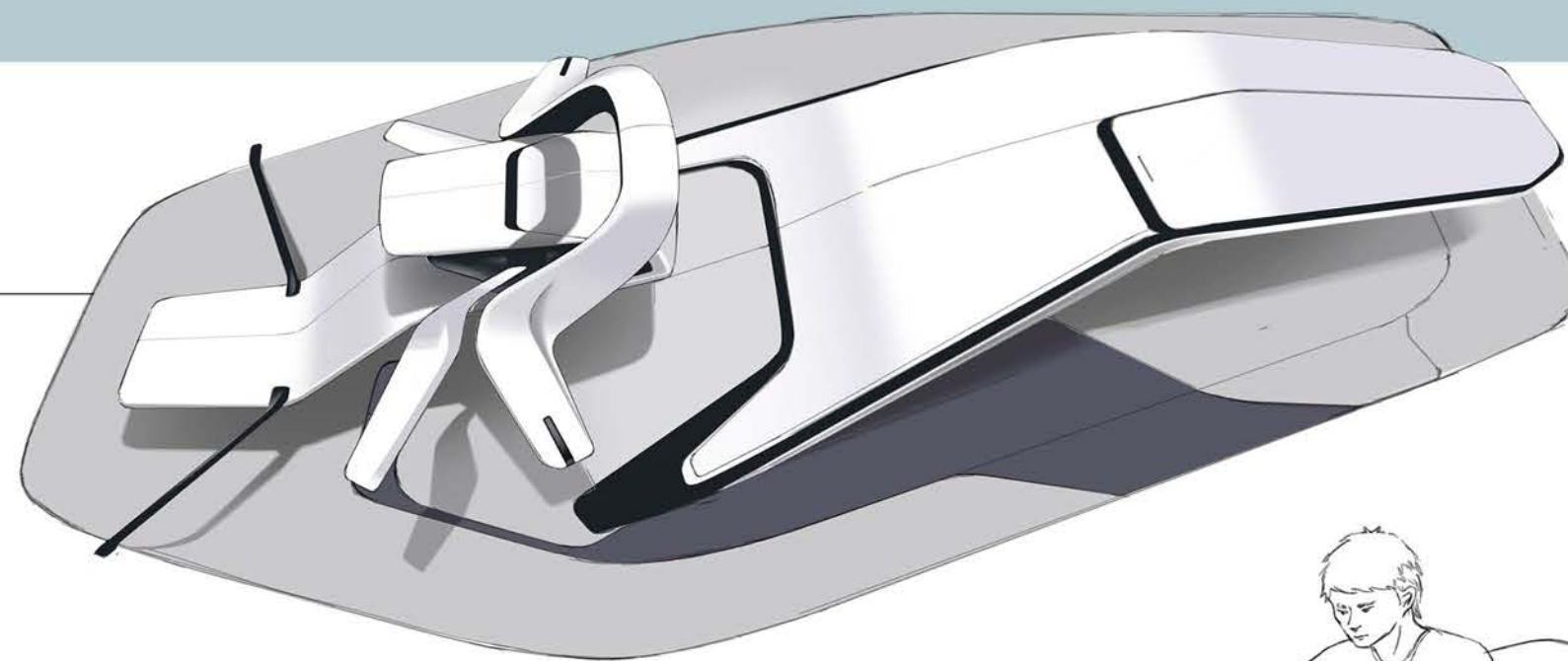
ENGAGING

THRILLING

FUN TO RIDE



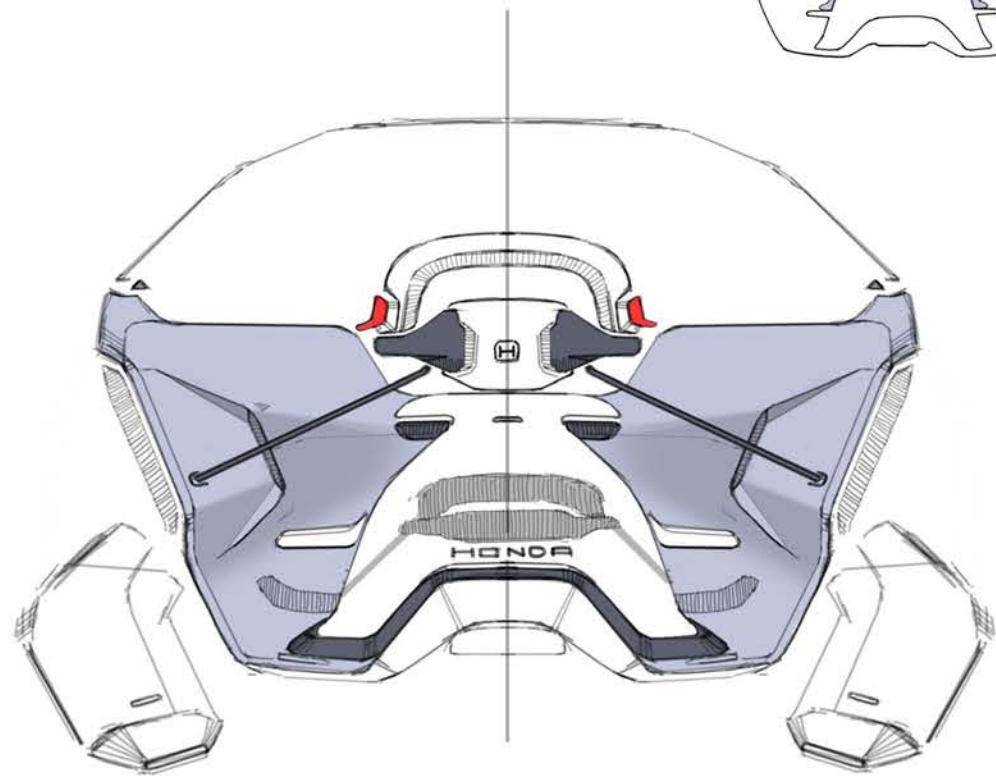
Unlike theme A, the second theme is dedicated to a underwater riding experience that had never been seen. Honda has a long motorcycle racing heritage, I want to take advantage of Honda racing. And having the driver to use a **prone driving position**. It is more engaging and fun to ride underwater



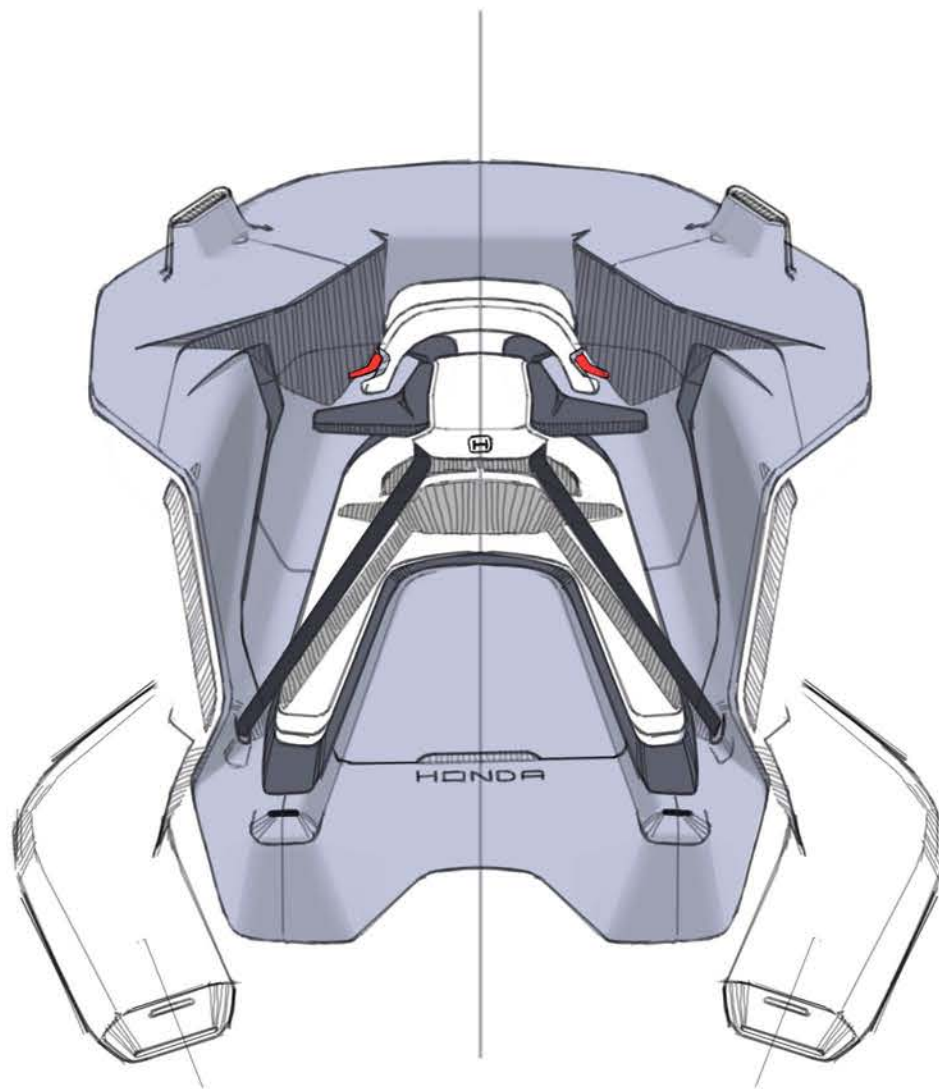


VORTEX - INTERIOR THEME B CONCEPT

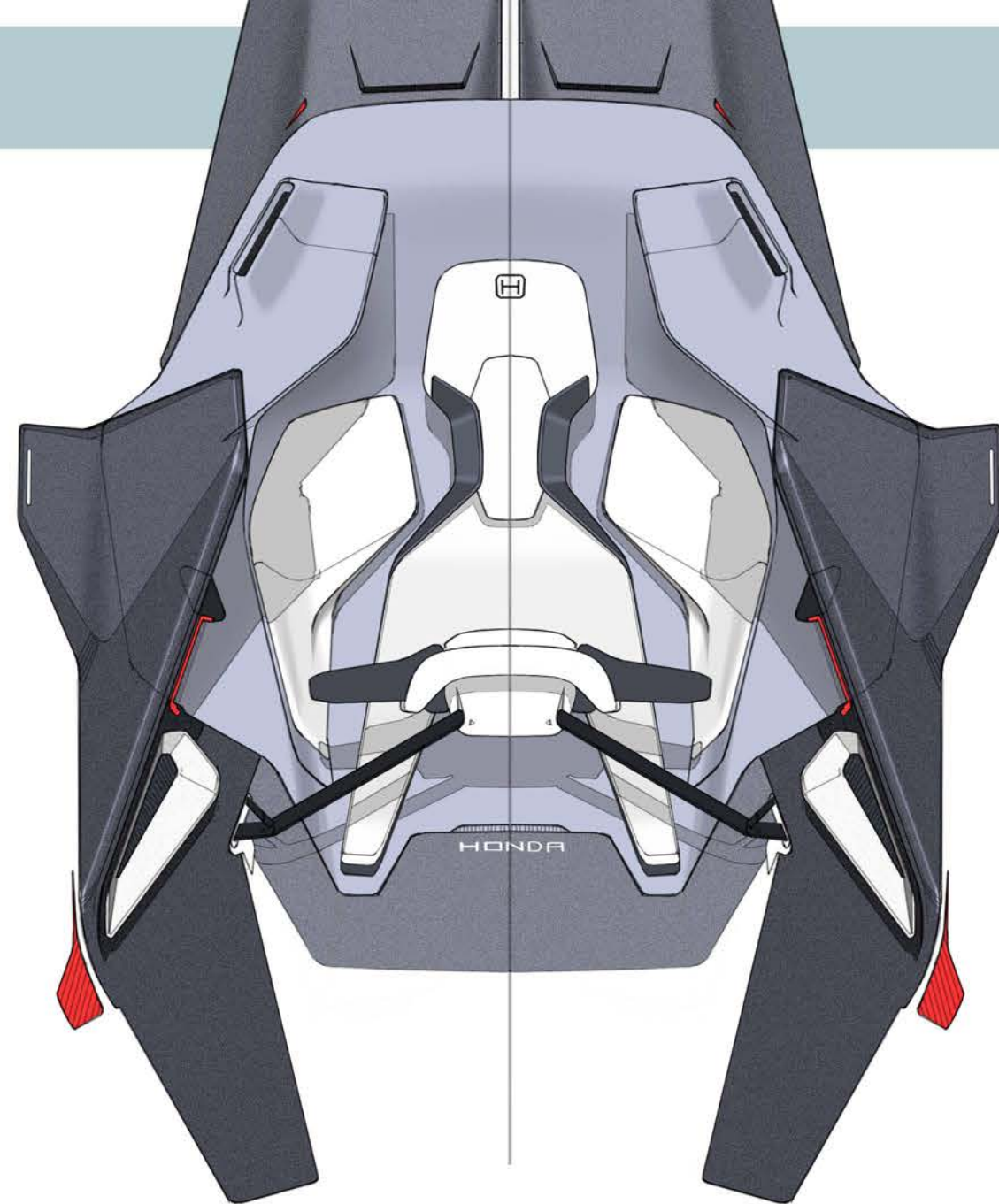
Instead of using a normal vehicle seat, the driver is seating on a saddle. Which gives a more exciting experience like people have never seen before.



FRONT



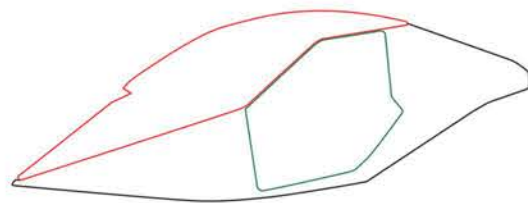
TILT UP



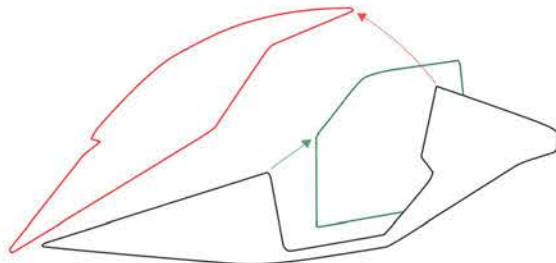
PLAN



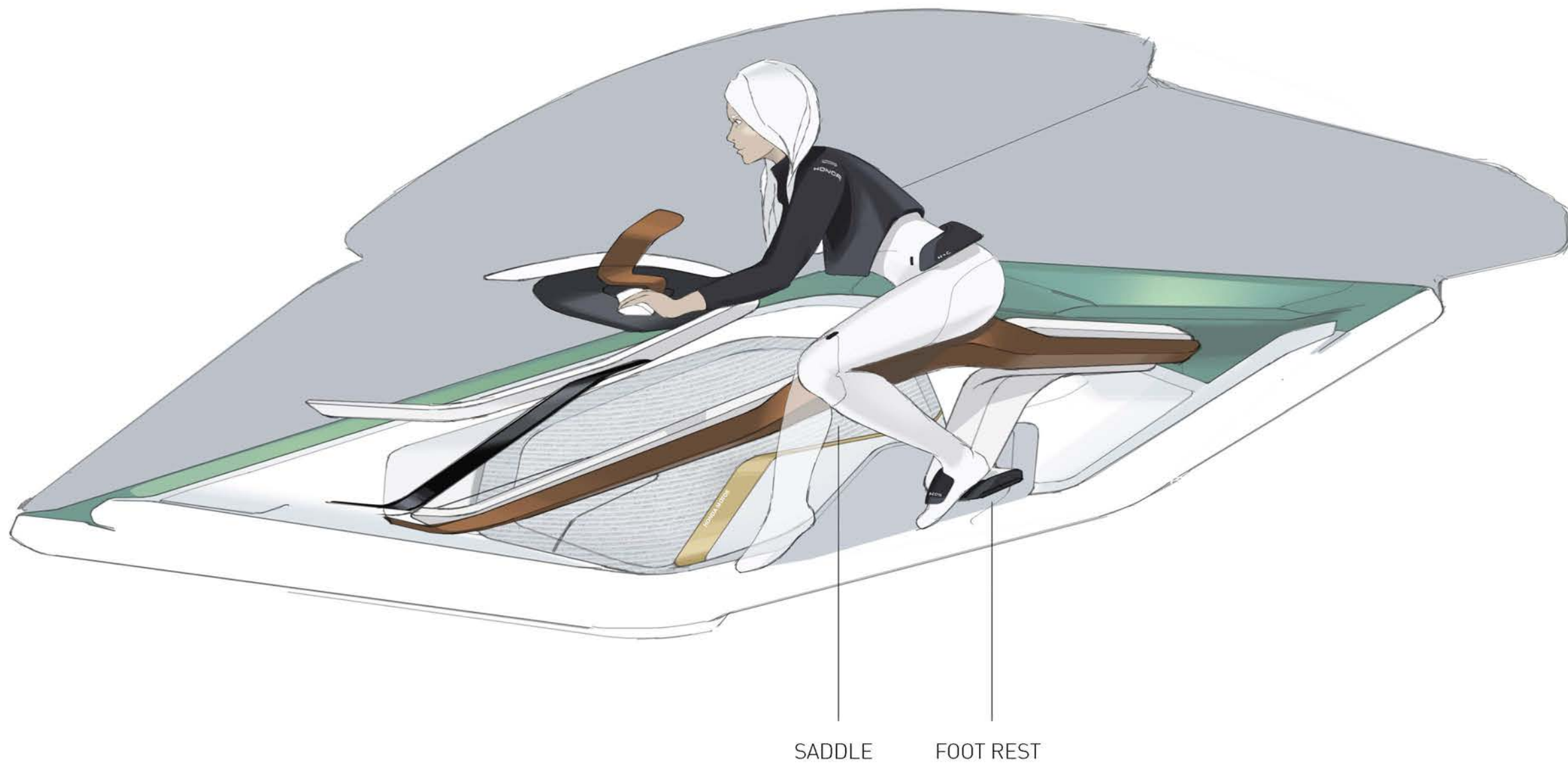
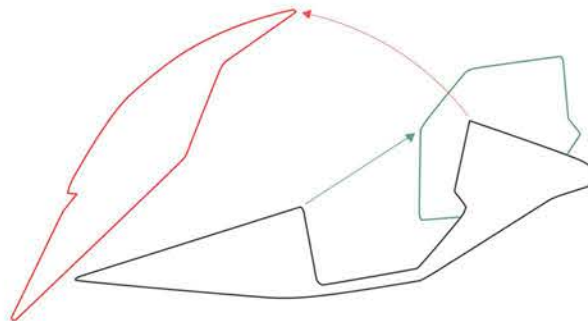
■ This simple graphic indicates the fully enclosed cockpit (vehicle interior).



■ ■ Like a jet cockpit, the hatch is front povit. It slides forward and swings upward. Meanwhile, the double hinged side door will side outward and then moves back.



■ ■ ■ This is when the vehicle is ready for ingress and egress.





VORTEX - PACKAGE

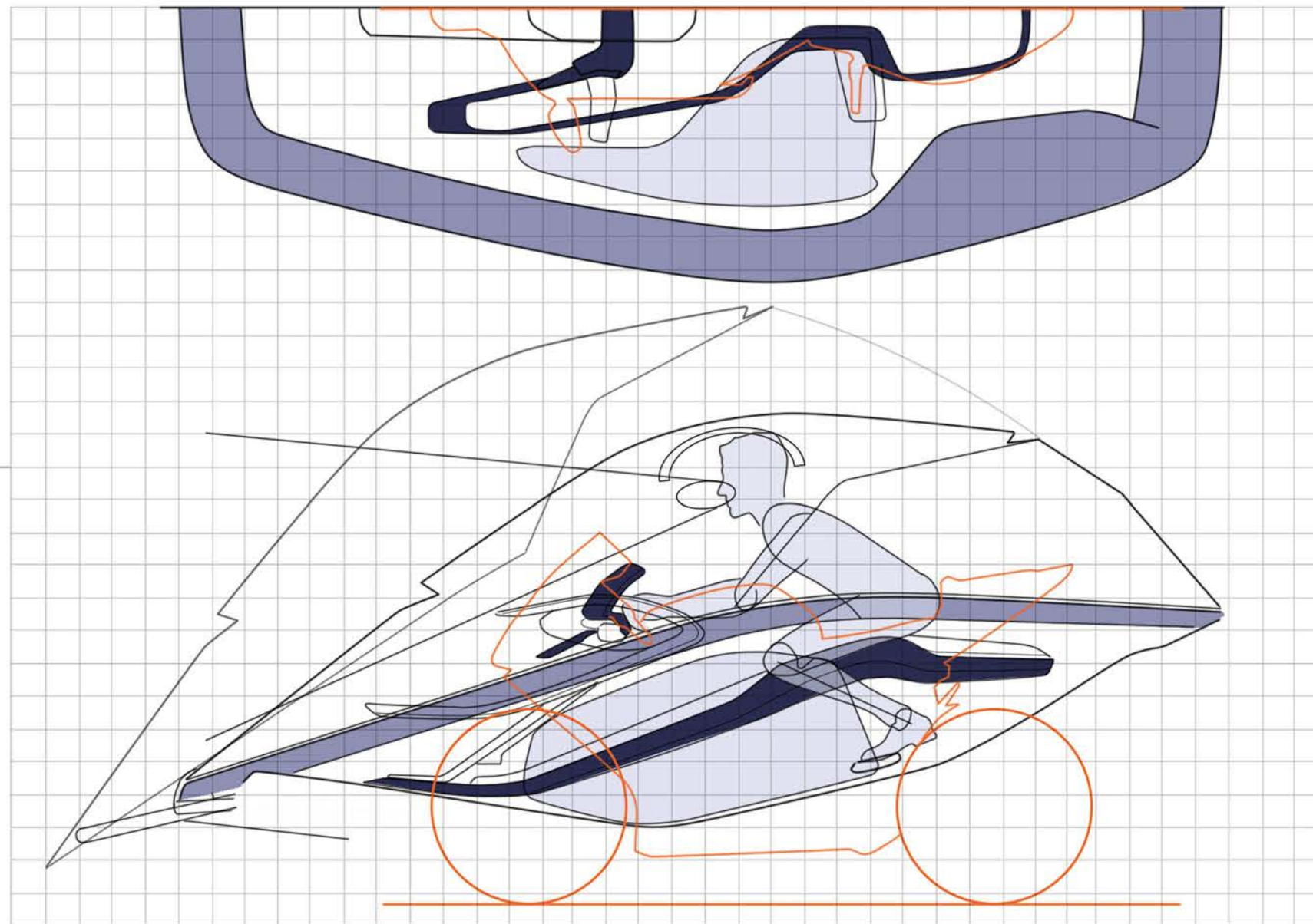
■ Honda Vortex Interior Dimension (MM)

LENGTH	3180
HEIGHT	1255
WIDTH	1680
SADDLE LENGTH	295
SADDLE WIDTH	246

■ Benchmark Vehicle - Honda CBR600rr

Benchmarked this vehicle mainly for its saddle dimensions.

LENGTH	2010
HEIGHT	574
WIDTH	1133
SADDLE LENGTH	295
SADDLE WIDTH	246

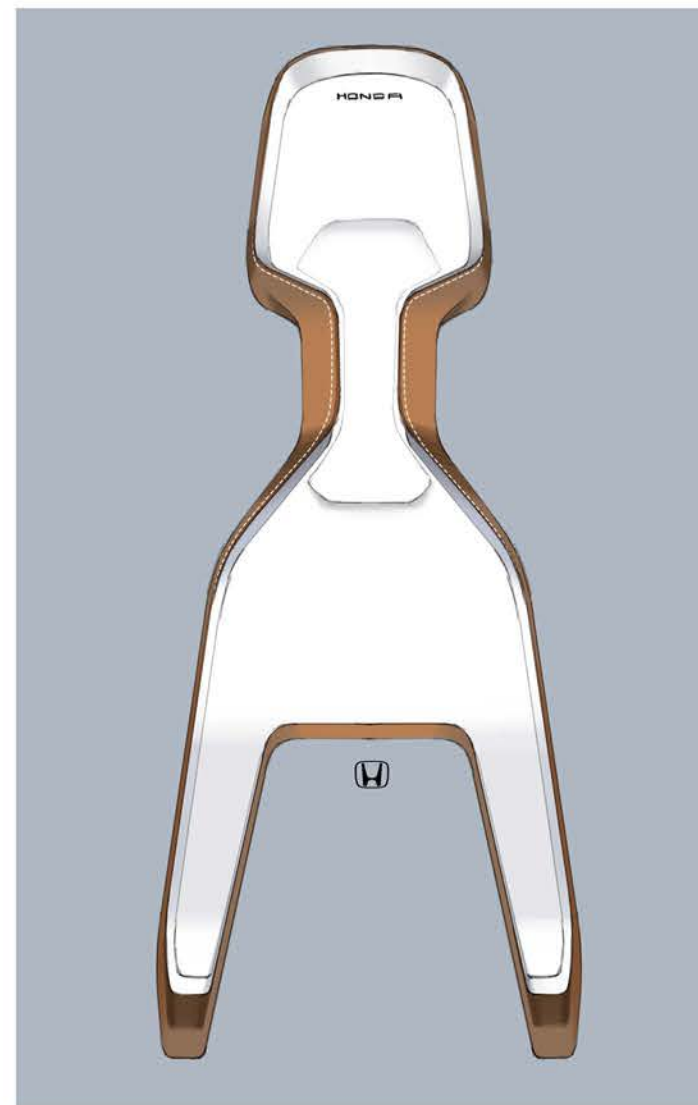
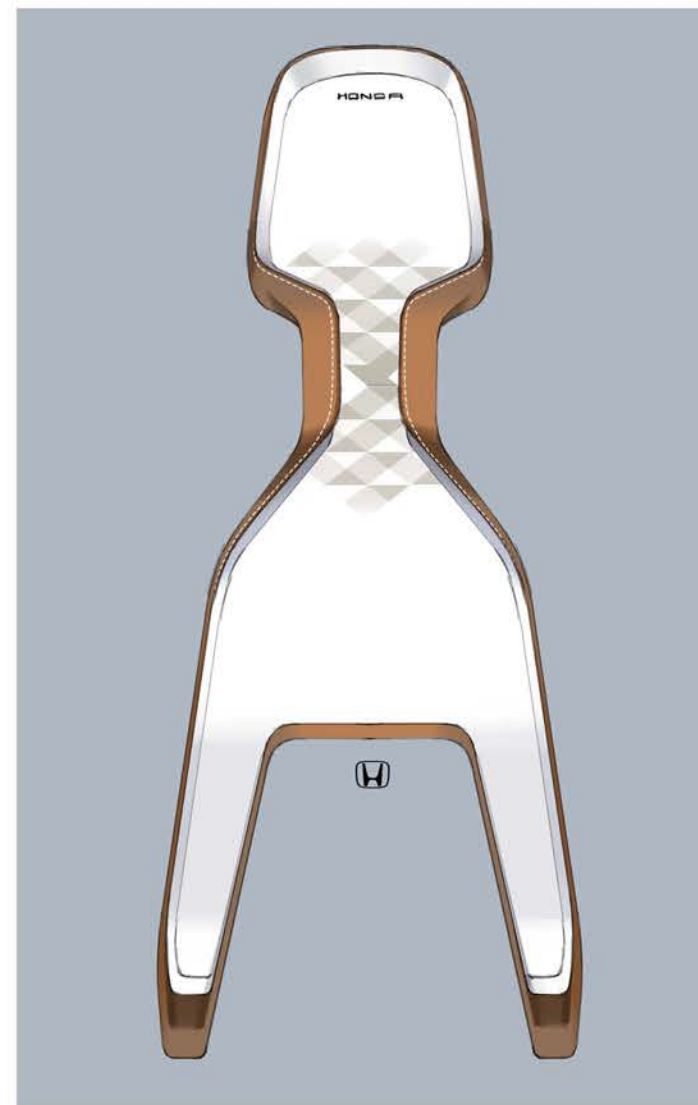
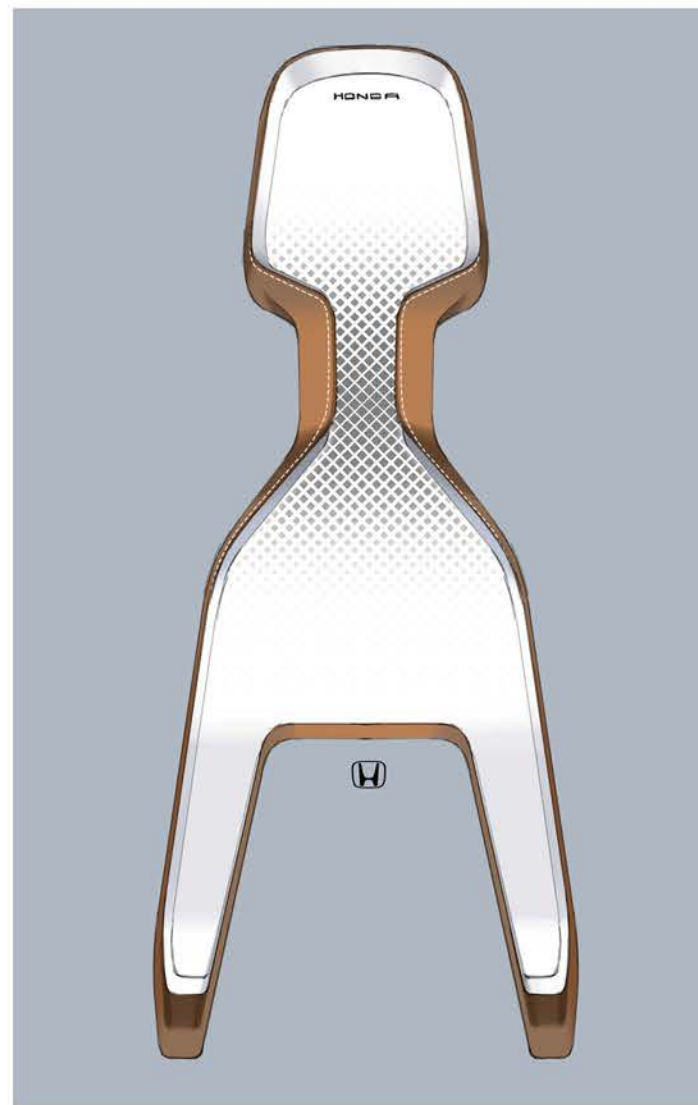
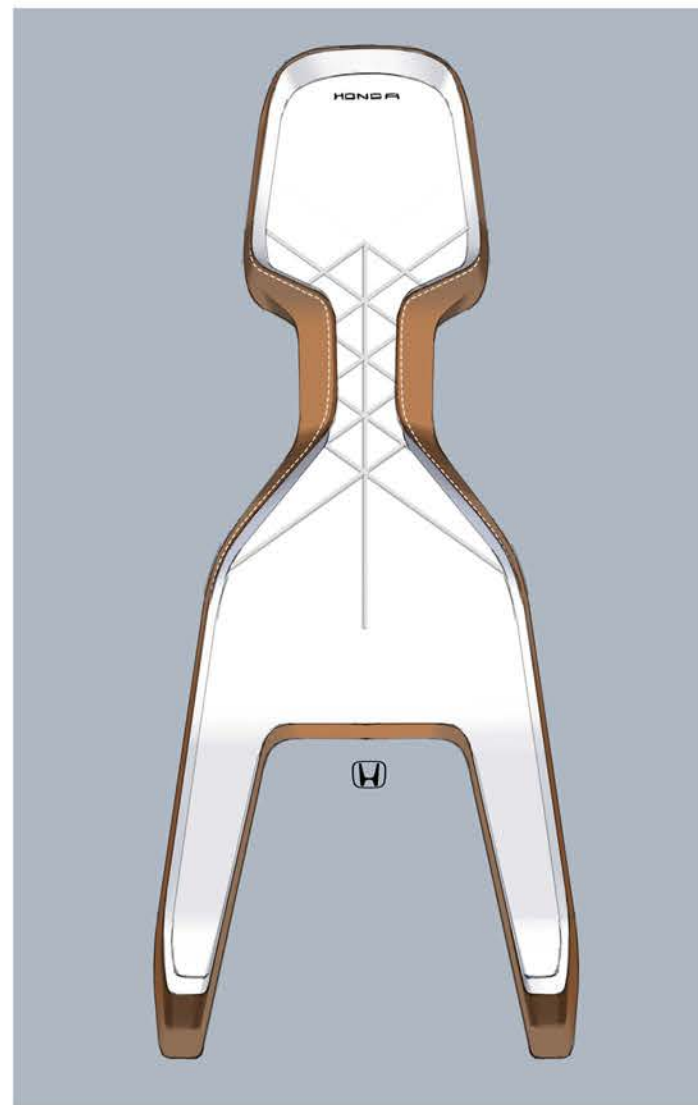




VORTEX - SADDLE IDEATION

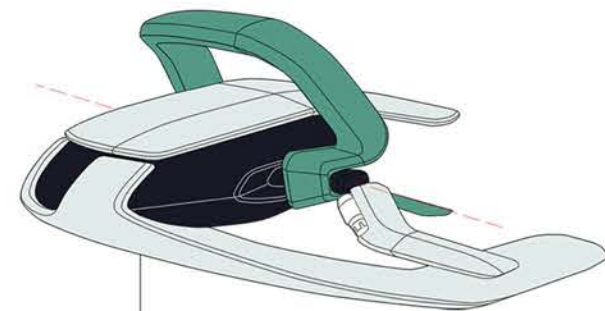
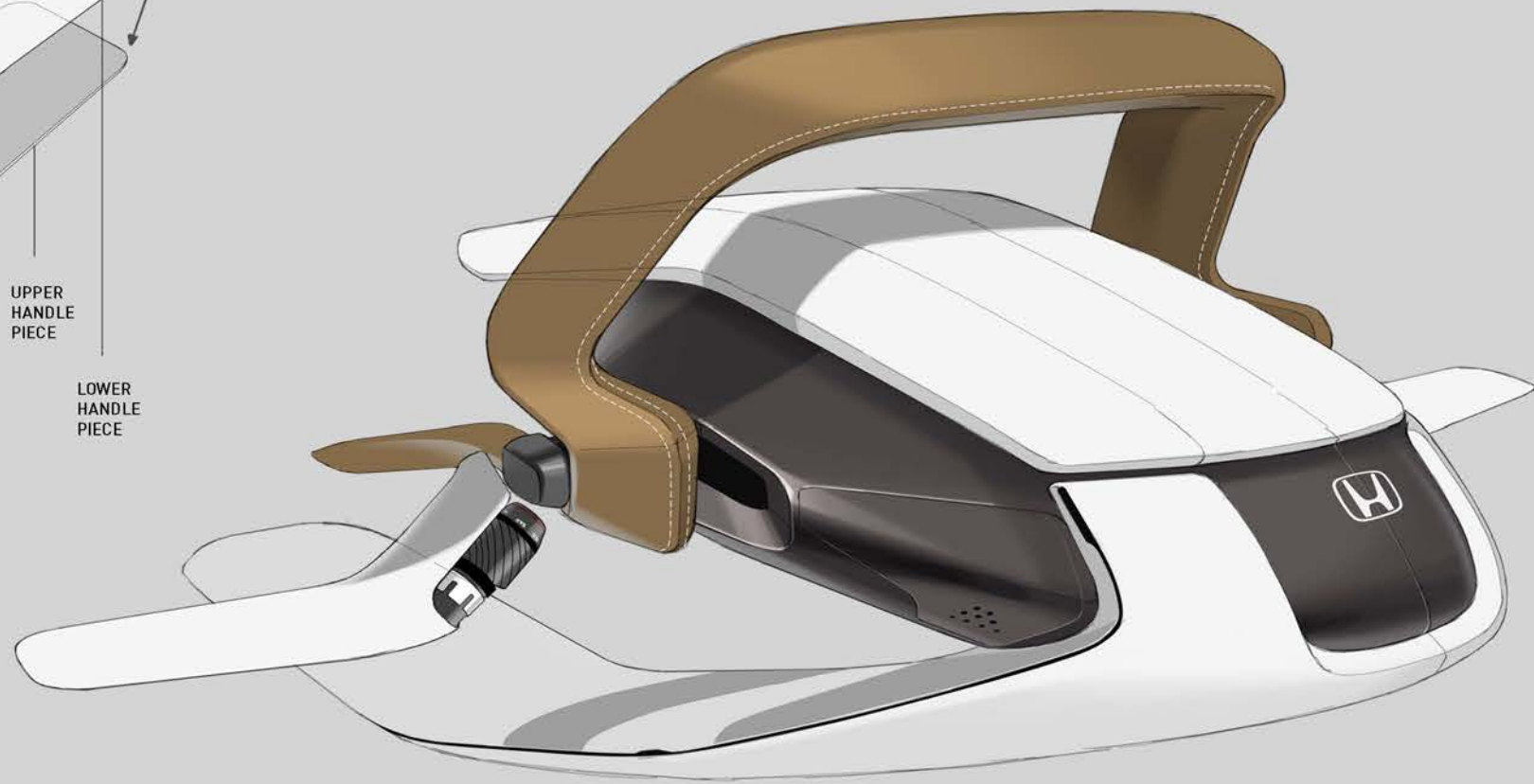
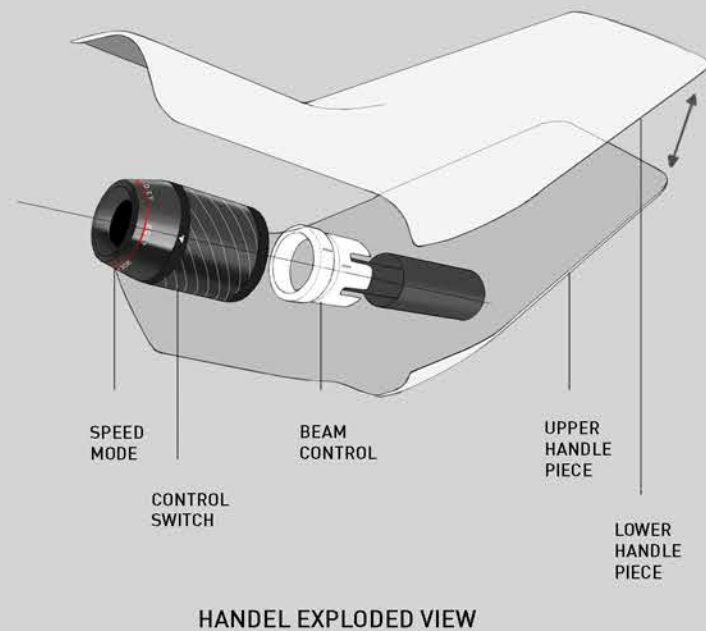
There are reasons to try and apply different color and material treatments to the saddle design:

- To have a better craftsmanship, the interior will look premium and high-tech.
- To indicate where does the driver seat.

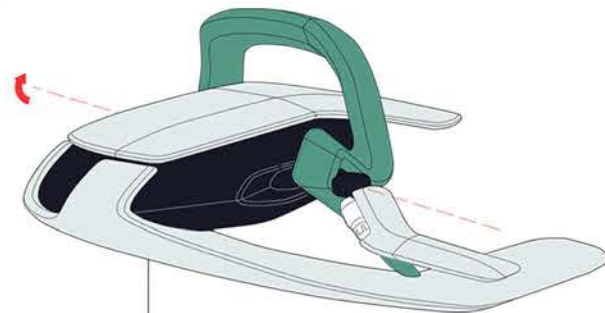




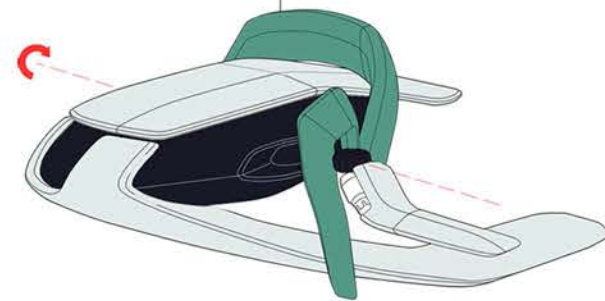
VORTEX - STEERING WHEEL DESIGN



FULL BRAKE
This is when the vehicle is idle.
And the engine is stopped.



THROTTLE UP
This is when the vehicle starts to accelerate.



THROTTLE MAX
This is when the vehicle is at its
peak performance.



VORTEX - DRIVER'S VIEW

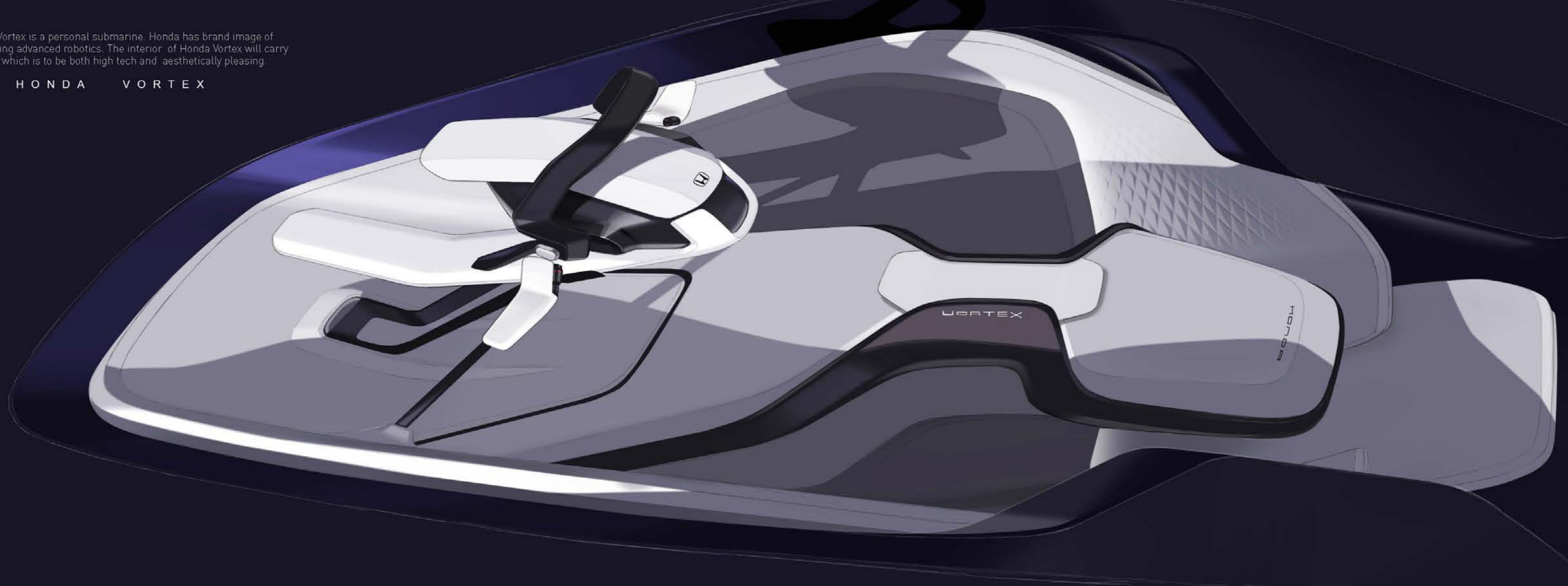
The idea of **Light weight design**.

- Clean, minimal for visual.
- A floating driving column reinforced by supports and side bars . It is flexible for adjustments. (for different users)



Honda Vortex is a personal submarine. Honda has brand image of developing advanced robotics. The interior of Honda Vortex will carry on that, which is to be both high tech and aesthetically pleasing.

H O N D A V O R T E X





HONDA



H O N D A V O R T E X