



# INDUSTRIAL DESIGN SKETCHBOOK VOLUME I

Digital Edition \_ Vol. 01 \_ 50 Design Sketches

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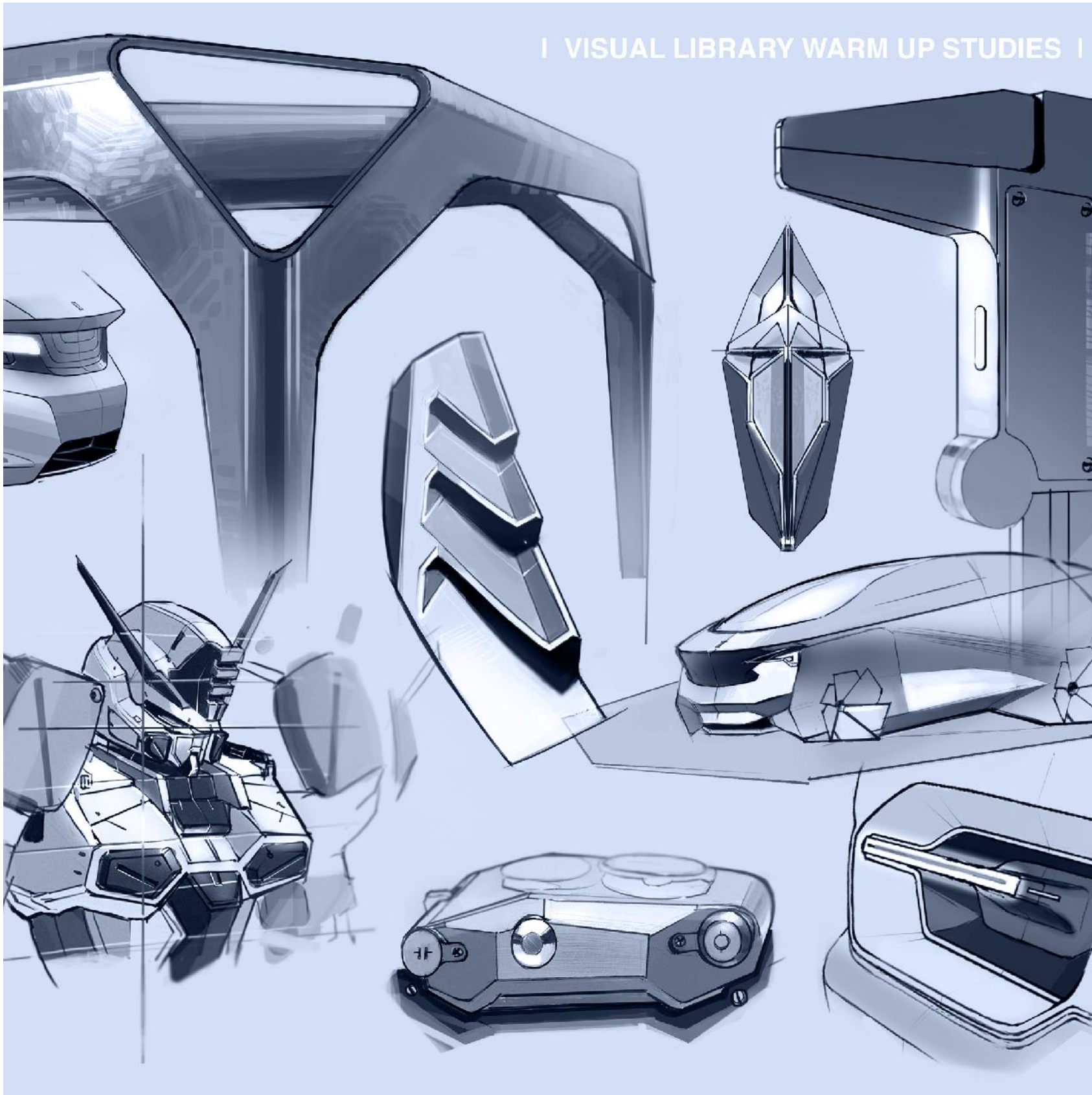
# Introduction

Firstly, thank you if you took the time to download the first digital edition of this designer's sketchbook. Even more thanks if you've shared it with your friends or family who might also enjoy it. This book is a collection of study sketches, some from reference, some from imagination. A lot of them were done simply as daily practice to keep my sketching ability up or to try out new techniques.

Sketching has been form of silent therapy throughout my life. First as drawings of stick figures in fantasy epic battles as a kid, then my own comic-books as an adolescent. When I was a science major and had left drawing behind for more "academic" studies, still doodling in the margins of my notebook appeared often. Now sketching is part of my "work" work. I hope you can enjoy the sketches just as they are in their raw form.

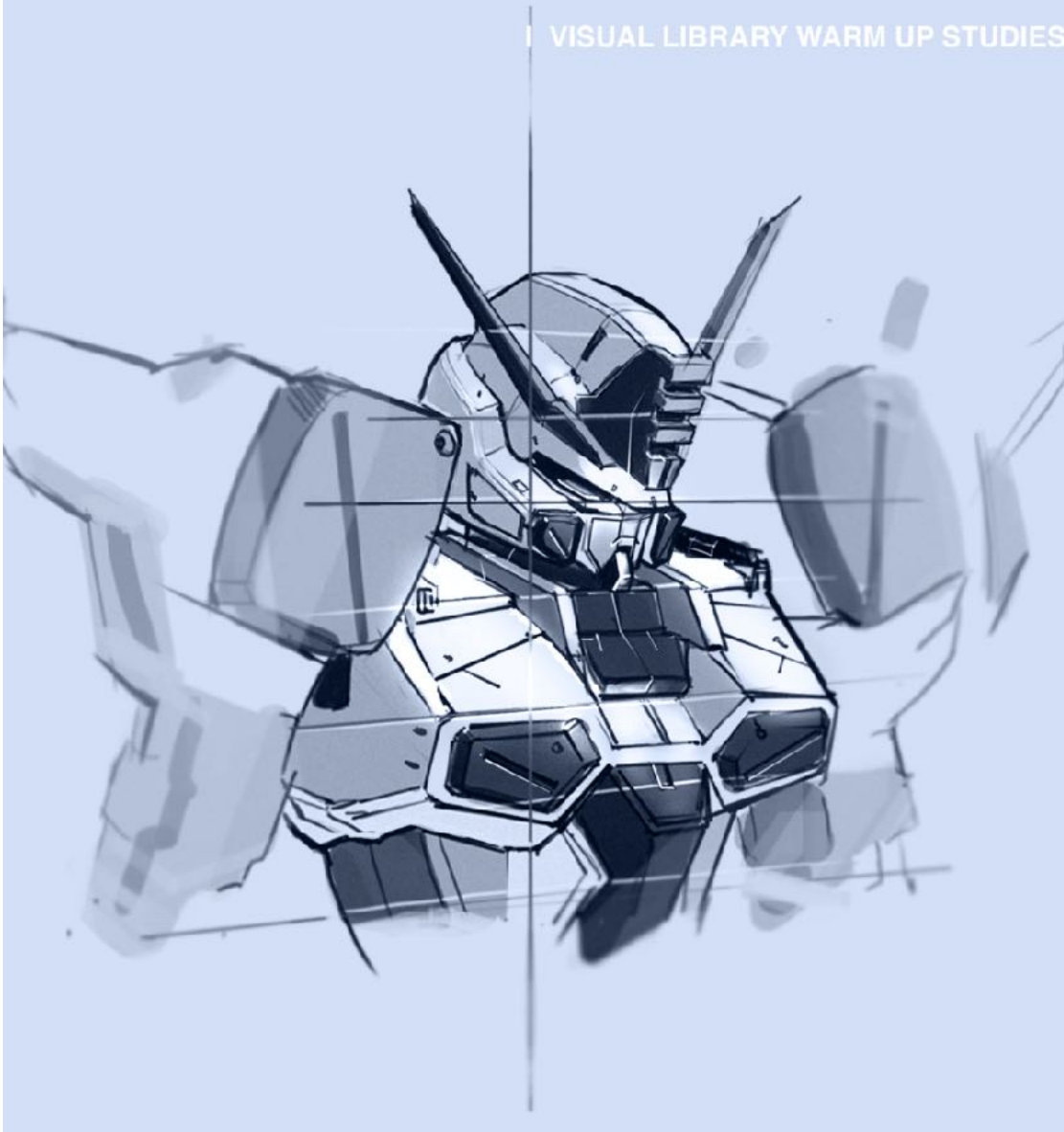
- Stephen Chu 2021

## | VISUAL LIBRARY WARM UP STUDIES |



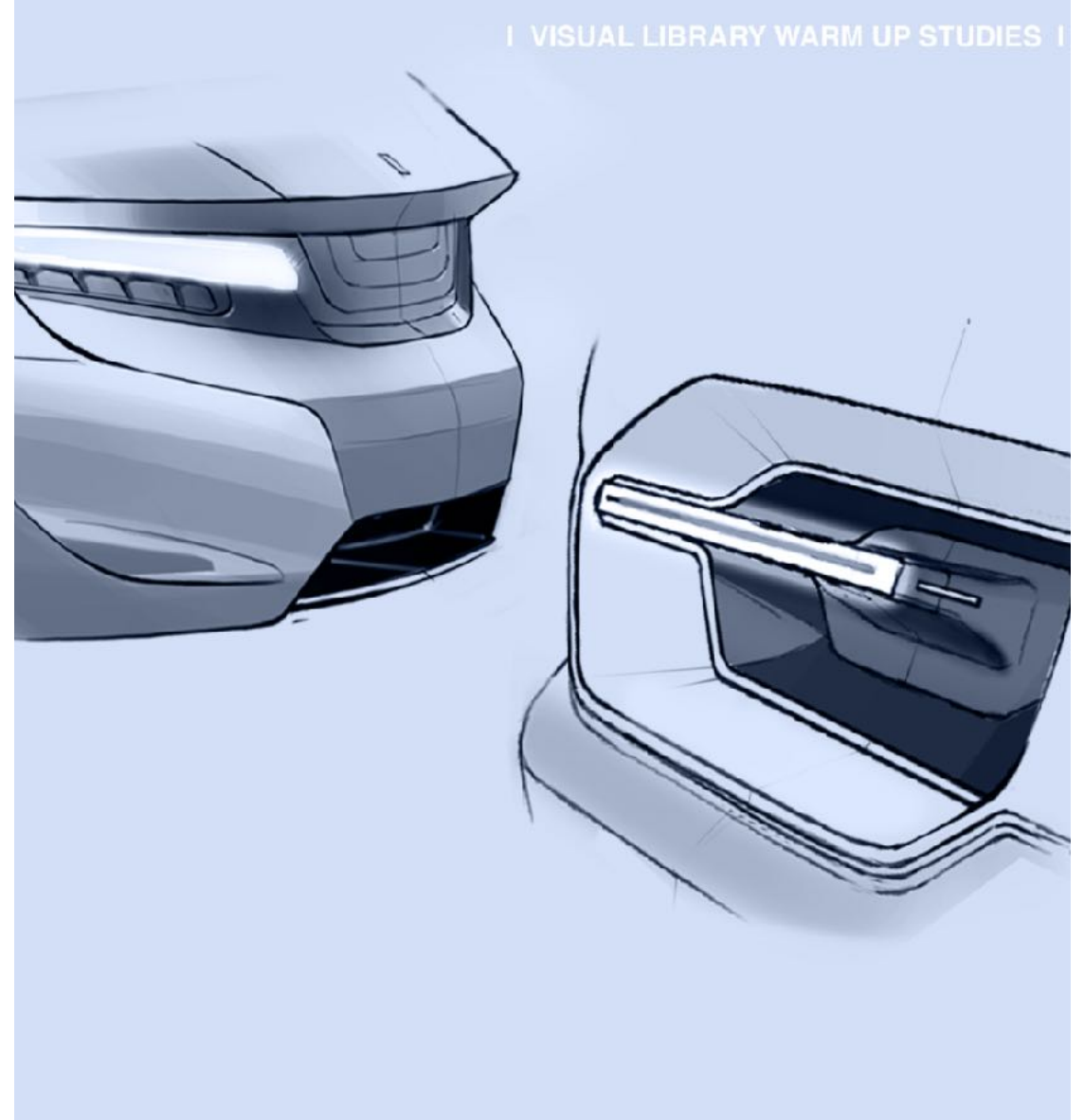
In addition to developing technique, I often do sketch studies to better understand a design project and to add more forms to my own stored memory of visual library elements. The object is to later be able to recall the forms, visual solutions, surfacing solutions, that I can apply to my own projects. It's very hard to draw something from memory if you have no memory of it. These type studies help build that memory of objects in the mind's eye.

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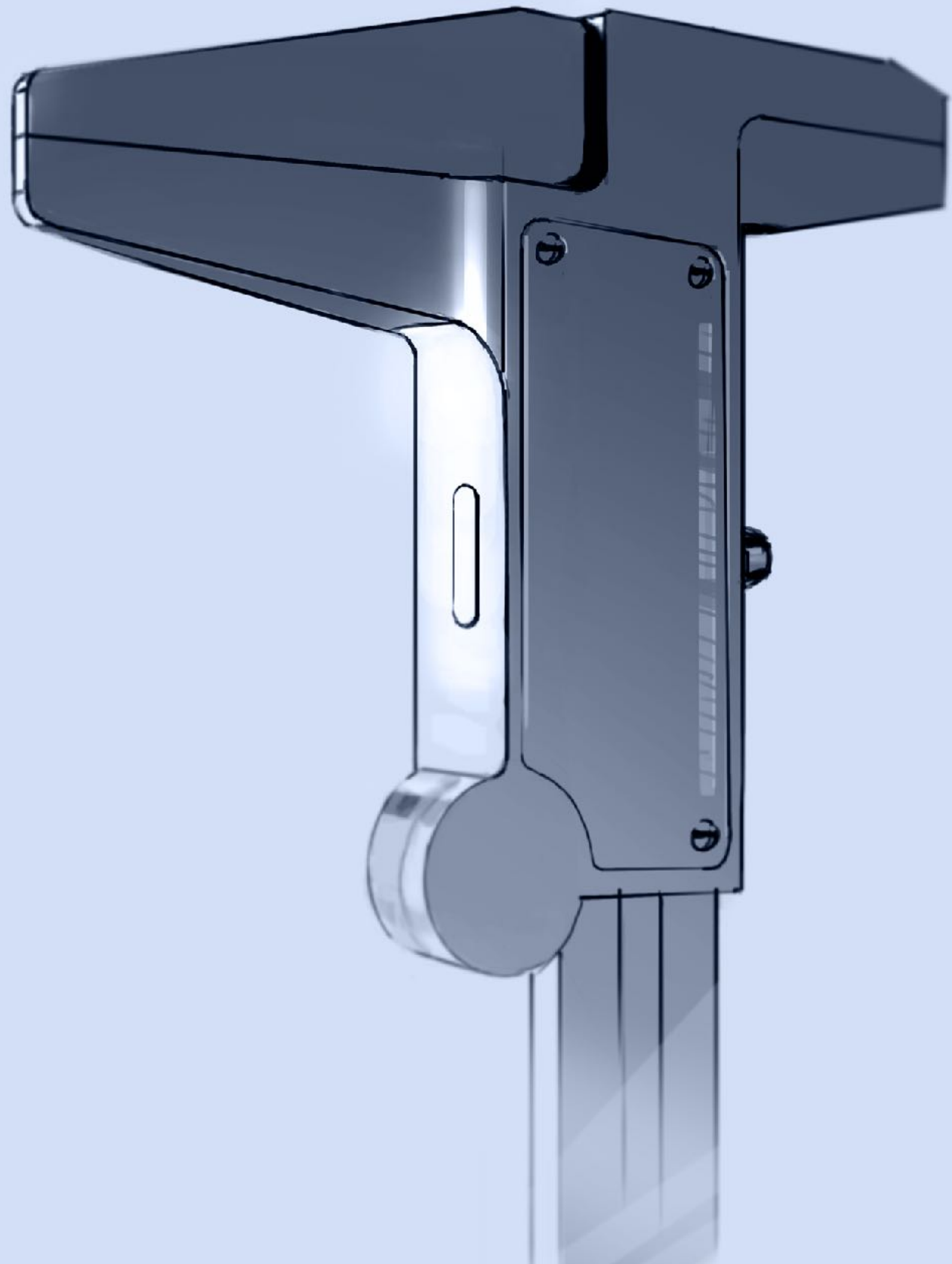
1. Buster Gundam Sketch Study

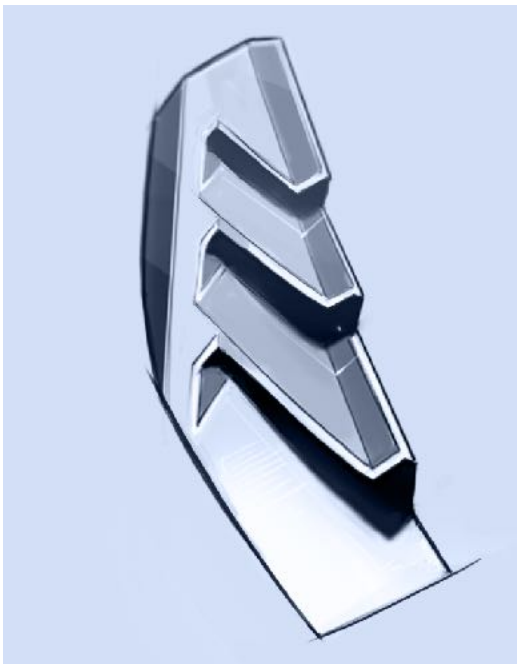
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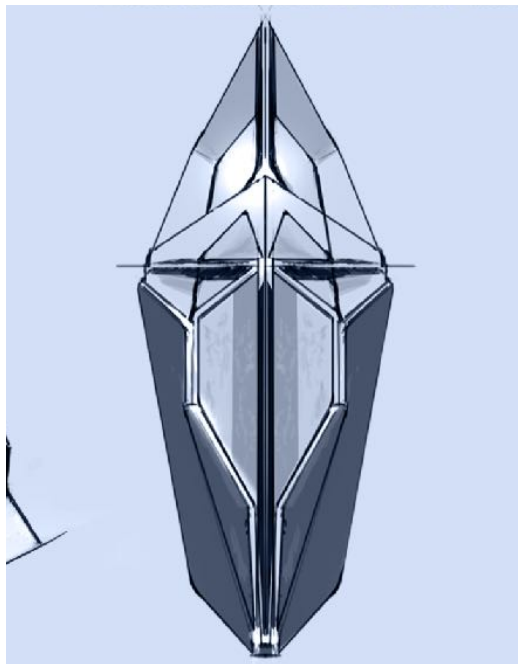
2. - 3. Automotive Detail Studies.



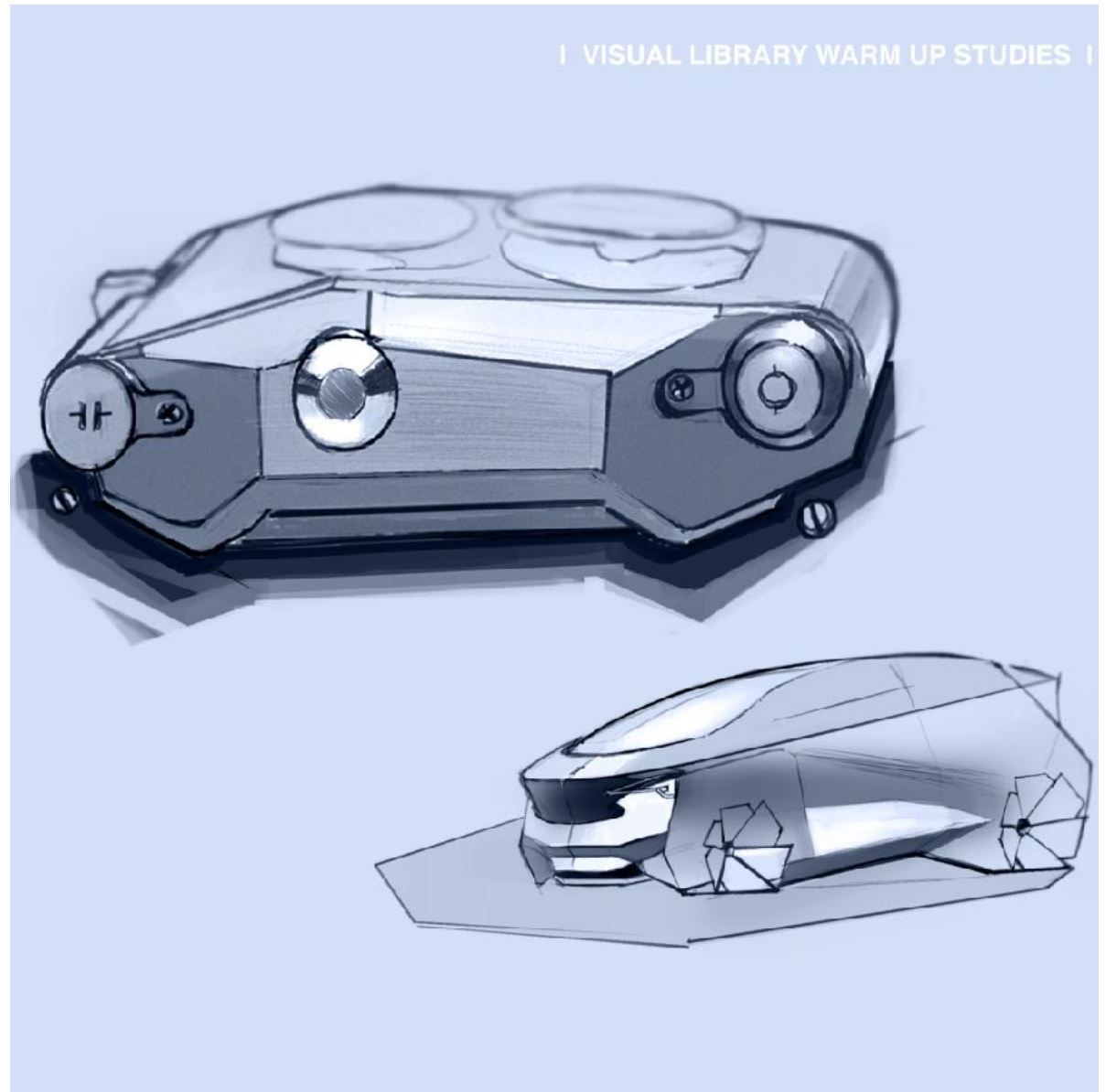




6. Vent Study



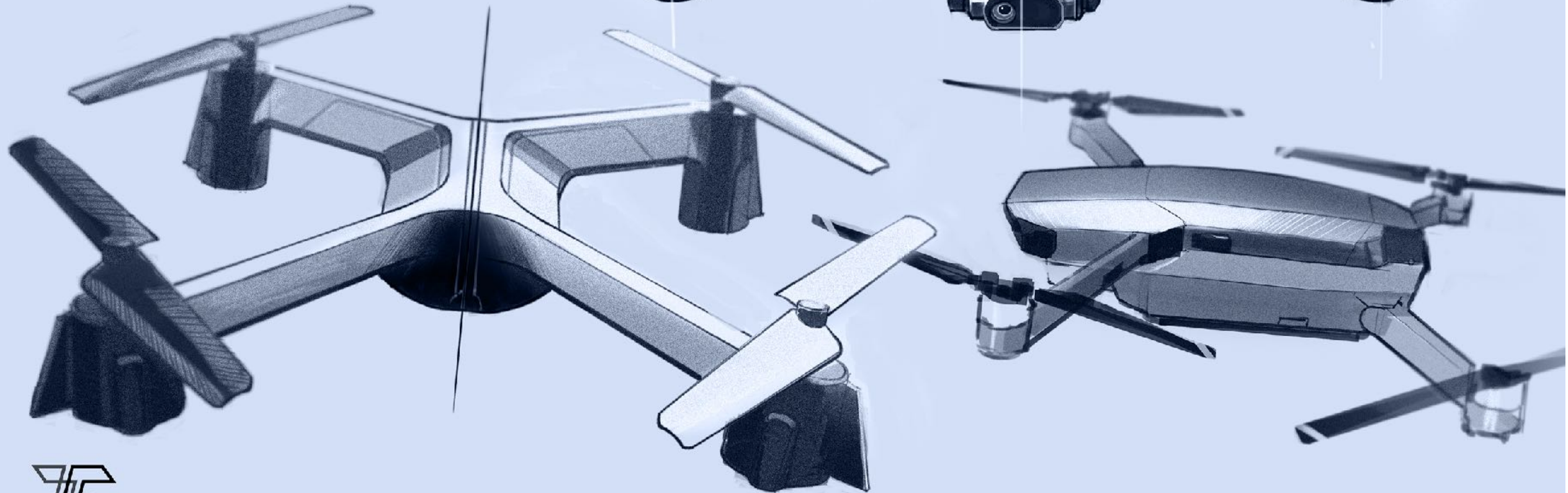
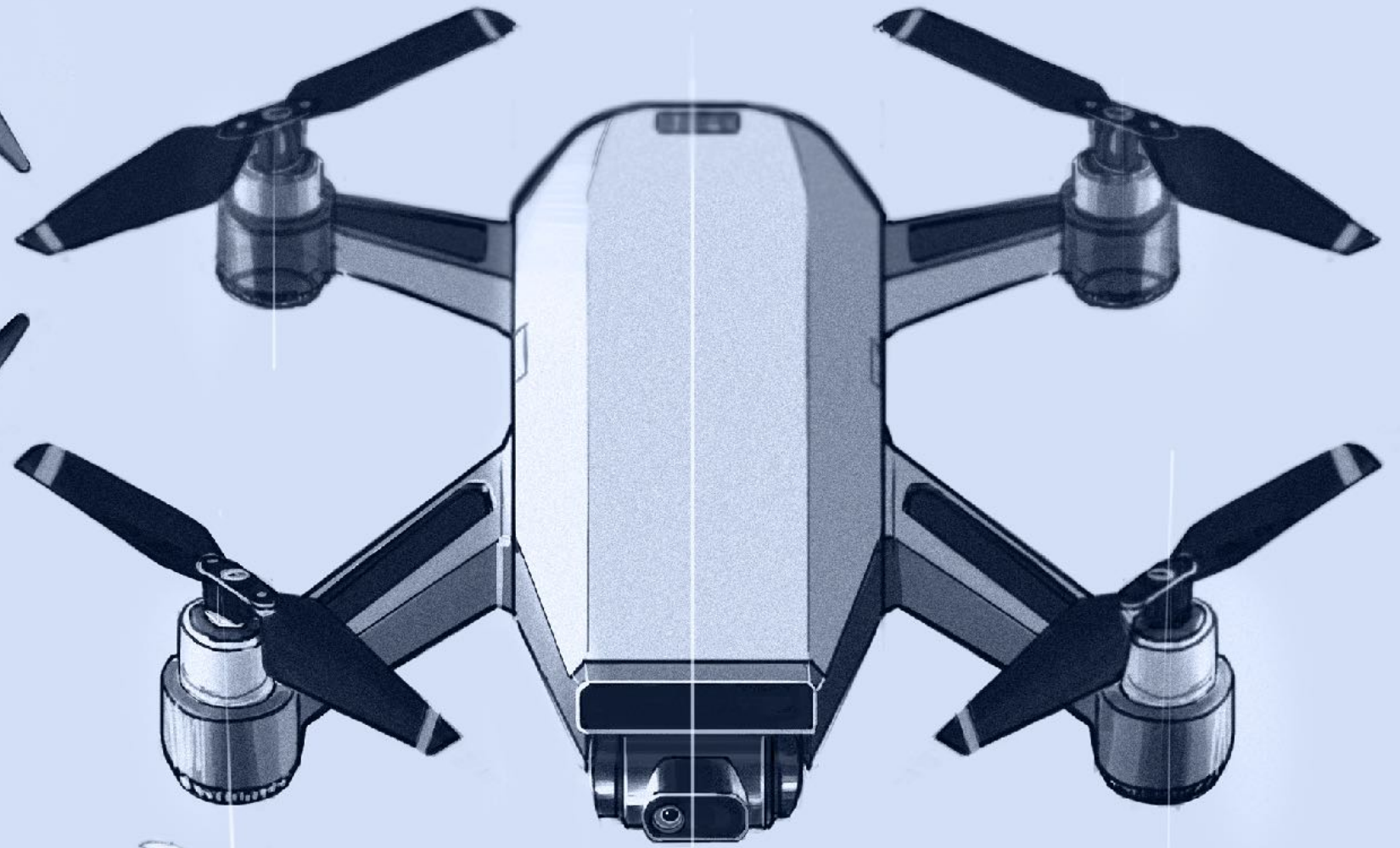
7. Geometric Lamp Study



8. - 9. Modern Surfaces Studies

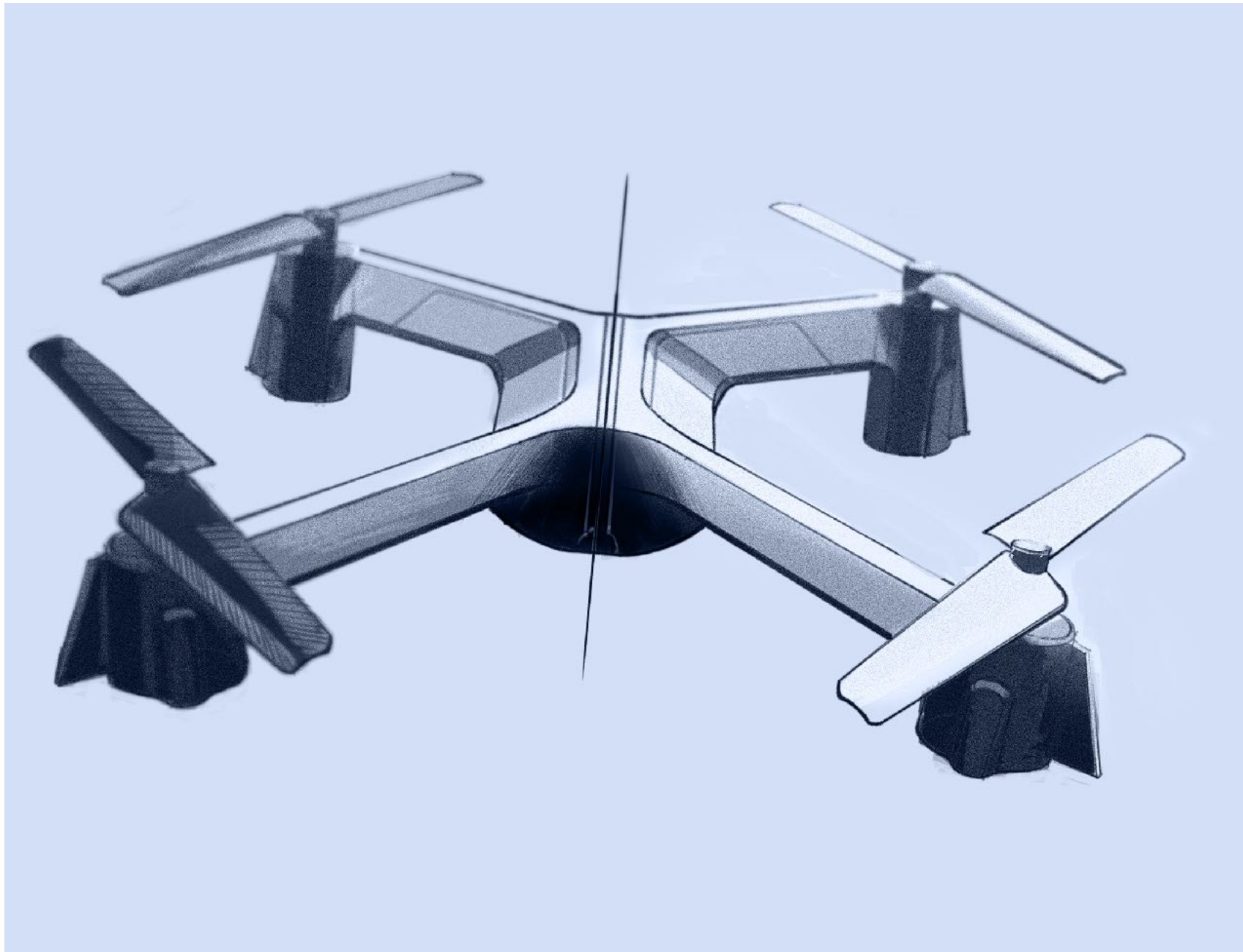
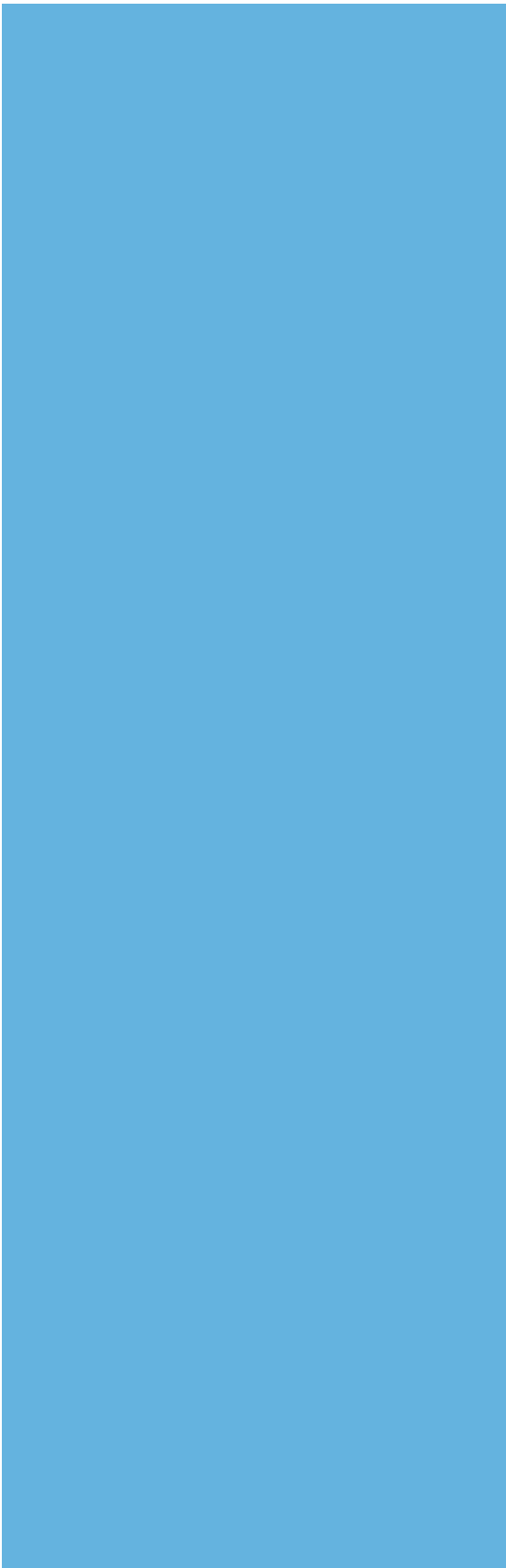
Sketches aren't meant to be finished illustrations. They are quick indications of ideas and a way to practice with through repetition. These were drawn from reference photos as I was working to improve my understanding of faceted forms.

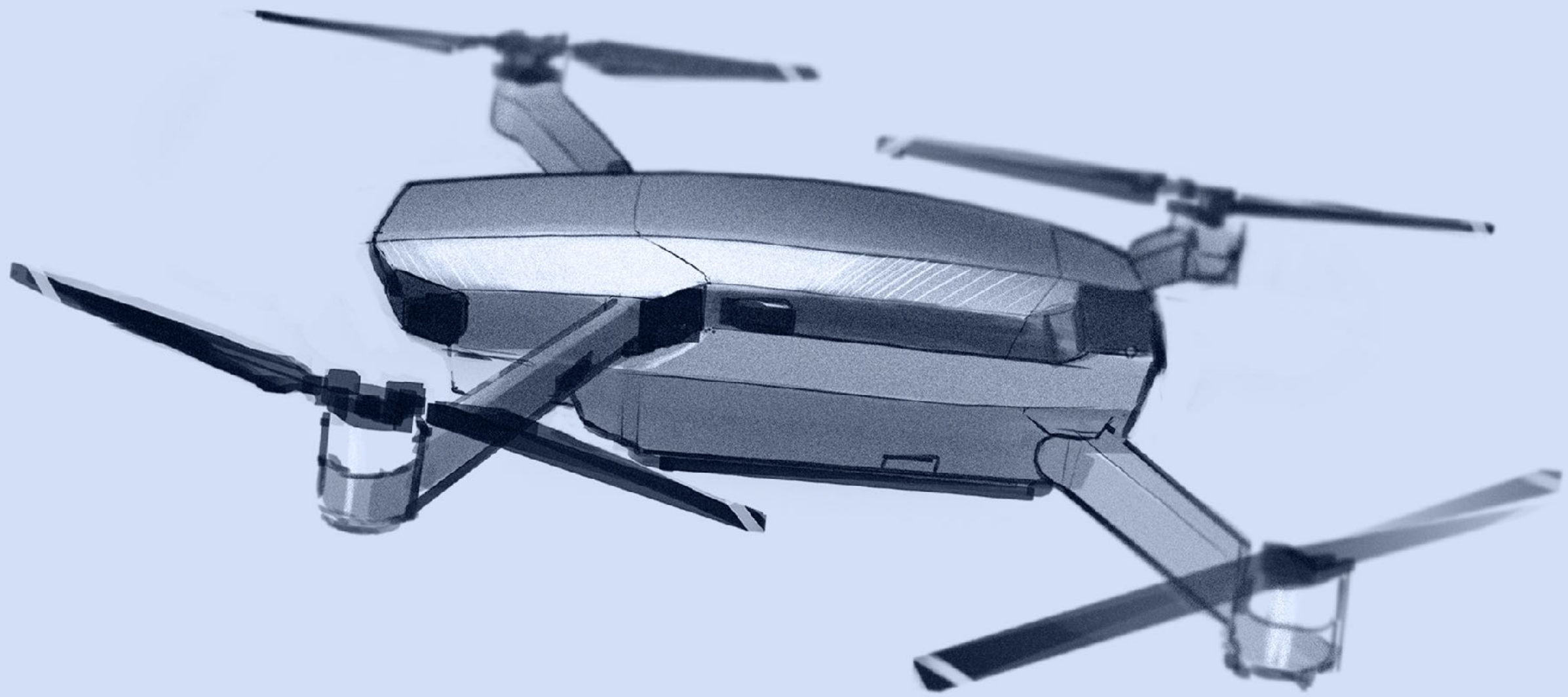


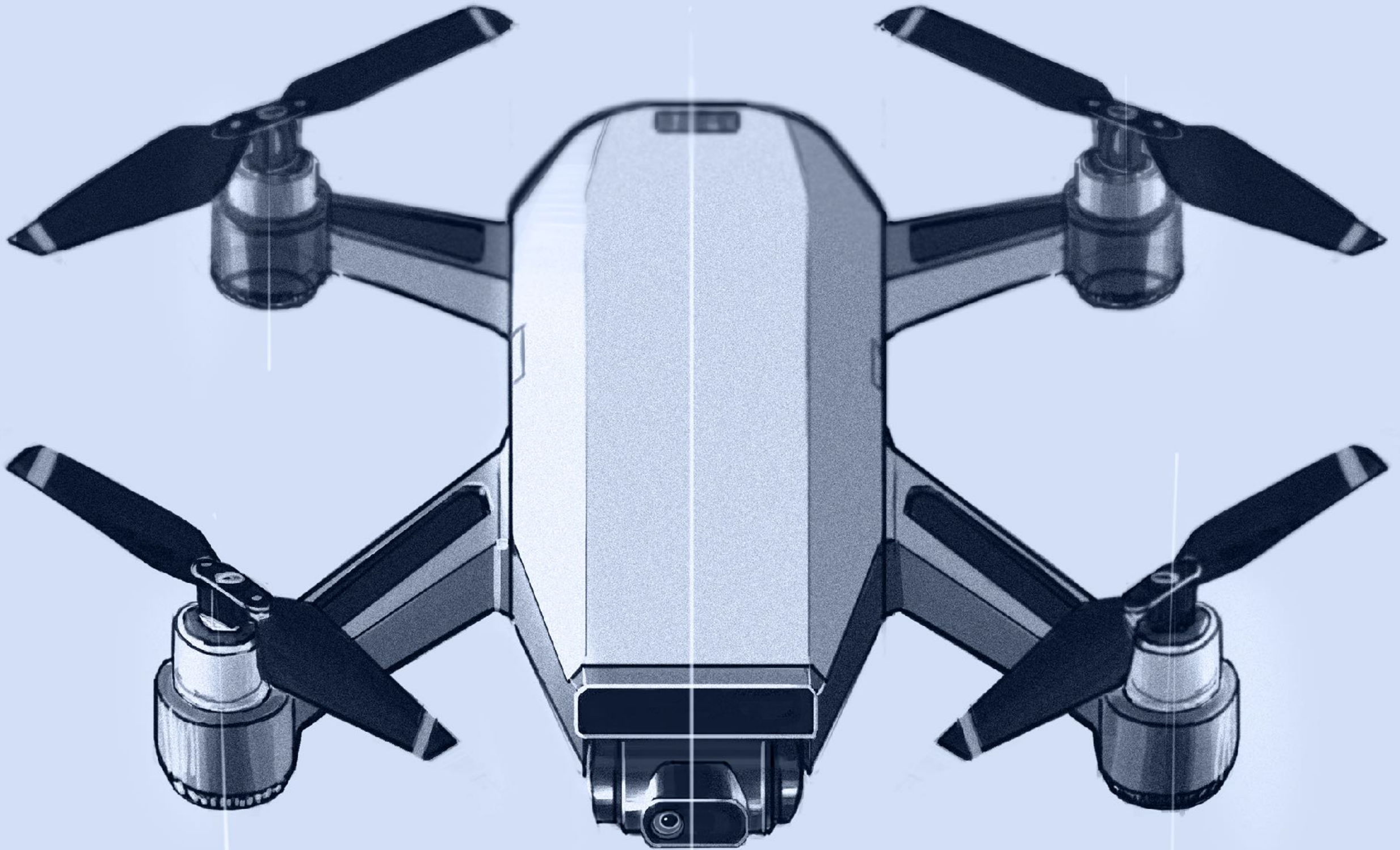




10. - 13. Quadcopter Drone Studies  
Quadcopters as an industry have become mainstream in the last decade with all kinds of designs and markets participating in their development. These studies are from a variety of sizes from micro to full size. It was good to study what the differences and similarities are from size to size. I hope to add a full drone project to my portfolio soon.



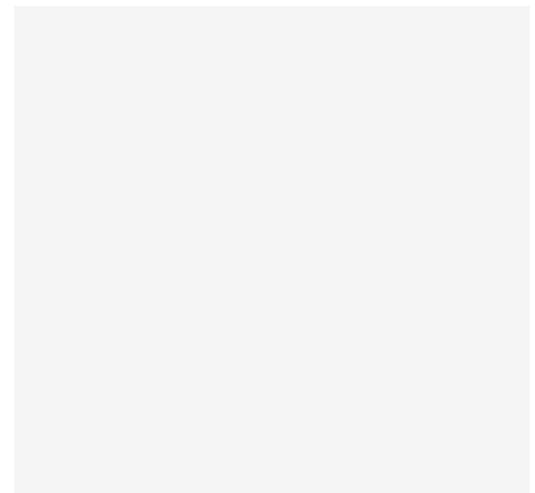
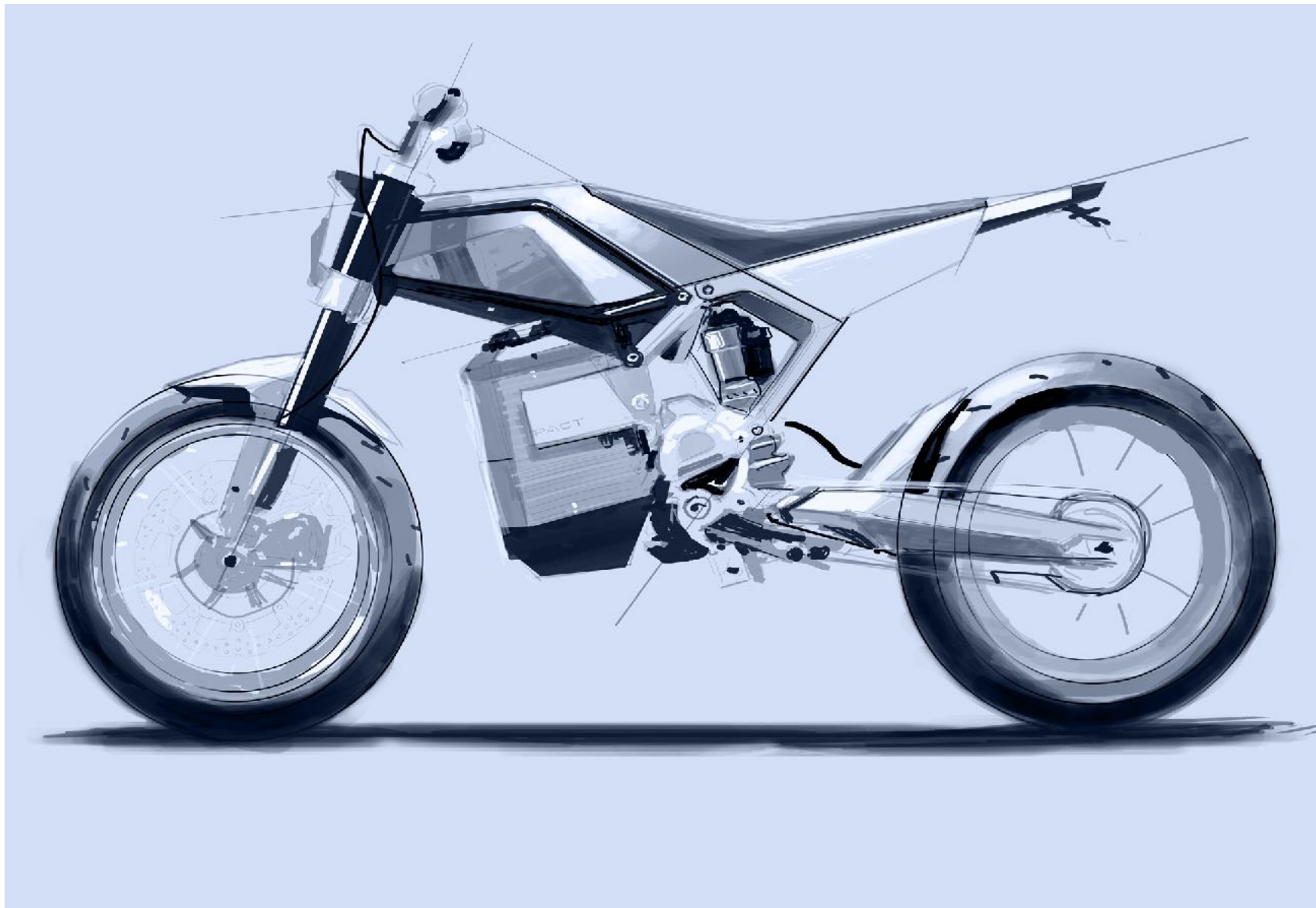




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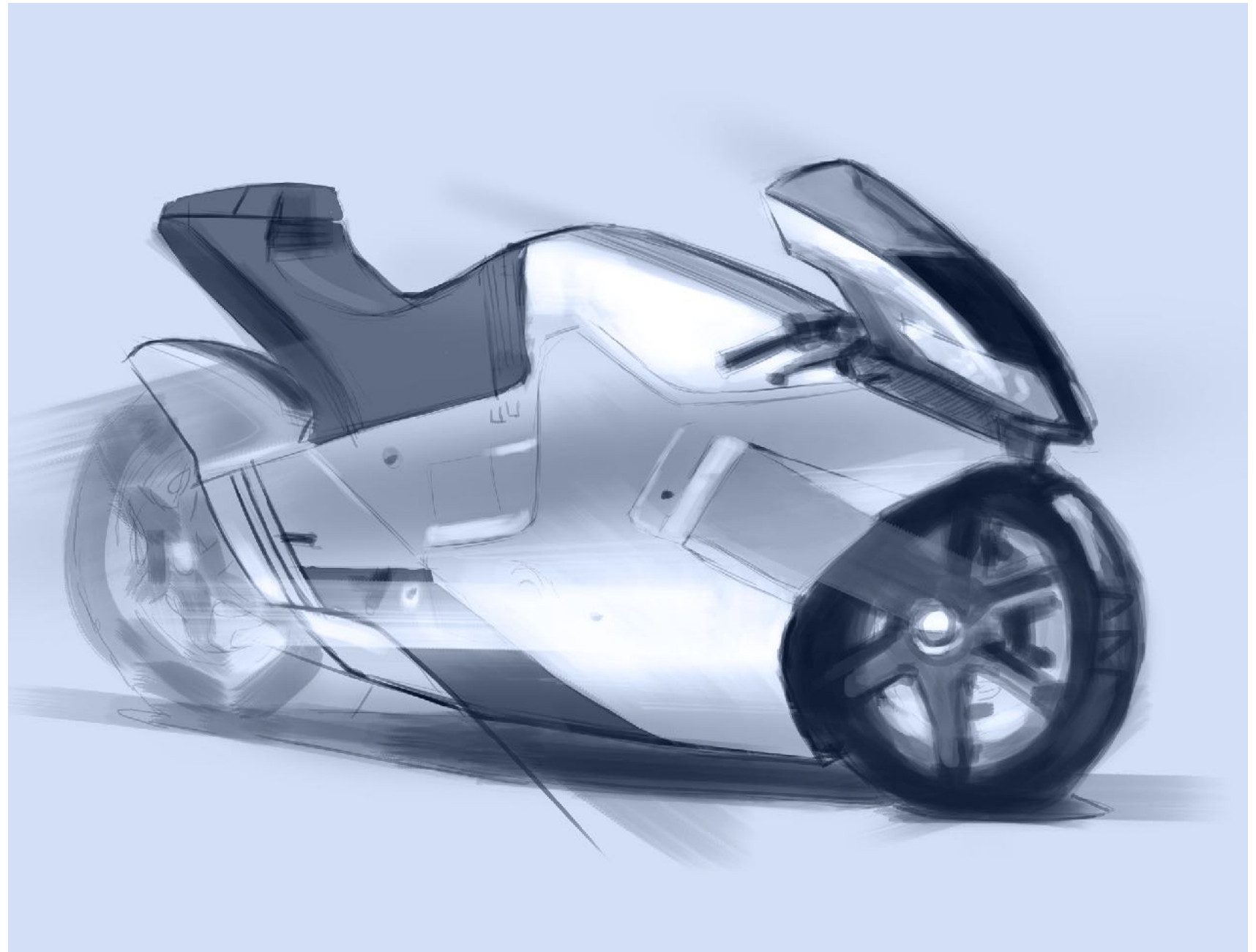


Vehicle studies are always fun to do being some of the most complex and sophisticated industrial designed products. I like to study a variety of vehicle types from something personal and intimate like a motorbike, all the way to the extreme of experimental engineering that dictates the design of advanced aircraft.

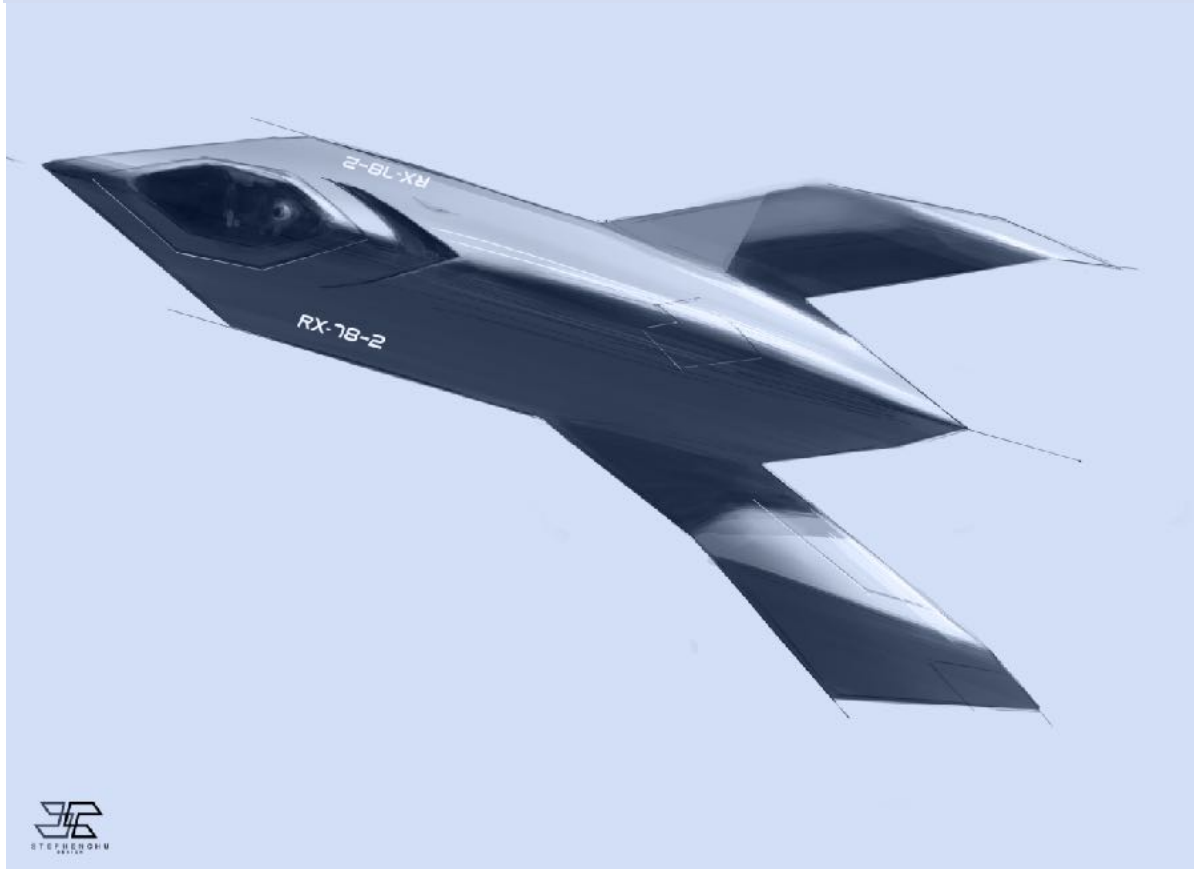
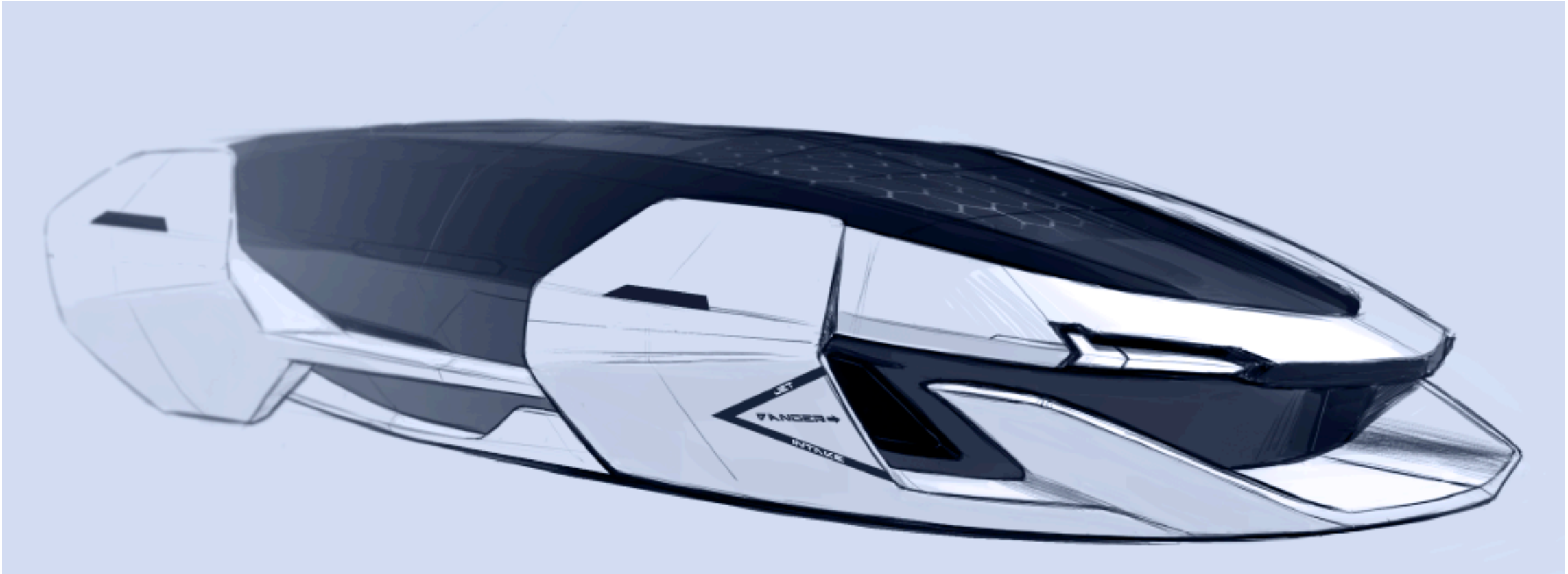


14. Walt Siegl designed PACT Electric Bike Study

15. SUZUKI NUDA Concept Bike  
Study



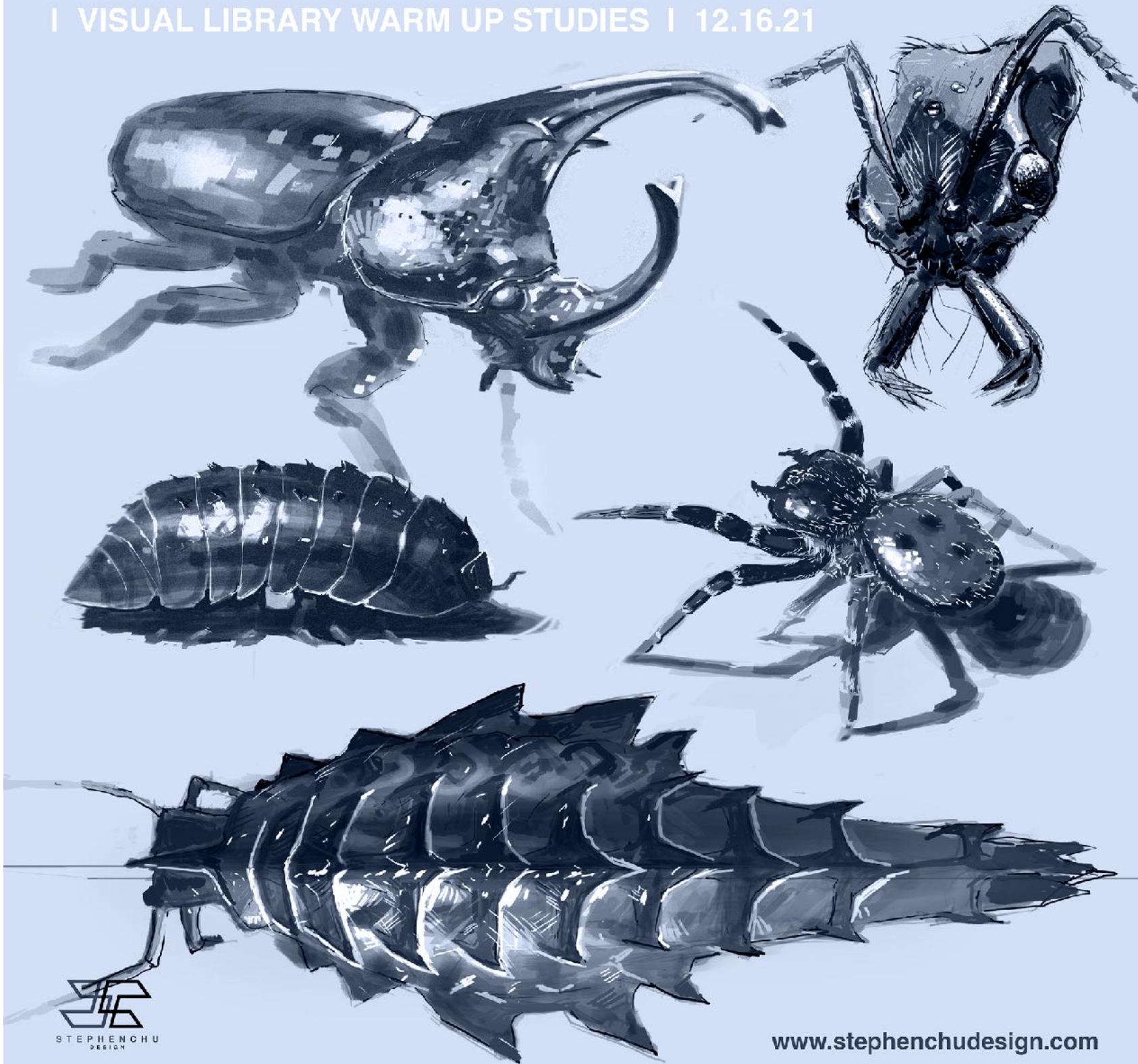




- 16. Monovolume Supercar Study
- 17. Boeing X-plane Study
- 18. Lamborghini Aventador Custom Study



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Insects, bugs, spiders and other miniature monsters have great forms to learn from. Functional and aesthetic their designs have been perfected by nature over thousands if not millions of years. Plus, they're easier to draw than man made objects. If the proportions or details are slightly off no one really knows.

19. - 23. Besides the Rhino Beetle, don't know what these other bugs are.

Could turn these guys into spaceships, robots, mass cargo transport vehicles, giant monsters, all kinds of stuff. They could even be great pets.



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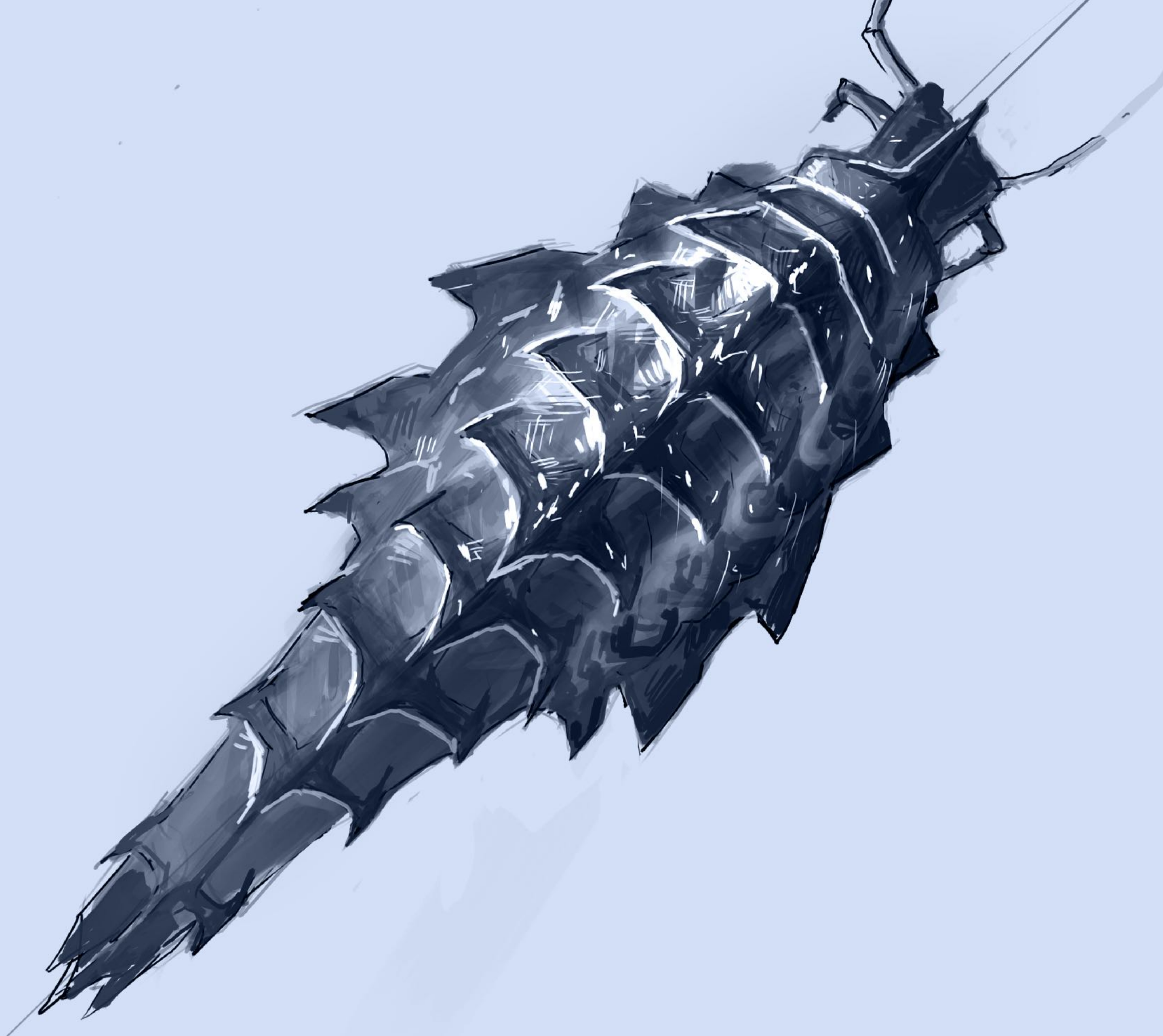
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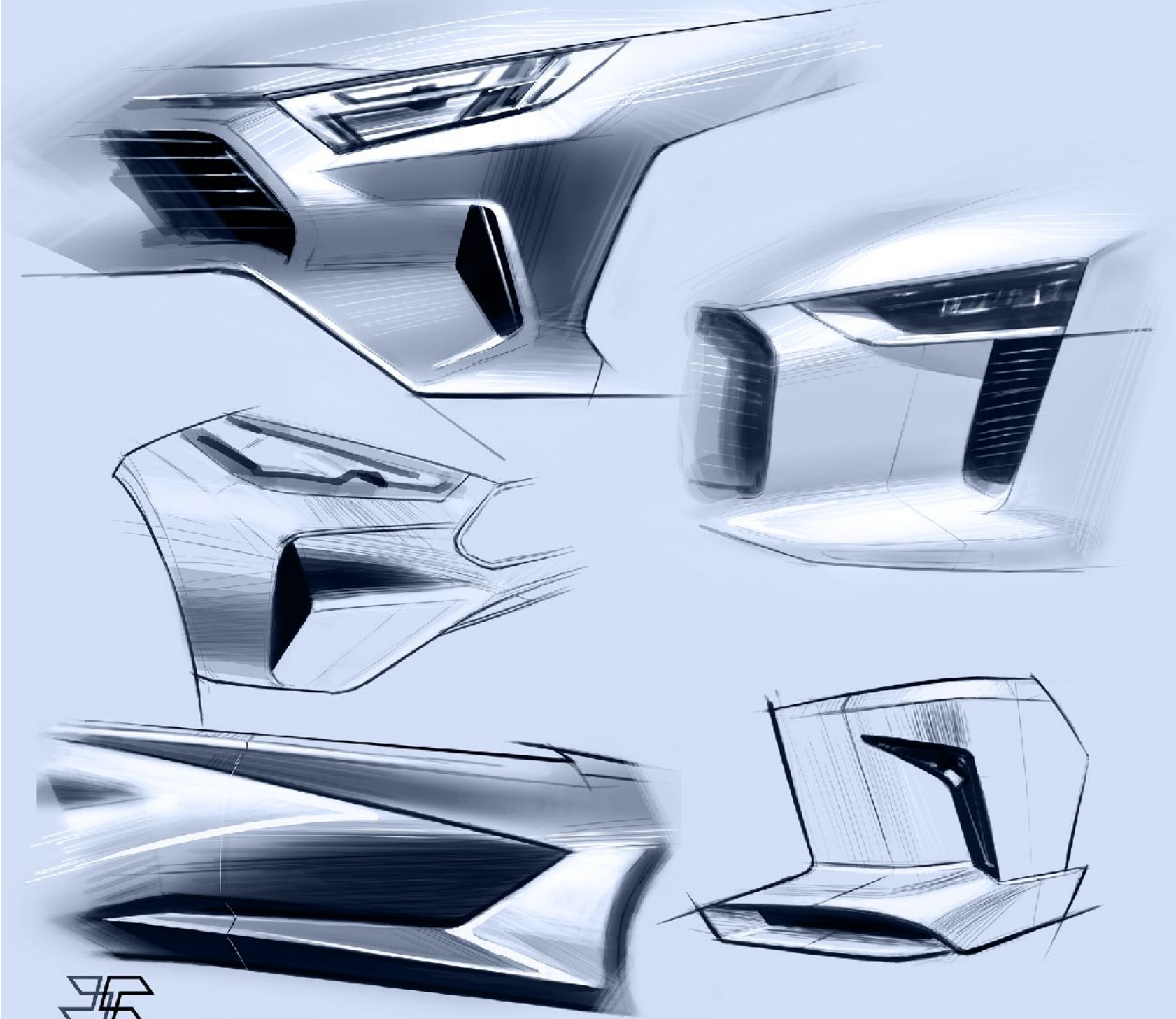
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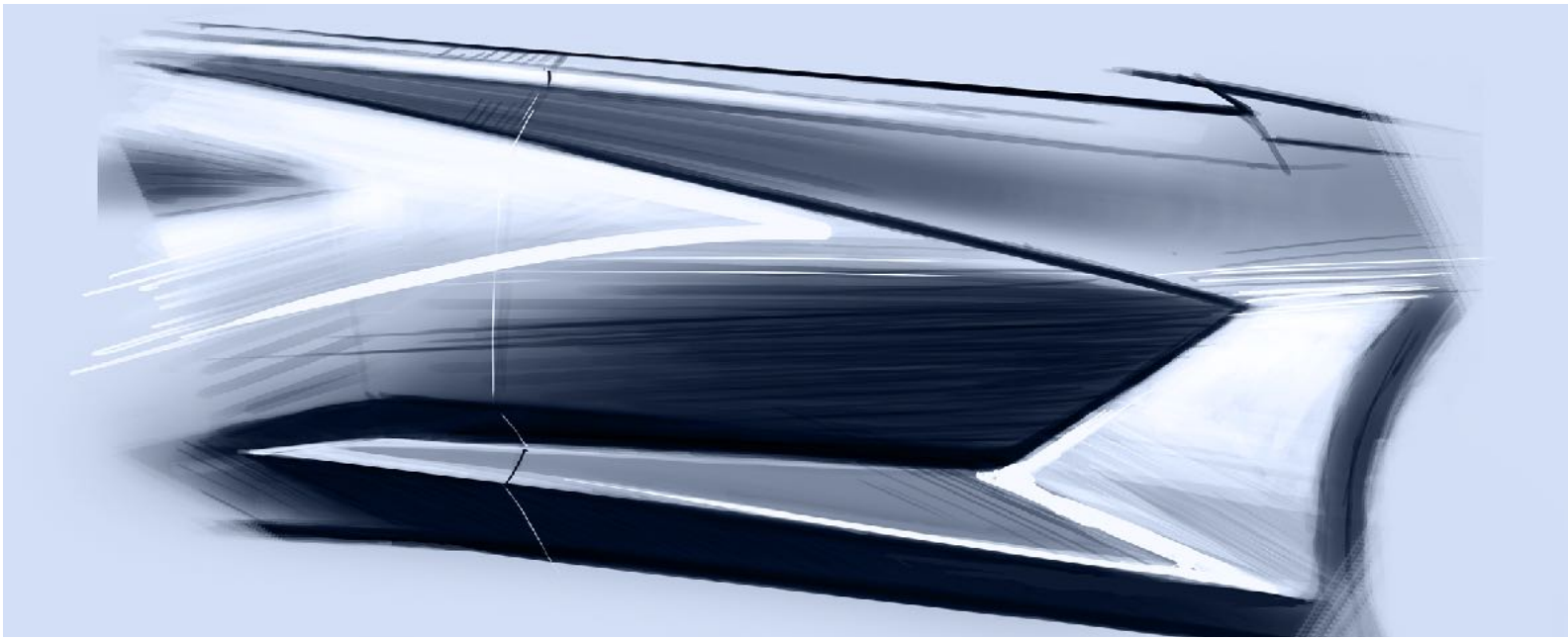




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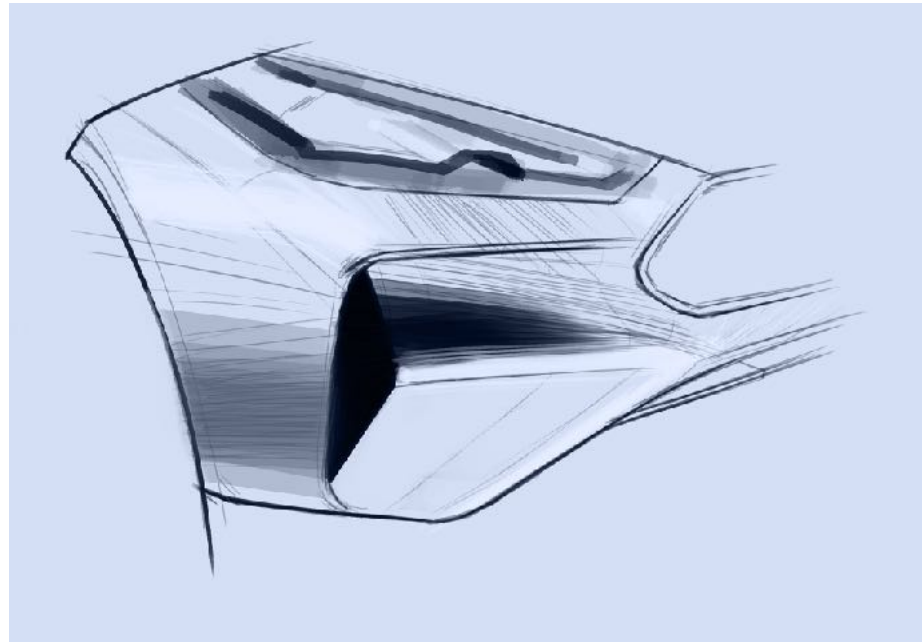
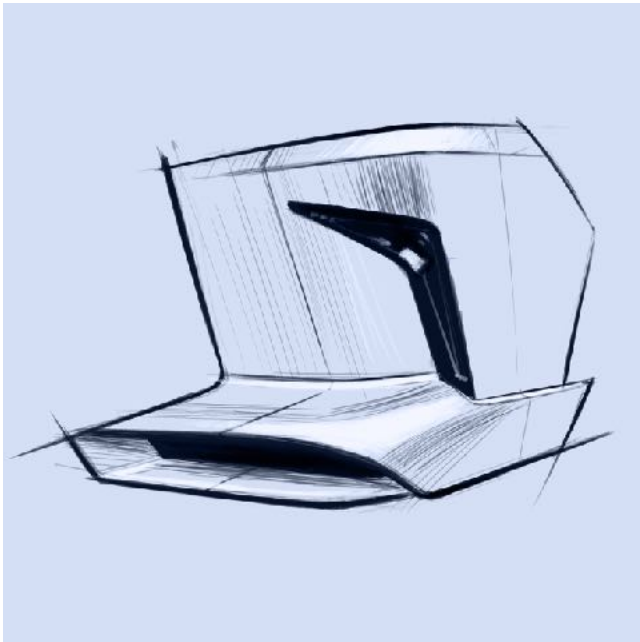


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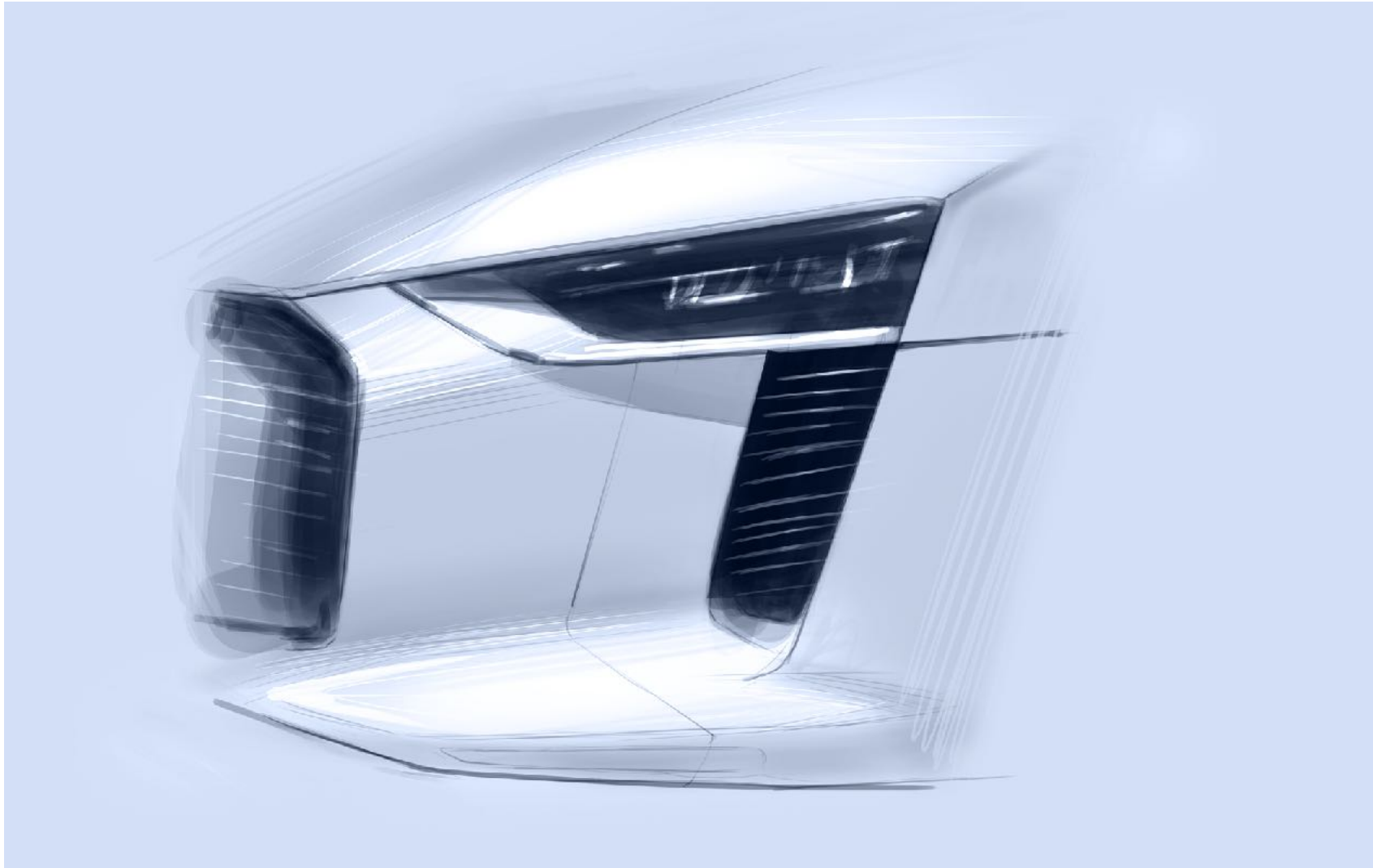


Surfacing studies. I need to do a lot more of these. Surfaces are what really make an object in 3D. It's not just the lines of the design that matter. It's also what's happening between the lines that contribute to overall harmony of a design's visual form.

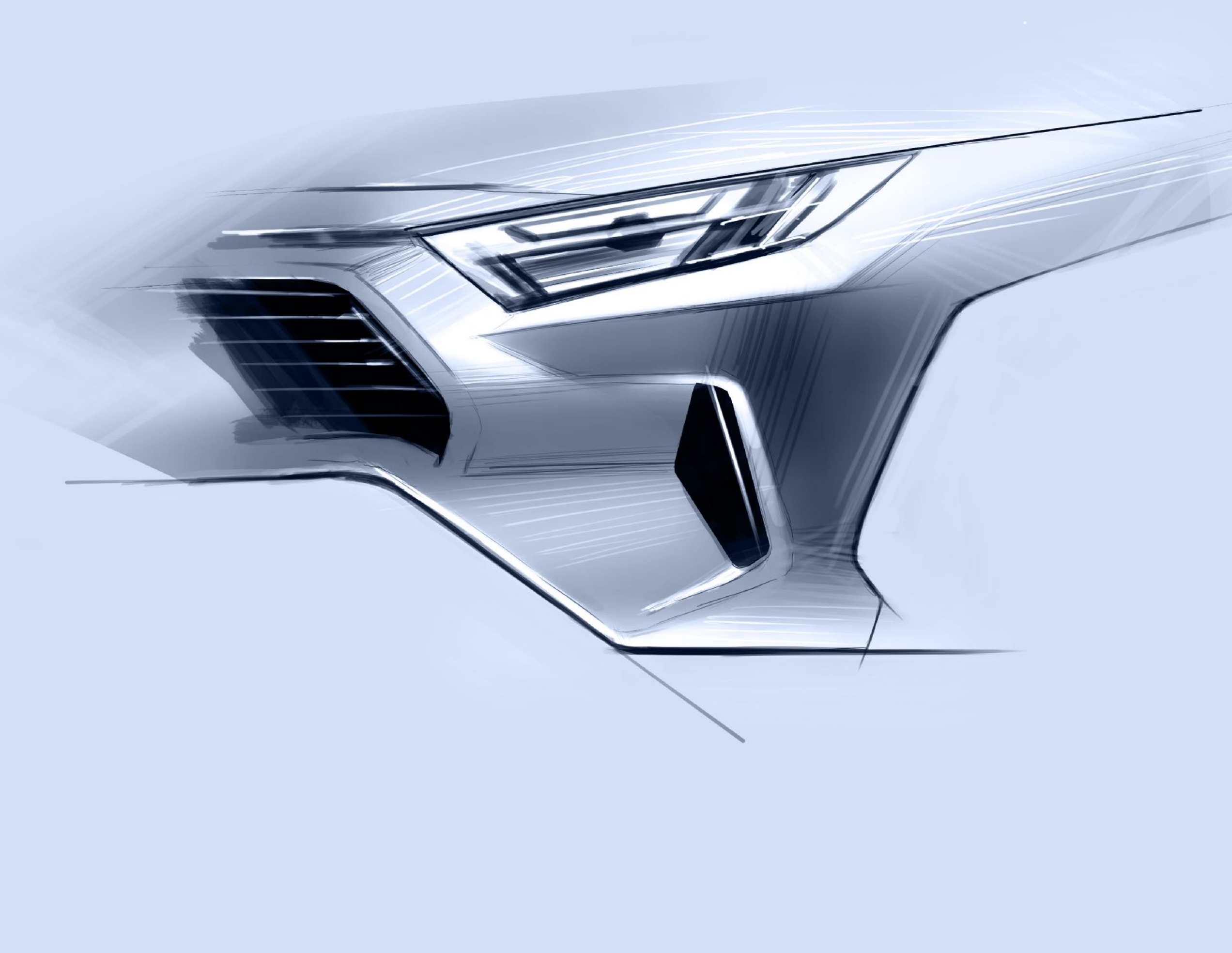
24. NISSAN Concept Door Study  
25. - 26. Front Intake + Headlight Surface Studies



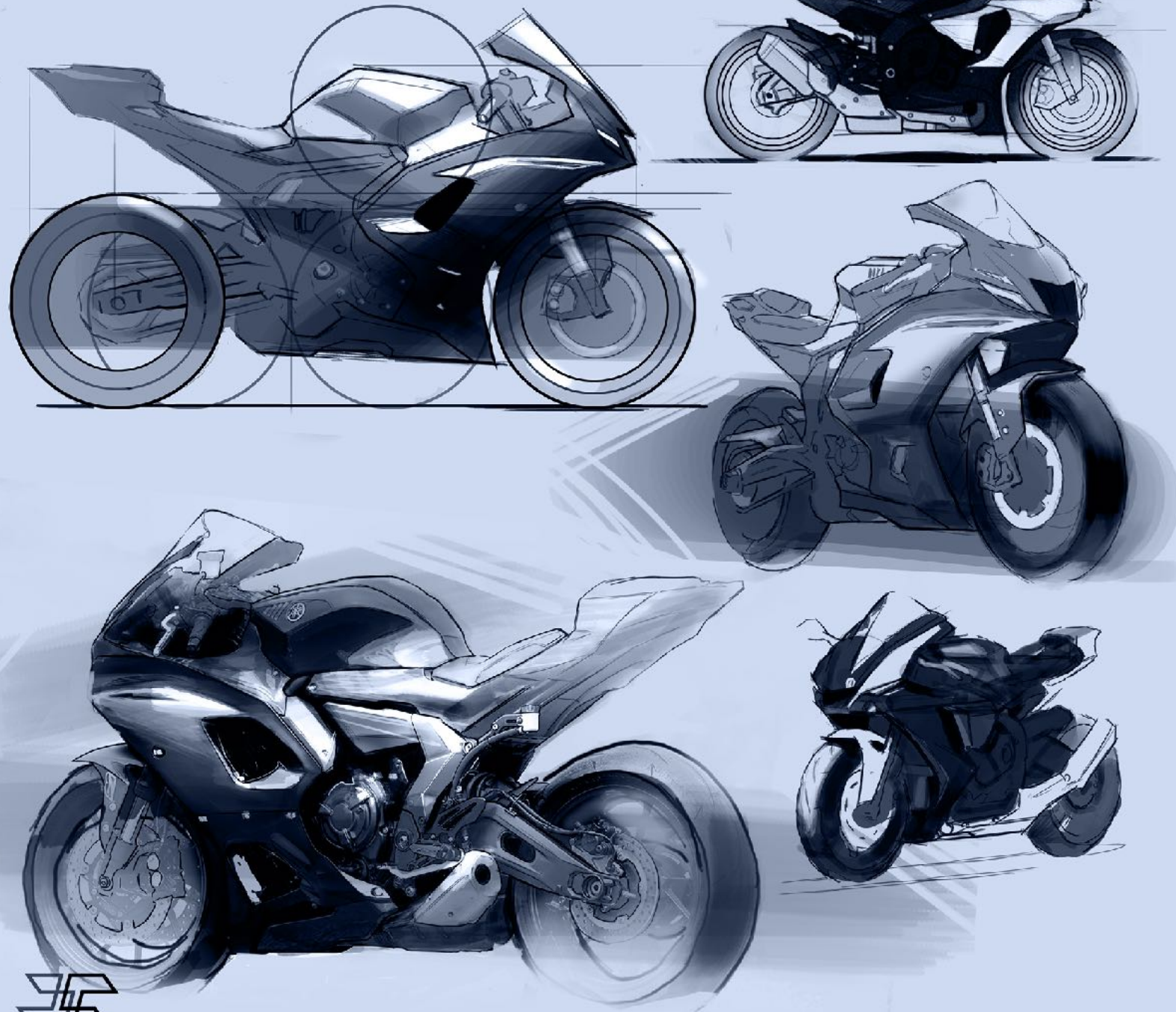




27. AUDI Concept Intake Study  
28. TOYOTA RAV4 Front Study  
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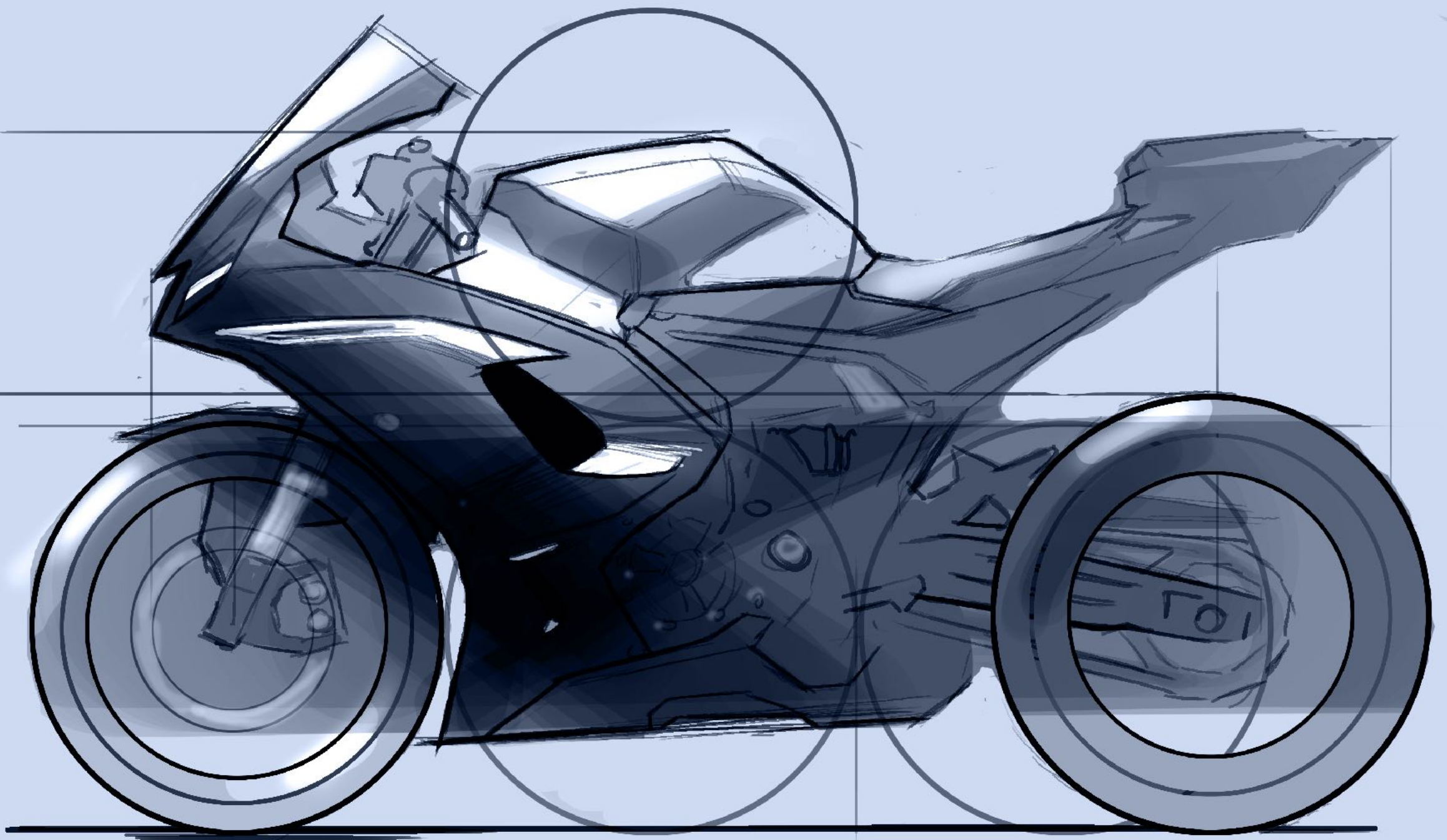


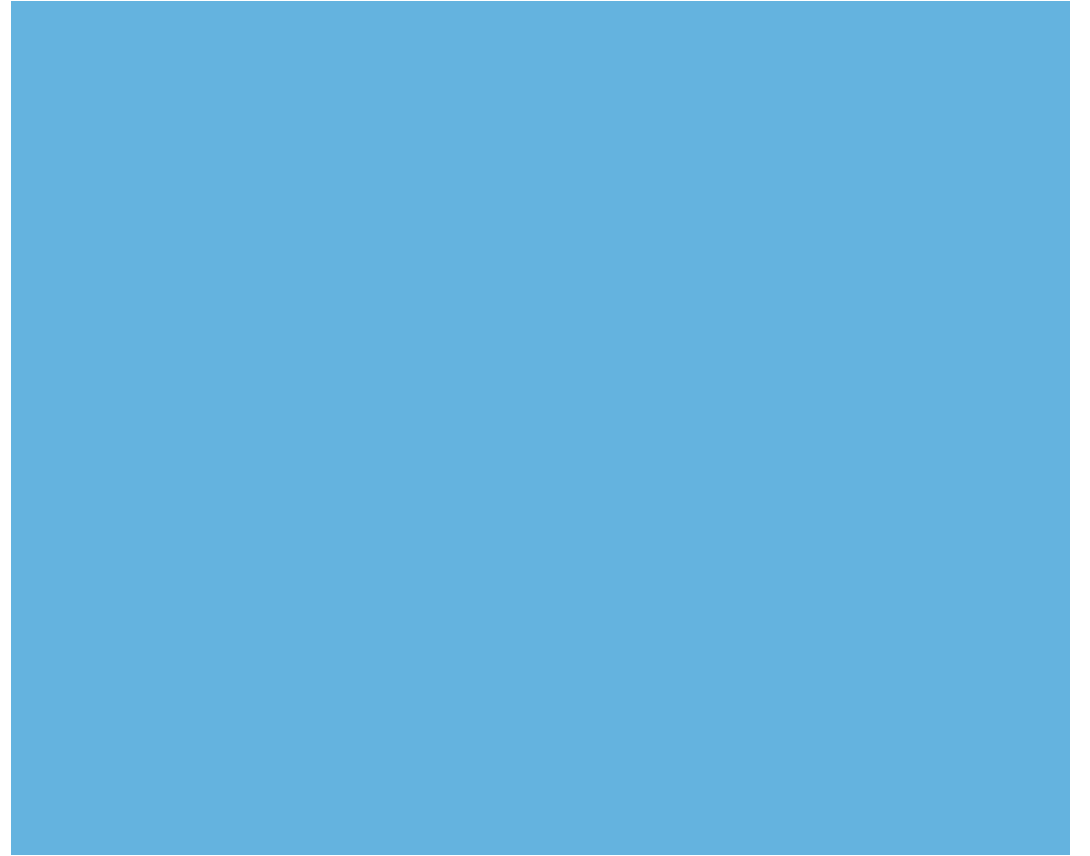
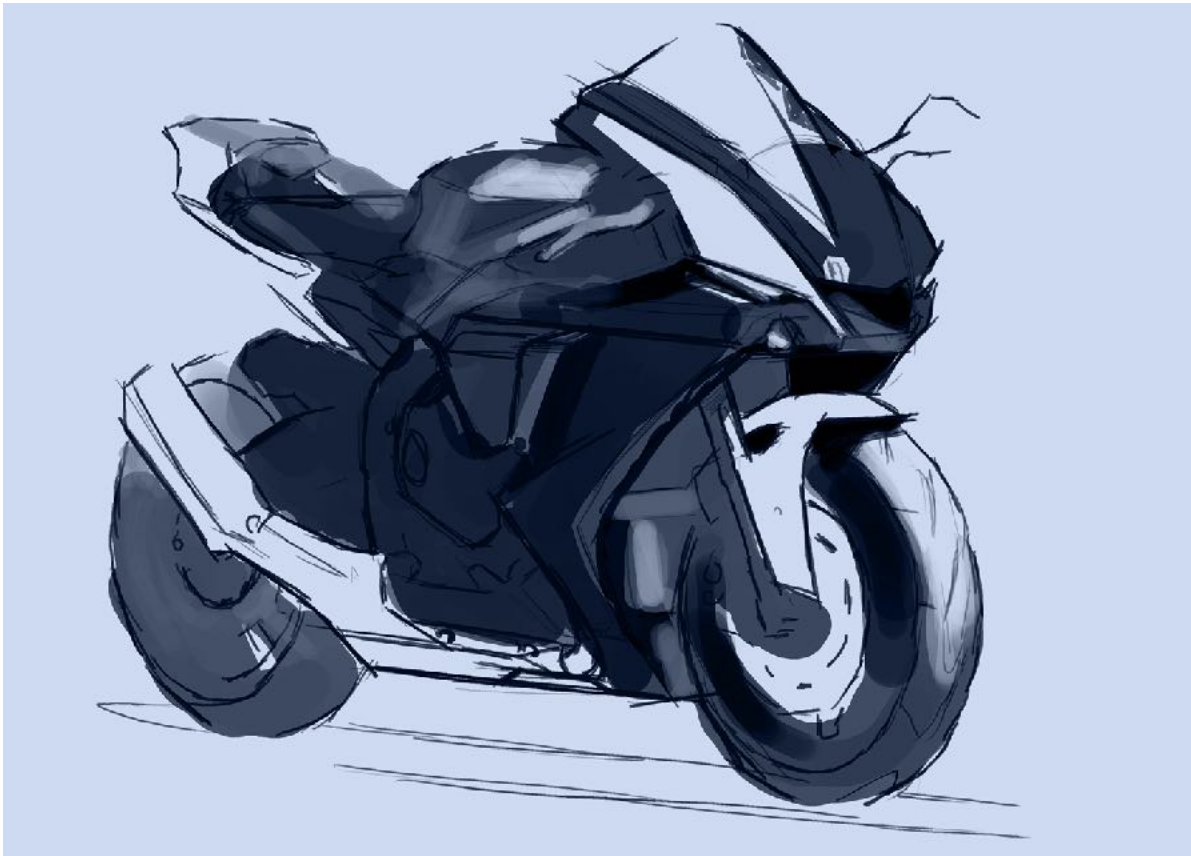
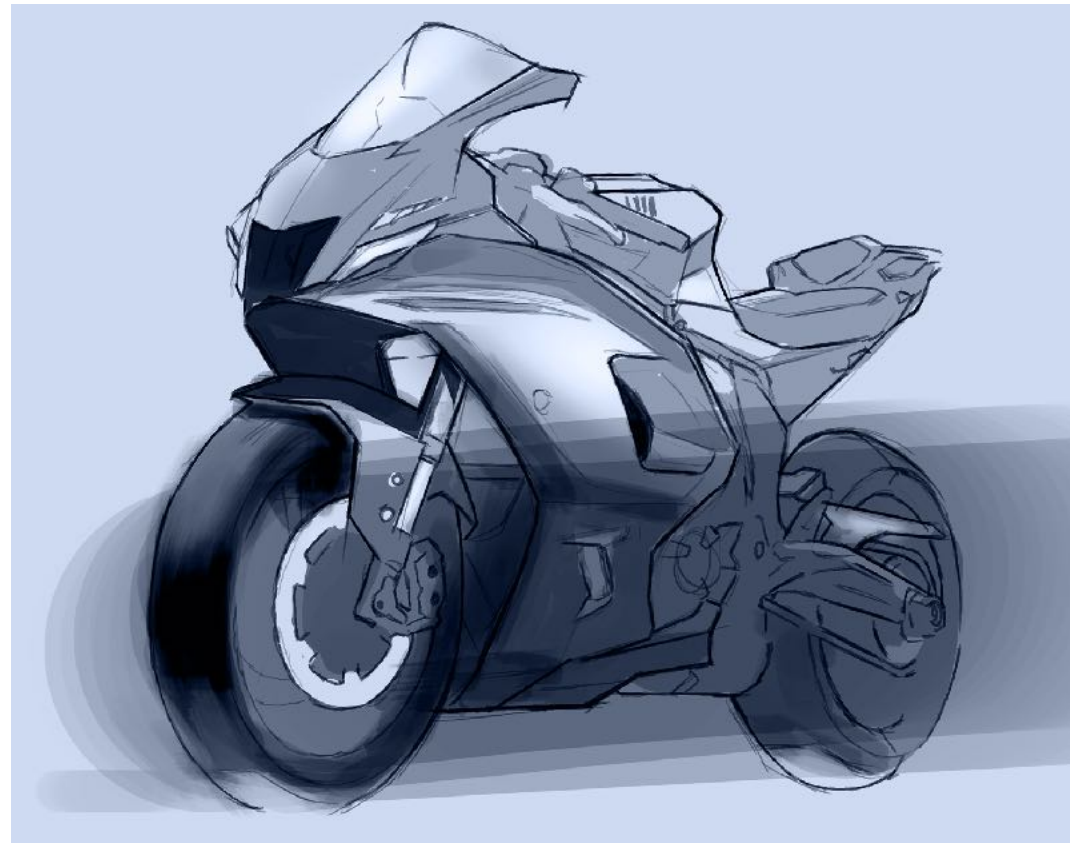
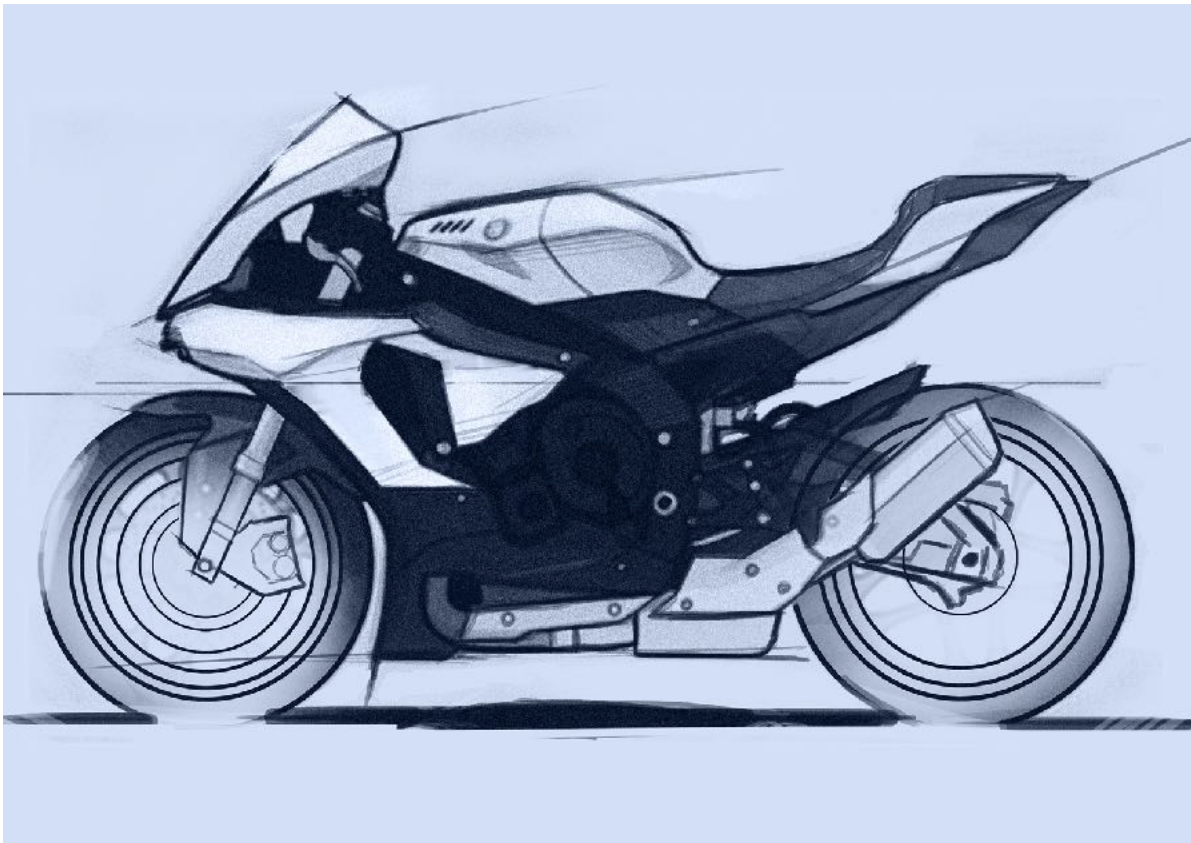
  
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YAMAHA Bike Studies. The challenge with motorbike studies is how to simplify all the details with indication and keep the main forms in mind. Also it's easy to spend a lot of time in the details so I try to give myself a time limit of no more than an hour when doing these.

29. - 33. YAMAHA "Revs Your Heart" Bike Studies.







Loose and messy outside the focal point.

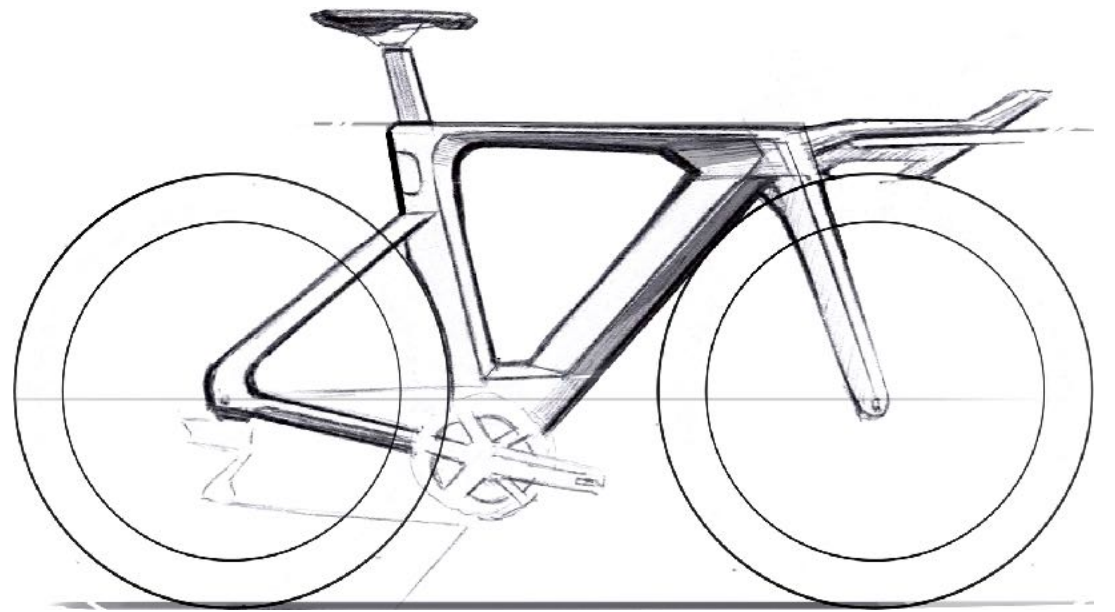
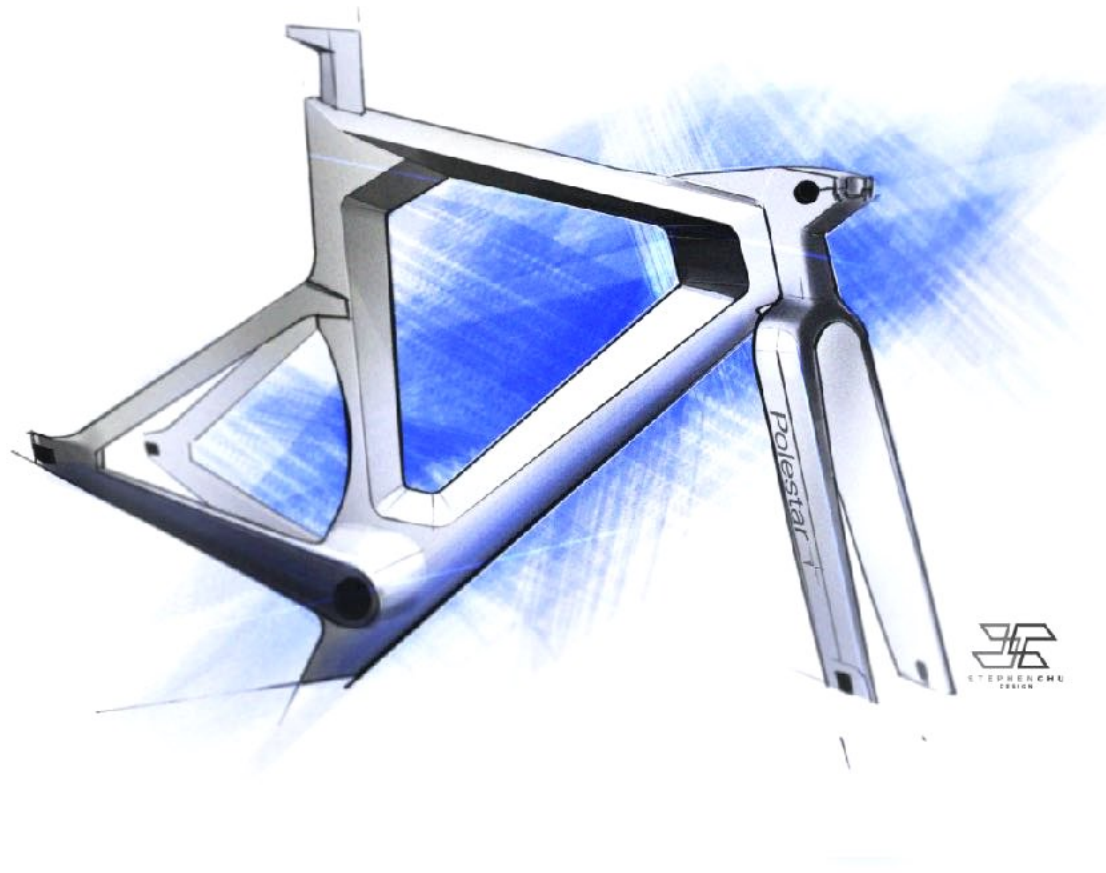


Part II : Project Sketches



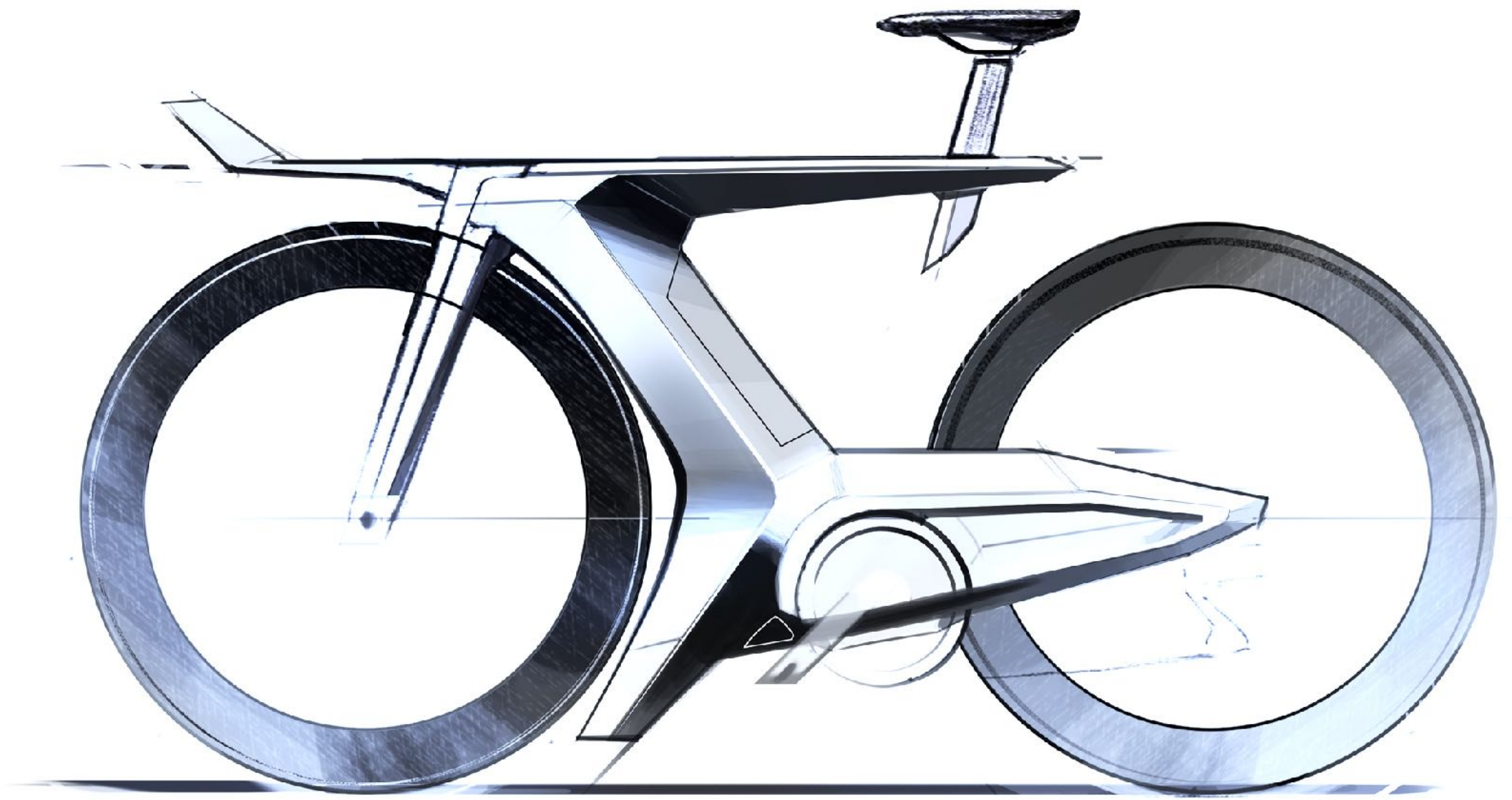
34. - 36. Time Trial Bike Sketches





37. Time Trial Bike Frame Front 3/4 Sketch

- 38. Time Trial Bike Thumbnail Sketch
- 39. E-bike Side View Sketch [Next Page]
- 40. - 43. Time Trial Bike Variations





Polestar  
High Modulus CFRP Frame  
Aero Time Trial Superbike







Polestar  
High Modulus CFRP Frame  
Aero Time Trial Superbike





Polestar  
High Modulus CFRP Frame  
Aero Time Trial Specific

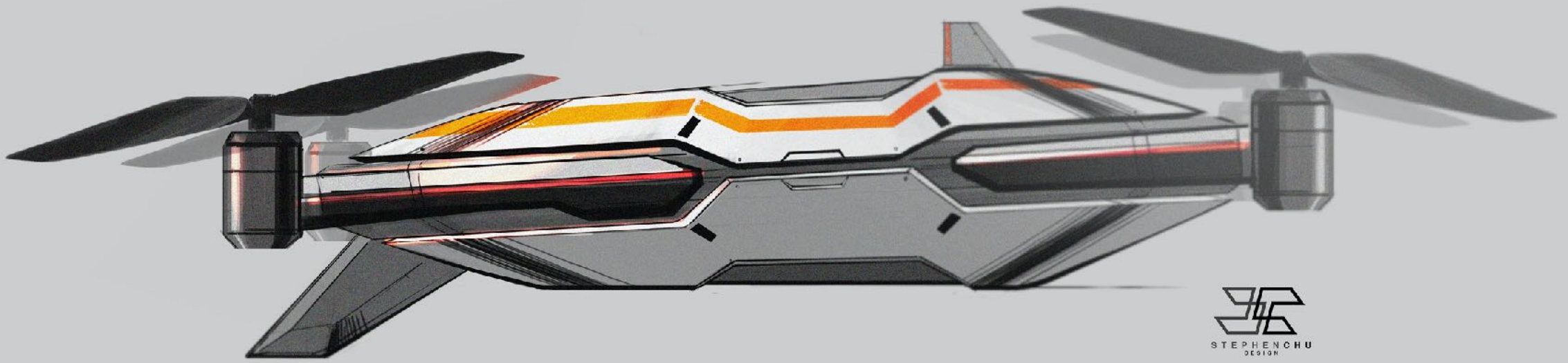




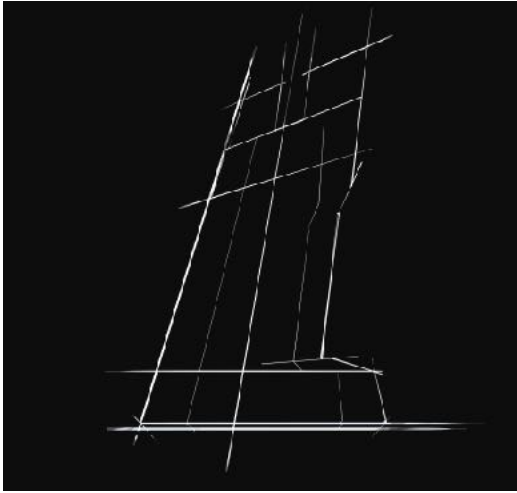
A loose painterly technique.



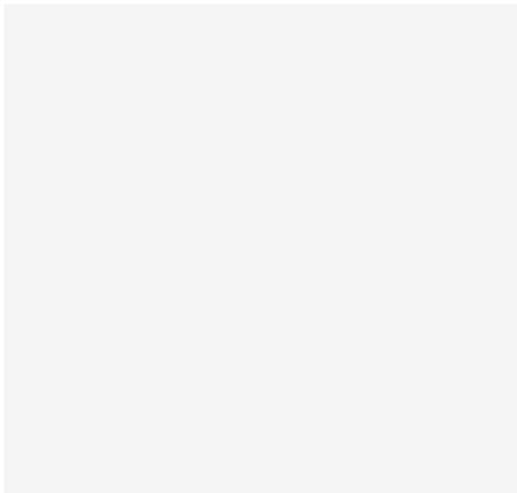
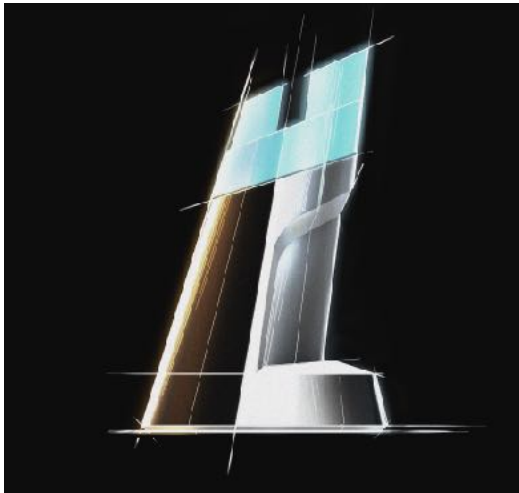
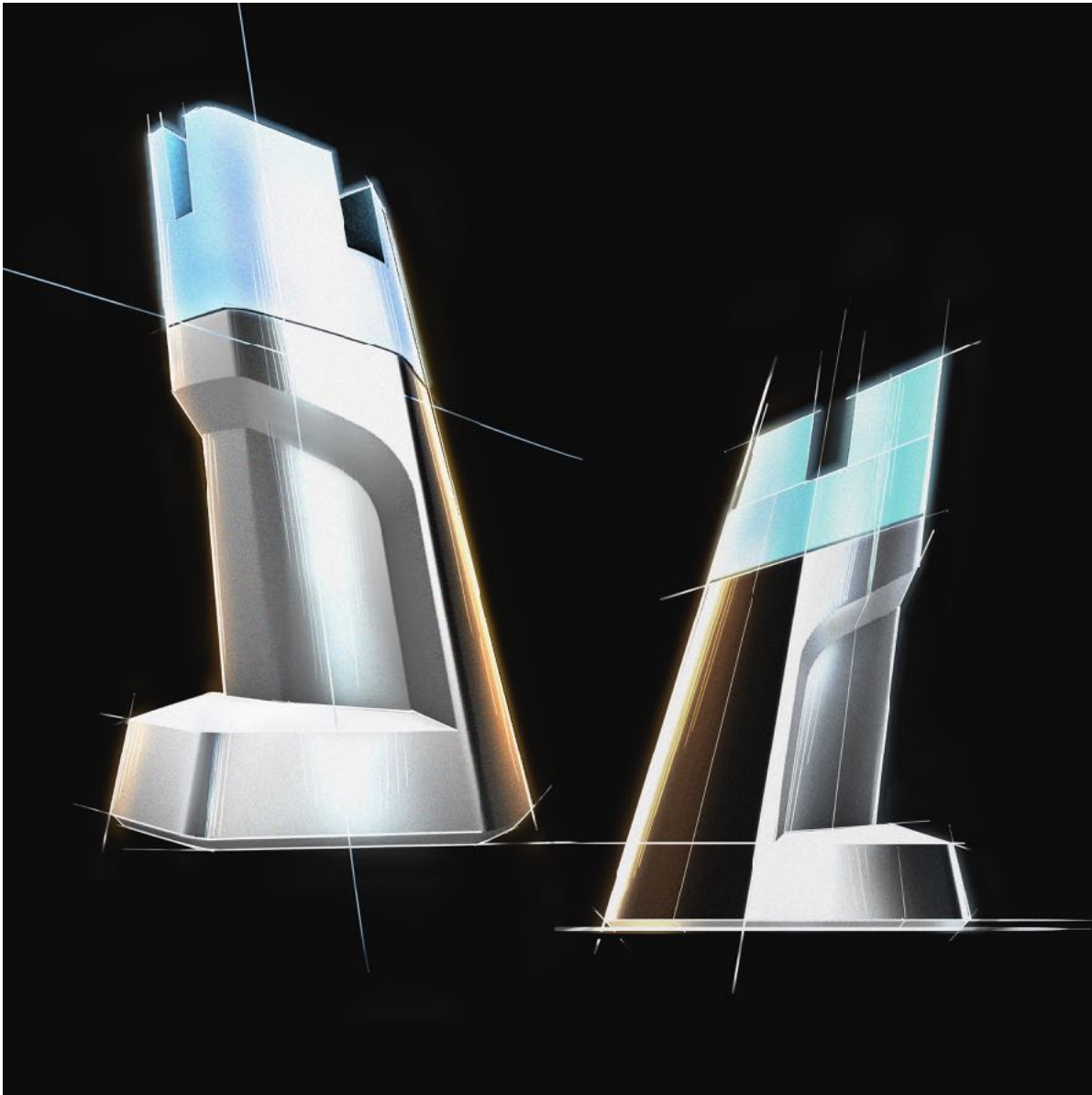
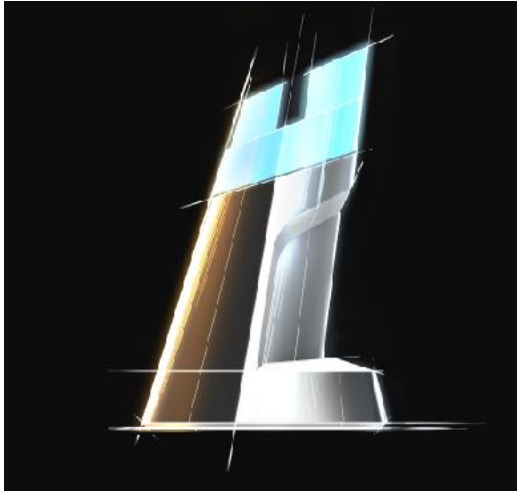
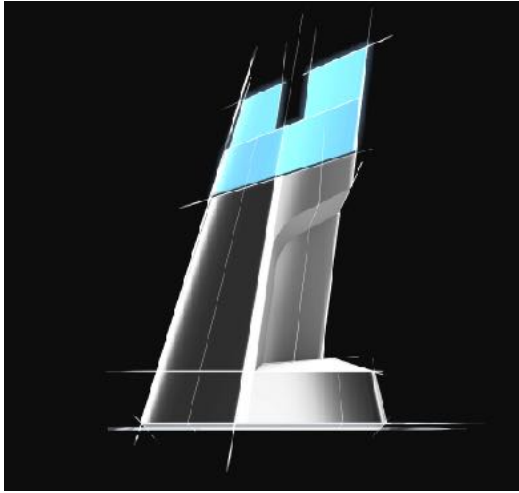




  
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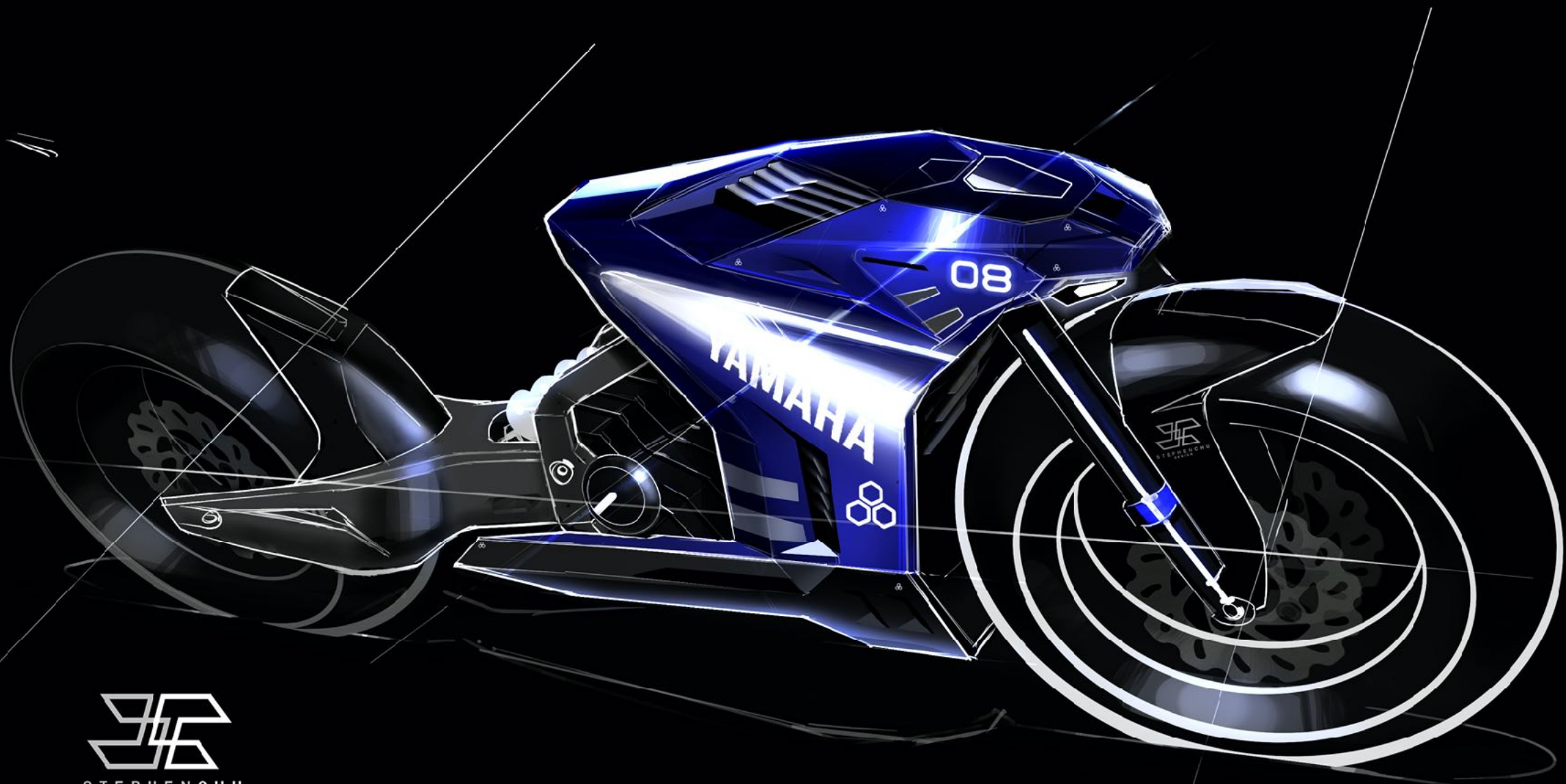
A simple demo. Rook Chess Piece  
47. Rough Linework  
48. Flat Value + Form  
49. Highlights  
50. Contrast



51. Rook Chess Piece Rear 3/4 + Side

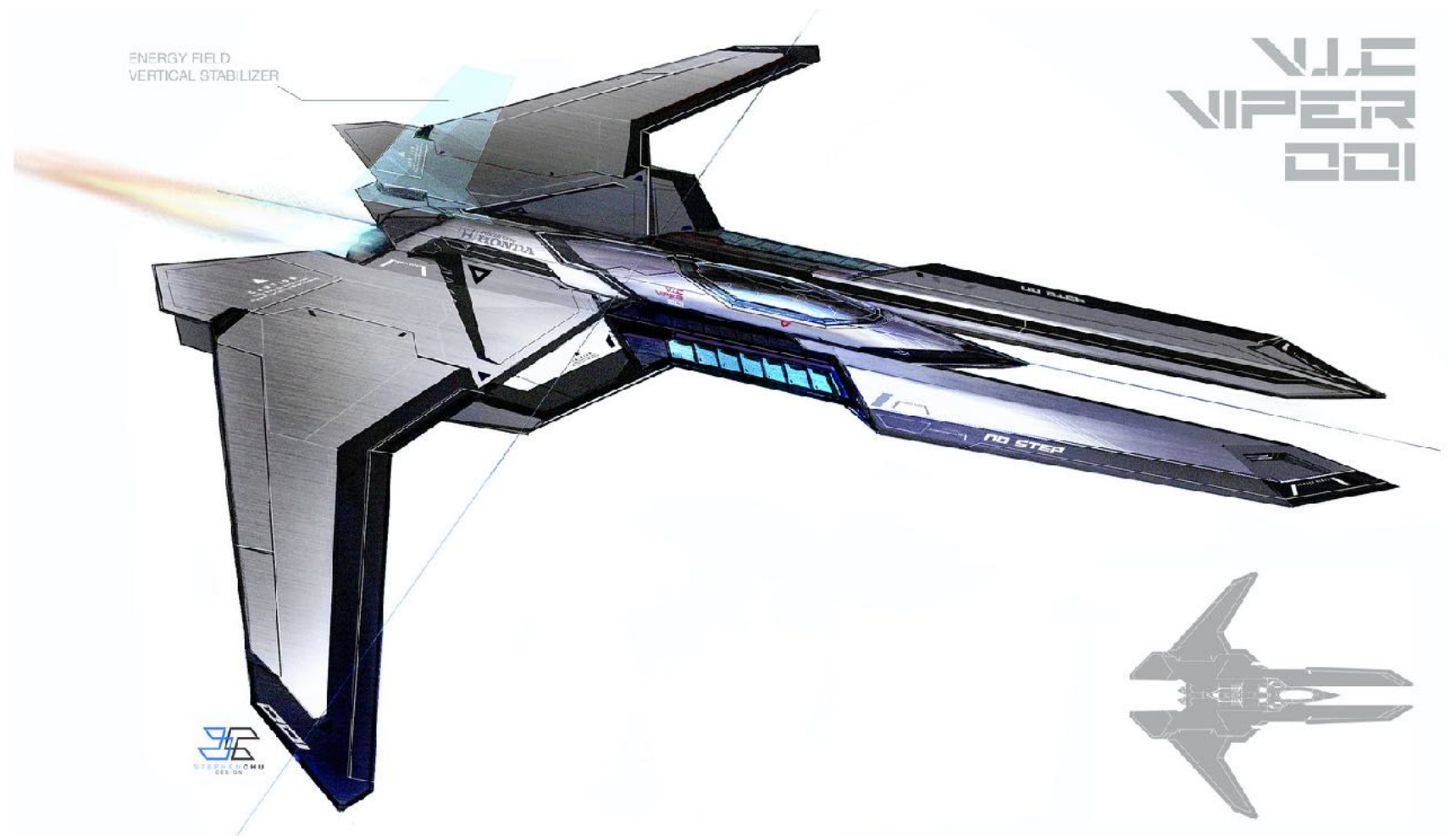


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THE  
END



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