JONAS LINDBERG

UMEÅ INSTITUTE OF DESIGN
2015 DESIGN PORTFOLIO

JONAS LINDBERG

CONTACT

email jonas.lindberg.olof@gmail.com
phone +46 708 - 11 64 58
linkedin linkedin.com/in/jonaslindbergolof

EDUCATION

2014 - 2017 | **Industrial Design**
Umeå Institute of Design
Umeå

2013 - 2014 | **Preparatory Industrial Design**
FIDU
Hällefors

2009 - 2013 | **Technical/Design**
Alströmergymnasiet
Alingsås

EXPERIENCE

Start of 2016, 11 weeks | **Design Internship**
Kiska
Niederalm, Austria

Summer 2015, 5 weeks | **Design Internship**
White Architecture/Design
Gothenburg

SKILLSET

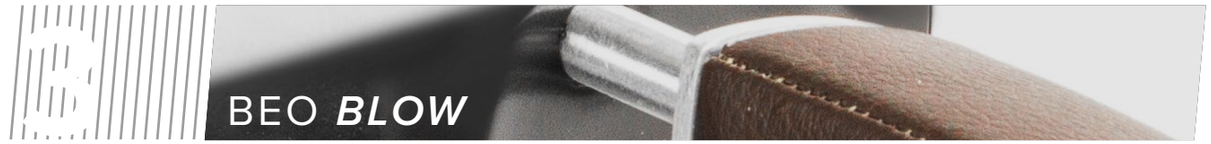
Software Photoshop, InDesign, Illustrator, Sketchbook Pro, Premier Pro, Alias, Rhinoceros, SolidWorks/Solid Edge, Keyshot, Office, iWork, OS X, Windows

Languages Swedish, English, German (basic)

Traditional Workshop (clay, lathe, paint, foam, wood, metal, etc.)


SMART *FORFEET*


ELECTRUM *SPLIT*


BEO *BLOW*


LAMY *RADII*
LAMY


MISCELLANEOUS

SMART *FORFEET*

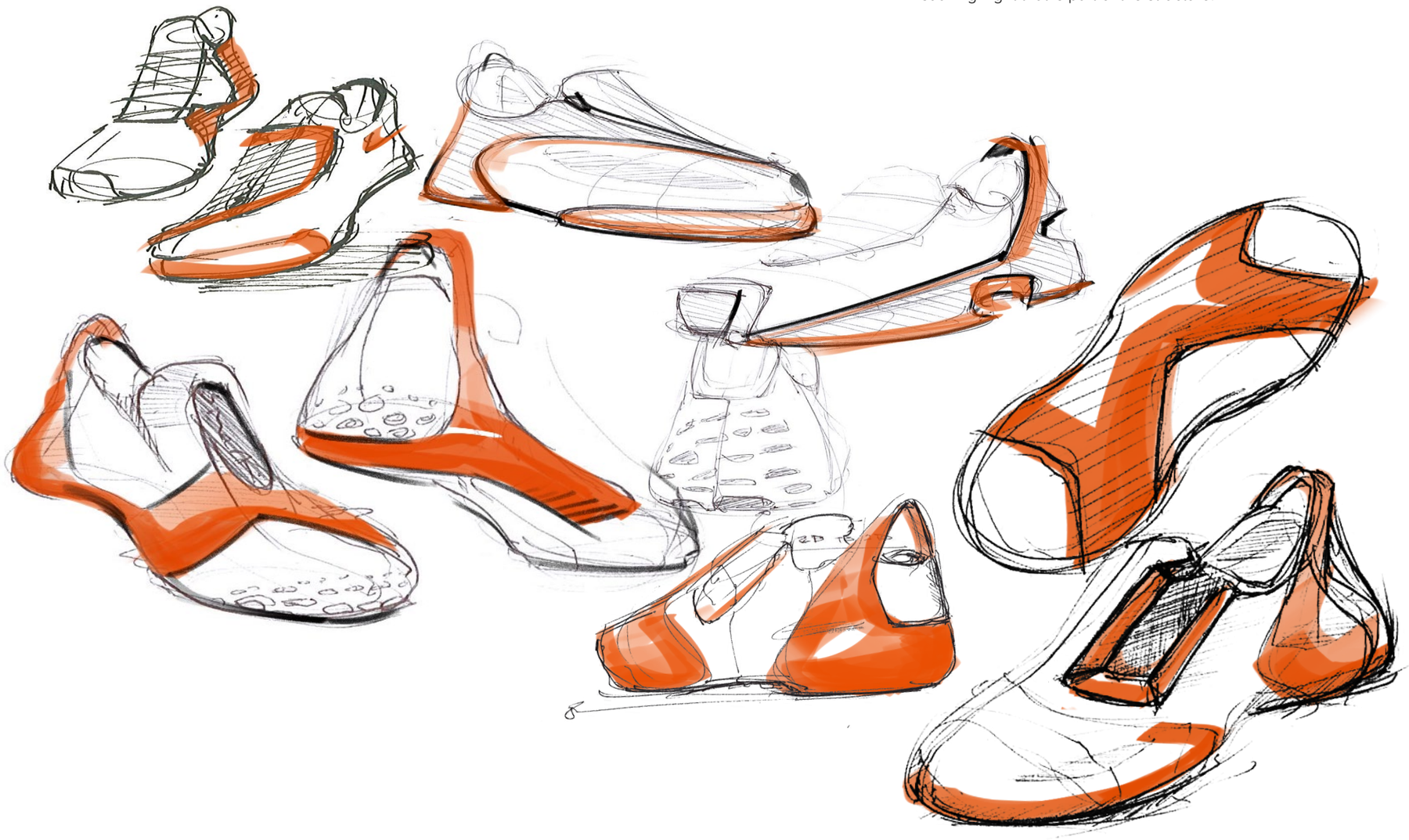
This project challenged us to analyse the design language of a car and apply it on the shoe. Focus was to find defining volumes and sections to apply via sketches and clay modelling.

FORM PROJECT - 4 WEEKS - BA SEMESTER 3

Apply the style and philosophy of the **Smart Fortwo** onto a shoe, what do you get?

SKETCH DEVELOPMENT

The natural habitat of the Smart Fortwo is inside a crowded mega-city, something I wanted to bring on to the shoe. After trying out several different design directions I chose to use the strong graphic element and implement in a similar way as on the car Smart, a visual highlight that is part of the structure.

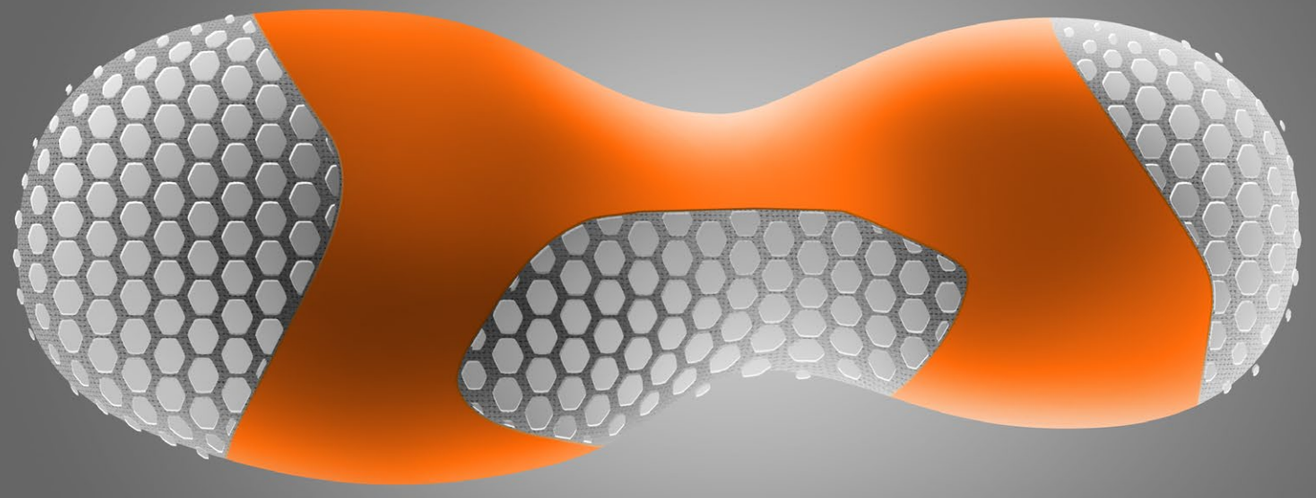


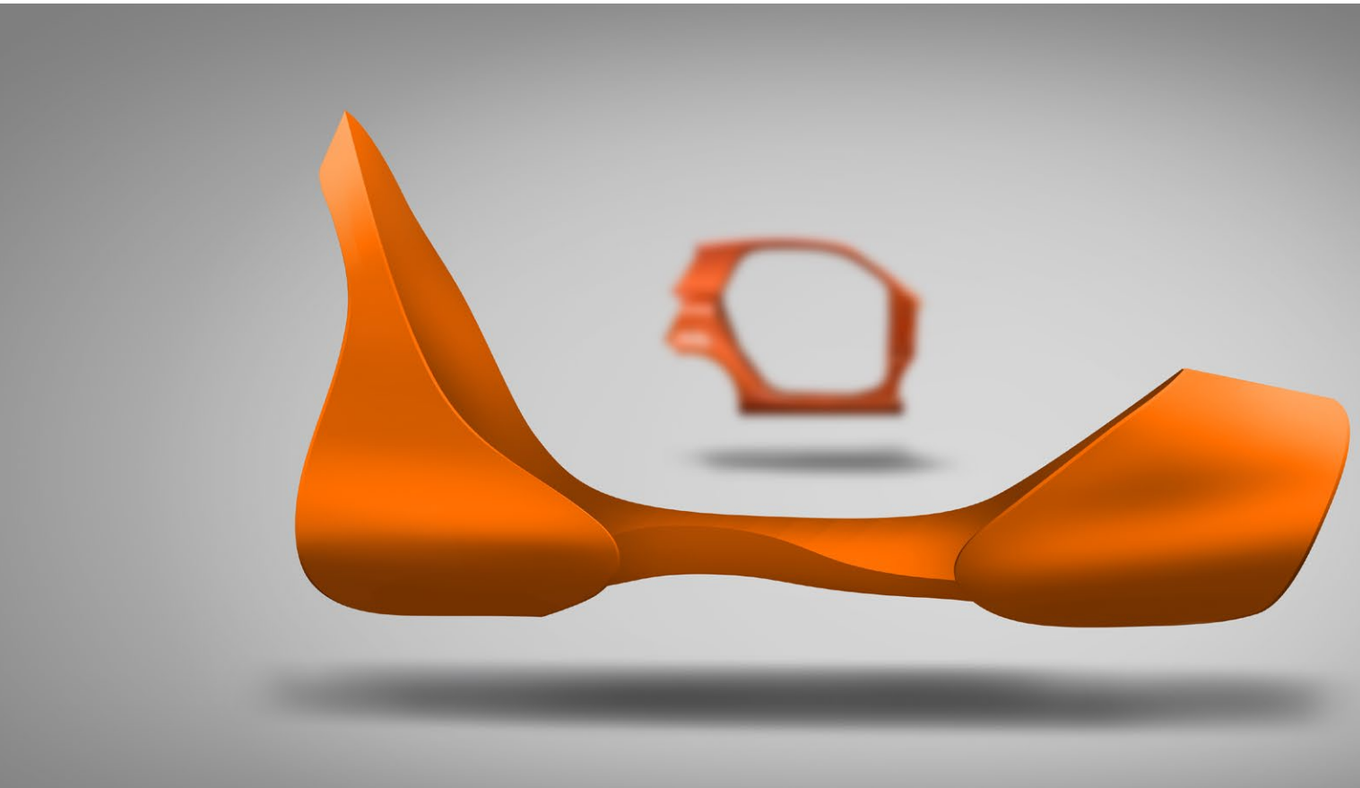
SMART FORFEET

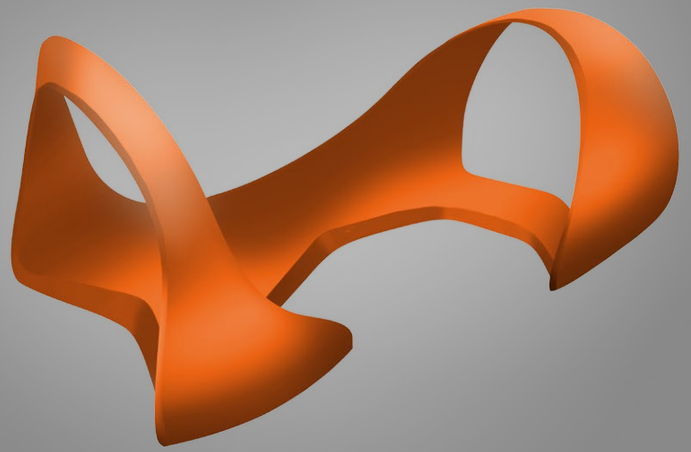
The result is a foot friendly city-jogger created to take you comfortably between any two destinations in a mega-city. The airy and lightweight textile core is wrapped in the Tridion rubber structure providing support and cushioning.

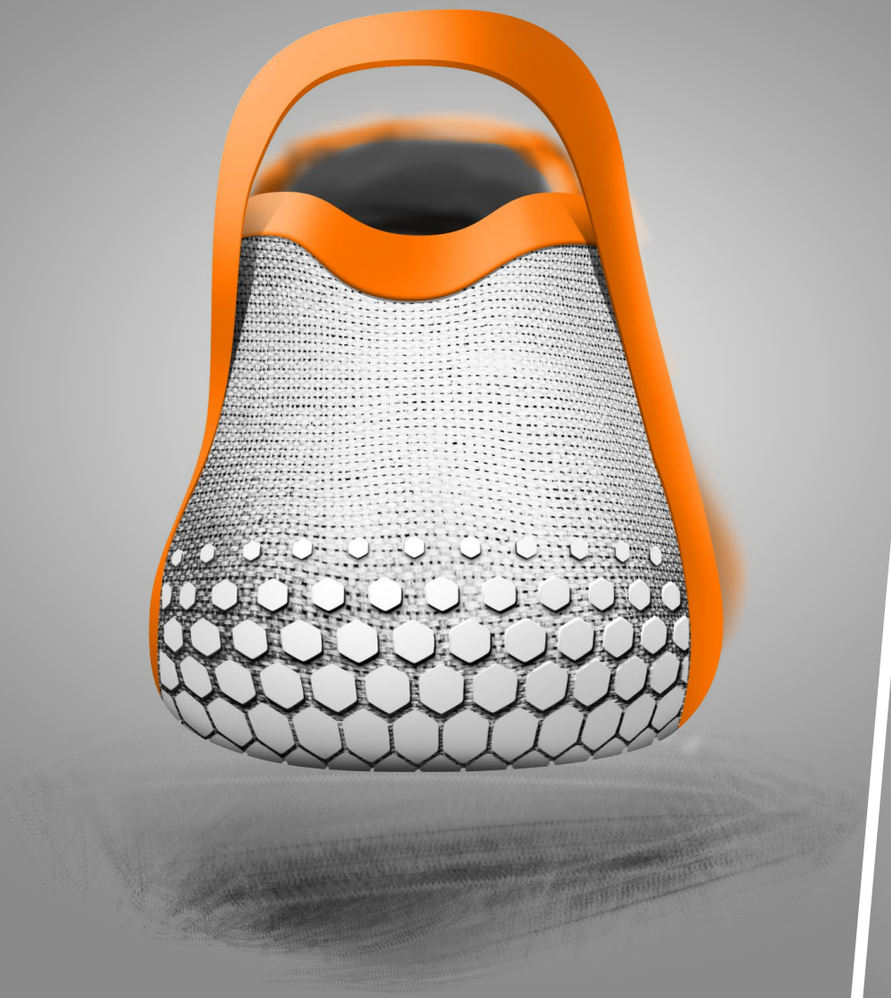
TRIDION RUBBER STRUCTURE

The shoe is built around a asymmetrical, durable and flexible rubber architecture providing support in the wearers foot arch and makes sure the shoe is kept comfortably at place.



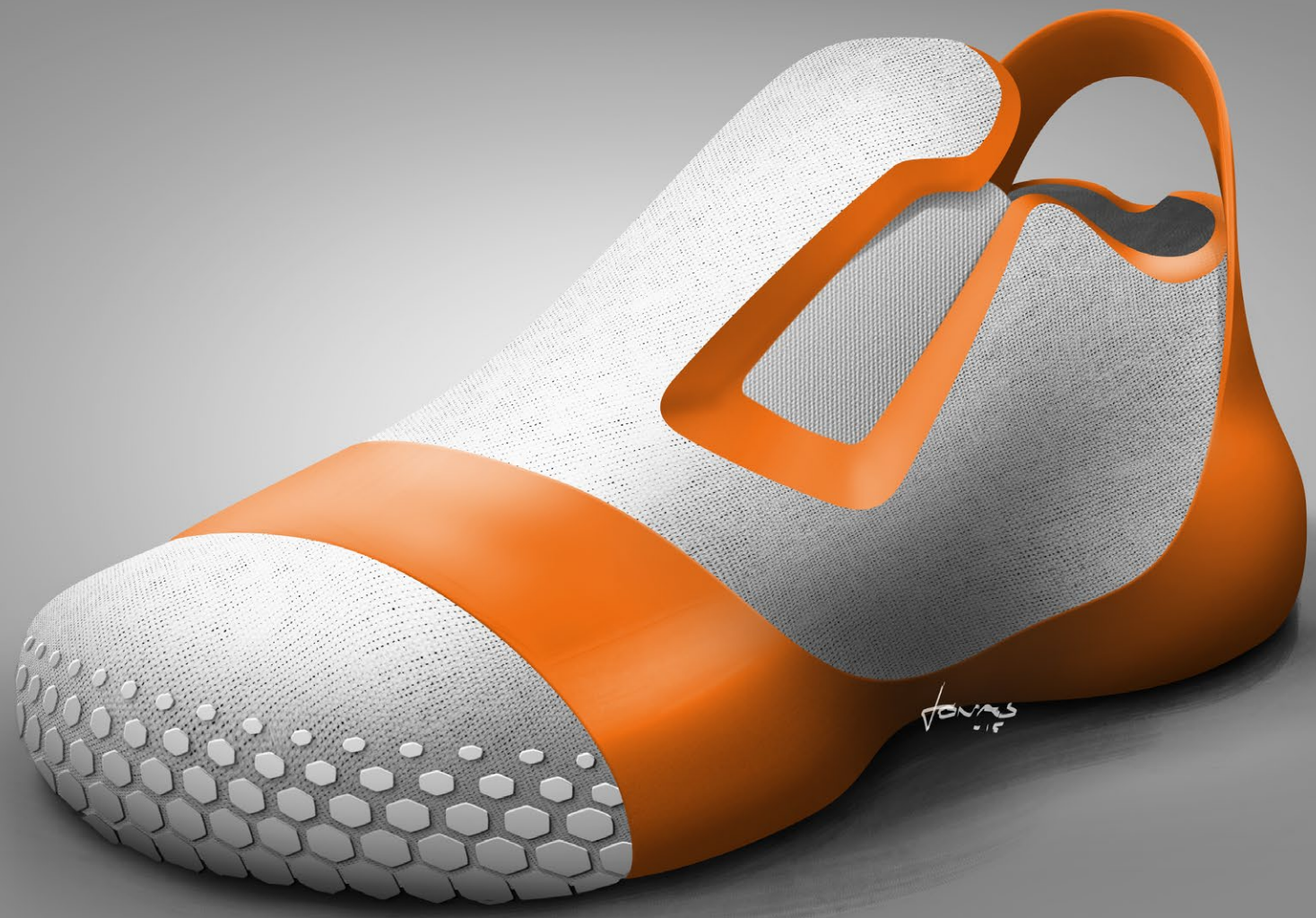






3D HEXAGONAL SOLE

The sole construction is inspired by the half-tone styled hexagonal pattern found on the car. In a playful and spectacular way the pattern stretches up to the front, rear and side of the shoe.



ELECTRUM ***SPLIT***

In collaboration with the local Umeå company *Electrum* we were assigned with the brief to create a modern, versatile and user-friendly radio control box.

PRODUCT DEVELOPMENT - 4 WEEKS - BA SEMESTER 2

"These were definately things I wouldn't have learned from behind my desk."

THE SITUATION OF TODAY

Throughout the latest decades a lot of the most straining work across many industries has become increasingly dependent on machines. Probably in order to increase efficiency and reduce strain on the humans working. However humans are, and will still for the coming years, be controlling the machines via various devices.

This change has been a big step towards improving the health and working situation for the workers. But it has also introduced new kinds of stress with more static work which also can be very harmful in the long run.

USER STUDIES

The beginning of this research phase included some real life user studies. The one I attended went to "Rivar'n i norr" where we got to meet Lars-Erik Jakobsson. He had been working in the demolition industry for more than 30 years and therefore could tell us a lot of the situation today and what the development of controlling devices had looked like.

USE CASES

As mentioned above these kind of radio controlling devices are used in many different scenarios. Our task was to create a versatile device fitting as many of these as possible. But since the users we got to meet were involved in demolition that category became my main focus. They are also working in a demanding environment and use the controllers extensively which makes for a good benchmark.

"The situation for us end users still seems to be a total non-priority..."

- Lars-Erik Jakobsson

“How could the **users experience** of remote-controlling a demolition robot be improved?”

ERGONOMICS

HANDLING

DEFINING THE MAIN PROBLEMS

After we'd met with a couple of users, listened to their stories, complaints and thoughts we compared those to what products on the market looked like as well as the insights from Electrum. A multitude of problems seemed to come from the use of out-dated, heavy and bulky components and materials.

Of all the problems this led to the fact that many users experienced discomfort during work and developed health problems, e.g. lower back pain, made ergonomics my main focus area.

Thanks to the newer components Electrum had developed and planned to use in their upcoming control box we would be able to decrease both size and weight drastically which hopefully could help this issue.

ERGONOMICS

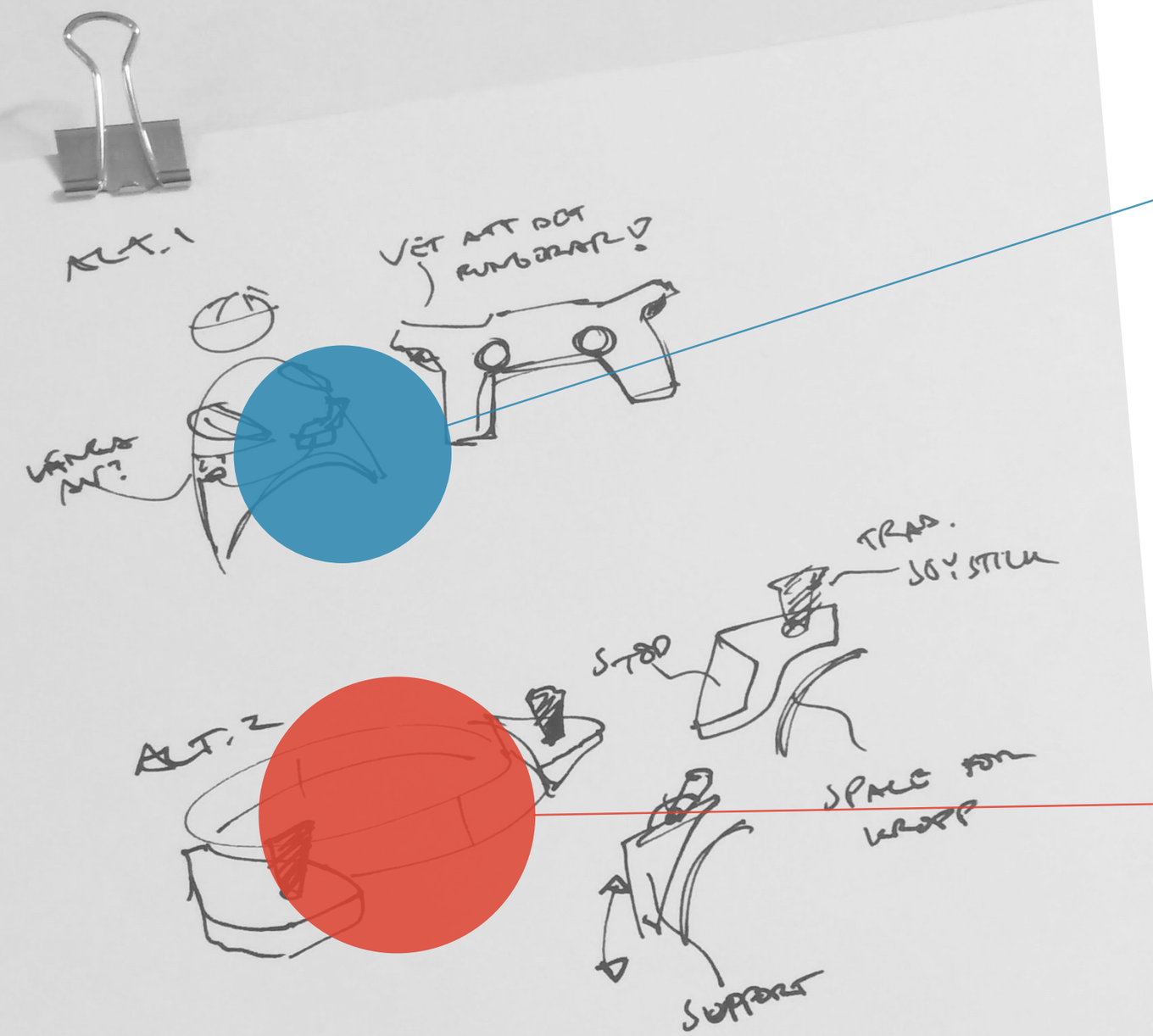
The weight and position of most control boxes are far from optimal. With the weight held in many cases by a simple belt, located in front of the user, pulling downwards and rotating forward produces a lot of strain is to users lower back. This combined with a lack of options to adapt the device to the user explains the pain many users mentioned when we talked to them.

HANDLING

Users working with demolition uses the device for long hours making the position and ergonomics of the device keys to a good working situation. However situations often arise when a small manual effort is needed. With traditional solutions the only choice you have is to unbelt, put down the heavy box, do the manual work and put it back on. This takes time, is straining, damages the controller and possibly hurts your back if repeated too many times.

Also, when users needs to reposition themselves in order to observe their work from different angles current solutions tend to rock heavily, creating discomfort for the users.

"The health problems and convenience issues the users experienced became my main focus"



"It became clear that we didn't have the time to completely revise the double-joystick way of controlling"

HAND HELD CONTROLLER

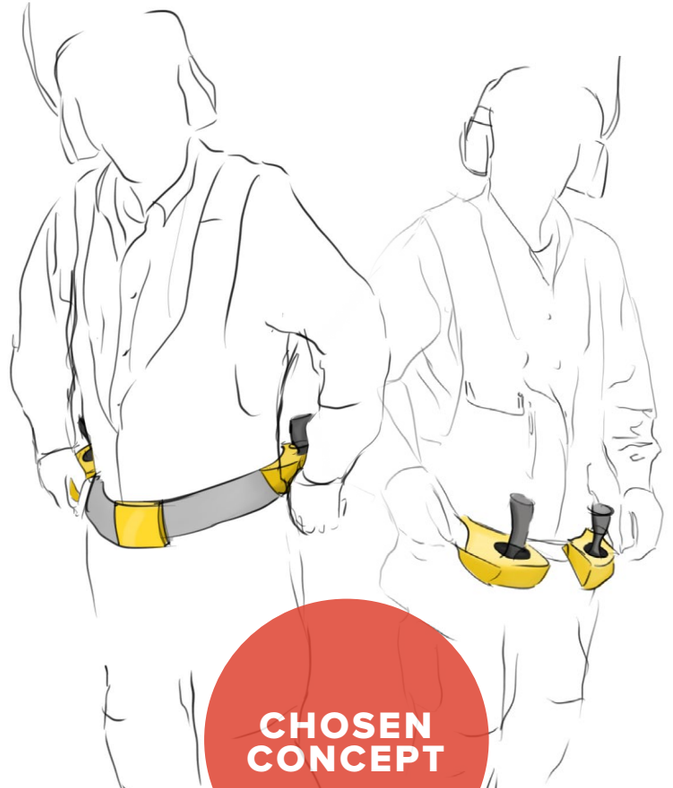
The first of two concept I presented to Electrum during the mid-review was inspired by what many popular gaming controllers look like. Such a solution would fit perfectly in situations where the usage during a normal work day isn't as extensive as it can be in the demolition business.

A smaller and hand-held controller would then provide flexibility in the way users can position themselves and would be easy to bring around. The ergonomic solution is one that has proved itself working and suitable for controlling in diverse scenarios.

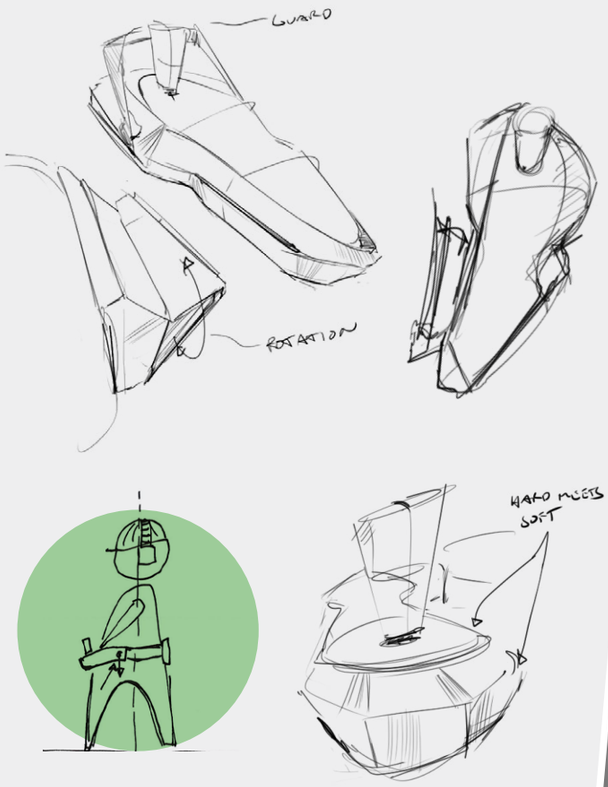
SPLIT CONTROLLER

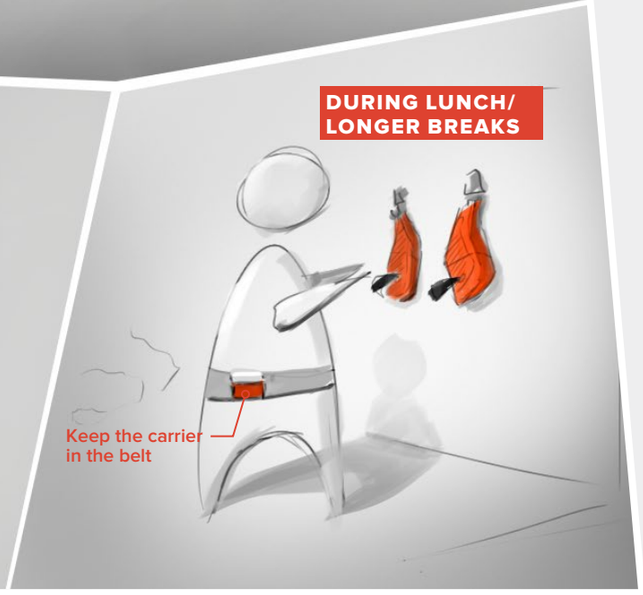
My second concept kept the full sized joysticks preferred by some users and is probably more suitable for the users who were my main target, the demolition robot driver who uses the controller for long periods of time.

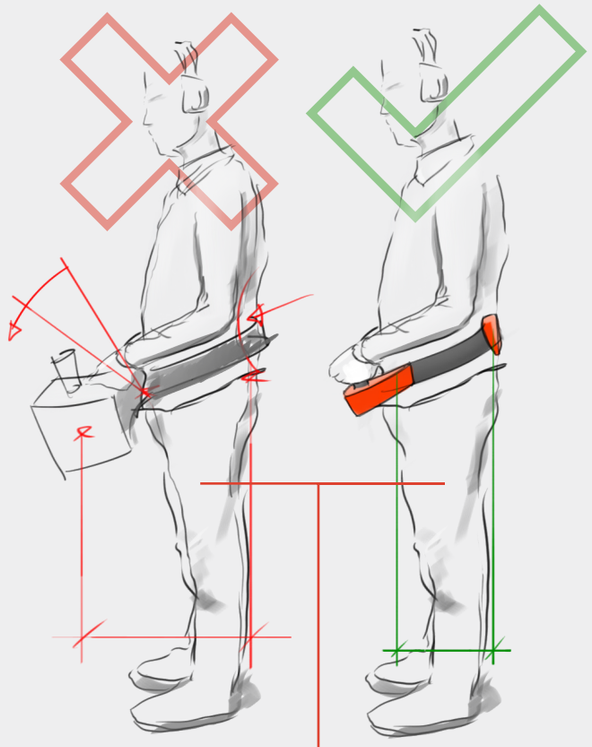
This concept features a better weight distribution, possibility of adapting the work position, keeping the controllers close to the body so that they won't rock when the user is moving and when other tasks needs to be done the controllers are easy to retract backwards and out of the way.



CHOSEN CONCEPT







THE CONCEPT OF THE SPLIT

After discussing with Electrum and my tutors I decided to go for the split concept due to it's higher potential and conceptual height.

Here are some of the benefits of my concept compared to current solutions.

+ The center of gravity is moved backwards to a more beneficial position

+ Easy to move aside when not needed during shorter manual operations

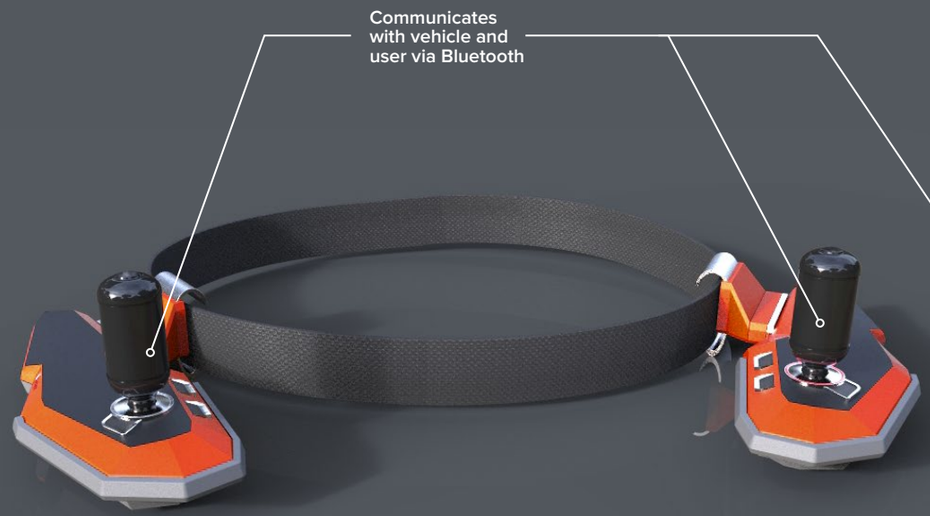
+ Conveniently disconnect the controller without having to remove the entire belt - during lunch break etc.

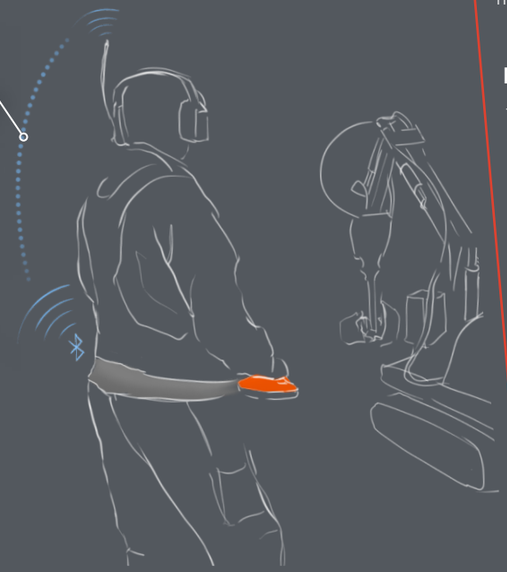
+ When the user is moving around to observe different angles the controllers are kept close to the body.

+ If multiple users reguarly uses the same controller they could both keep carriers in their belts.

+ When idle or not worn the joysticks are protected by a safety bar.

"By decreasing the levering distance and reducing weight the turning moment straining the users lower back can be reduced by more than 50%"





EXACTLY WHERE YOU WANT IT, ONLY WHEN YOU NEED IT

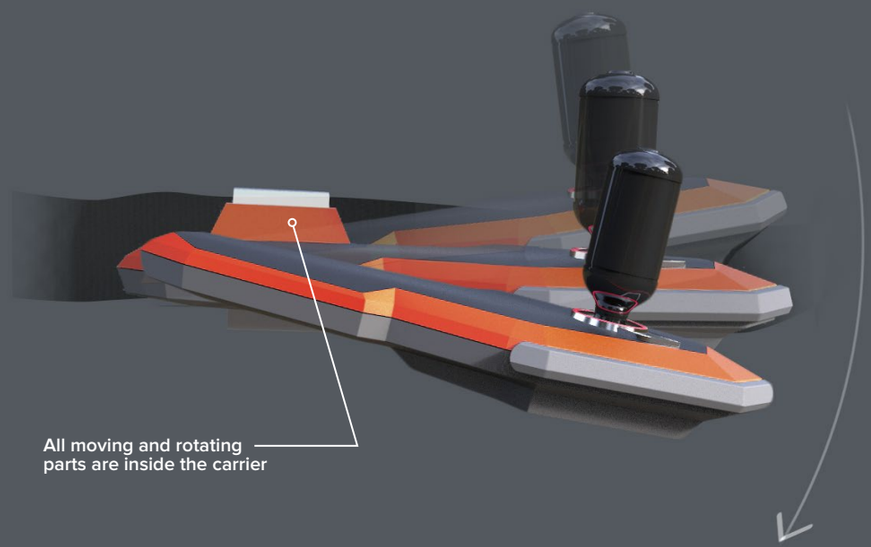
By splitting up the controller the user gets the possibility to adjust the angle and placement of the controller to a preferred position. When not needed the controller is easily moved away to enable free movement.

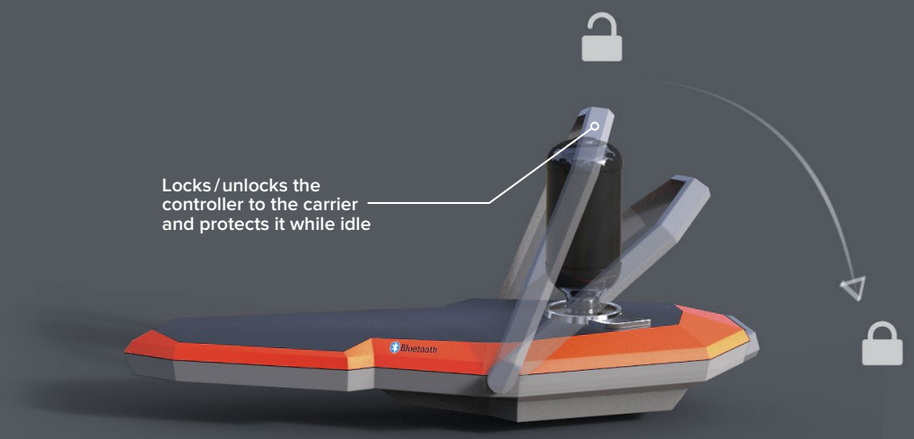
ERGONOMIC YET ECONOMIC

The cost of producing the controllers was a key priority for Electrum when they reviewed our work. By keeping the moving parts (for adjustability) solely in the carrier the complexity of the controller part could be lowered hence also reducing the production cost,

BLUETOOTH INTERFACE

The standard for wireless communication between controller and machine in this segment of products is Bluetooth. I imagine the same technology being used to send info, warnings etc. from the machine to users connected smart-phone and/or headset. This eliminates the need for a expensive and fragile display on the controller.

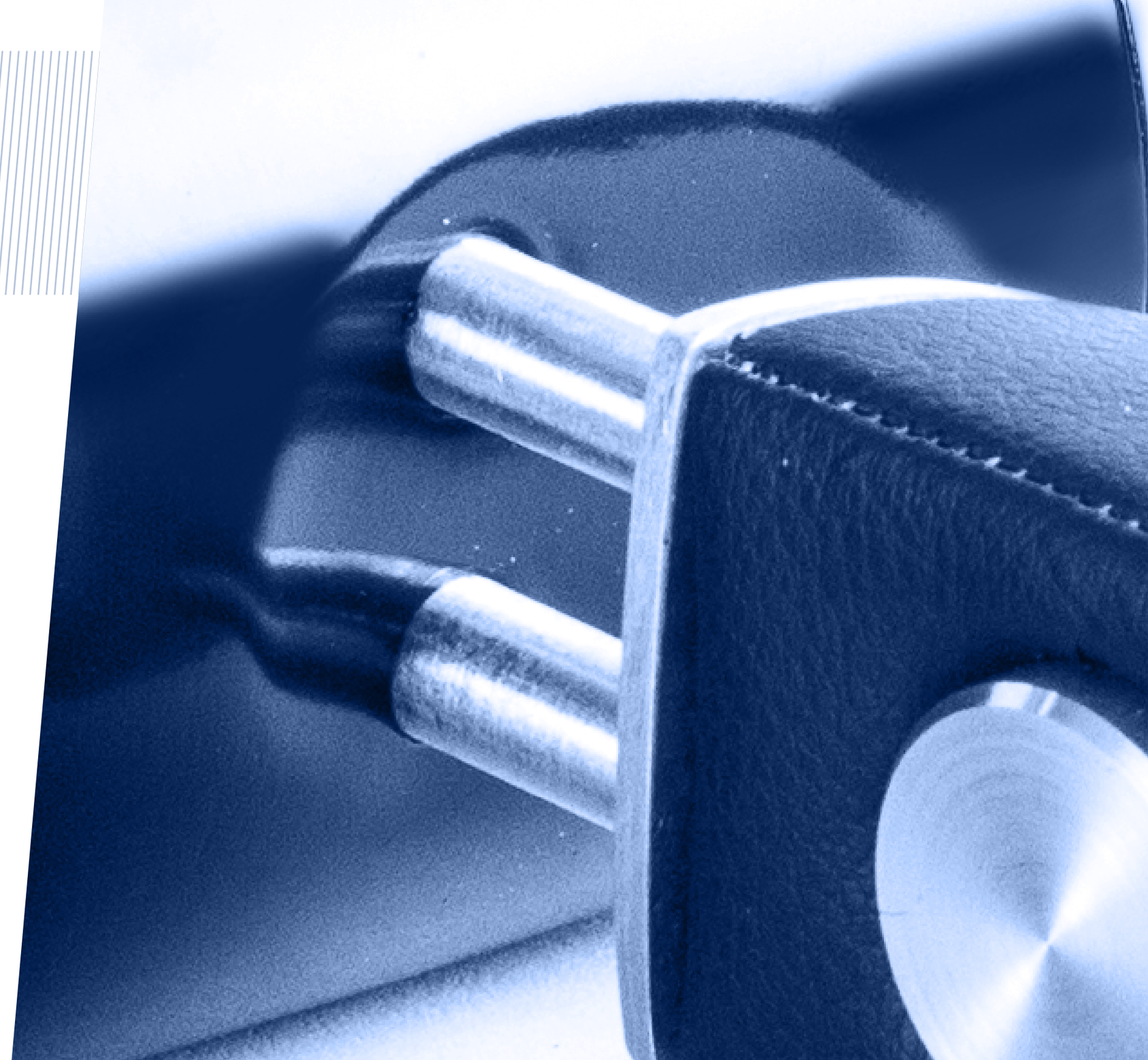




BEO ***BLOW***

This is the result of our first product branding project heavily focusing on learning how to create prototypes using all parts of our workshop.

BRANDING & WORKSHOP - 3 WEEKS - BA SEMESTER 1



INVESTIGATING THE CONSTRAINTS

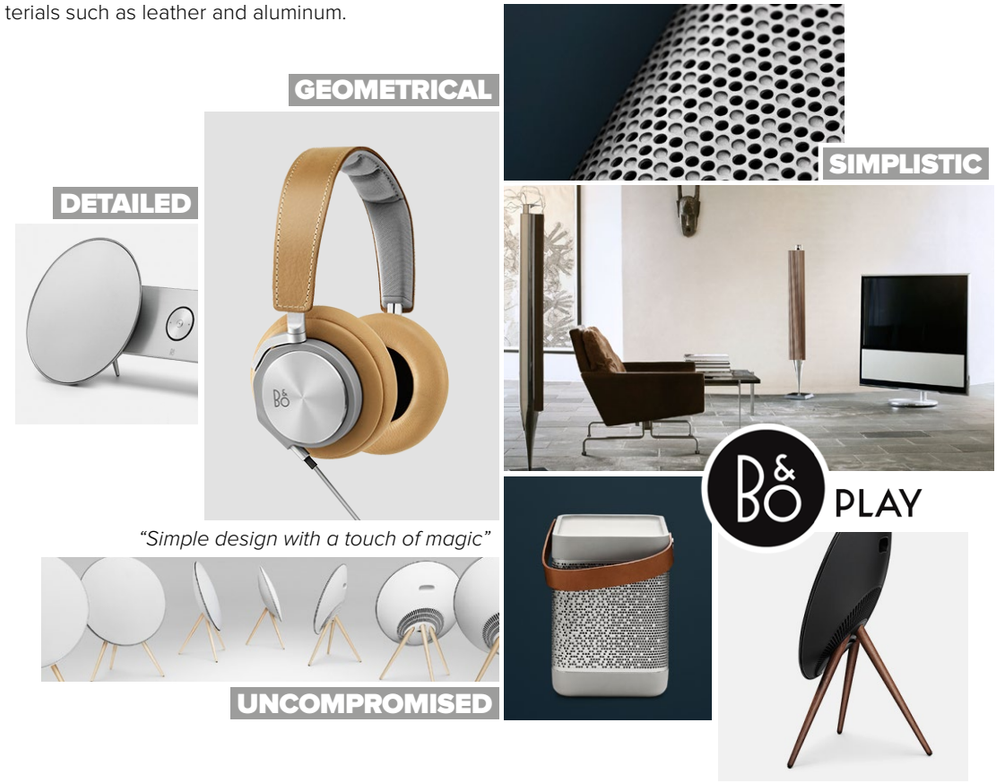
We started of our project by de-assembling an existing hair dryer. The simple plastic shell hid the straight forward construction of a power switch connected to the fan and heater.

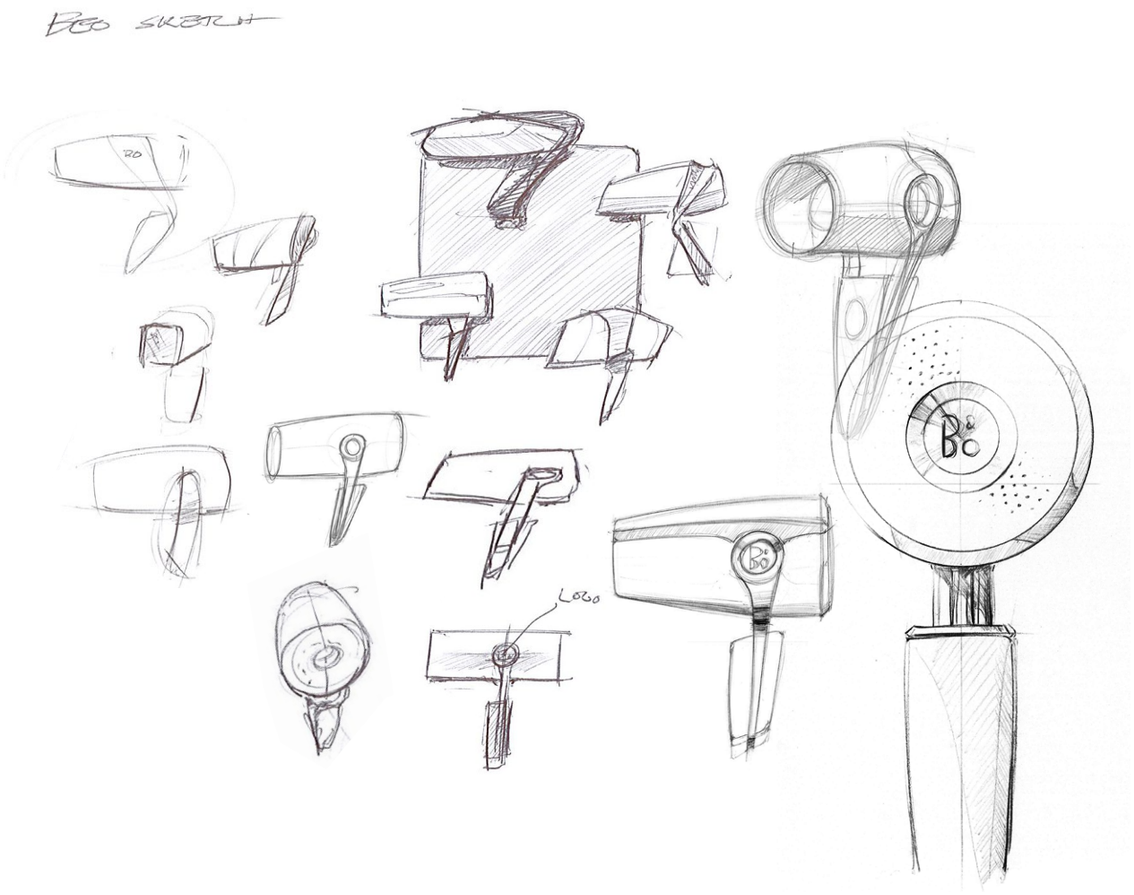
The key component defining the dimensions was the fan with a diameter up to 85 mm at its largest which I built my design around.

What could a **Bang & Olufsen** hair dryer look like?

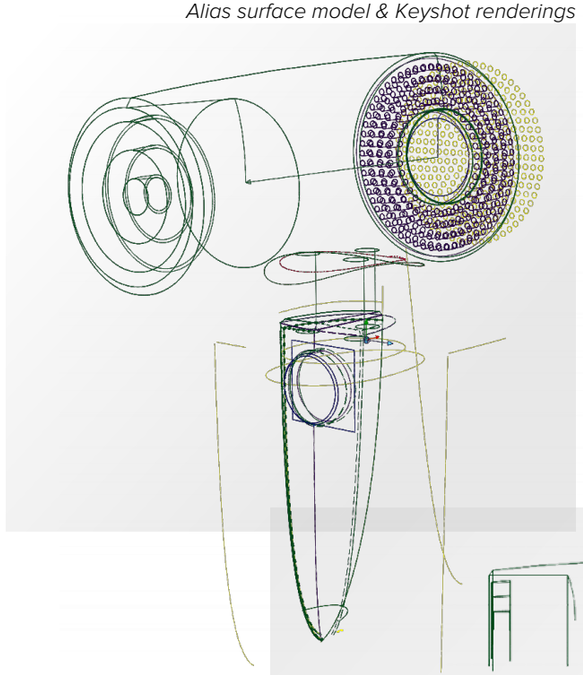
EXPLORING B&O PLAY

Compared to the original hair dryer, a B&O version needs a styling that is simpler yet much more refined and feature premium materials such as leather and aluminum.





Alias surface model & Keyshot renderings



IMPLEMENTING

I sketched out ideas based on the brand values discovered earlier. I went back and forth between sketching, sculpting in PU foam and modelling in Alias to find the right design able to embody the components from our benchmark hair dryer.

During the project we were introduced to drafting angles and injection moulding production techniques. I decided to apply that knowledge to my hair dryer by making slight modifications so it would be conceivable to produce.

MODEL

My full scale model is made out of PU foam, aluminium and faux leather. Most used machines and ways of working during the course were the lathe, sewing machine and of course putty and sanding paper. The painting is done in the paint booth using an airbrush.

LAMY *RADII*

Using a so called “formula” consisting of my favourite product, a randomly drawn classmates ditto and a drawn theme we were supposed to create a new product. How to combine them into something fresh was up to us.

DESIGN SEMANTICS - 3 DAYS - BA SEMESTER 2

“How can you combine the **key features** of two different products into something new?”

MY PRODUCT
PROFESSIONAL
EXCLUSIVE
LINEAR

JOAKIM'S PRODUCT
FUNCTIONAL
TRANSFORMING

MOODBOARD
FOCUSED
INDUSTRIAL
ACCURATE

My formula

LAMY ECON

One of my most used and loved pens, my Lamy econ. Aesthetic, simple and with a professional character.

My pen became the foundation for my new product as I choose to keep both Lamy as my brand and pen as type of product.

ELECTROLUX 3-IN-1 NOZZLE

My friend Joakim's favourite product was a transforming vacuum cleaner nozzle. What I brought onwards from this was mainly the transformational capabilities.

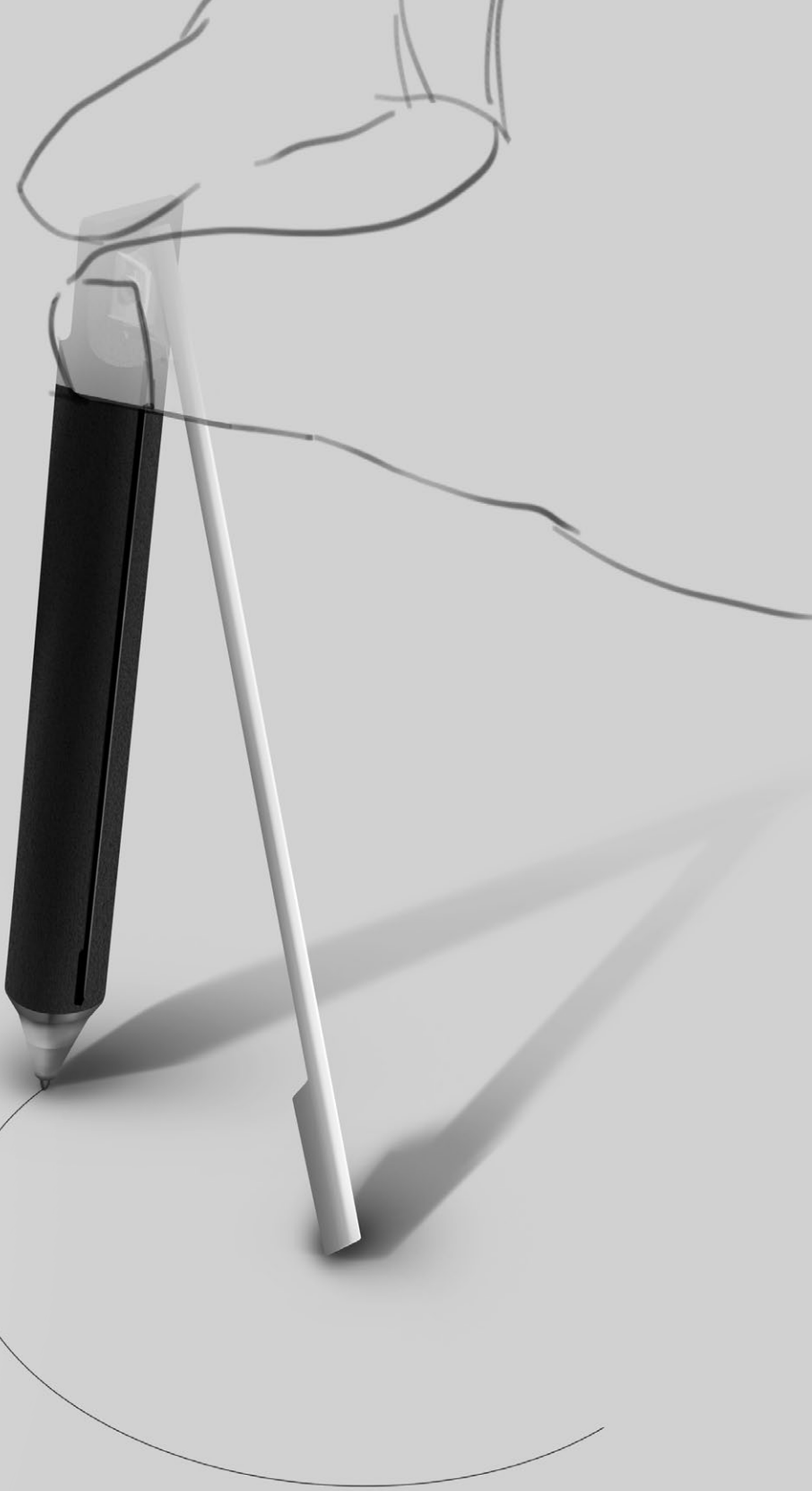
INDUSTRIAL MOODBOARD

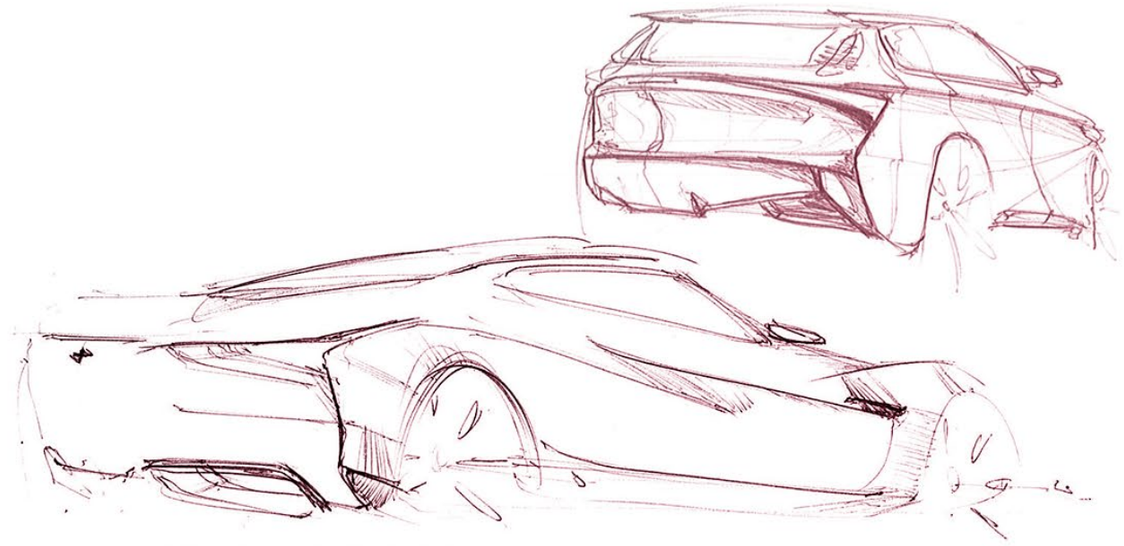
To further inspire me I received the industrial moodboard picturing precise, hard core products with a clear function-first agenda.

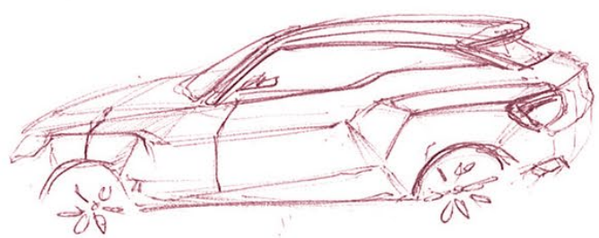
I choose to focus on the accuracy I found as a theme as it felt applicable while still keeping the "Lamy-ness".

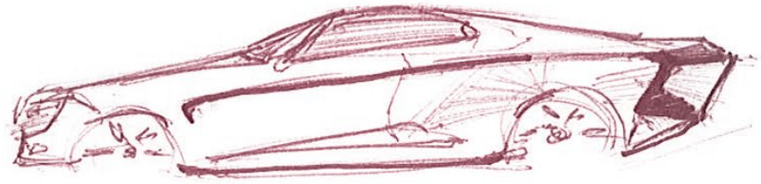
RESULT

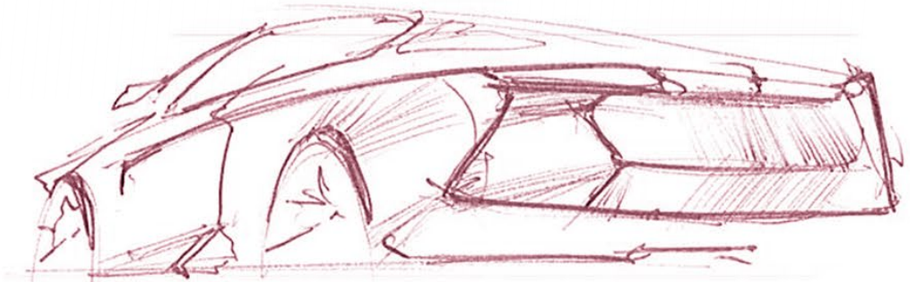
Finally I ended up with a Lamy pen with an integrated compass. I felt I were able to include the precision, professionalism and ability to transform from my formula into a believable package. The right target group would likely find this pen as great of a companion as I have found my Lamy to be.

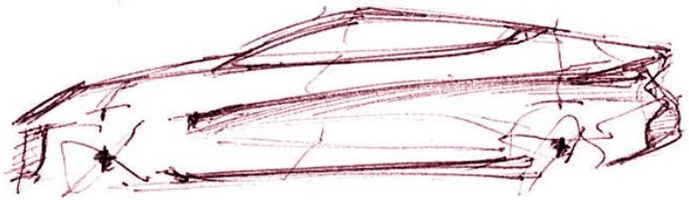


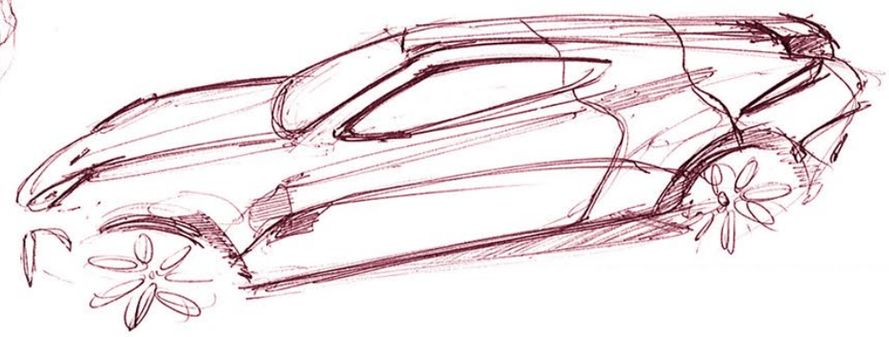








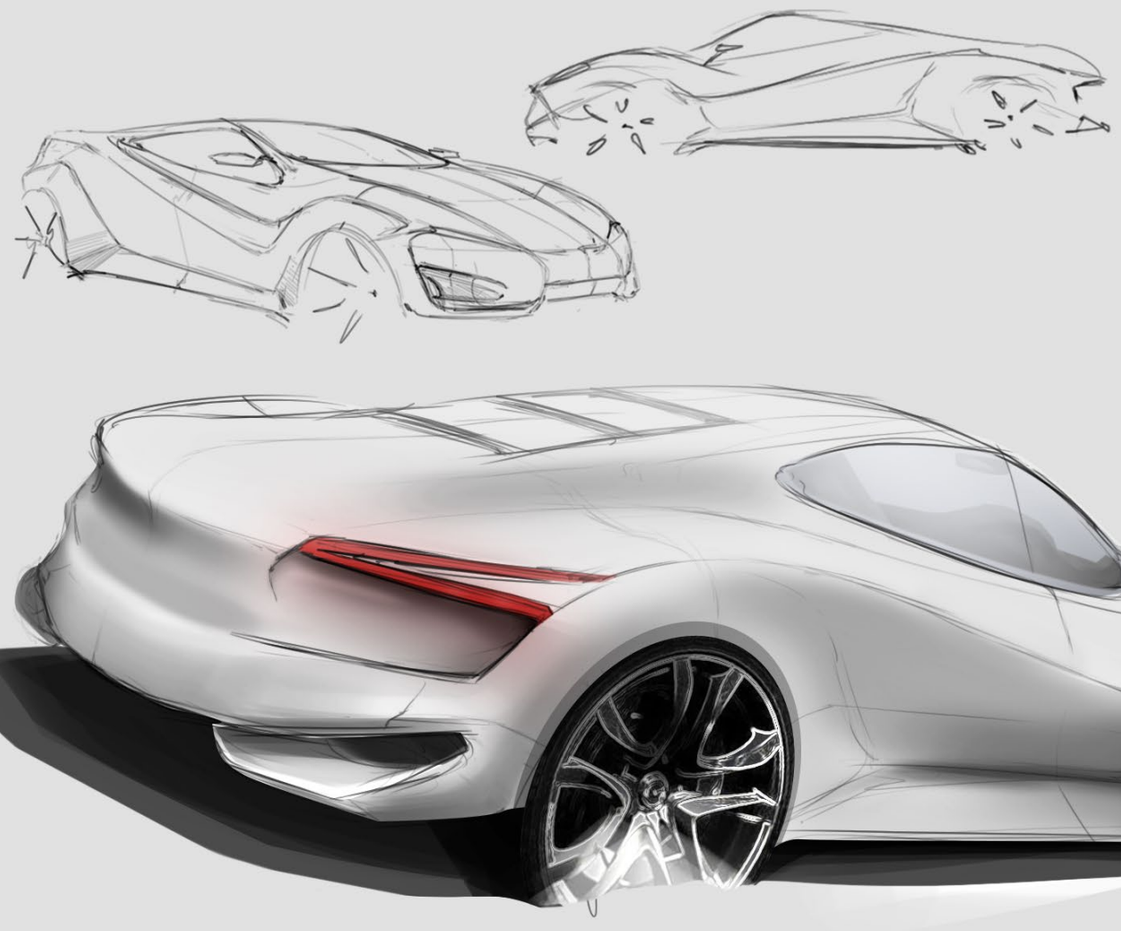


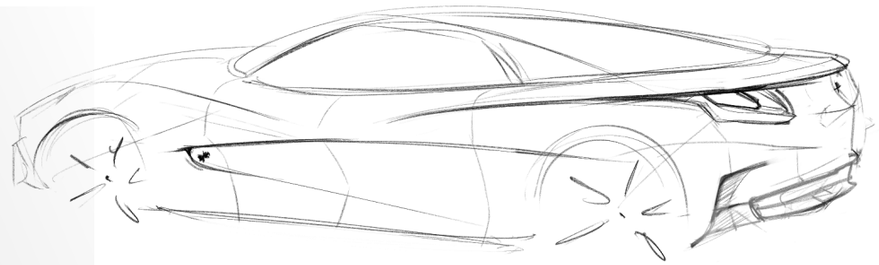


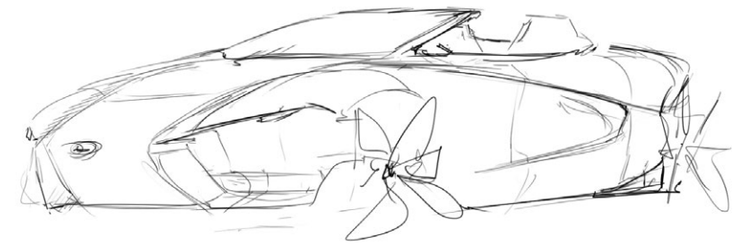
MISCELLANEOUS

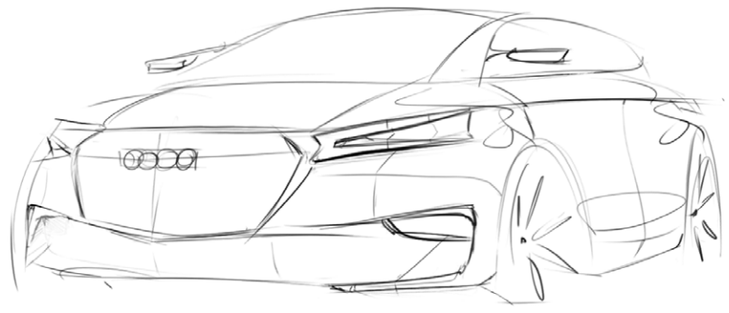
To tell a bit more of my story I have collected some works I like to do in my spare time: sketching cars, working on furniture in the workshop and taking photos with my camera.

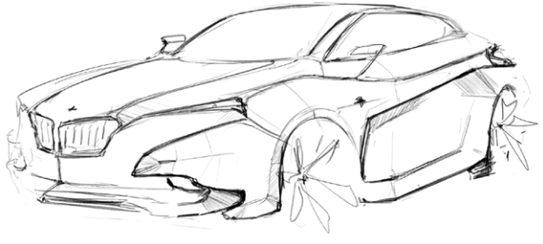
SKETCHES - PHOTOGRAPHY - FURNITURE

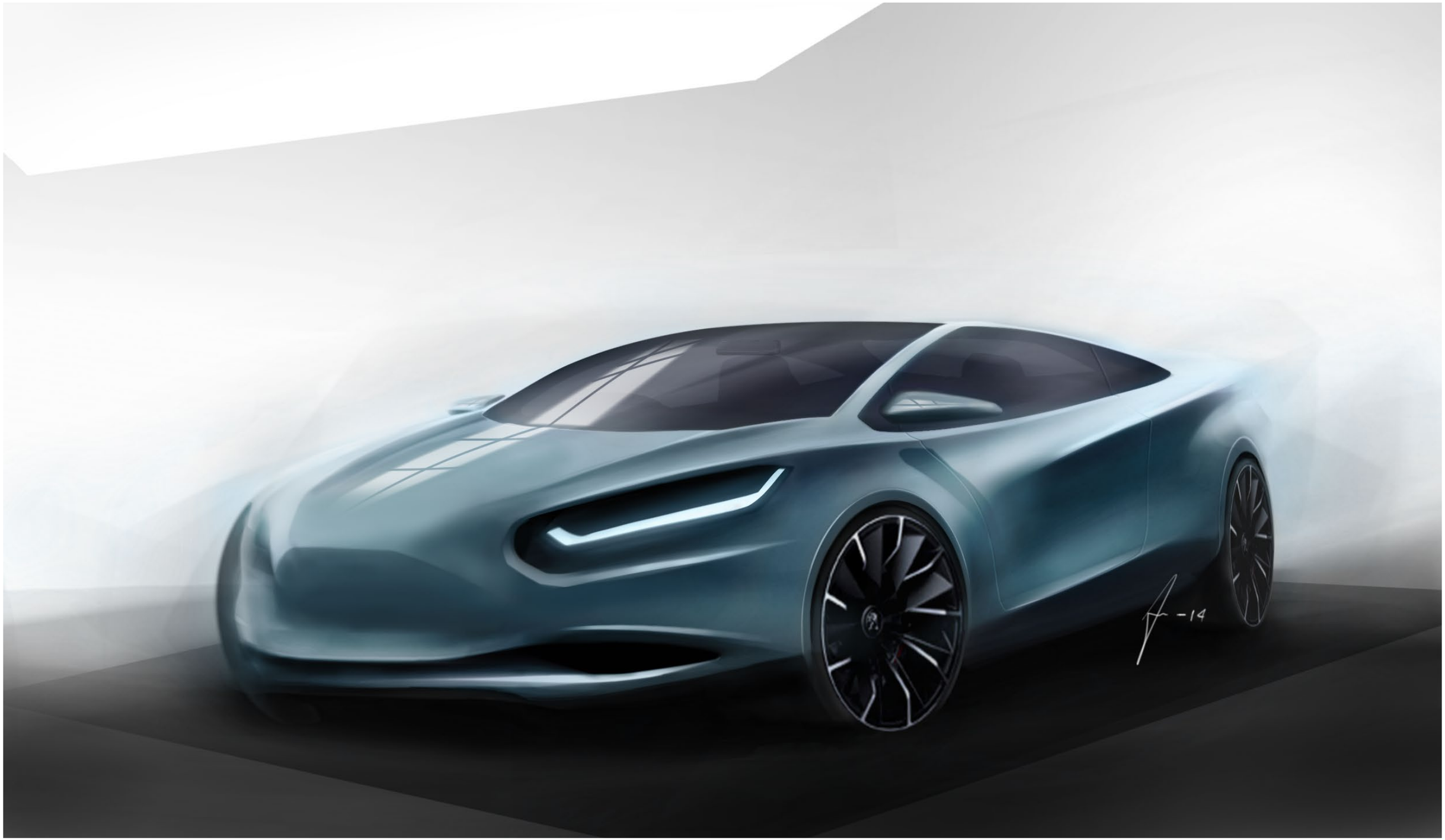












FURNITURE

Dining table in original design made out of birch, metal and linoloeum-covered MDF, hand built by me in the workshop at UID

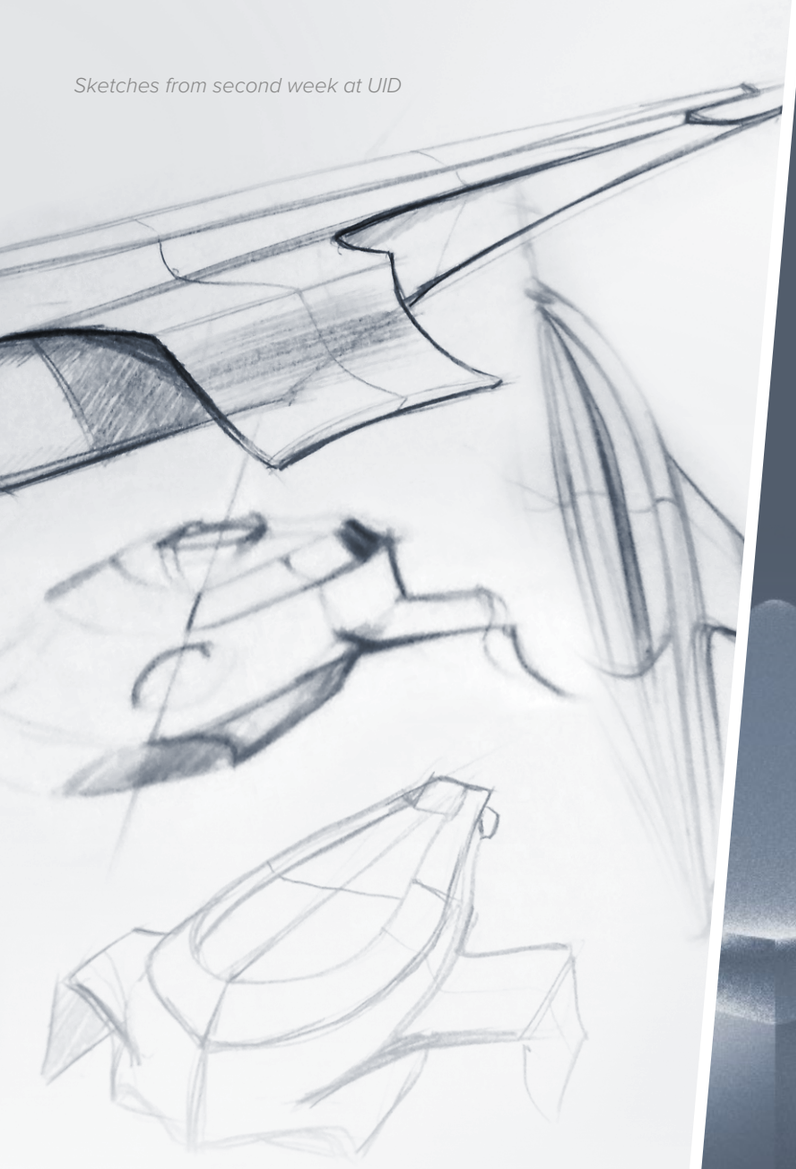
Night stand with drawer, made out of birch

PHOTOGRAPHY

Printed photo book from my 2014 summer vacation

A few photos of mine, many more at: jlpfoto.wordpress.com

Sketches from second week at UID



SPEEDFORM

This project started during my very first weeks at UID. During our initial sketch course we got to sketch out a shape we felt communicated speed. A few weeks later I decided to bring these sketches to life in Alias in orderer to strengthen my modelling skills.

Even though both the sketches and Alias model is rather old and perhaps doesn't show my current abilities I felt this mini-project displayed some of what I really enjoy in the design field.

THANK YOU FOR WATCHING

CONTACT ME
jonas.lindberg.olof@gmail.com
+46 708 - 11 64 58