PRODUCT DESIGNER

selection of works 2021-2024

about me

My name is Louis, I am a product designer eager to further prove myself in a professional environment. I am an extrovert personality and work best discussing and sharing new ideas and solutions, so my workflow will always switch from sketching to mock-ups and little 3D-works to communicate ideas. My main focus is to extract dimensions and actual building plans from CAD software to bring prototypes to life, especially using experimental and innovative building techniques. I have some professional experience as a freelancer already. This portfolio includes professional projects alongside works which I conceptualized as part of my diverse education in Berlin and Istanbul, and some personal projects. Hope you enjoy!

CONTACT
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EDUCATION

Bachelor of Arts in Industrial Design
HTW Berlin
2018-2023

Graduation Project Abroad 2022
Kadir Has University
Istanbul

VALUABLE EXPERIENCES

Internship at Bellealiance Hamburg
Theatrical plastics
01/18-05/18

Working at Firma Hinrichs
Interior and facades renovations
05/18-10/18

Internship at YUUE Design as
Product Designer
03/21-08/21

Freelancer for YUUE Design as
Product Designer

SOFT-SKILLS

Deep market research as well as research in detail solutions for parts and materials

Organization of projects and communicating in an interdisciplinary team

Ideation through sketching and mock-ups

Ability to present and layout projects through design of data and storyboards

Building with 3D-software and extracting building plans

Rapid prototyping with various materials and techniques, especially woodworking

SOFTWARE I LIKE TO WORK WITH

Rhino 3D
Grashopper
Blender
Adobe Creative Cloud
Photoshop
Indesign
Illustrator
Midjourney

I WORKED BEFORE WITH

After Effects
Cinema 4D
Solid Works
Marvelous Designer
Word Press / Elementor
Auto CAD
Figma

...and many more. I am always excited to touch a new tool!

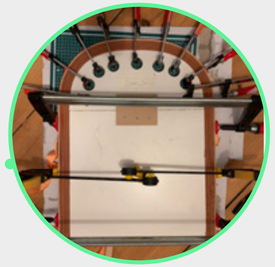
workflow

Even though I will introduce a variety of different projects on the next pages, my project workflow usually stays quite similar: Problem analysis and market research, are followed by form finding and sketching. Finally, quick 3D-modeling in CAD software and paper or wooden mock-ups are usually the most effective ways for me to communicate ideas before working on functional prototypes and renderings.

story boards
Adobe Illustrator

prototyping

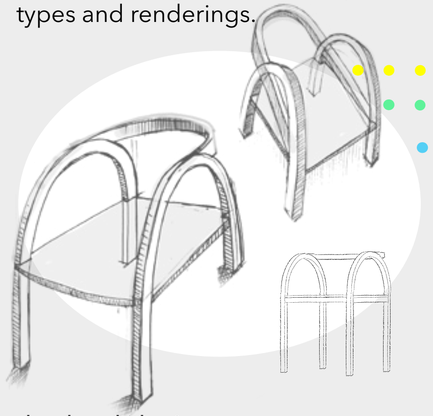
detail solutions



mock-ups

photoshoot

documentation
digital counterparts

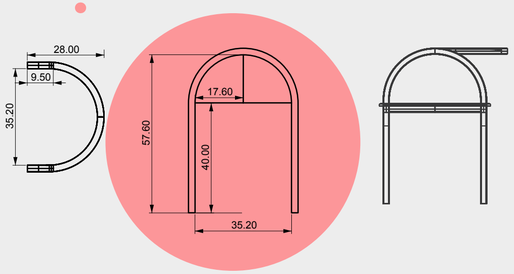


sketch and ideation
user journey
interviews
user cases
market research

CAD
Rhino 3D

rendering
blender

AI background
generation
Midjourney
Adobe Photoshop



dimensions
Adobe Illustrator

Grown-Up
High Chair
01

Spring Lamp
03

Bio Blocks
BA Thesis
05

Occa Sculpture
02

i-CRS
Child Seat
04

portfolio content

Grown-Up

designed for YUUE Design 2021

SIT FURNITURE DESIGN AWARD WINNER 2023

a new approach to adjustable high chairs

process

During my time as an intern at YUUE Design, we were offered a project for a high chair by Pupupula, a Chinese furniture brand specialized in children's furniture. They already had a product which they thought was too hard to adjust, since you needed to loosen and fix a lot of screws. So I developed the following concept with the thought of easy adjustment but also looking for a design language which would appeal to the brand. Their portfolio is specialized in contemporary designs for child furniture which should also appeal to adults. Since the company was already happy with our first suggestion, I finalized this project by myself.

3 to 4-year-olds
height 553mm * depth 331 mm

4 to 5-year-olds
height 519mm * depth 340mm

6 to 7-year-olds
height 484mm * depth 353mm

from 7
height 450mm * depth 362mm

seven parts
four screws

The Grown-Up chair aims to stay with you for your entire life. From the age of around three years until you decide to give it away, it will grow with you as a child and stay stable and mature-looking until you are grown up. Four slots in the back of the seating area, combined with a freely movable footboard enable the right adjustments for any age and size, all while functioning as a regular, cleanly designed piece of furniture, suitable for any living or dining room.

On the current market, there is always a strong difference between an adjustable chair for children and regular chairs. The Grown-Up can be combined with a version without the adjustability and would be possible to order in a set.

all grown-up

details

Occa Sculpture

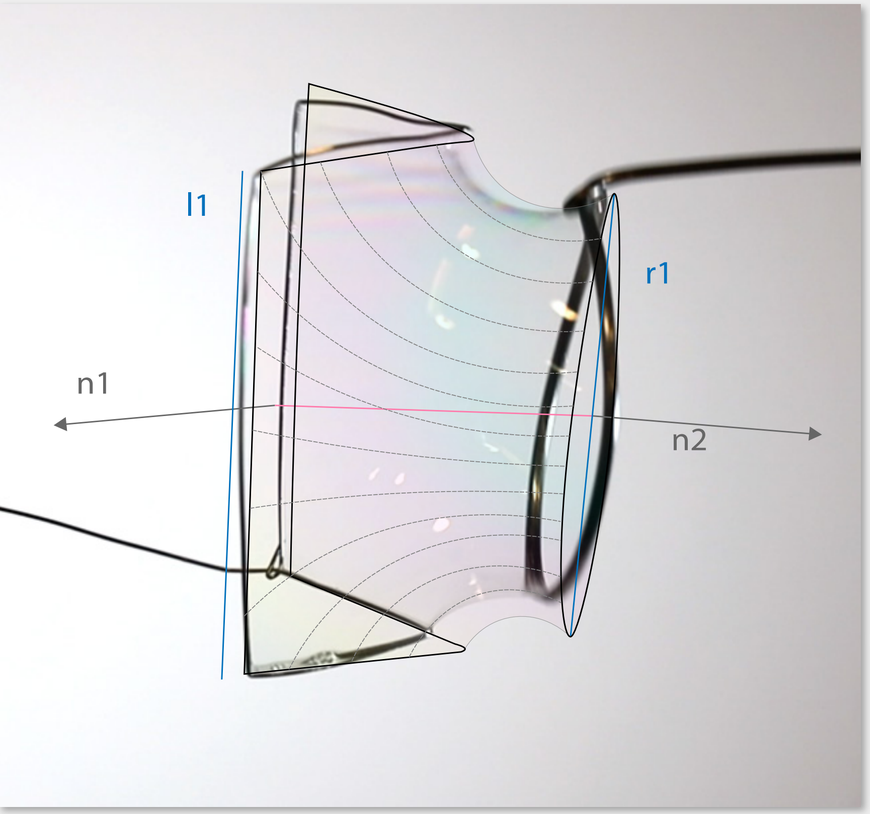
Group Project at Kadir Has University Istanbul, 2022

02

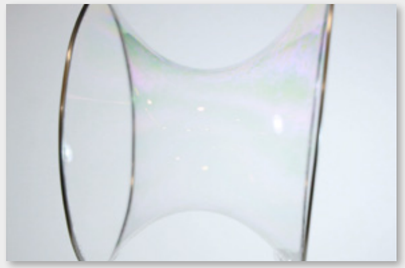
Prof. Sabri Gokmen,
Muvaffak Ali Akyuz,
FatmYesim Kızılbulut,
Ozce Ozkose,
Melike AyyuceGunes,
Mustafa Ilgaz Aluc,
Sevval Busra Ozmen,
Abbas Khan,
Mohammed Jarrar,
Ahmed Barzan,
Ali Ozan Guvenc,
Louis Folkens

a deep dive into digital fabrication

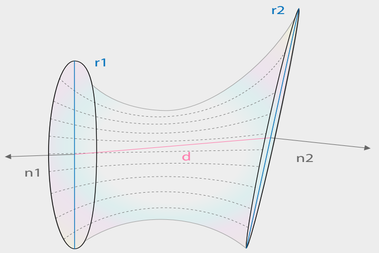
freeform surfaces



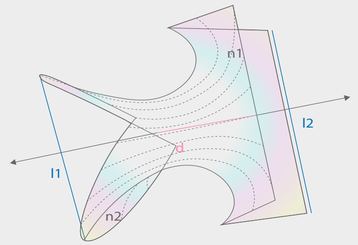
Frei Otto was one of the pioneering architects of the 20th century, often recognized for his innovative form-finding approach towards the design of tensile structures. We started this project by replicating and documenting some experiments of the architect Frei Otto, with the goal of reproducing the results in Rhino Grasshopper using the Kangaroo plug-in. As a dynamic medium, soap film uses a rationed mixture of soap, glycerin, sugar and water, thus producing a state where both the compressive and tensile properties of the solution appear to be balanced. The resulting "minimal" surfaces would exhibit equal tensile forces running in all directions, presenting optimal structural solutions for a given boundary configuration. These minimal surfaces in soap film, can be a guide for another material medium at a different scale.



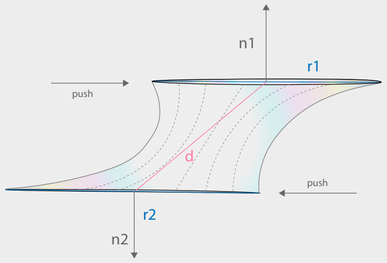
from soap experiment



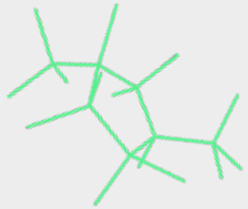
to vector

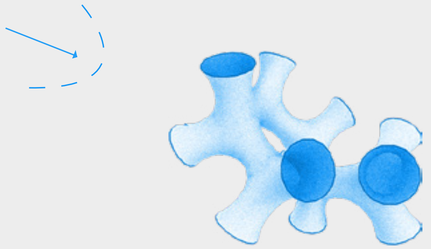


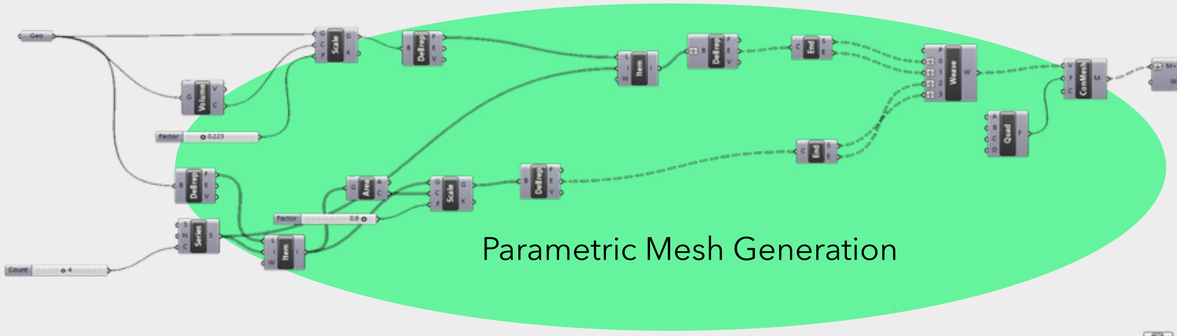
to GS script



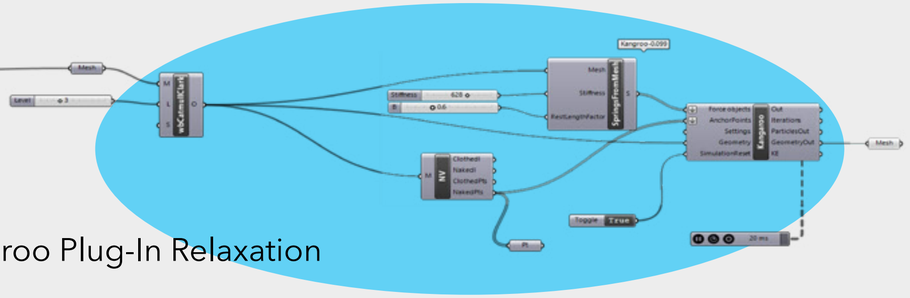
4 stage script



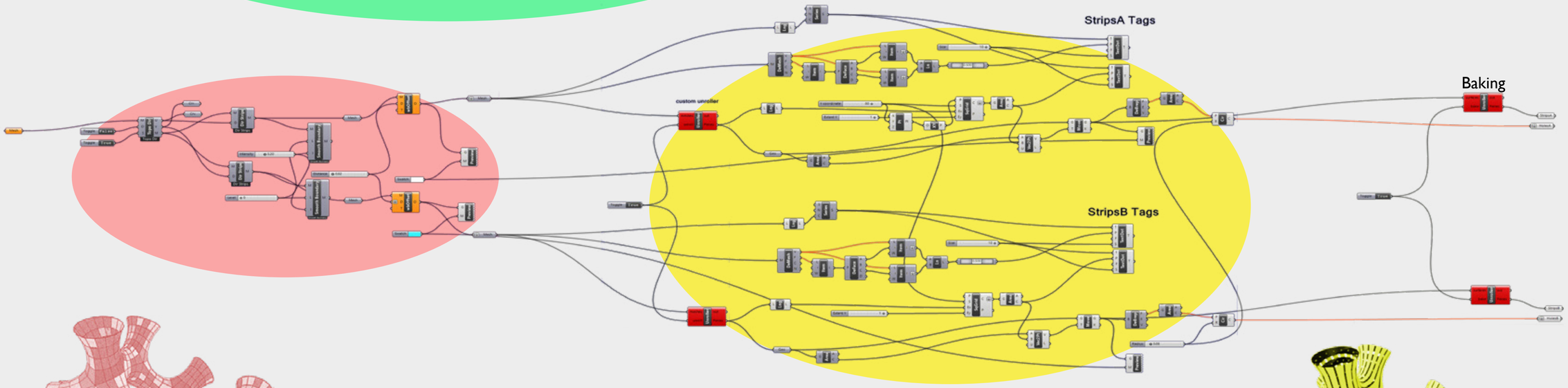


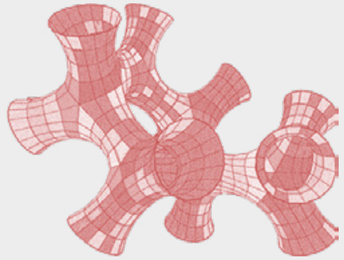


Parametric Mesh Generation



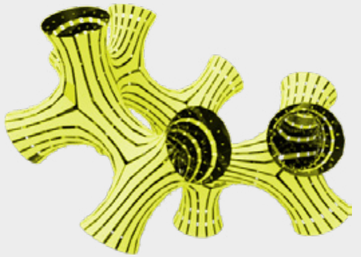
Kangaroo Plug-In Relaxation



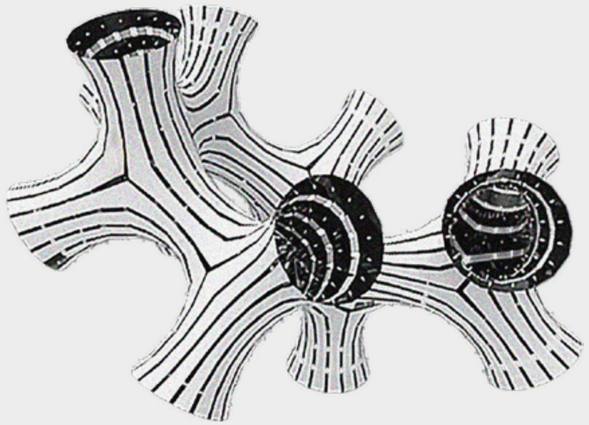


Extracting Mesh Strips

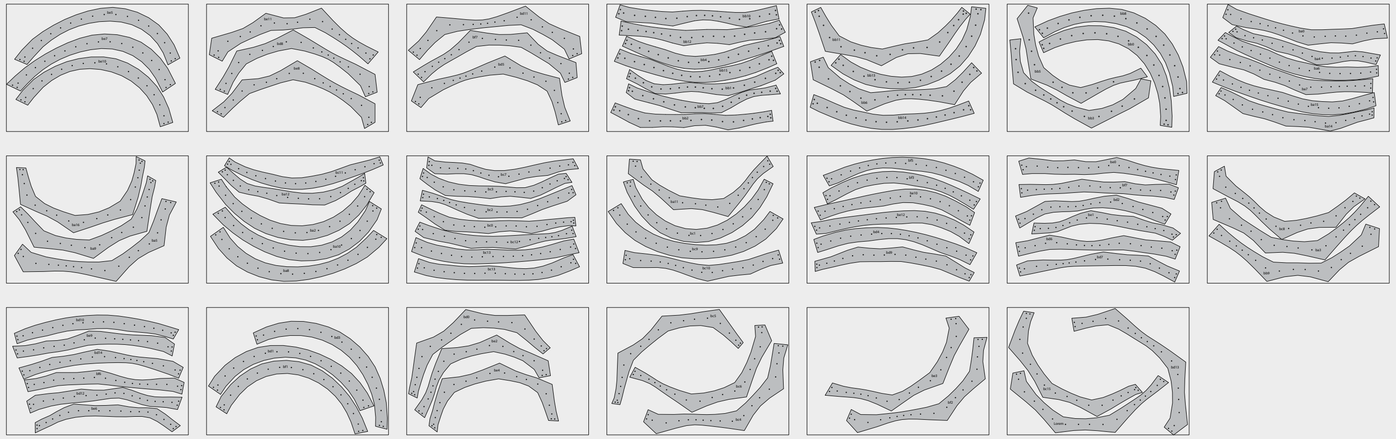
Stripper Plug-In Unrolling Geometry



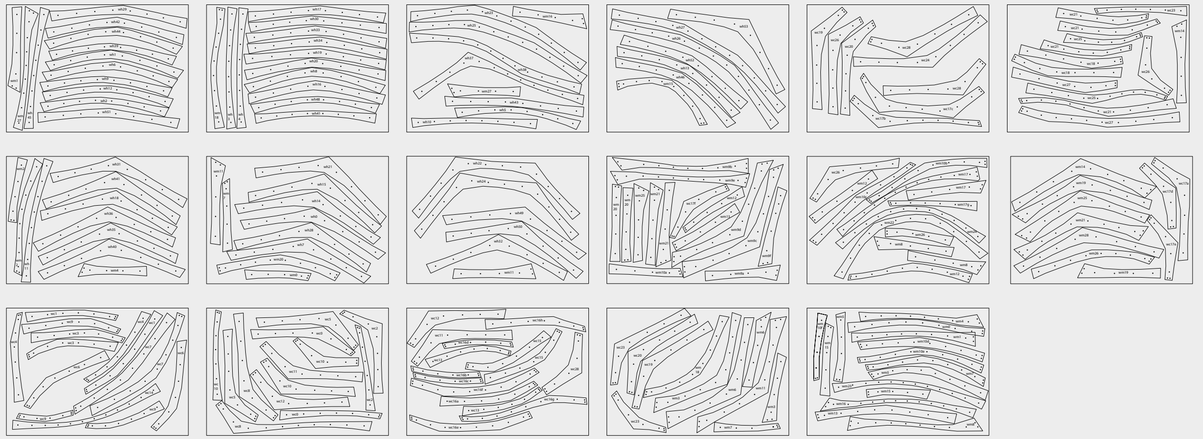
fabrication sheets



Black Strips of the construction rings (u curves)

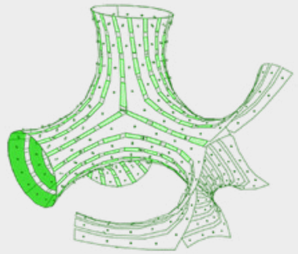


White Strips of the outer layer (v curves)

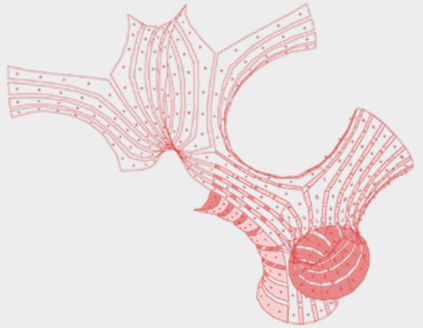


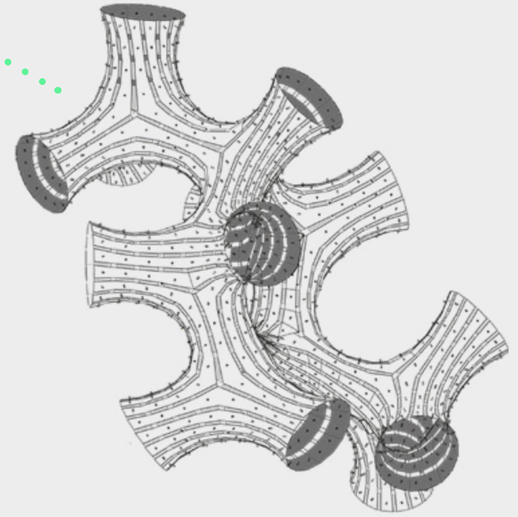
assambly logic

Black Strips

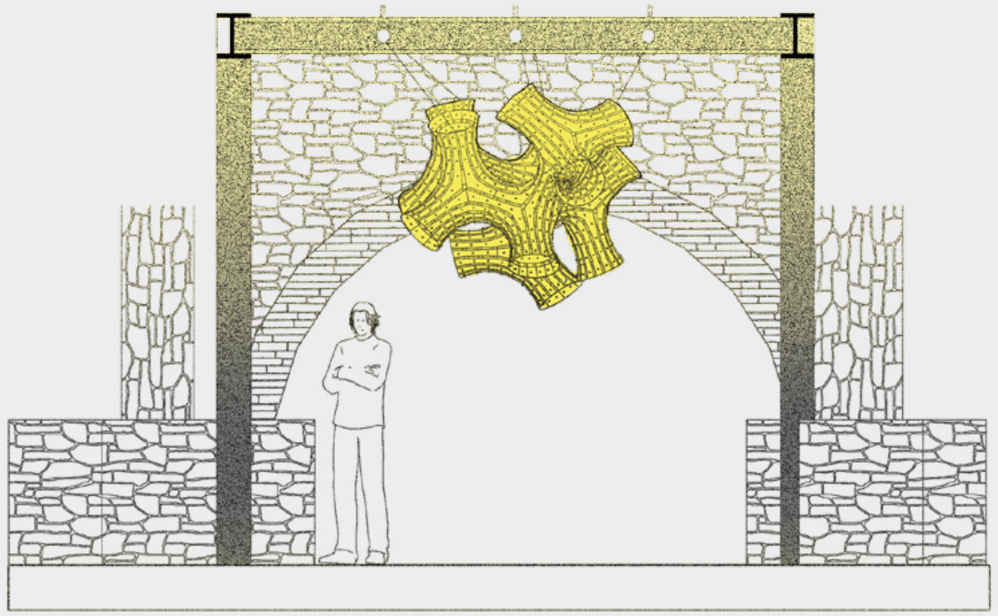


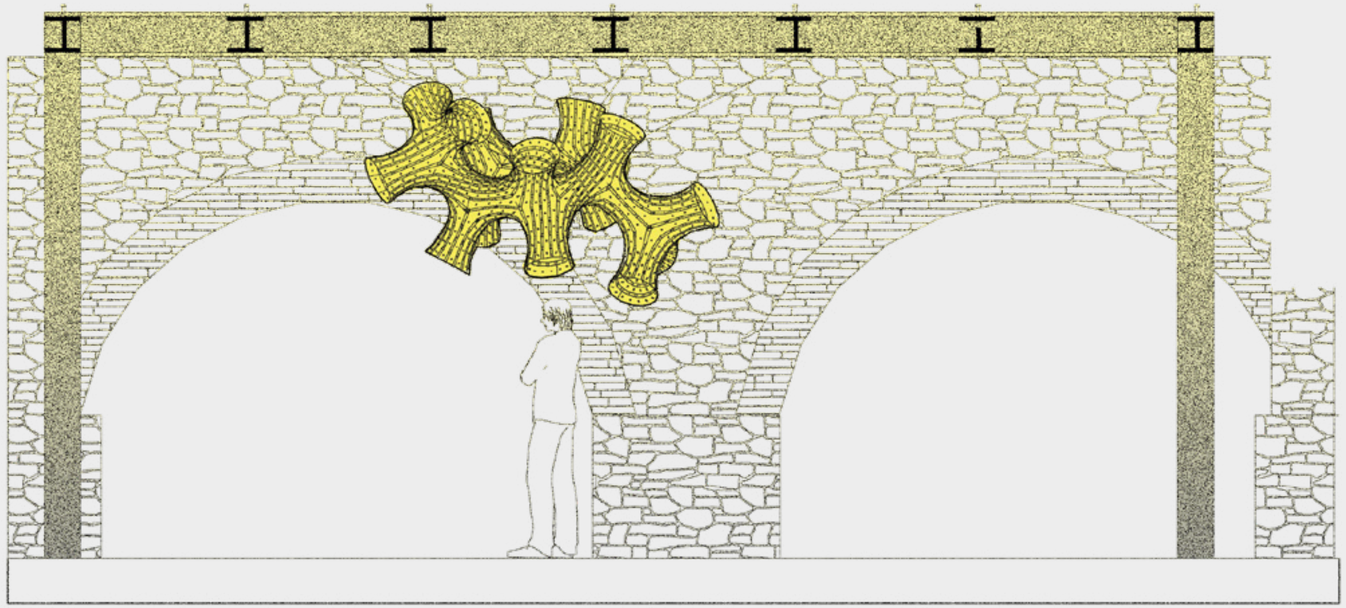
Black and
White Strips





sections

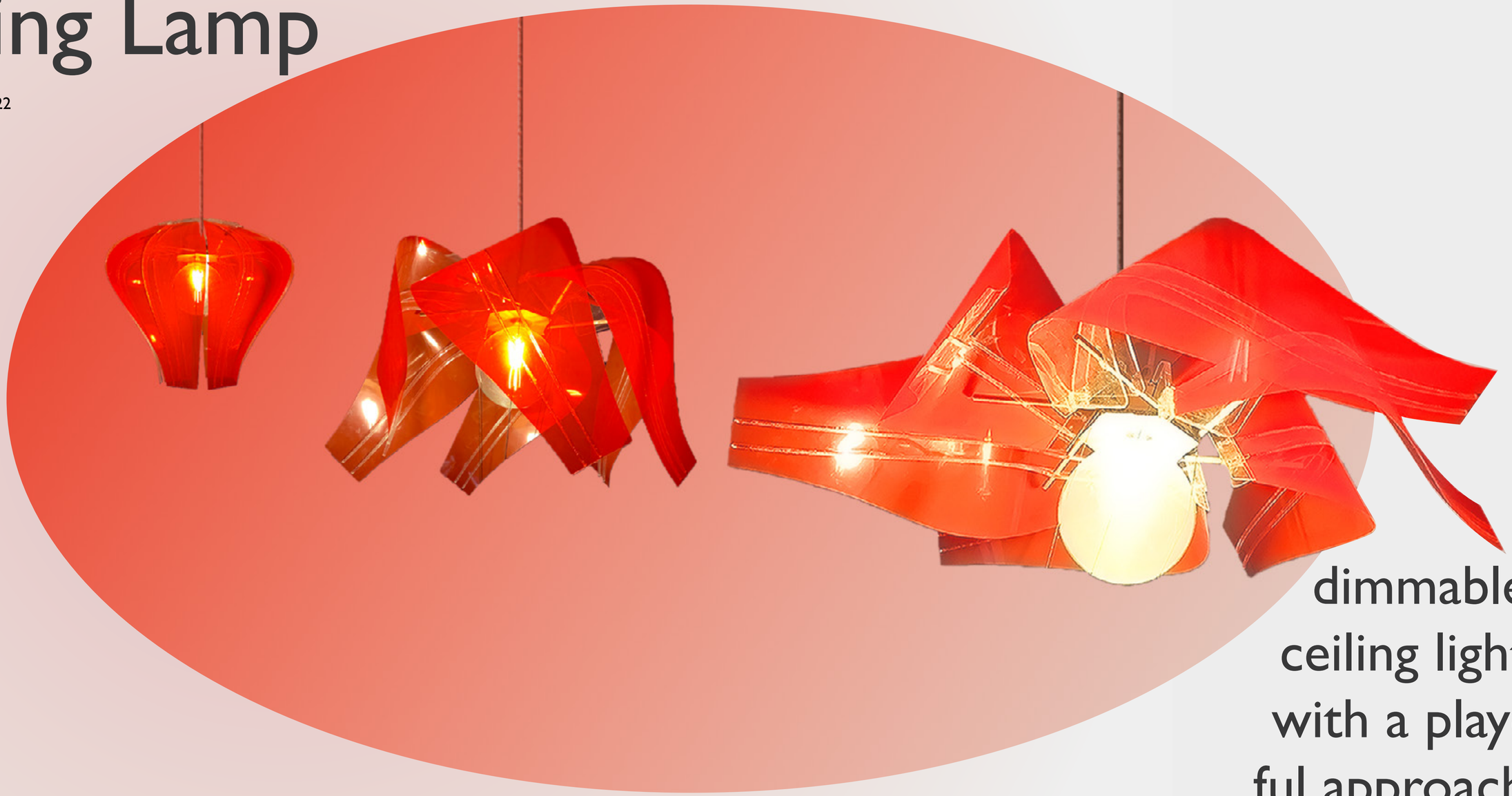




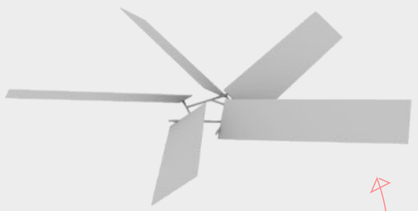
Spring Lamp

Personal Project, 2022

03



dimmable ceiling light with a play-ful approach

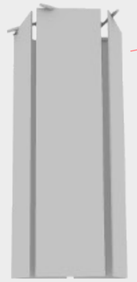


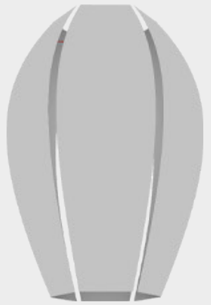
version 1
flat

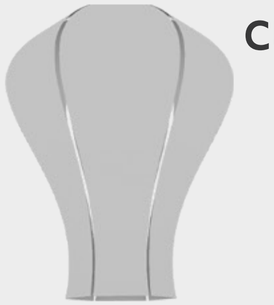
version 2

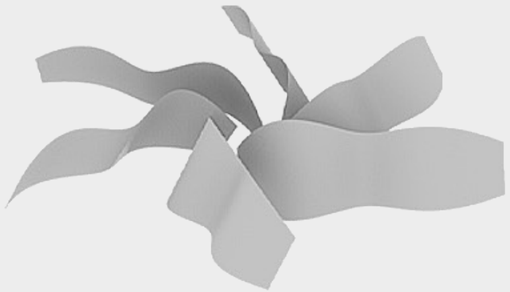
version 3
round

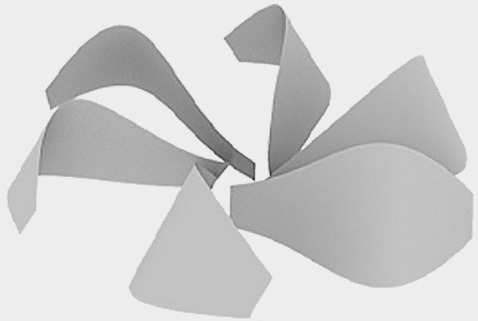
version 4
curve

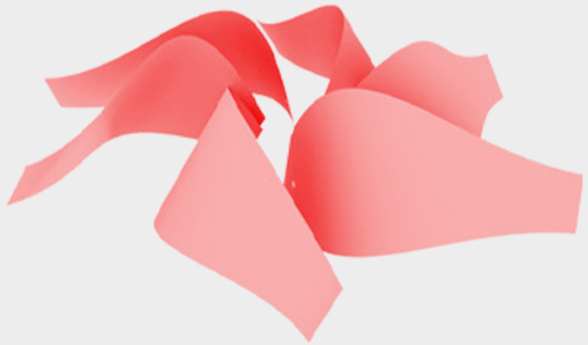












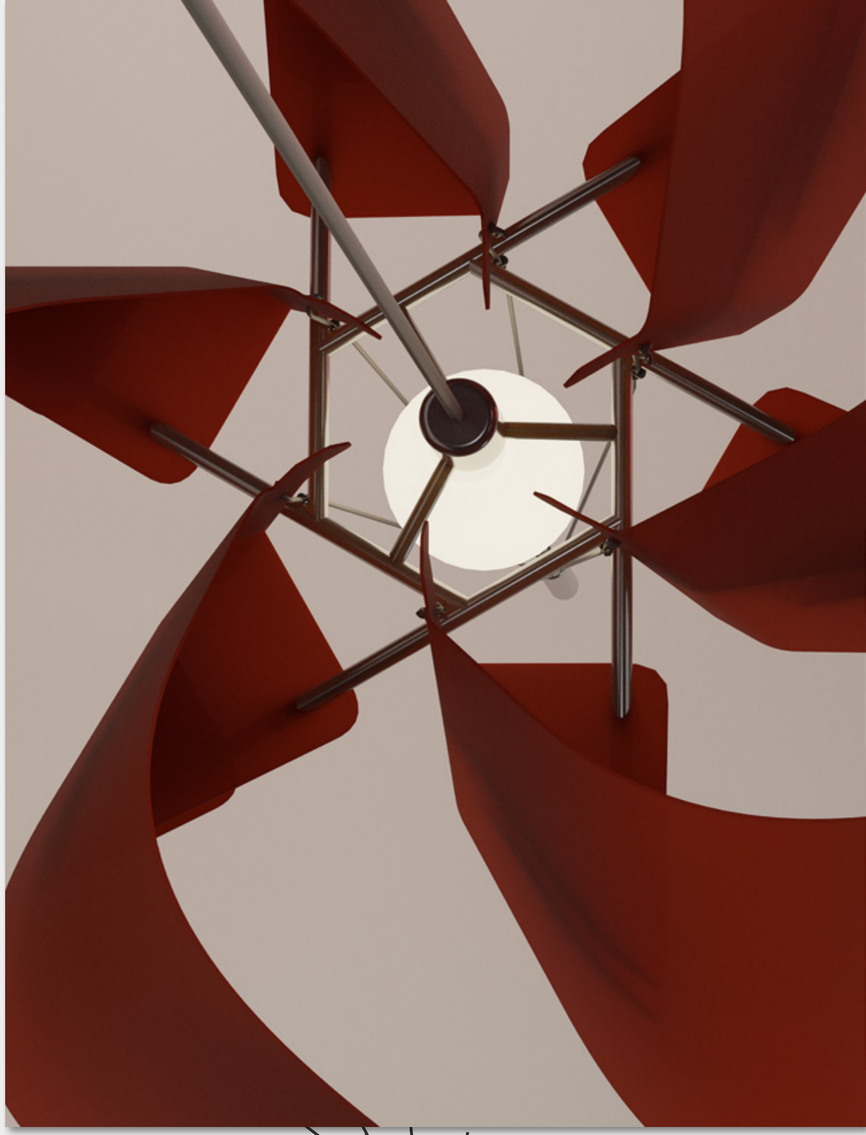
form-finding
diagram

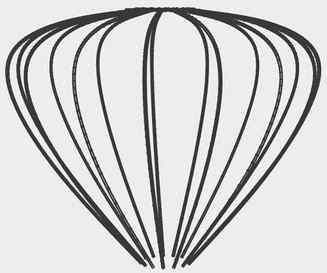
version 5
swing

version 6

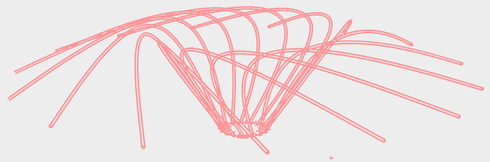
version 7
lampion

function

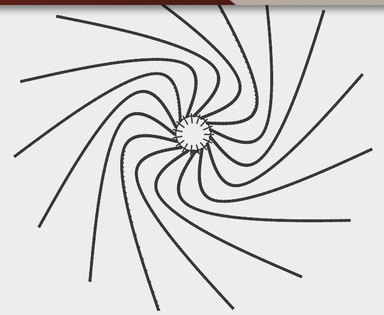




closed



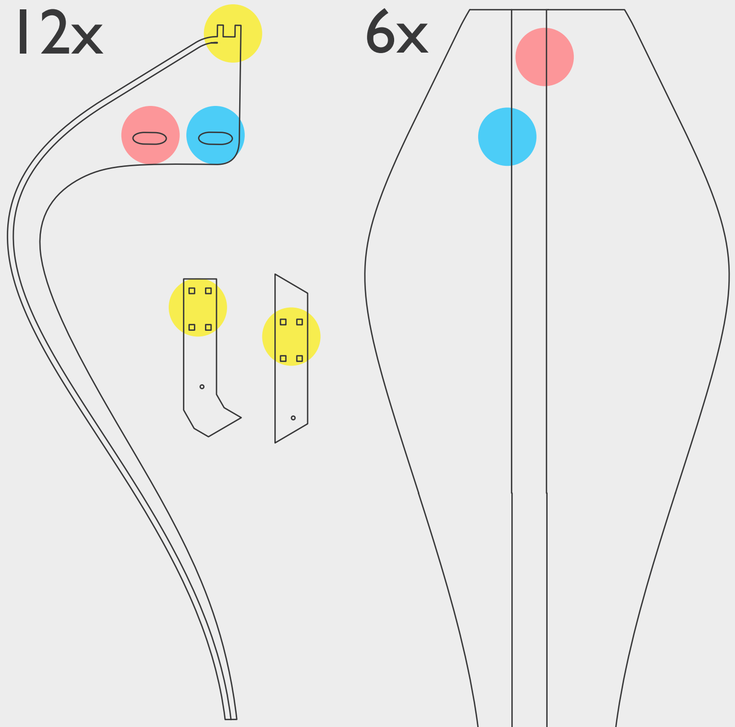
top



lasercut prototype

12x

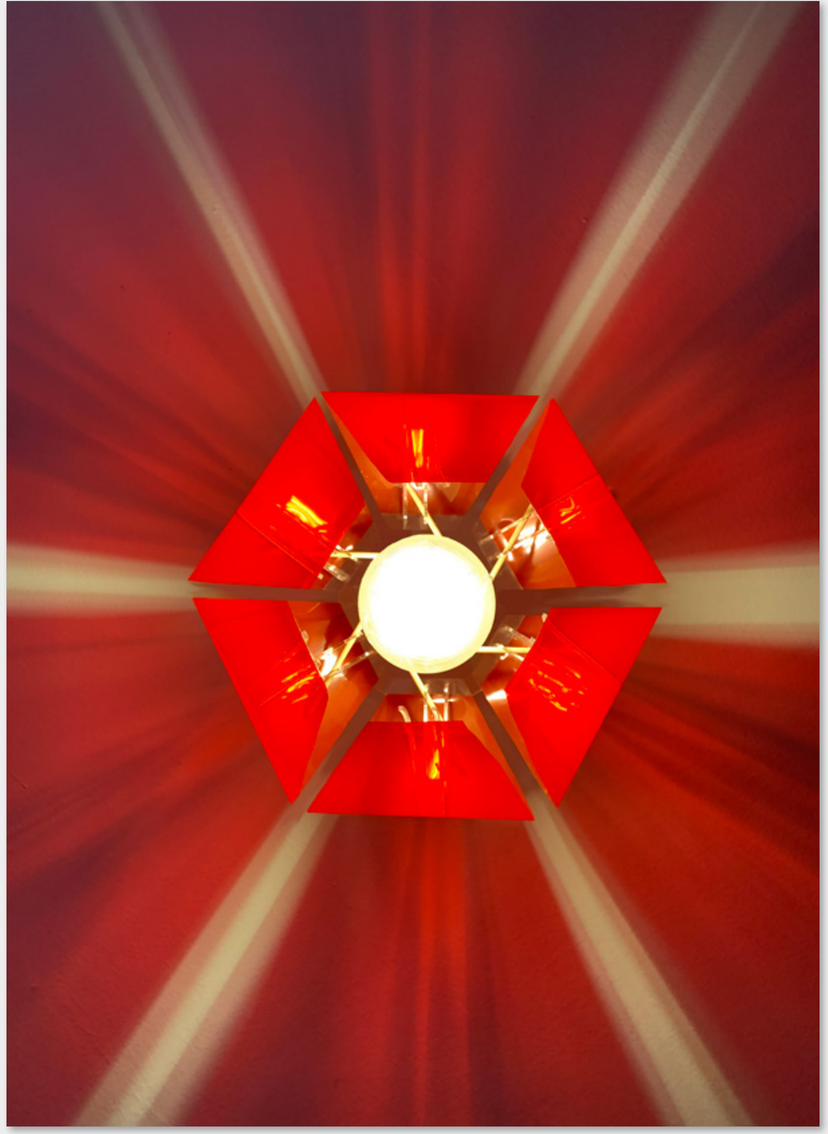
6x



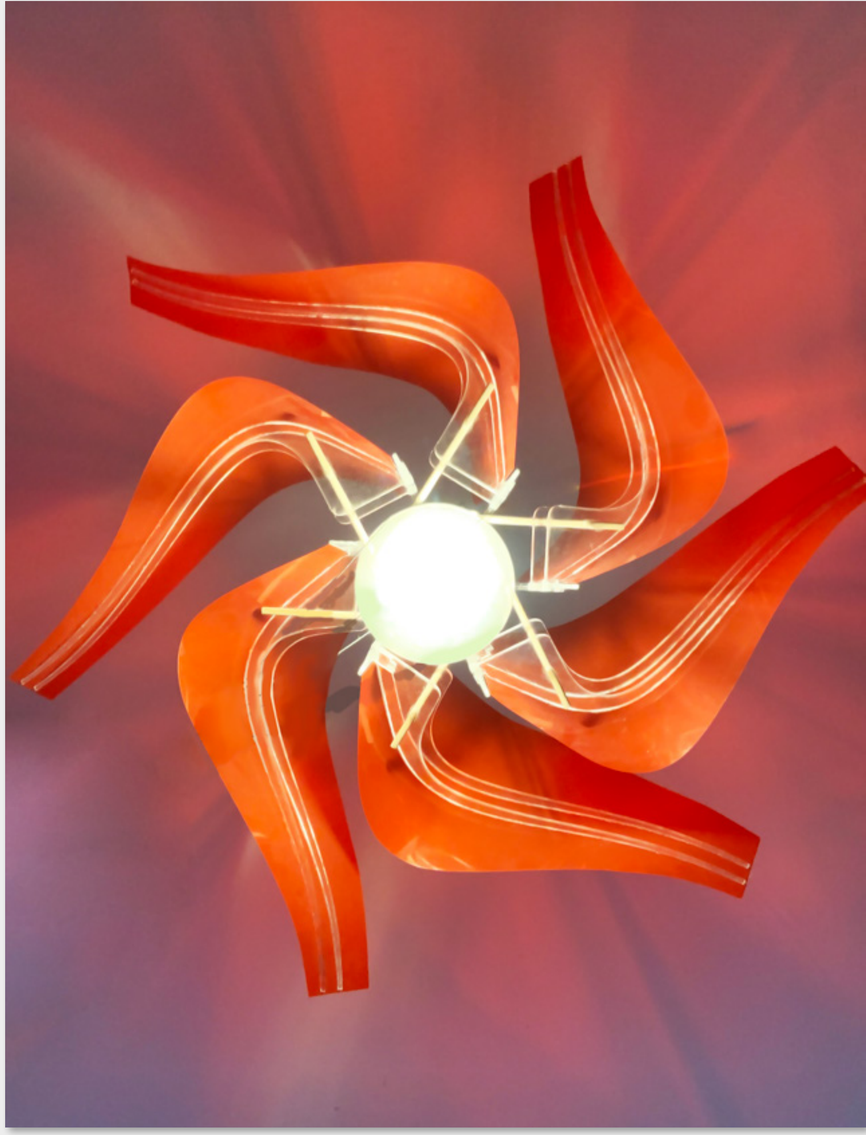
top connection part

two points ensure the exact angle

unrolled sheet



closed lamp
emits dimmed
red shadows

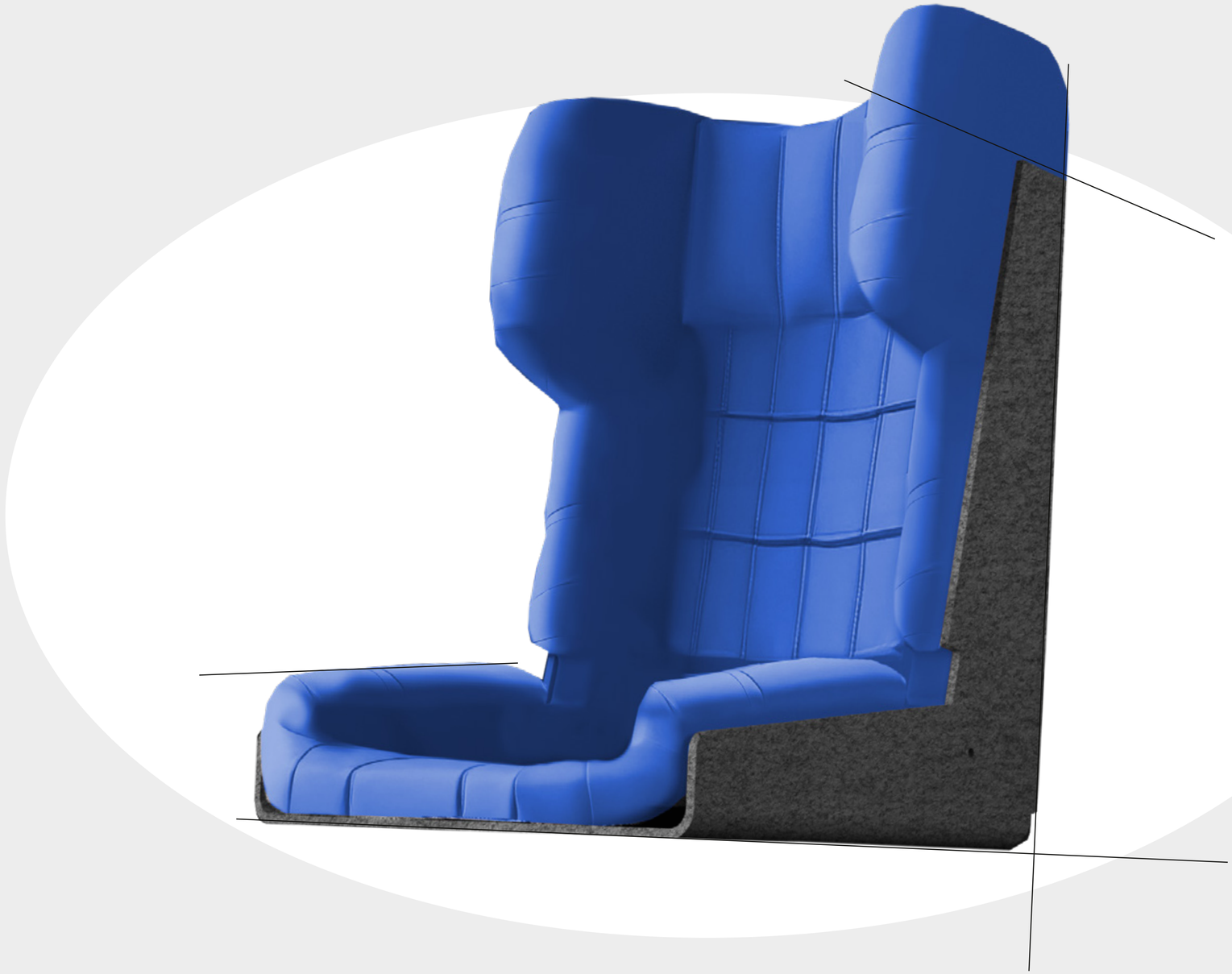


open lamp
for clear
bright light

i-CRS

Freelancer Project at YUUE
for i-CRS Start-Up 2022

04



Inflatable child safety seat for cars

research

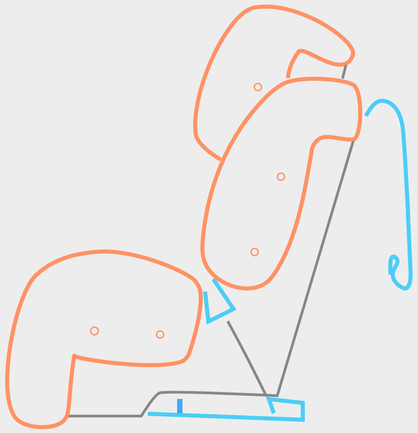
The i-CRS start-up developed an innovative concept for a child safety seat for cars and buses that is intended to be financially affordable and yet safe for drivers in emerging countries. “When children die in India, the cause of death for every second child is a traffic accident,” says Nikil Abraham, the co-founder of the start-up. That sounds frightening enough. But it’s poignant when he elaborates on the figure: “Every 30 minutes, a child dies on the roads in India.” One of the main causes of serious injuries and deaths in India is that hardly anyone uses safety seats for children. Often, they are simply too expensive.

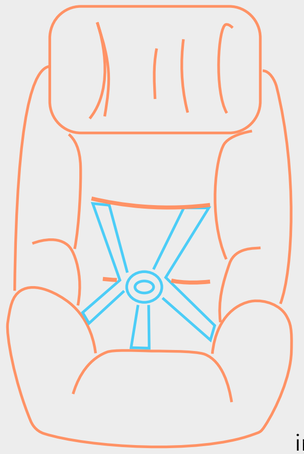
TPU for the inflatable pillow

Formfleece for the hard shelling

Research pieces

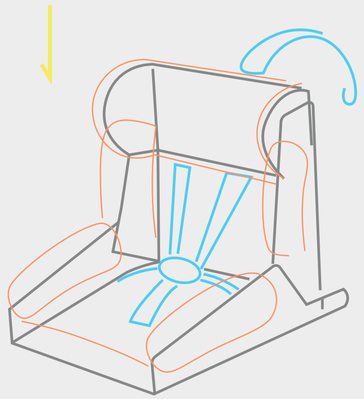
a low budget product through the innovative use of inflatable TPU material



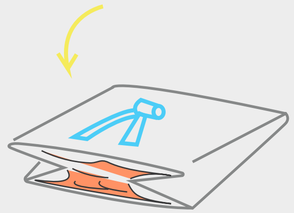


inflated TPU

size 1



size 2



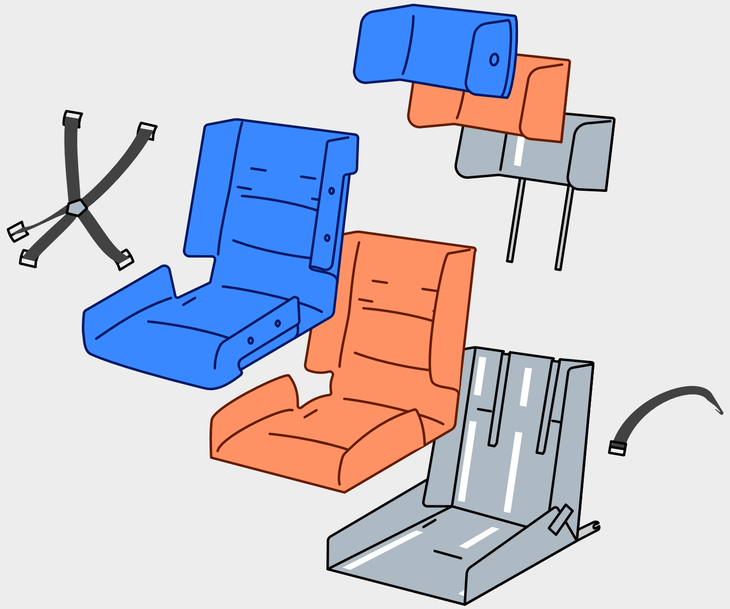
deflate and fold

three part system

Shell from molded fleece

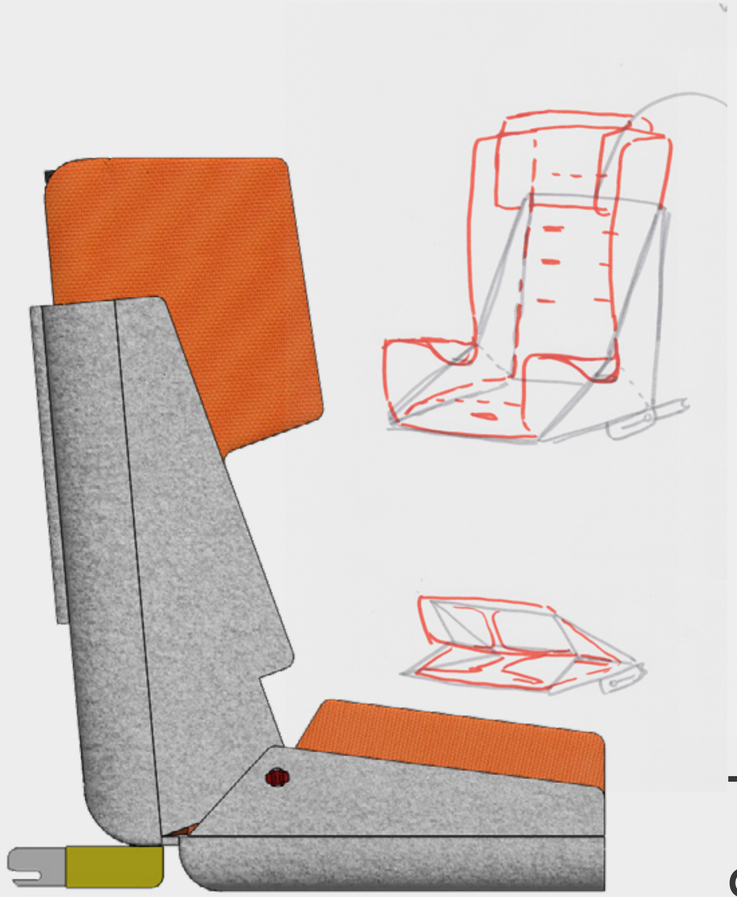
inflatable TPU

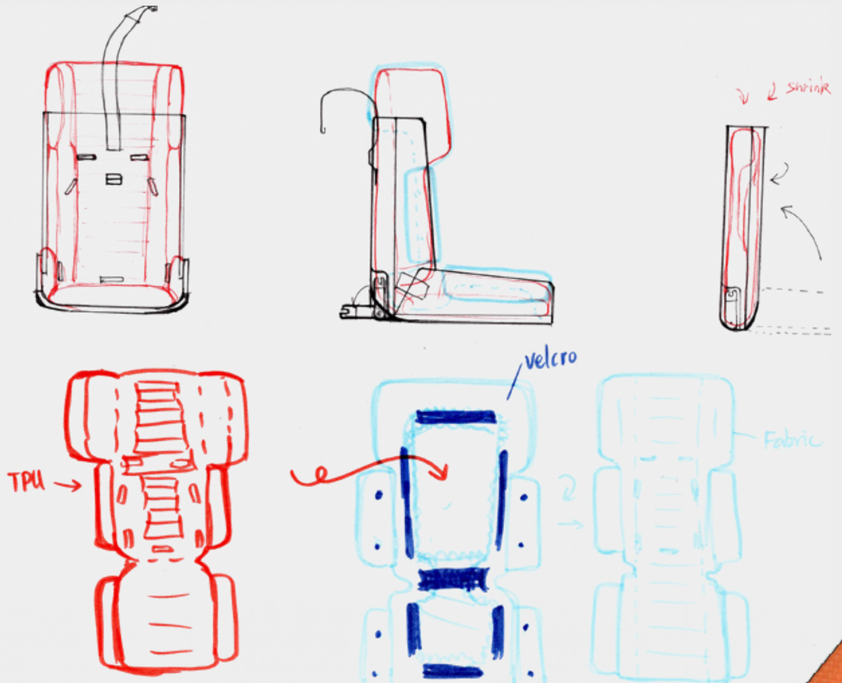
Soft Cover



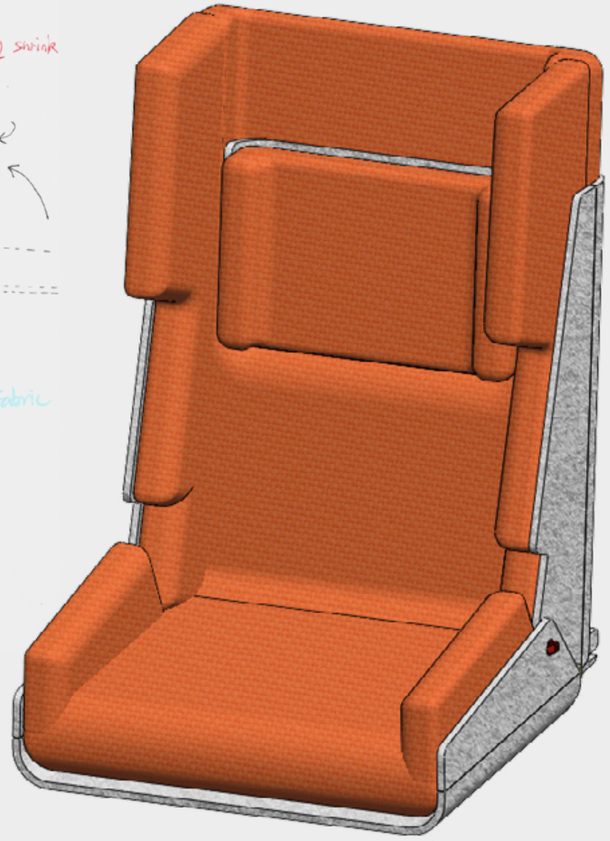
My job during this project, in addition to market research and dimension finding, was to explore a concept in which the inflatable material would be useful. So my main focus on this project was the “Shell” made from molded fleece or plastic, which combines foldability, safety functions like the ISO Fix, a three- and five-point harness and adjustability.

process

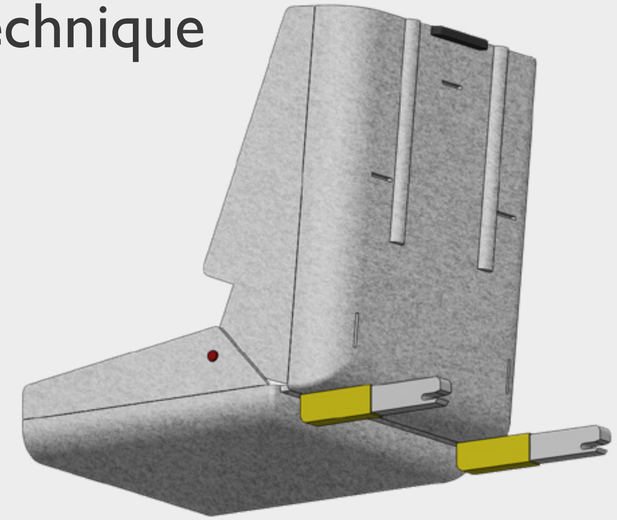


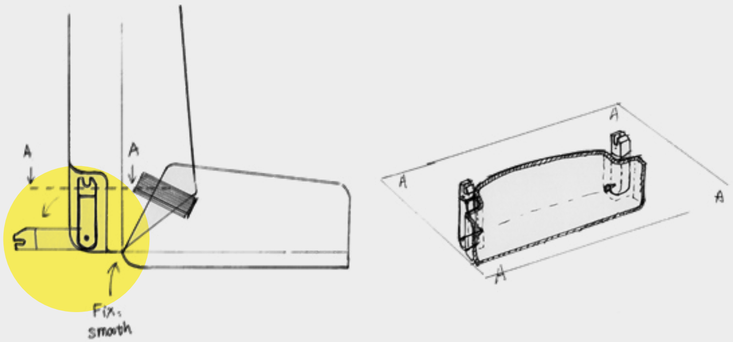


TPU and
connections

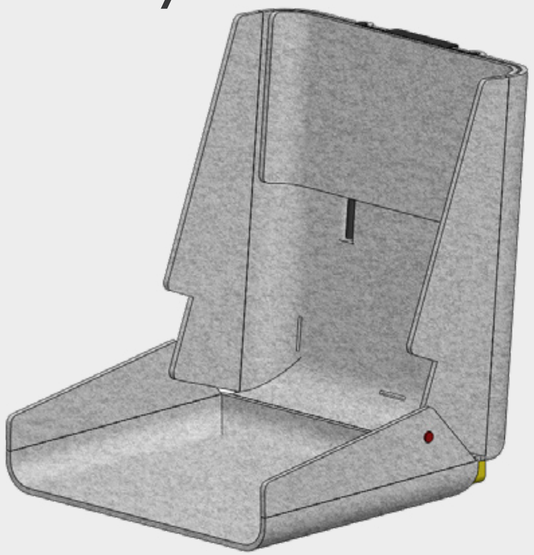


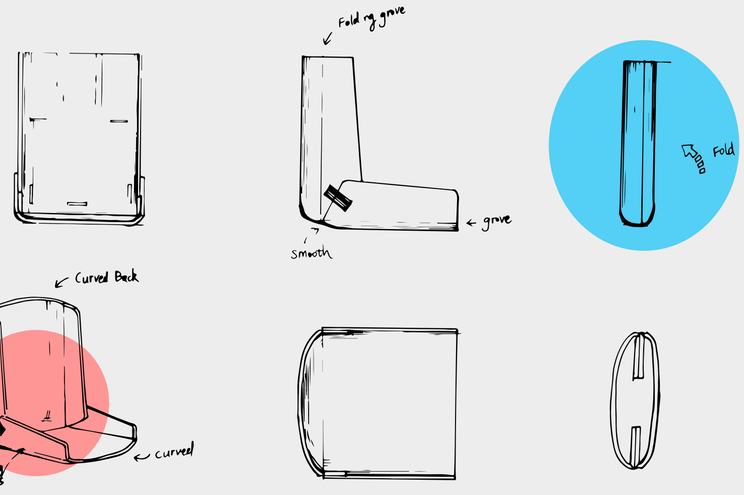
ISo Fix fixation technique



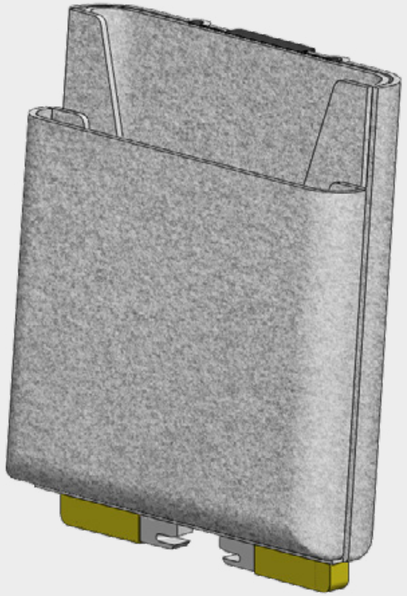


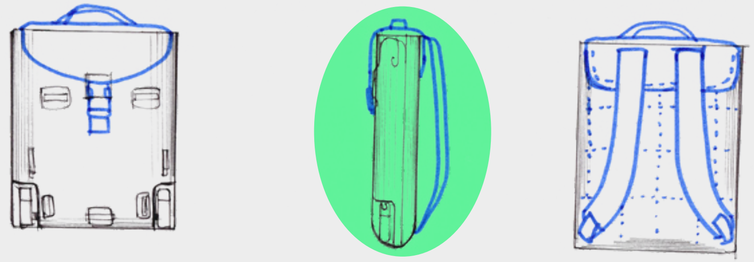
foldability





transport and sharing

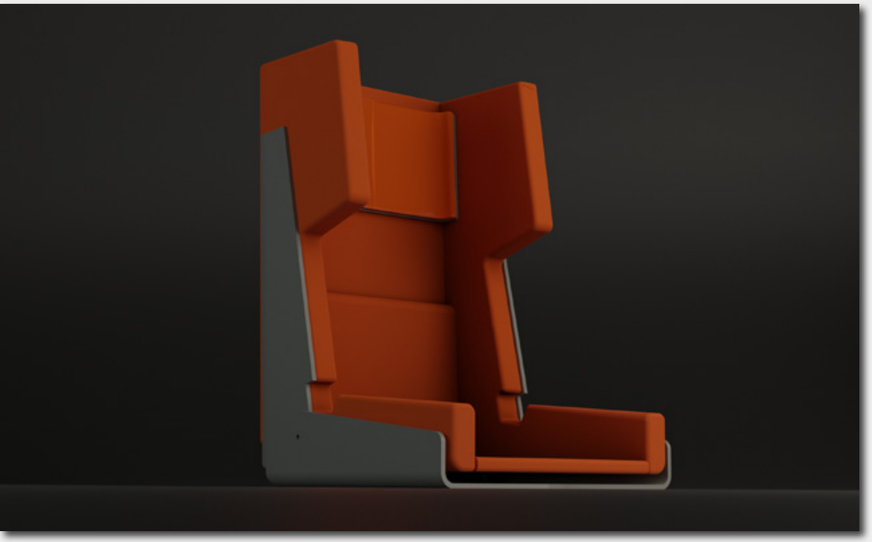




functional
3D-print

AI Render Workflow

For the master render shot of this project, I came up with a new workflow, harnessing the power of generative AI. Since there was already a simple CAD model for measurements, it was the most effective solution to just make a quick render, which was then fed back into Midjourney and Adobe Firefly as the reference image. Together with the right prompts, I was able to make more detailed and realistic Photoshop collage out of my rendering combined with the AI images.



fed back into AI as reference

prompt:

Inflated child safety chair in orange, studio shot, finely detailed texture, cinematic lighting, industrial design-render, 4k, 8k, unreal engine, octane render

prompt:

scenery out of a window car, daylight, speed, hdr, long exposure, 8K,

Bio Blocks

Bachelor thesis at HTW Berlin, 2022/23

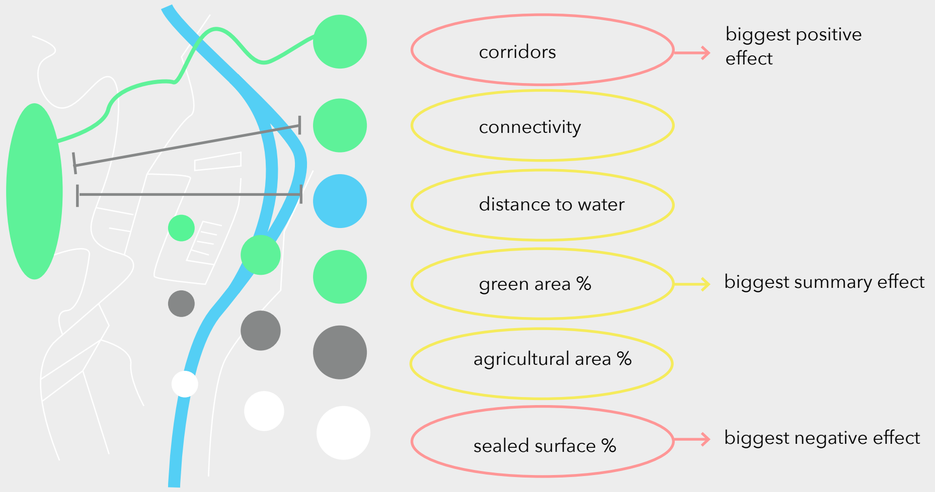
05

researching
structures
to support
biodiversity
in our cities

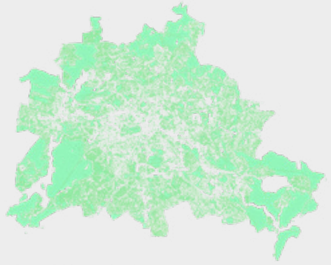
research

The scientific research and the analysis of existing concepts show a great potential for innovation in the field of enhancement of urban biodiversity. In this context, it is important to ensure biosystem services and also to support the physical and, above all, mental health of urban dwellers by guaranteeing opportunities for people to come into contact with nature. In the broadest sense, creating more space for biodiversity at a time of increasing urbanity means both better guarding against climate change and increasing peoples well beeing My project to actively shape biodiversity in cities pursued the goal of creating ideal conditions at various locations in the city in order to develop a pull effect for the local species. This involves easing the extreme living conditions in cities and expanding their ecological niches. However, as these conditions continue to radicalize as the climate heats up, especially in urban areas, the inclusion of sustainable plants must be considered. To ensure the self-sufficiency of these "islands" of biodiversity, as little intervention as necessary should be made in these spaces to allow a natural humus layer and water cycle to develop. If these possibilities are taken into account, there is a realistic chance to even develop refuges for local range of species within our cities. Large urban planning projects and the construction of biodiversity-friendly architecture are closely linked to politics and can thus easily be hindered by bureaucracy. However, the time to act is now, or rather, we are already behind. As described in my research, comprehensive solutions already exist in urban planning, but not so much at the design level. So my approach is to look outside of these large structures. Further, this allows for the participation of people to ensure a connection to biodiversity, so that it is preserved, cared for and appreciated.

impacts on biodiverity



sealed surfaces in berlin



0 - 40% sealed

60 -100% sealed

waterways

goals

Turning sites into small settlement islands for biodiversity

Creating an ecosystem of site-adapted tree and plant species

Supporting ecosystem services

Creating contact opportunities for people with nature

Creating a link to residents through participation

secondary goals

Target endangered species

Integration into existing habitats

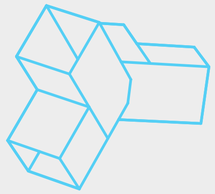
Little aftercare

Various applications in urban space: module formation possible

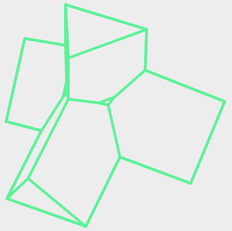
Easily applicable for everyone

Avoid bureaucratic structures

dolos

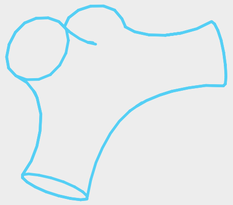


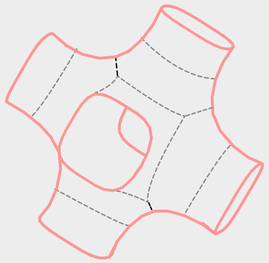
sta-bar

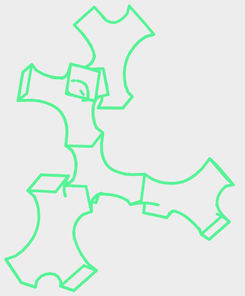


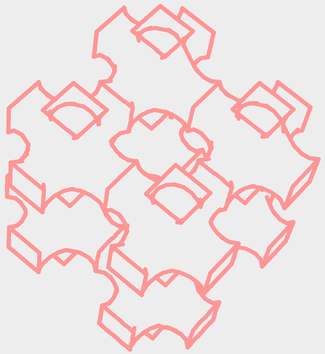
tetrapod

hexaleg









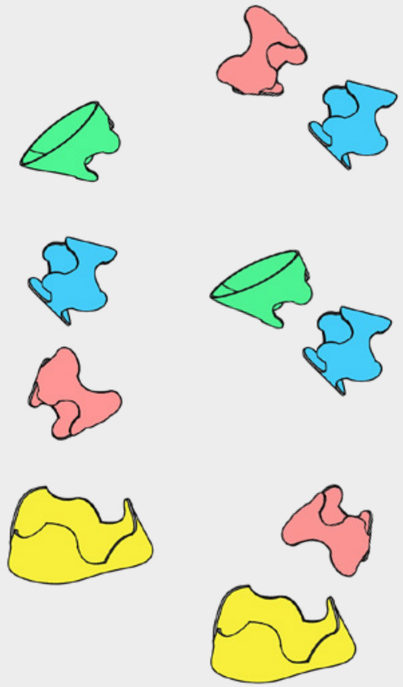
process

The structures designed for the Bio Blocks project are intended to provide more space for biodiversity in our cities, whether they are built on concrete-paved areas or green spaces. The concept consists of just four modules that are easy to manufacture in a variety of materials and can be assembled to suit any open space in our cities.
As we face a significant shortage of space in growing cities, this design aims to maximize the use of available space while providing a three-dimensional growing medium for native plants as well as shelter for small animals and insects.

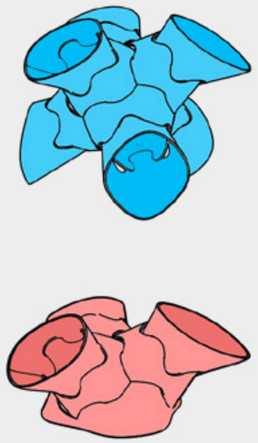
paper model

The innovation of the structure is the focus of the project. The largest possible surface area should provide shelter for many small organisms and plants and also have a cooling effect on the urban climate. The paper model is intended to illustrate the project and show how these few different modules can create complex structures that are adaptable to many places in the city.

4 parts



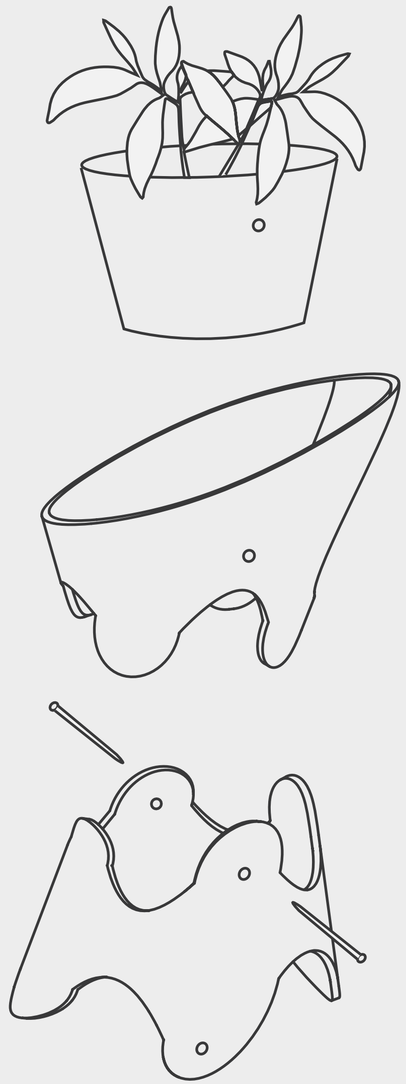
2 moduls



endless adjustability

material

Experimental manufacturing with metal wire strengthened terracotta inspired by reinforced concrete is one of the key aspects of making this concept long-lasting and environmentally friendly. The use of native plant species ensures compatibility with the local ecosystem.

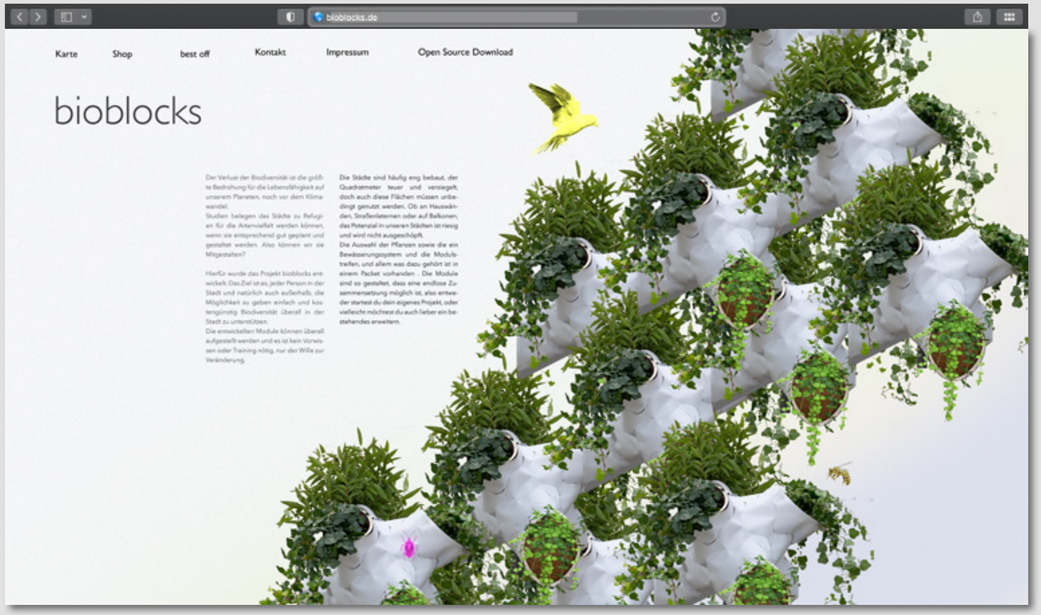


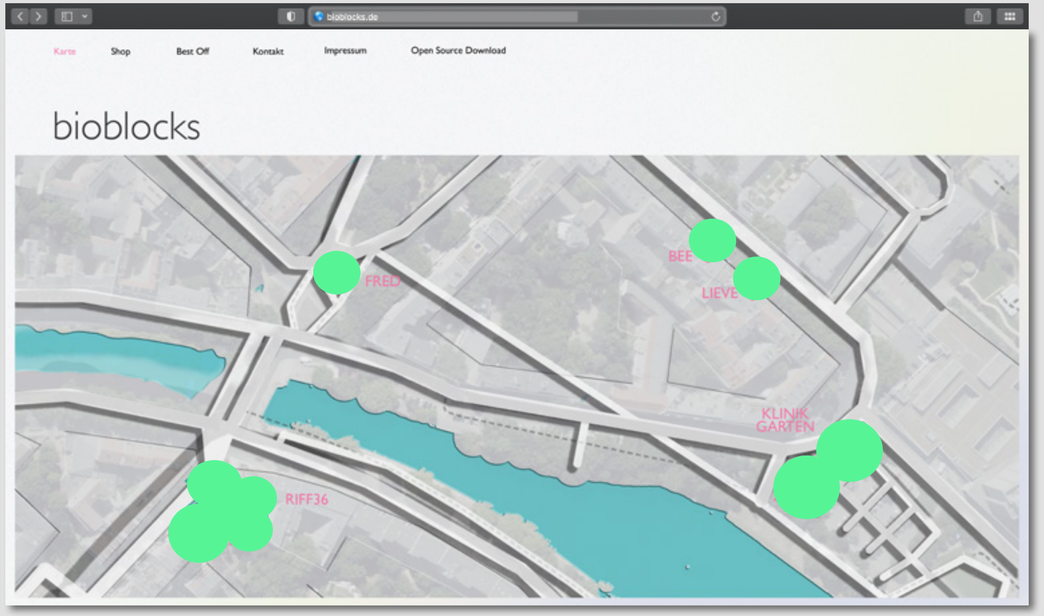
installation

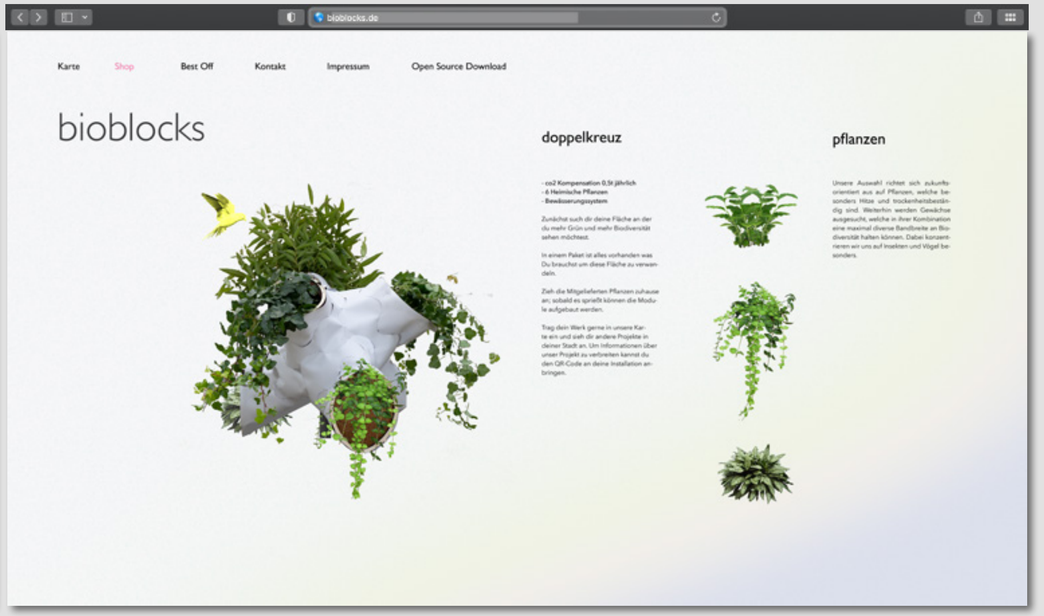
The main question is: How can we change the status quo of shrinking biodiversity in our cities with realistic, cheap and easy solutions? So, as one way to present this project, I focused on upcycling material from old advertisement banners. With a PVC plotter, large quantities of module cut-outs could be produced at extremely low costs. Another big aspect is to create a participatory design that will awake people's interest and raise awareness about the topic of biodiversity. After all, this would have an equally valuable impact on our cities and communities.

website

To finalize the concept, a website summarizes information about the project and the impact of urban biodiversity. It also includes a map to see where people got active and engaged with Bio Blocks or other transformitive projects within the city. Also, there is the possibility of an open-source download of instructions and dimensions to create a community that keeps working with the structures and ideas.

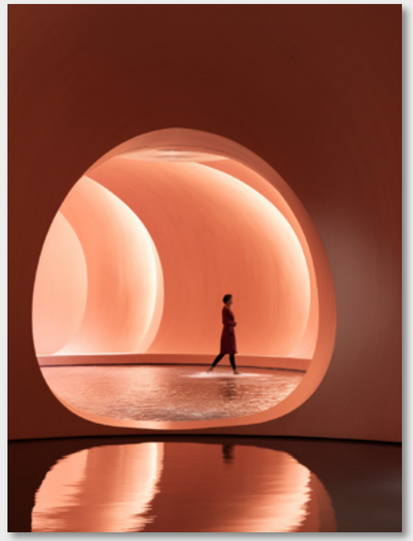
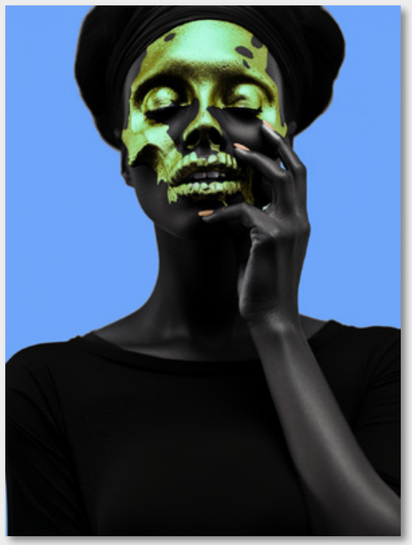






AI Images



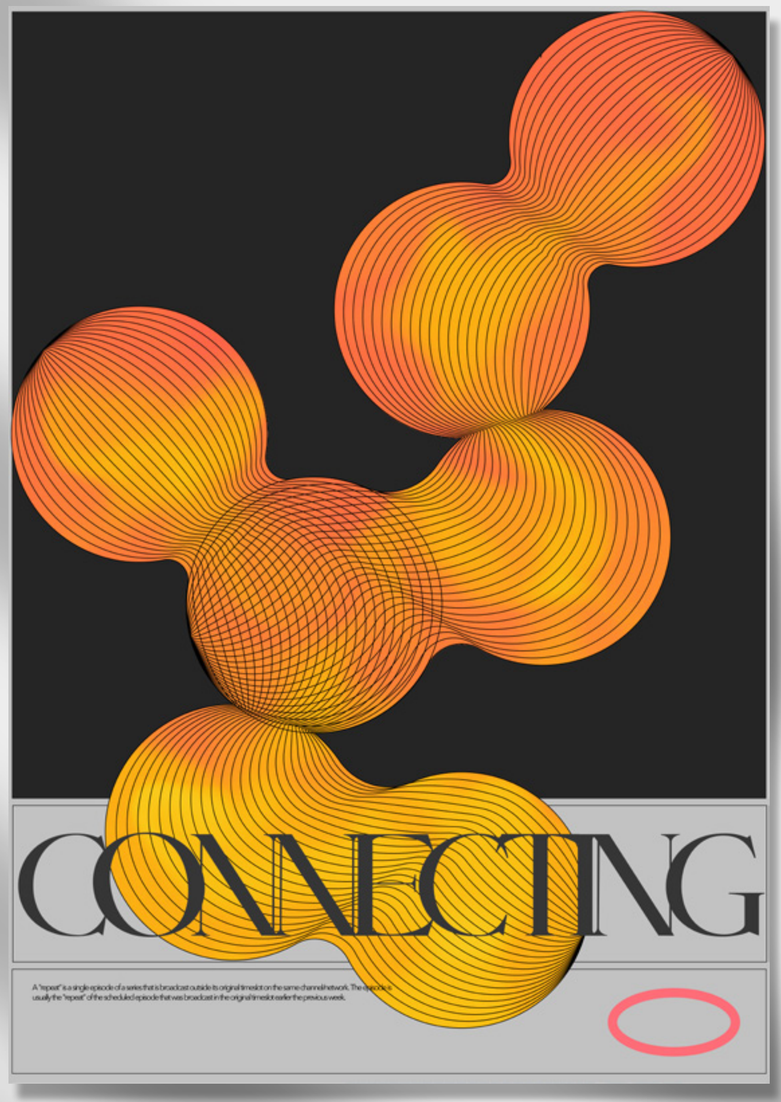



Consistent images for a renewable housing project




posters


ZANZANA
COMMUNITY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Exhibition

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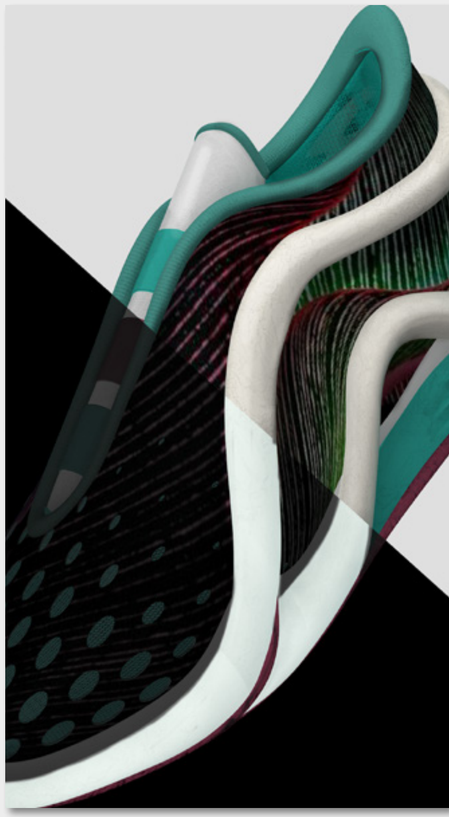

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thank you,
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