

# PORTFOLIO

LEONARDO REGUZZONI

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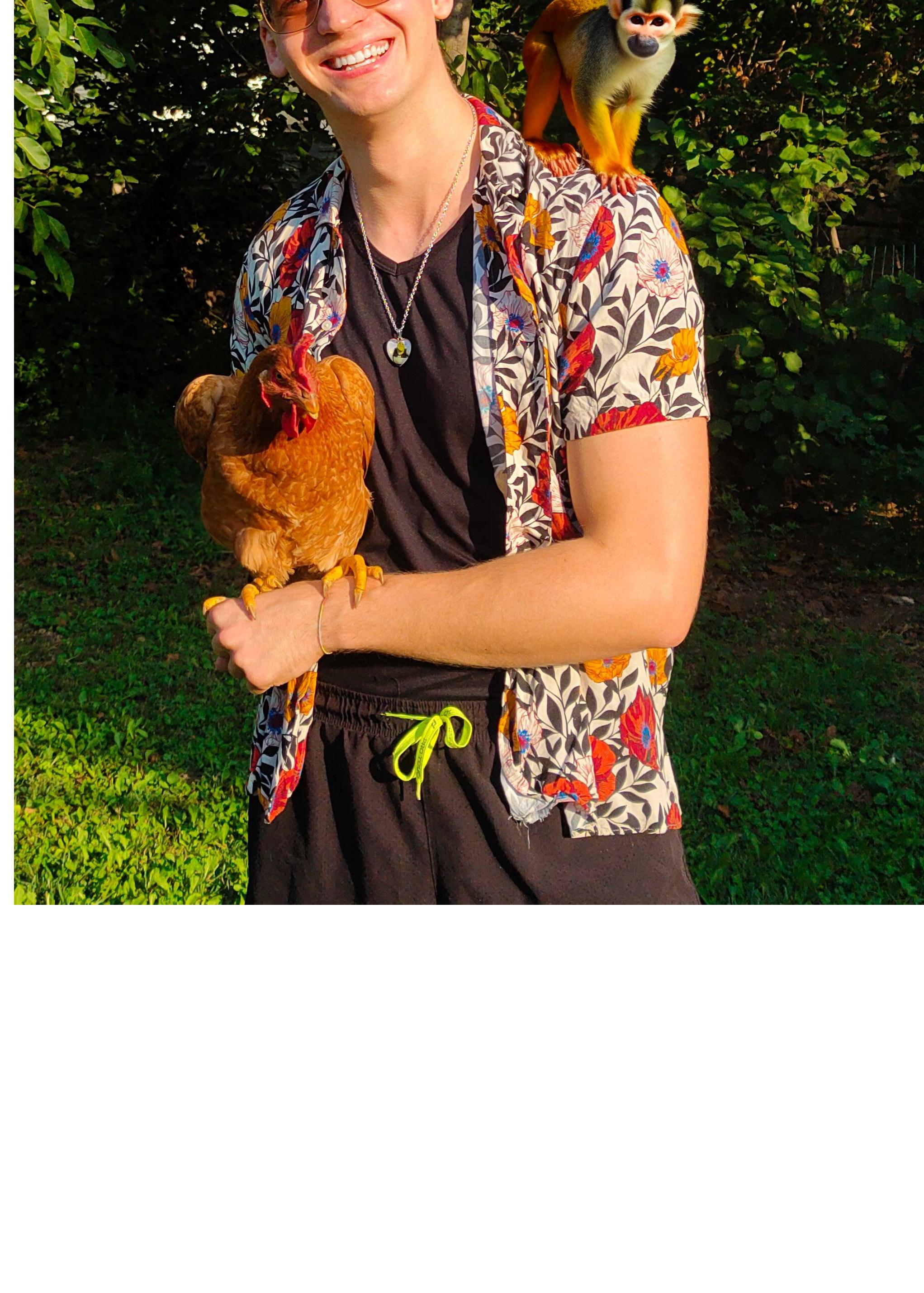
INTEGRATED PRODUCT DESIGN STUDENT

17-07-2001, St. Gallen, CH  
leonardopao.lo.reguzzoni@mail.polimi.it...

currently based in Busto Arsizio (VA) Italy  
leonardoreguzzoni@hotmail.com

My name is Leonardo, but I'm better known as **Guz**. I grew up in Busto Arsizio, where the smog caresses the soul and where the metropolis meets the desolation of the outside world - **nevertheless**, I still pursue a search for color and joy in everyday life. Although my arrival in the design field may appear to have happened by **chance**, I firmly believe that nothing truly ever happens by coincidence, and for that I continue my daily fight to bring **excellence and beauty** to the world and, above all, to **express myself** through my work (and finding my essence in the meantime, why not).

DESIGN THINKING METHODOLOGY  
ELEMENT, MODEL AND INTERACTION DESIGN  
3D MODELING, RENDERING  
EMPATHIC DESIGN  
PHISICAL PROTOTYPING



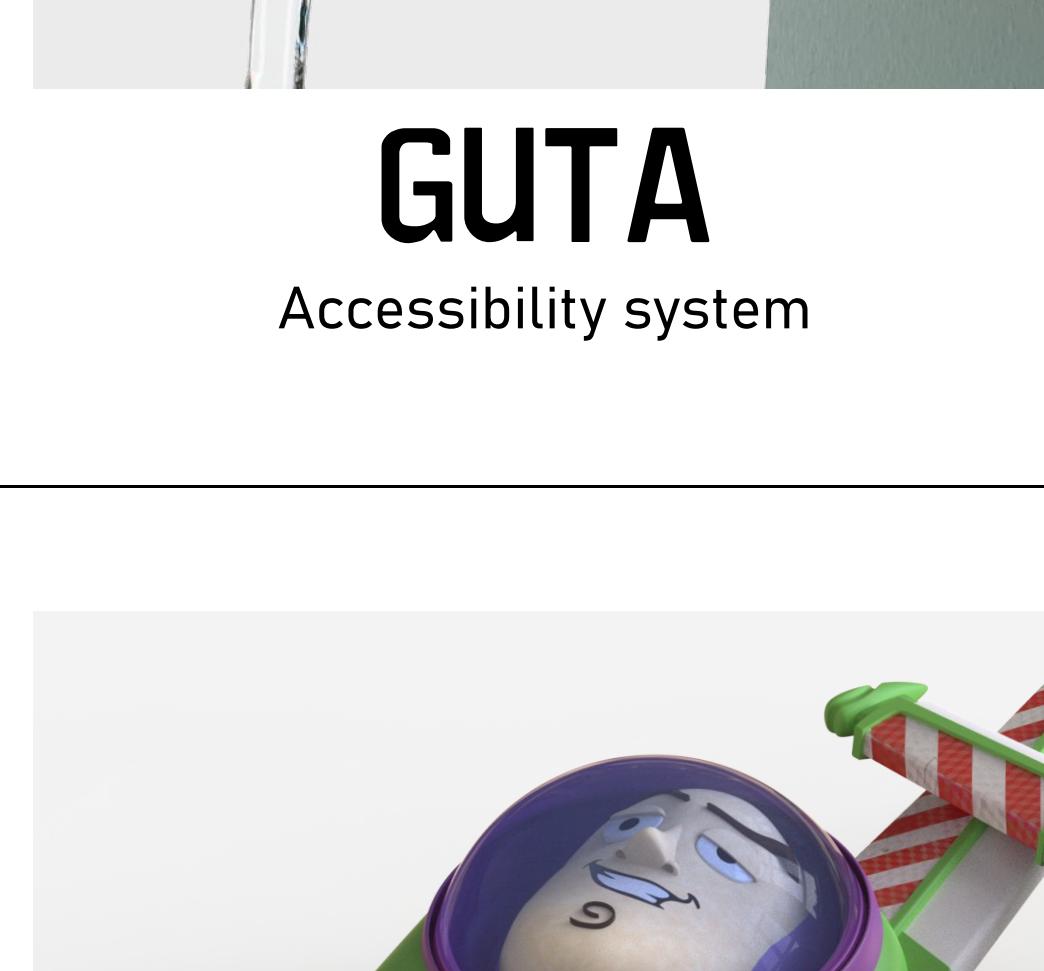
## MY PROJECTS

### PRODUCT DESIGN



**OMNIA**

Light system



**GUTA**

Accessibility system



**MAIALINO**

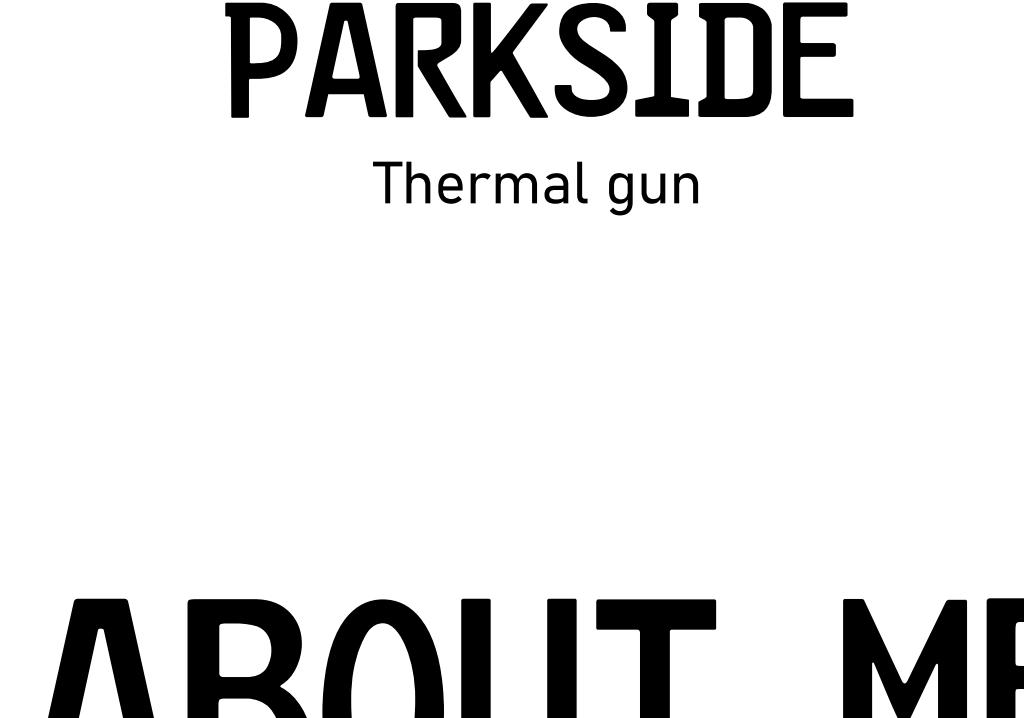
Wooden swine



**RESOAP**

Open-source saponifier

### DIGITAL MODELING



**PARKSIDE**

Thermal gun



**BUZZER**

Walkie talkie

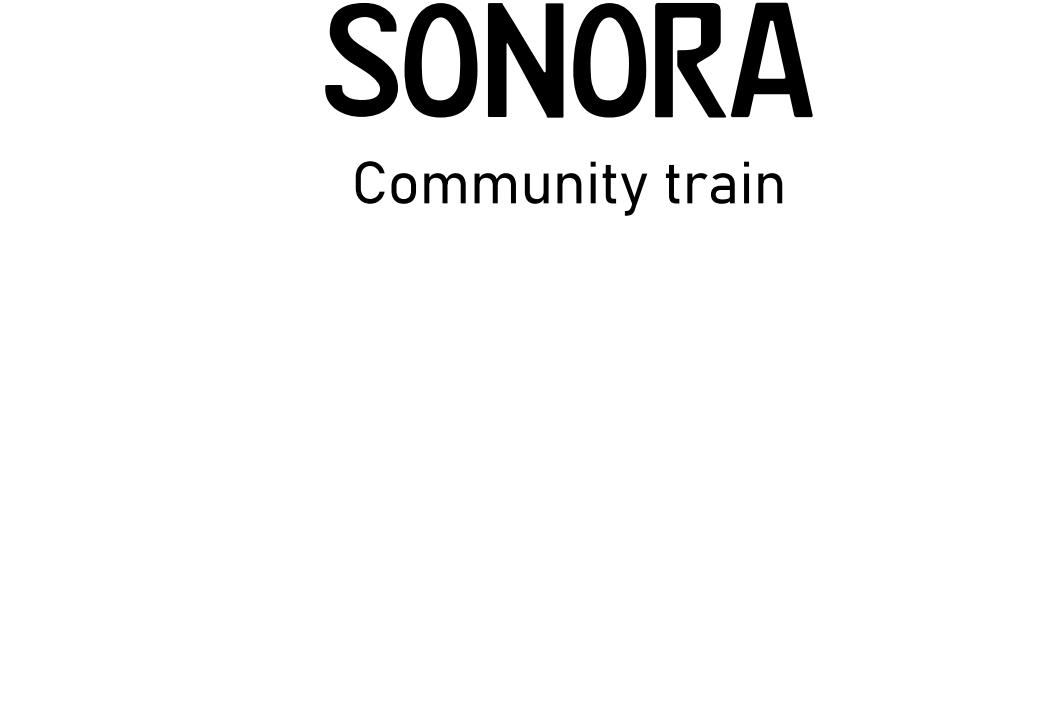
### COMMUNICATION



**LV LECHE**

Web photostories

### INTERDISCIPLINARY



**SONORA**

Community train

## ABOUT ME

### EDUCATION

Master degree in **Integrated Industrial Design**  
started 2023 - ONGOING  
Politecnico di Milano

Honour bachelor degree in **Industrial Design**  
2020-2023  
Politecnico di Milano

International exchange semester  
mar - jul 2023  
FADU-UBA, Buenos Aires (Argentina)

Scientific High School Diploma  
2015 - 2020  
Liceo Arturo Tosi, Busto Arsizio

Degree at the Polish Consulate school  
2010 - 2016  
Szkoła Polska w Mediolanie, Milan

### LANGUAGES

Italian native

English C1 (FIRST, Cambridge School)

Polish high proficiency

Spanish B2 (DELE, Instituto Cervantes)

### PARTECIPATIONS

Ferrero workshop for **Kinder surprise toys**  
autumn 2023  
hosted by Politecnico di Milano

Mobile **carpentry workstations** Walden workshop  
march, april 2024  
hosted by Rilegno x Politecnico di Milano

Baku's **Karavanseraj** interdisciplinary workshop  
february 2023  
hosted by Azerbaijan University of Architecture

Natural curiosity

Flexibility and **adaptability**

**Empathy** and group skills

### INTERESTS

Bricolage and DIY

Cinema and **Video**

Geography and history

Travelling and languages

### HARD SKILLS

#### General design skills

user research

design strategy

prototyping

#### 3D modelling and rendering

Autodesk AutoCAD, Alias

Solidworks

Blender

Keyshot

Rhino Grasshopper

#### Graphics, Editing and Drawing

Adobe Illustrator, InDesign

Adobe Photoshop; GIMP

Artrage

Figma

#### Videomaking and Production

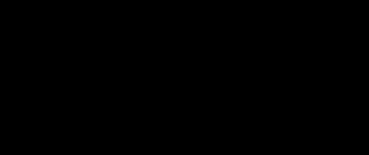
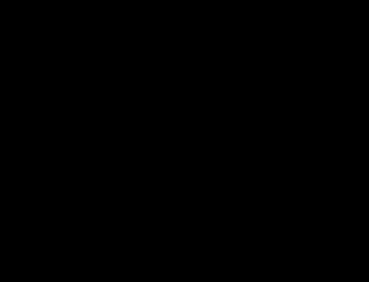
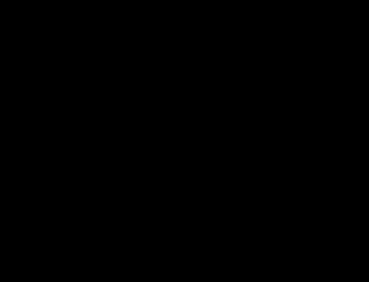
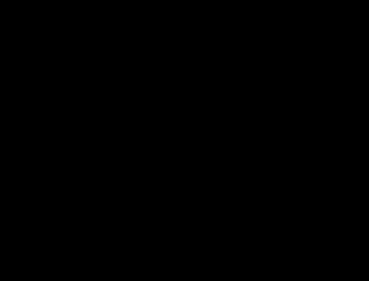
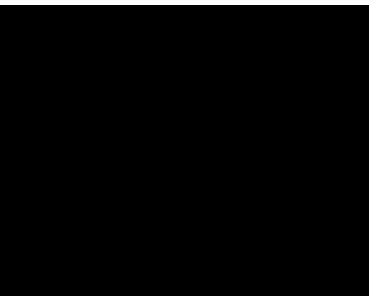
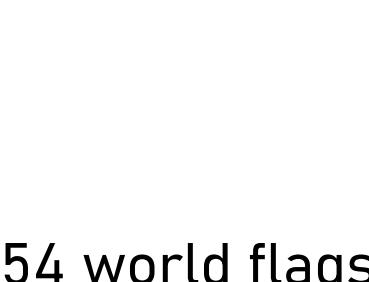
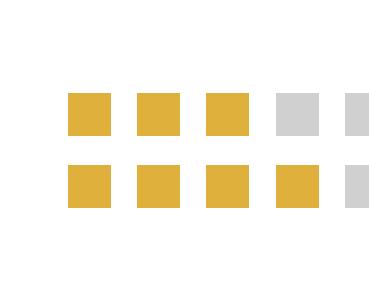
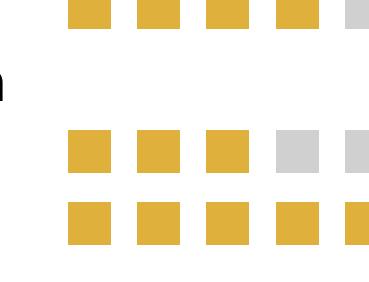
Sony Vegas

Camtasia Techsmith

#### Prototyping

Slicing and 3D printing

Woodworking



### FUN FACTS

Can instantly recognize all 254 world flags

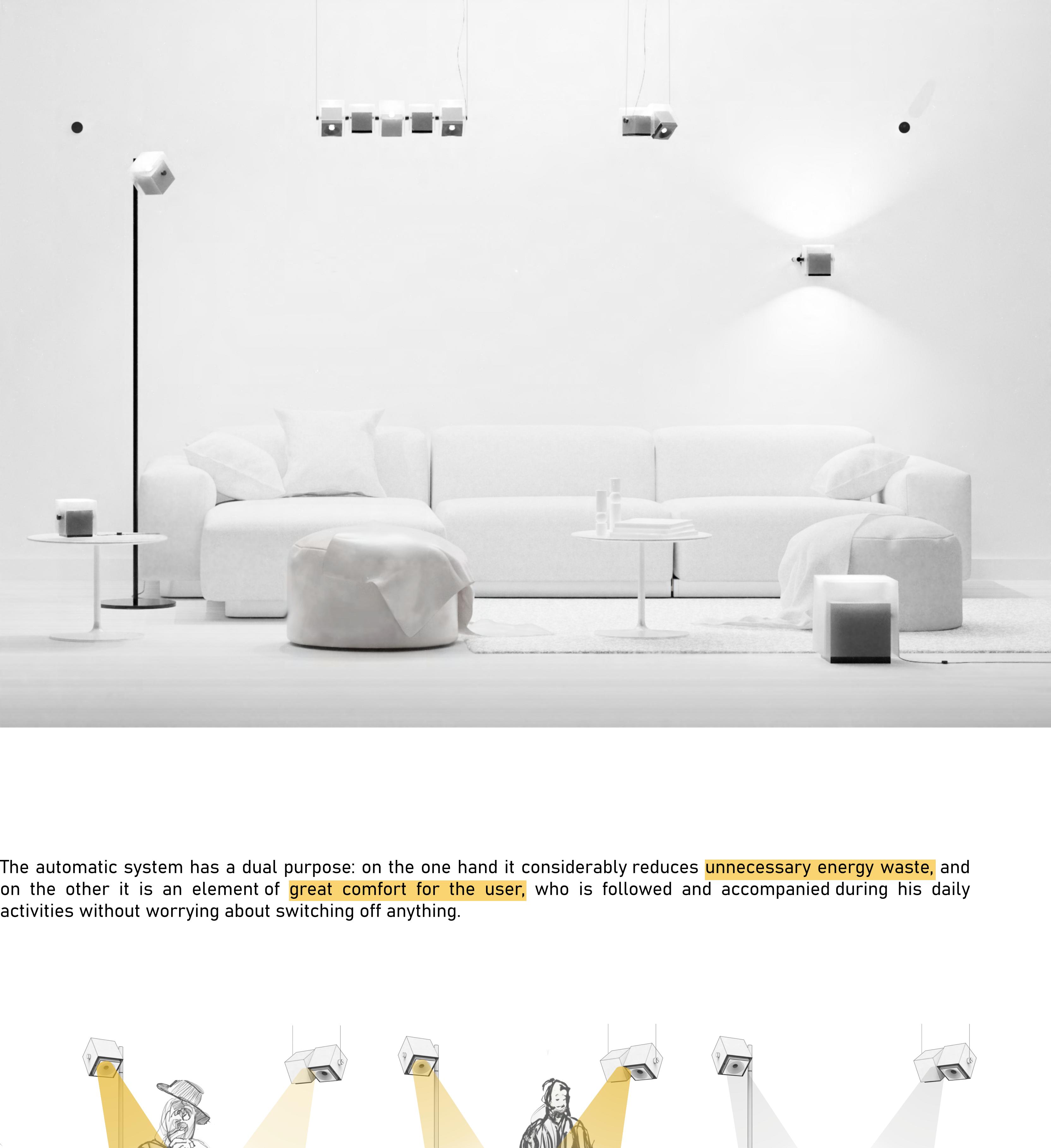
Has a pet chicken

# OMNIA

## DOMOTIC SYSTEM

project type: Bachelor's final synthesis project  
Academic Partnership with Artemide  
end date: jan 2023  
duration: 4 months  
teammates: A. Cesa | A. Tomagelli  
academic partner: Artemide SpA

Omnia is a lighting system made up of six elements which share the same formal module, re-evaluated and sized according to the different task they ought to perform, in a total connection to a single unified system. The work focused on designing an automatic domotic service, or smart mode: essentially a tracking system to which all the elements are connected, that will intensify the luminosity of the source based on practical needs, with a direct improvement in everyday life.



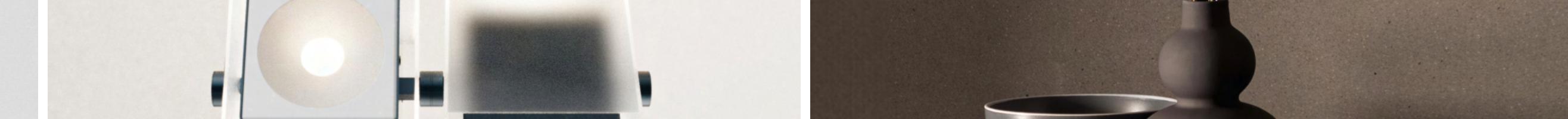
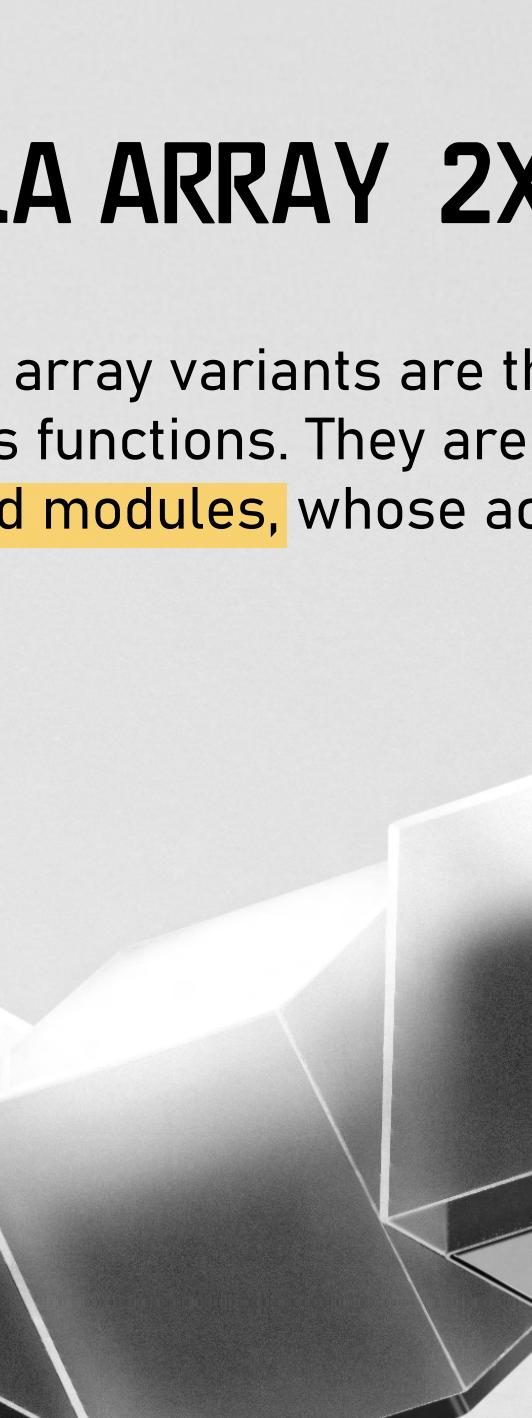
### "WHEREVER YOU WILL BE, THERE WILL BE A LIGHT"

The automatic system has a dual purpose: on the one hand it considerably reduces unnecessary energy waste, and on the other it is an element of great comfort for the user, who is followed and accompanied during his daily activities without worrying about switching off anything.



### SIMPLE SHAPES FOR UNIVERSAL NEEDS

The formal reference for the lamps is a simple cube in extruded aluminum, in which two light sources are placed: the lower one provides a localized task light, while the upper one provides ambient light, damped and refracted by a second semi-transparent cube.



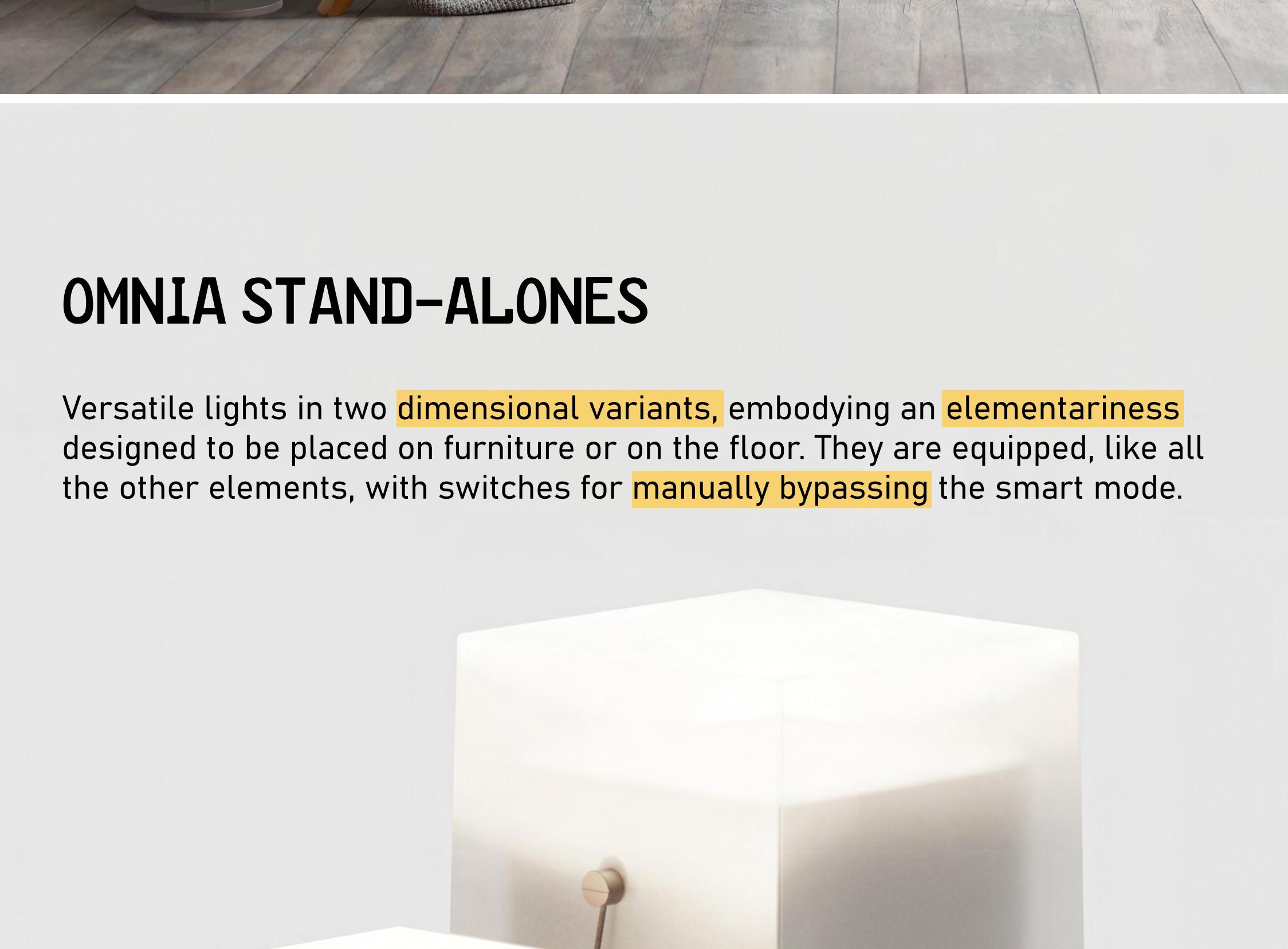
### A VERSATILE FAMILY SYSTEM

One of the objectives was to create a universal system that could be adapted to numerous environments: for this reason the formal line pursued was minimalist and essential, in line with Artemide's identity, and various different solutions have been conceived within the same system.

the family includes:  
Omnia Standalone  
Omnia Standalone XL  
Omnia Array X5  
Omnia Array X2  
Omnia Floor  
Omnia Wall

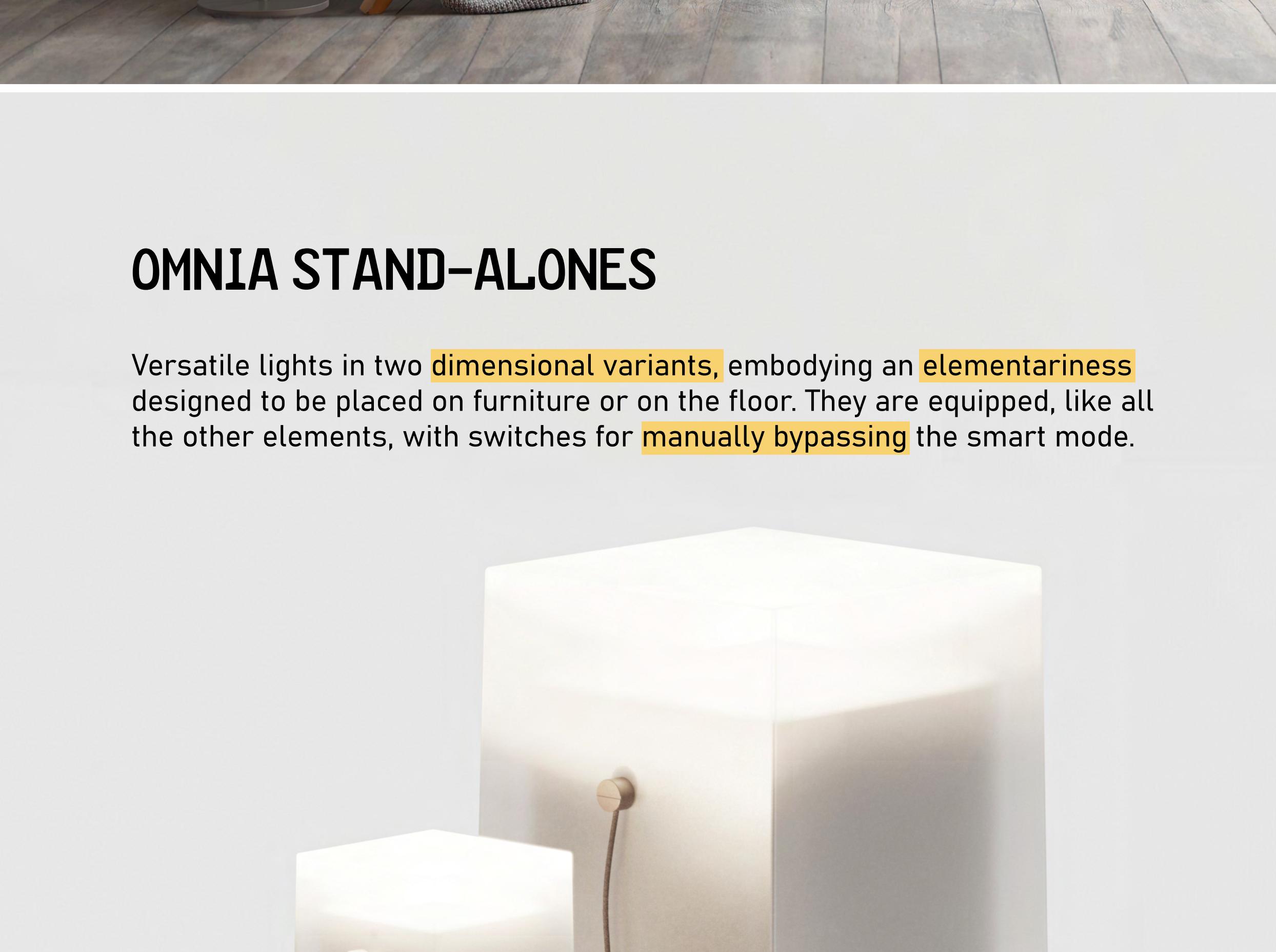
### OMNIA ARRAY 2X AND ARRAY 5X

The two array variants are the main cornerstone of the system's functions. They are composed of several repeated modules, whose activation is totally independent.



### OMNIA FLOOR

The luminous cube plays an absolute protagonist role: the thin rod supporting it highlights the formal value of the spotlight and raises it.



### OMNIA WALL

A compact and adaptable element, designed for those narrow spaces that are difficult to spotlight.



### OMNIA STAND-ALONES

Versatile lights in two dimensional variants, embodying an elementariness designed to be placed on furniture or on the floor. They are equipped, like the other elements, with switches for manually bypassing the smart mode.



### PROTOTYPING

The Omnia system has been accurately recreated, using dimmable led cobs with wi-fi connection and various 3D printing technologies.



# GUTA

## DRINKING AID SYSTEM

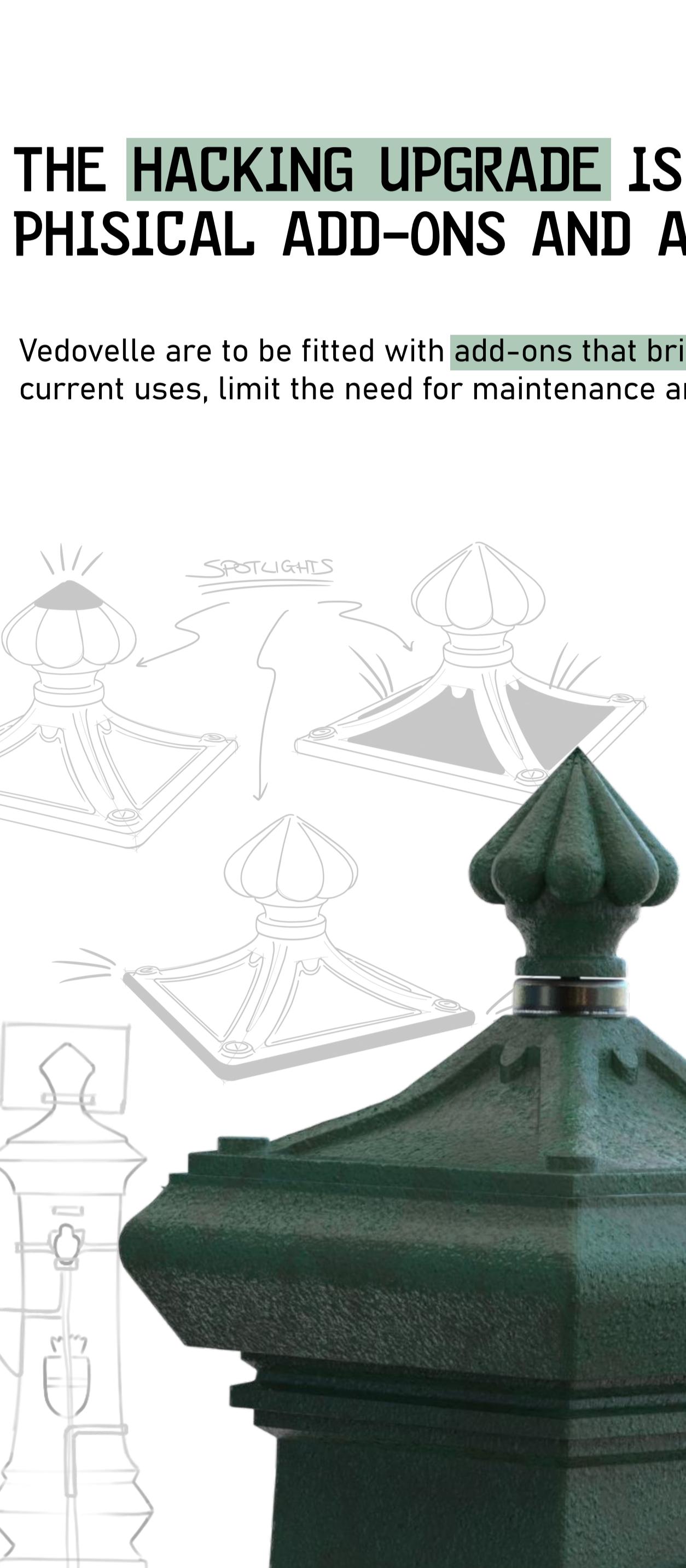
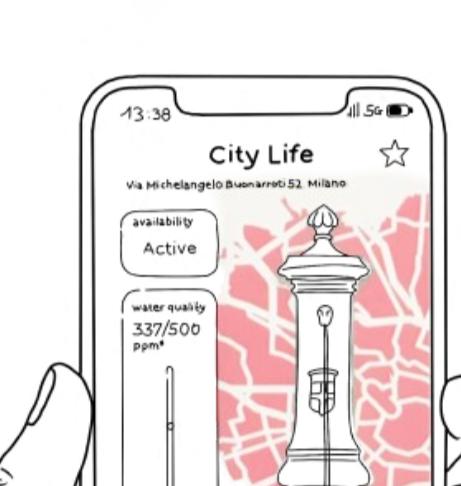
project type: Academic project  
end date: jun 2024  
duration: 5 weeks  
teammates: S. Mengarelli | C. Piazzolla  
A. Salis | N. Tosello

Guta is a hacked product-service system designed with the aim of expanding overall accessibility and keeping track of the water quality in regards of the iconic Milan public fountains, the Vedovelle. Guta is composed of three add-ons and an integrated digital service that gets translated in a touch point via an app. The main challenge with Guta was designing a hacking procedure that would not interfere too much with the iconicity of Milanese fountains.



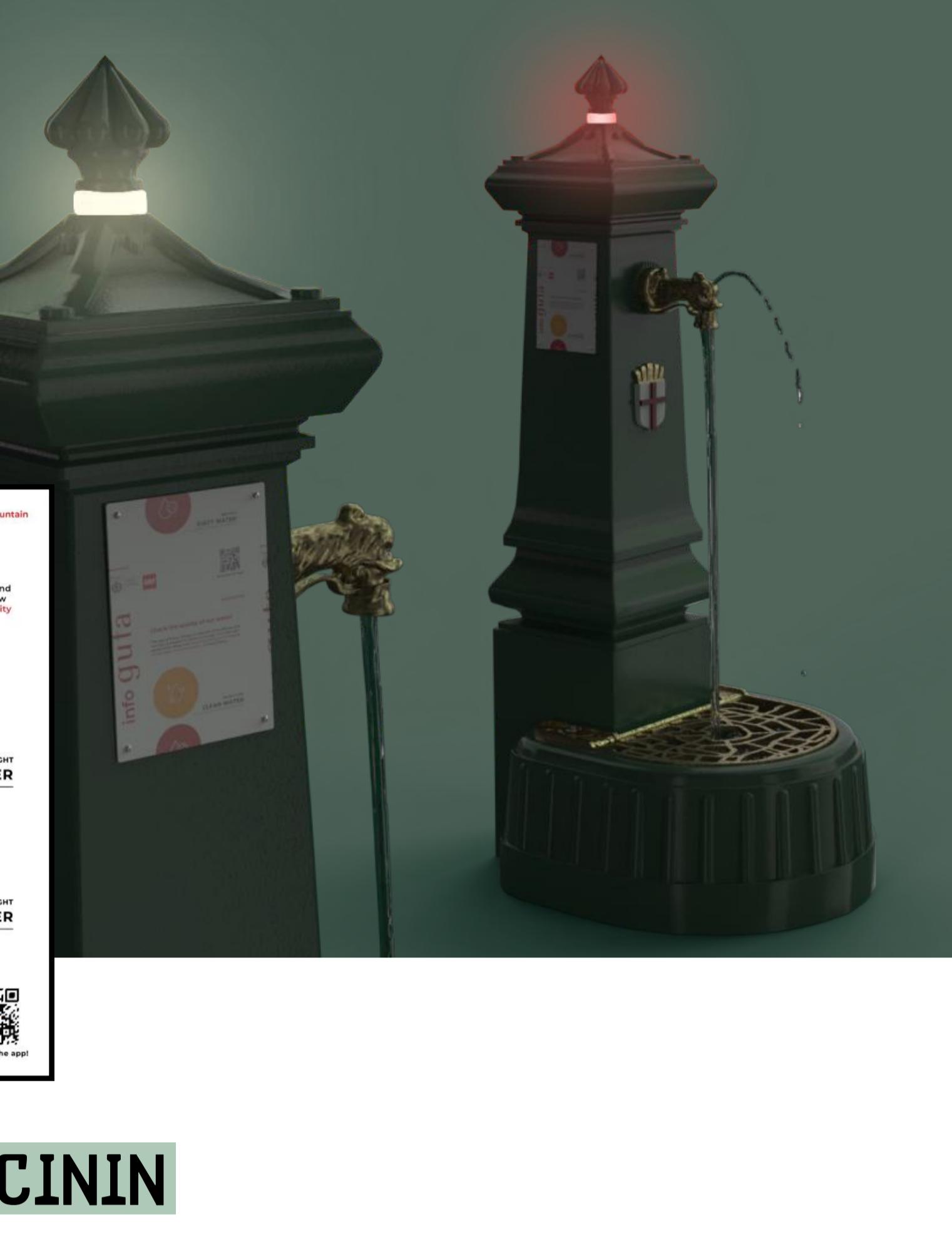
### TARGETING BOTH USERS AND MAINTAINERS

The research was conducted via a large scale **data gathering** and by directly **collaborating** with the foundries where Vedovelle are produced and with the maintenance company itself, MM.



**IN MILAN THERE ARE 688 PUBLIC WATER FOUNTAINS. PUMPING UP TO 864.000 LITERS A DAY**

Milan's Vedovelle rich history and their **iconic, easily recognizable** shape make them a staple of the city's identity that has to be left unaltered.



### THE HACKING UPGRADE IS MADE OF THREE PHYSICAL ADD-ONS AND A DIGITAL SERVICE

Vedovelle are to be fitted with **add-ons** that bring small improvements to the current uses, limit the need for maintenance and make monitoring easier.

### GUTA LUZ

Milan's fountains are often hard to spot, and nor water quality nor interactions are monitored in real time. Guta Luz deepens user experience giving back in advance a **complete report** of each Vedovella.



### GUTA CICININ

An easy to install **parasitic** product that regulates water flow through a simple twist in order to make the interaction with the fountain easier and spillage-free for all kinds of users. Lost wax casted shapes follow the tap curves without overshadowing too much past aesthetics.



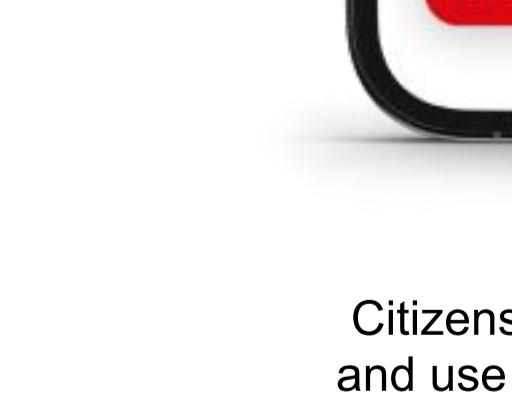
### GUTA BASIN

A parasitic casted brass grill, **designed to cover perfectly the fountain tank** in order to ensure functioning drainage, preventing debris or ill-mannered behaviours from clogging it. The **city map's inspired pattern** enhances the relationship between Milan and its fountains.



### PCB NESTING

underneath the top cover there is a 5V battery, the PCB, the esp32 board and the **GPS**.



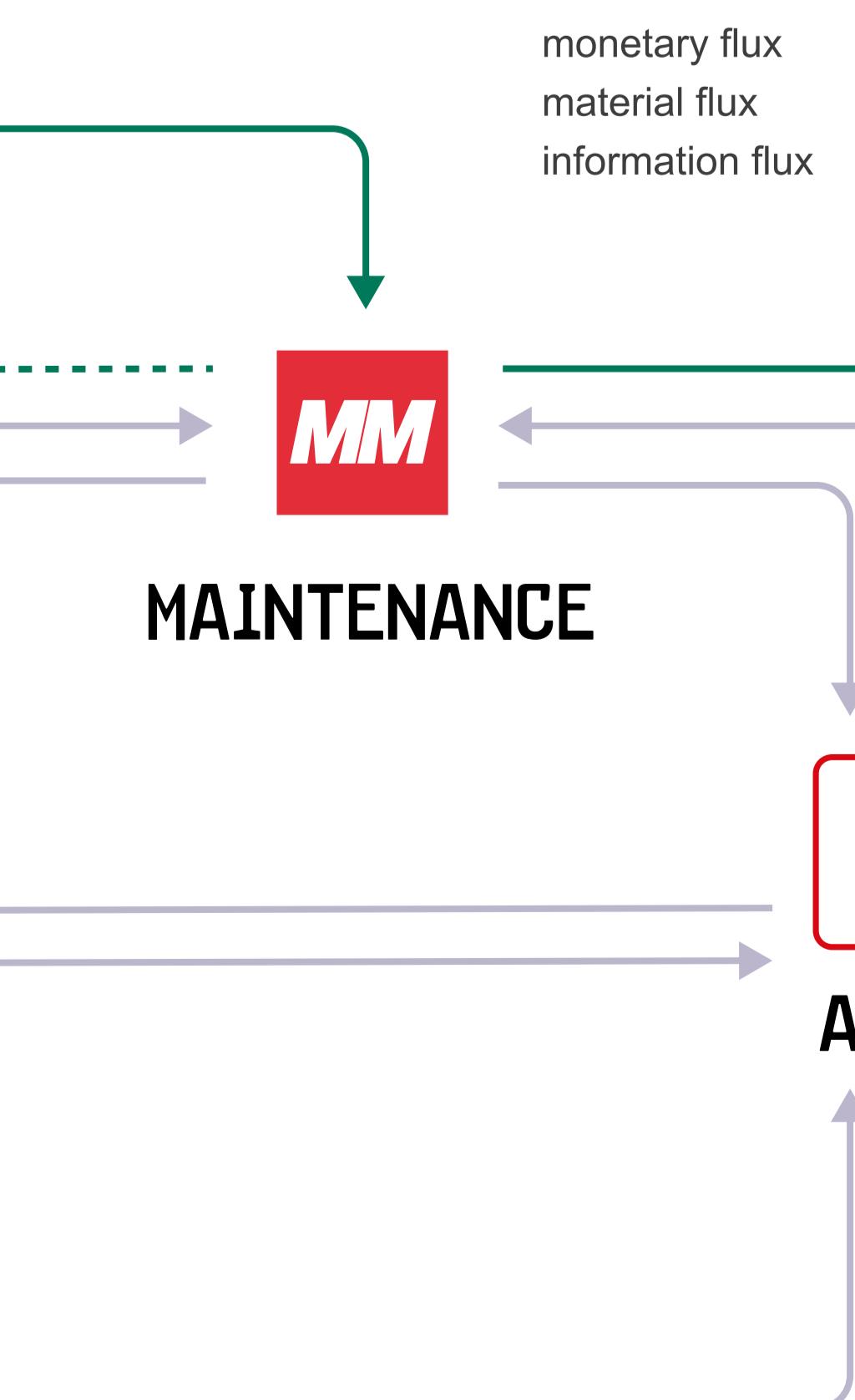
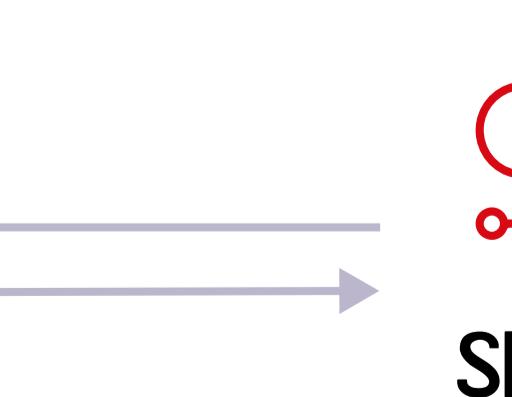
### TDS SENSOR

checking for **water purity** and constantly sends quality updates to the pcb



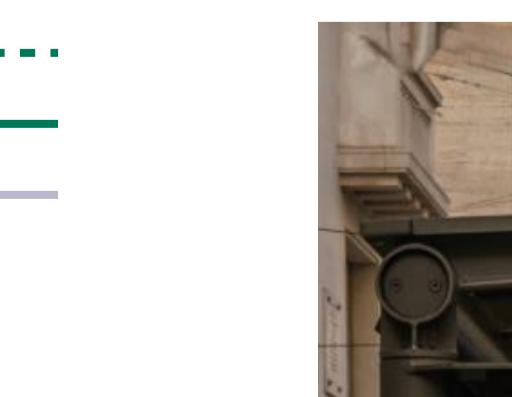
### HYDRO-GENERATOR

mounted on the water pipes the turbine generates **clean energy** that powers the whole system



### LED, PROX SENSORS

lighting up the fountain during the night and **collecting data** about use and vandalism times



### WATER LEVEL SENSOR

reporting irregular values linked to clogging in order to warn for immediate maintenance

### RAISING THE FOUNTAINS TO THE NETWORK



### RAISING THE FOUNTAINS TO THE NETWORK



# MAIALINO

## SUIFORME COFFEE TABLE

project type: Wood design prototyping

producer: partnership with Artwood Academy (Camnago MB)

end date: dec 2023

duration: 2 months

teammates: S. Ciccia | F. Busani | M. Foieni

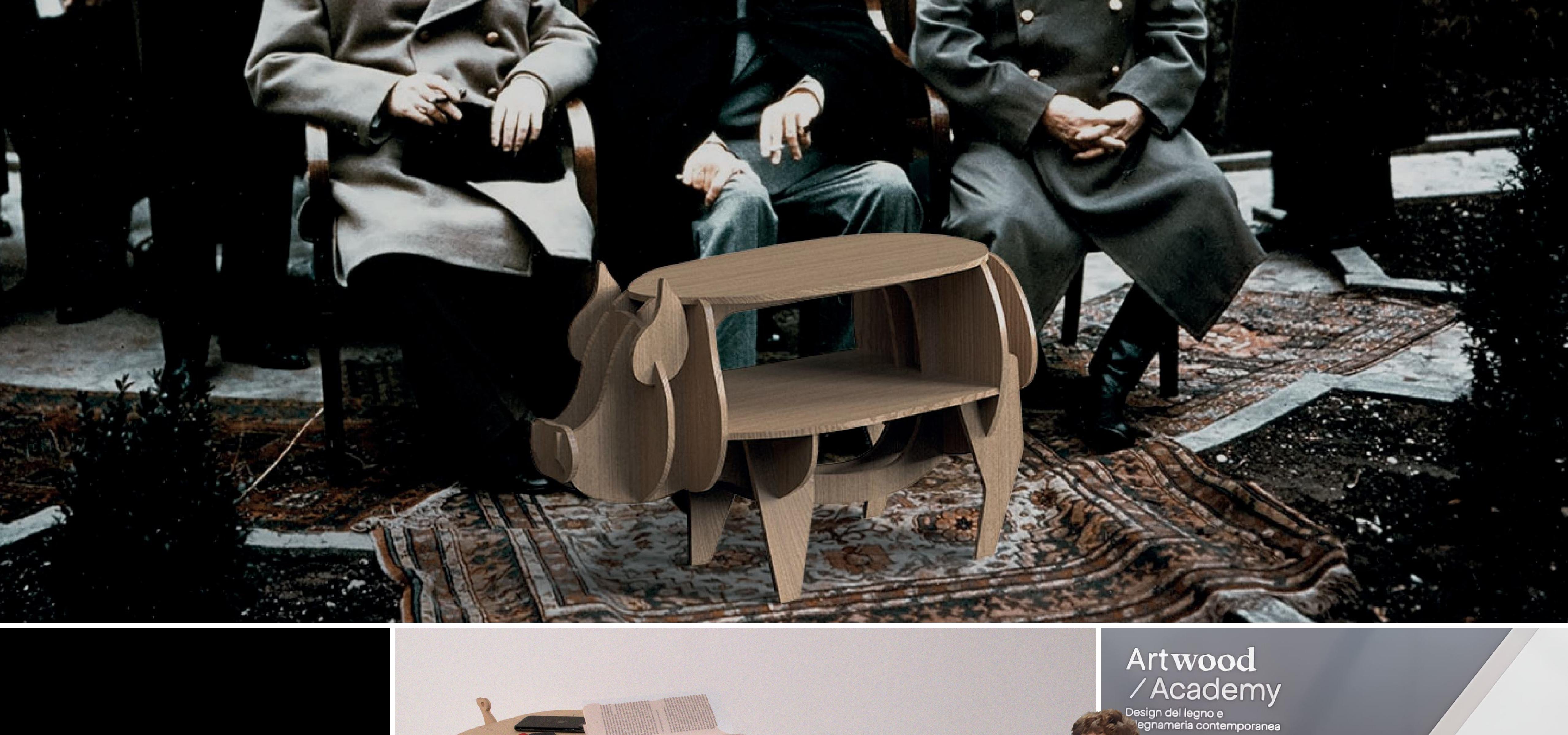


Maialino is an exuberant and **histrionic** piece of furniture, meant for the lounges of those who know how to not take themselves too seriously. It's a **provocative statement** piece made entirely of **dry-assembled CNC-cut wood panels**. Despite its rural appearance and the obvious satire behind it, it's still a completely functional coffee table.



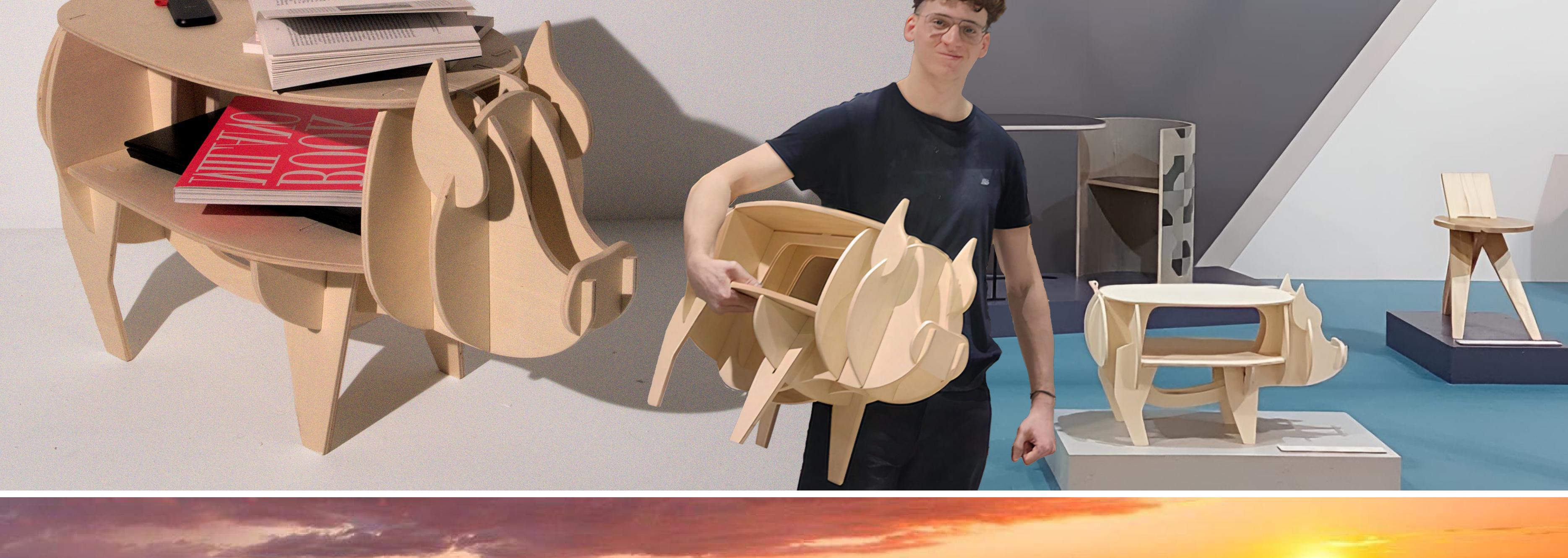
### PRODUCTION

Maialino is assembled by its users from a total of 19 CNC-cut pieces, without the need of any nail, screw or glue. The project focused on the feasibility of the product with a practical approach; Designers and technicians worked **side by side through multiple attempts** trying to maximize efficiency. CNC techniques were studied and applied directly by our team, thanks to our hosting partner.



### PROTOTYPATION AND SALONE EXPOSITION

Maialino was produced in a small batch and exhibited by Artwood Academy, our partner, at the Salone Satellite during the **2023 Salone del Mobile**.

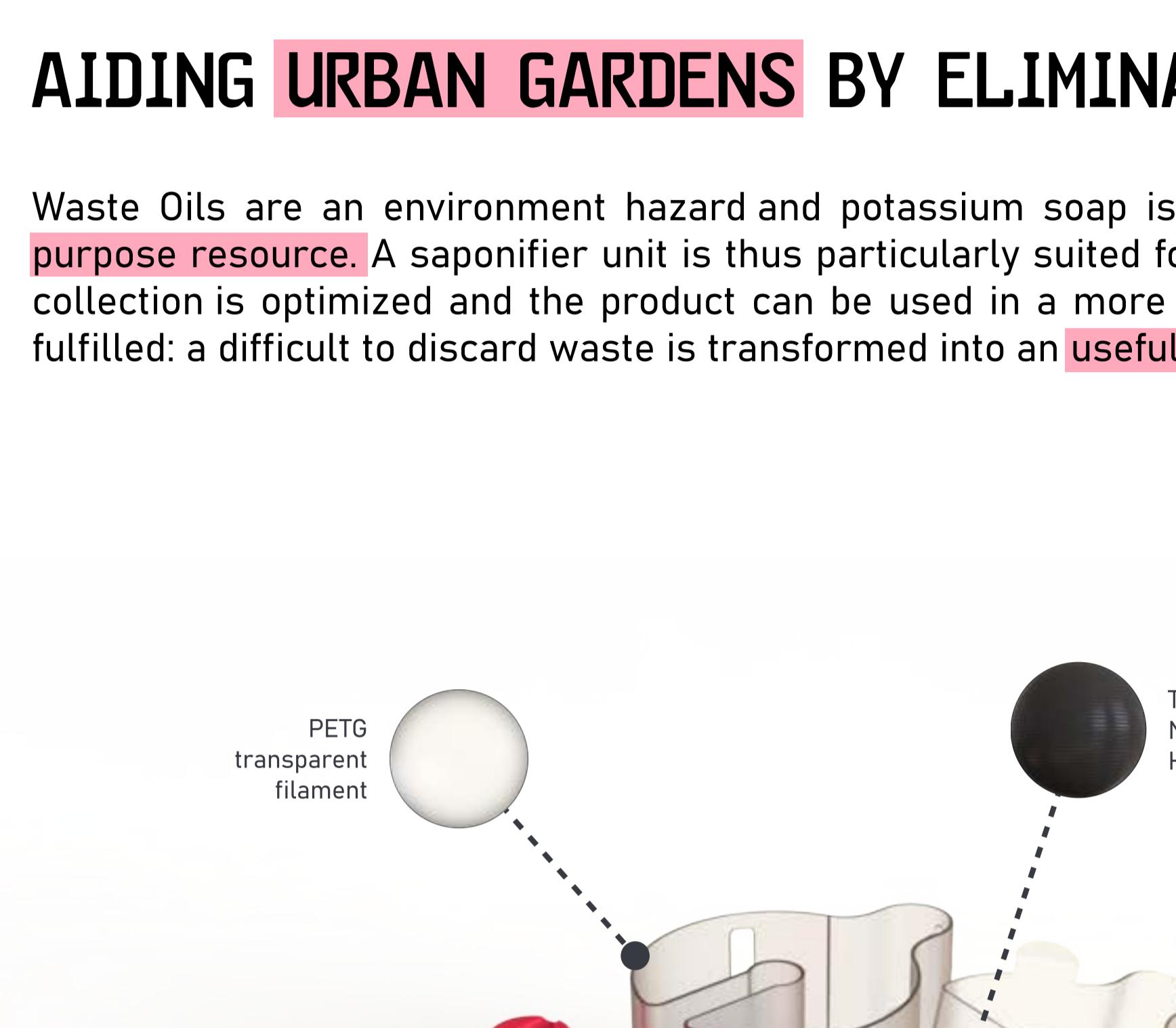


# RESOAP

## OPEN-SOURCE SAPONIFIER

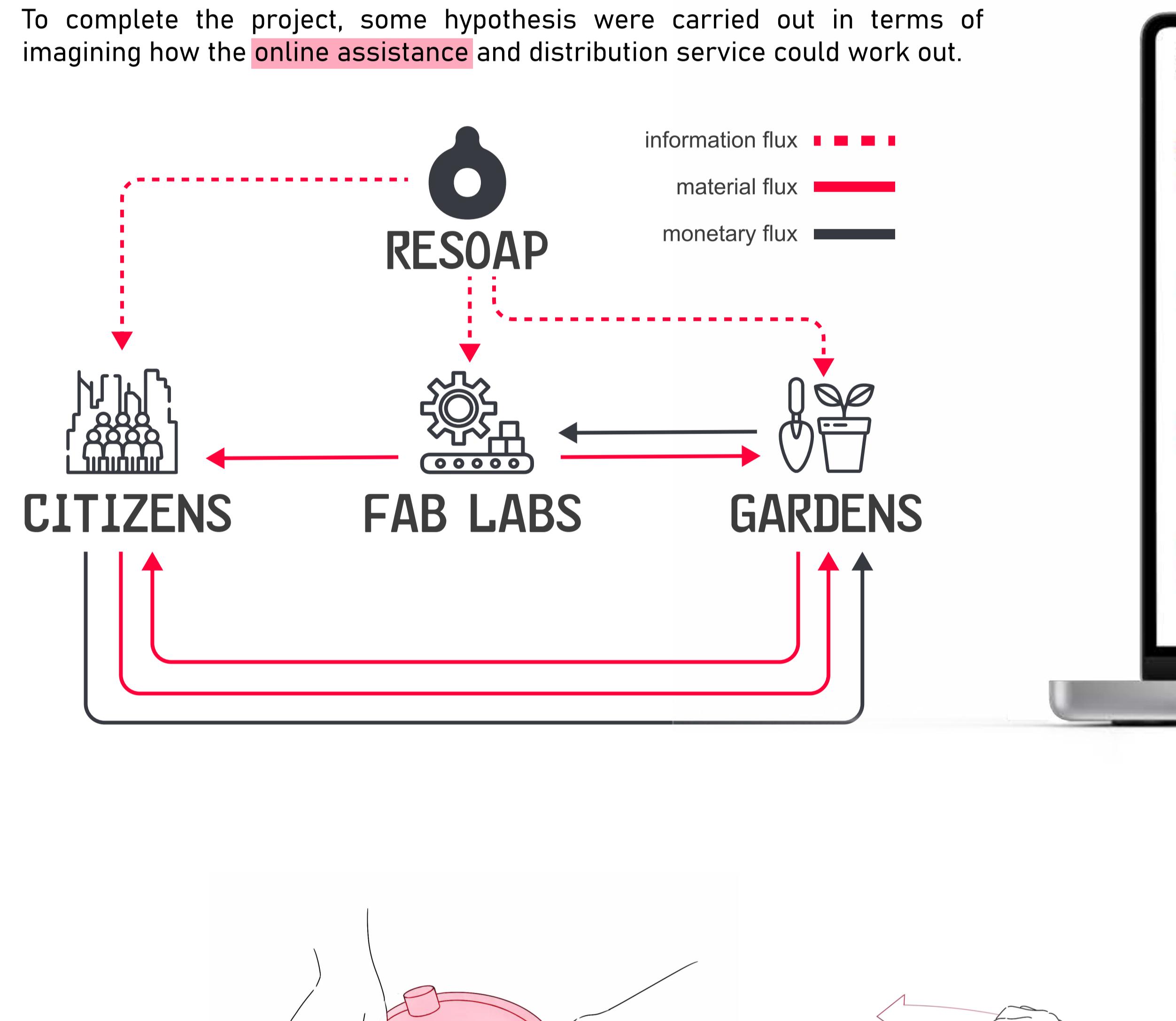
project type:	Academic project
end date:	apr 2024
duration:	6 weeks
teammates:	S. Mengarelli   C. Piazzolla A. Salis   N. Tosello

Resoap is a stackable, open source kit that transforms discarded oil wastes into a potassium-based non-toxic pesticide. The system exploits a simple saponification reaction, making it easier to replicate into urban gardens; each module has a specific function with the aim of making the whole process controlled, straightforward and easy to understand; all while including all safety measures.



### AIDING URBAN GARDENS BY ELIMINATING WASTES

Waste Oils are an environment hazard and potassium soap is a circular, non-toxic and multi-purpose resource. A saponifier unit is thus particularly suited for communal spaces, as material collection is optimized and the product can be used in a more efficient form. A dual purpose is fulfilled: a difficult to discard waste is transformed into an useful alternative for the community.



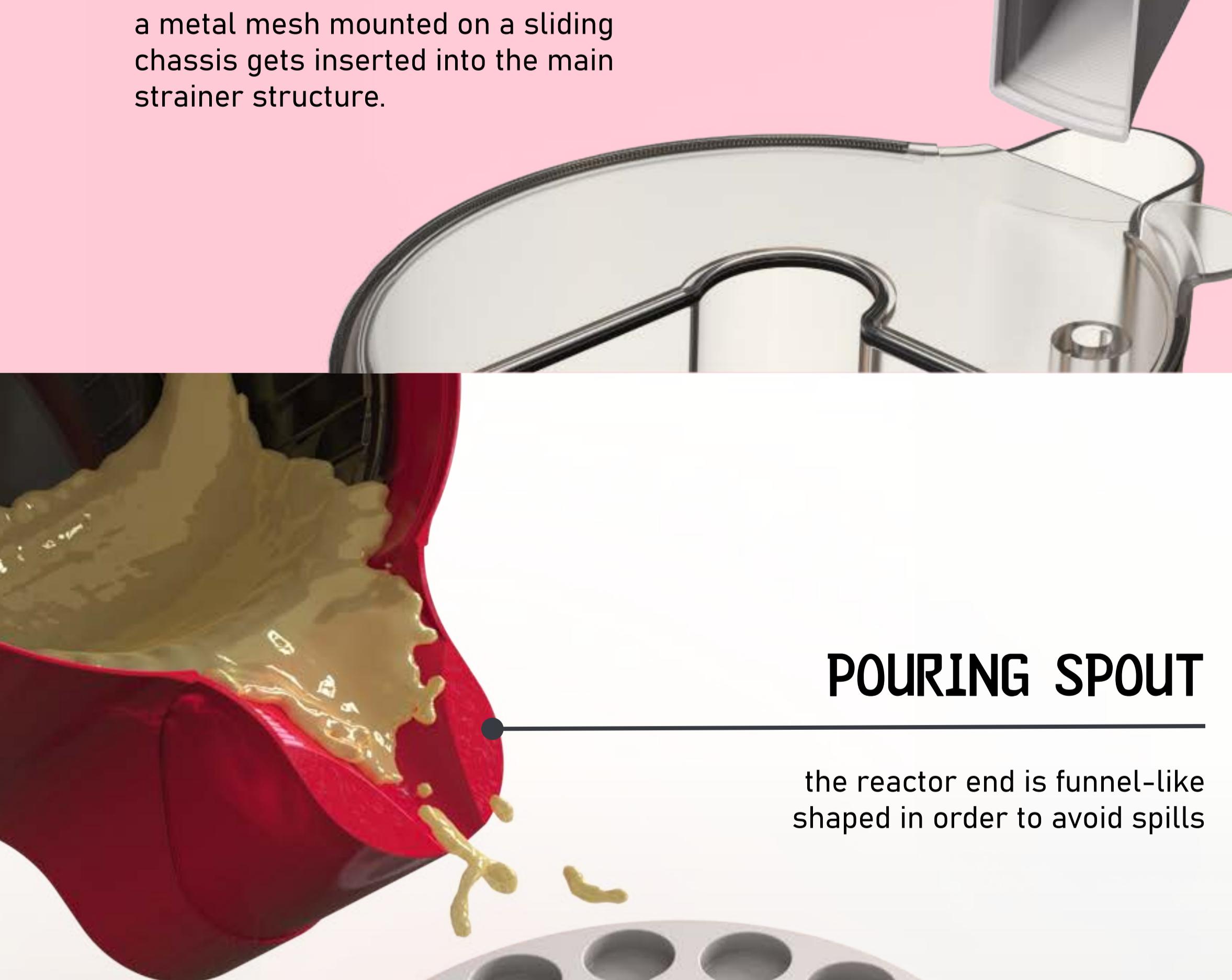
### RESOAP IS OPEN SOURCE: ITS FABRICATION FILES ARE PUBLICLY AVAILABLE, AND IT'S DESIGNED TO BE DIY.

Included with the 3d files there are slicing instruction for the 3D printer, assembly instruction for putting the product together and detailed steps for recreating the saponification reaction safely.



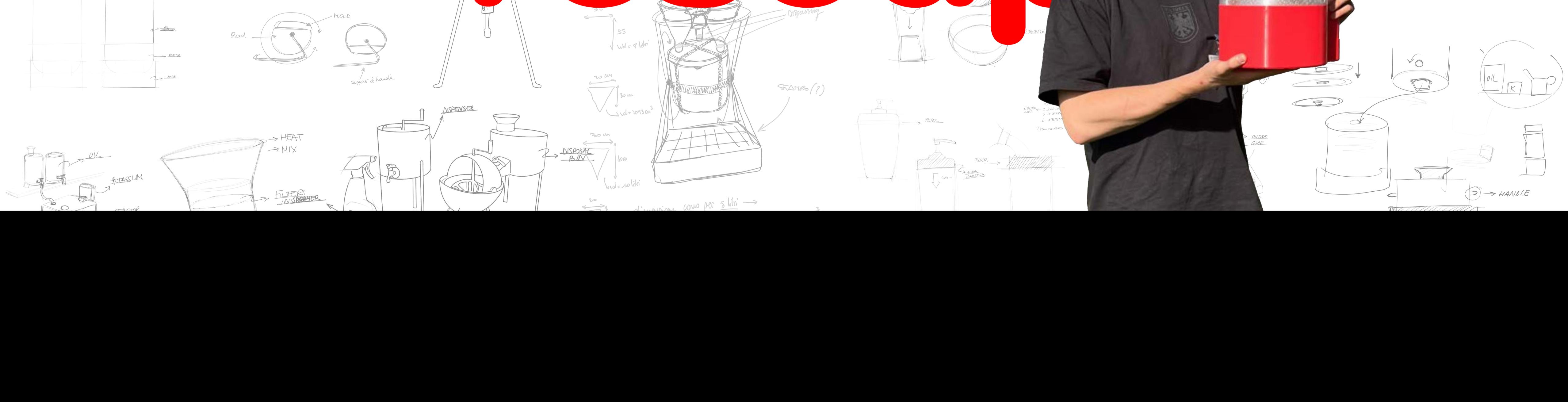
### FAB-LAB ORIENTED SERVICE

To complete the project, some hypothesis were carried out in terms of imagining how the online assistance and distribution service could work out.



### MIXING BLADE

the manually activated spinning blade blends all the components, while the reactor remains covered



# PARKSIDE

## THERMAL GUN

project type: Reverse engineering project

model name: Parkside PHLHG2000 B2

end date: sept 2022

duration: 3 months

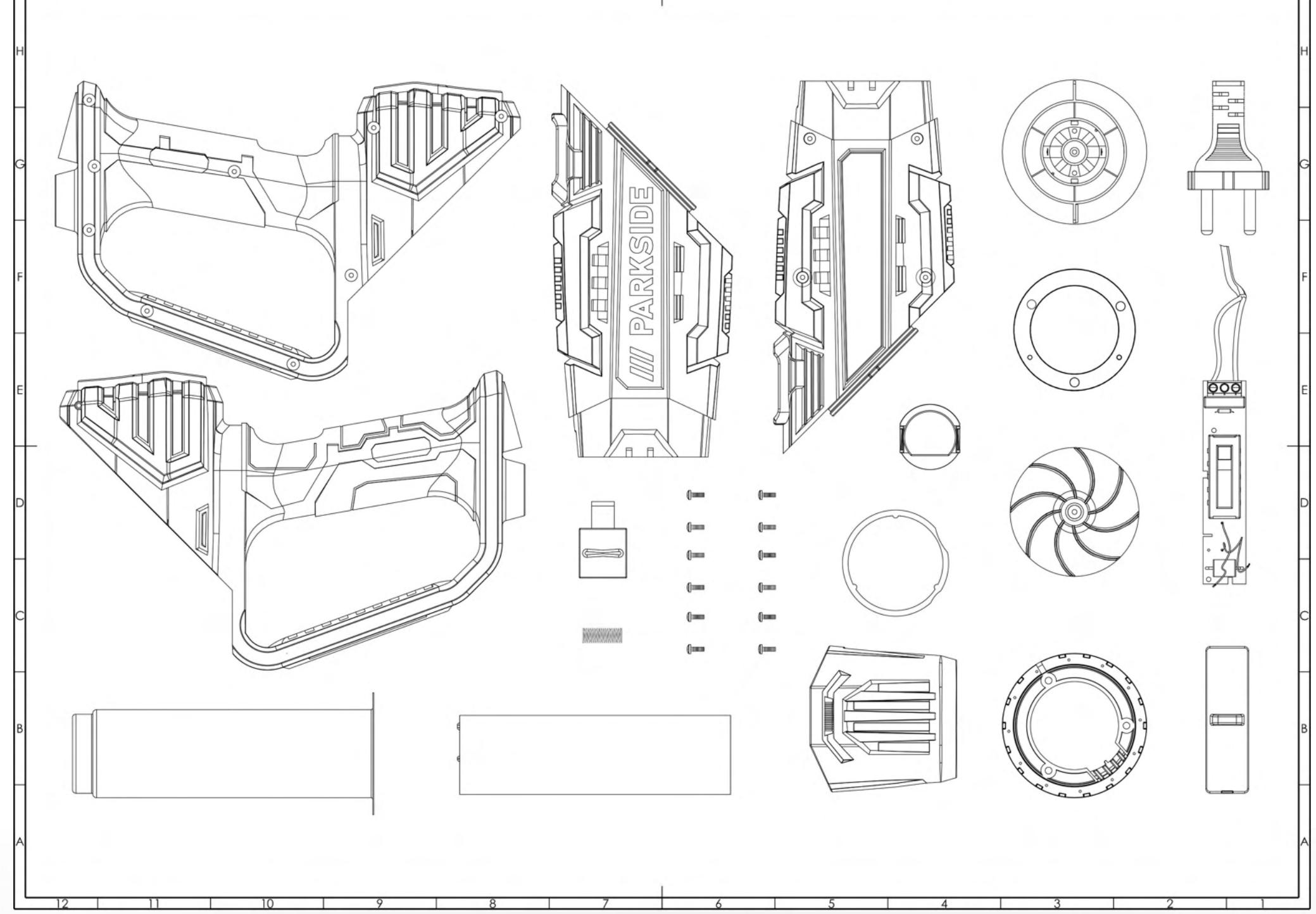
teammates: S. Boni | L. Mangili

As a **modelling exercise**, we measured and analyzed a common tool, in order to understand not only **how it functions** but how it was **produced** as well. It was then fully re-created from scratch using **Solidworks**. The resulting 3D model is **accurate** from an **engineering** point of view and complete in every one of its part.



### A METHODICAL WORK AIMED AT UNDERSTANDING INDUSTRIAL PRODUCTION

The final assembly included **18 parts**, all precisely recreated with regard to the original manufacturing method. The tool is also transformable, as the handle can assume two different positions - part of the work consisted in **animating the rotation** of the two halves and making sure that the parts always fitted.

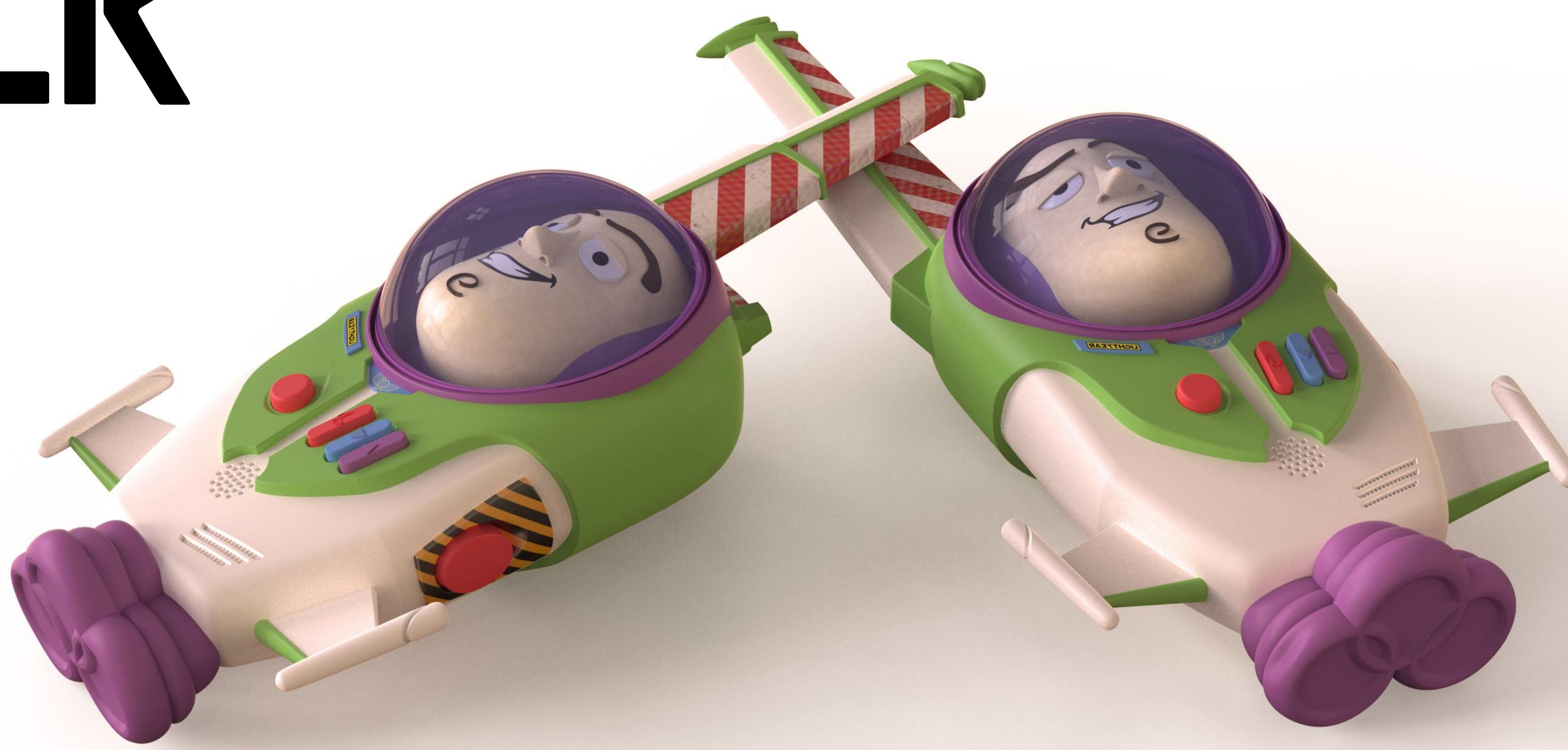


# BUZZER

## WALKIE TALKIE

project type: Digital representation exercise  
end date: jan 2022  
duration: 1 months

The Buzzer was made as a creativity and modeling exercise within a course of digital representation: the product aimed at showing the personal skills in a unique and flamboyant way. The program used for the modeling was Autodesk Alias, while Luxion Keyshot was used for displaying the final results as renderings. The project is a tribute to Pixar's Toy Story (1995), the first animated film made entirely in CGI.



### TO INFINITY AND BEYOND: A WALKIE TALKIE FOR NOSTALGIC KIDS AND PLAYFUL GROWNUPS

The Buzzer is a futuristic piece of hardware that only the most expert space rangers may utilize: it allows you to communicate in a trendy new way with all your friends - as long as they are in a mile and a half radius and as long as you speak one at the time. And if you don't have any friends, don't worry! Lieutenant Buzz Lightyear will keep you company with his big, bad face: as he always used to say, you've got a friend in me.



# LIVELACHE

# PHOTOGRAPHIC PROJECT

submitted for university

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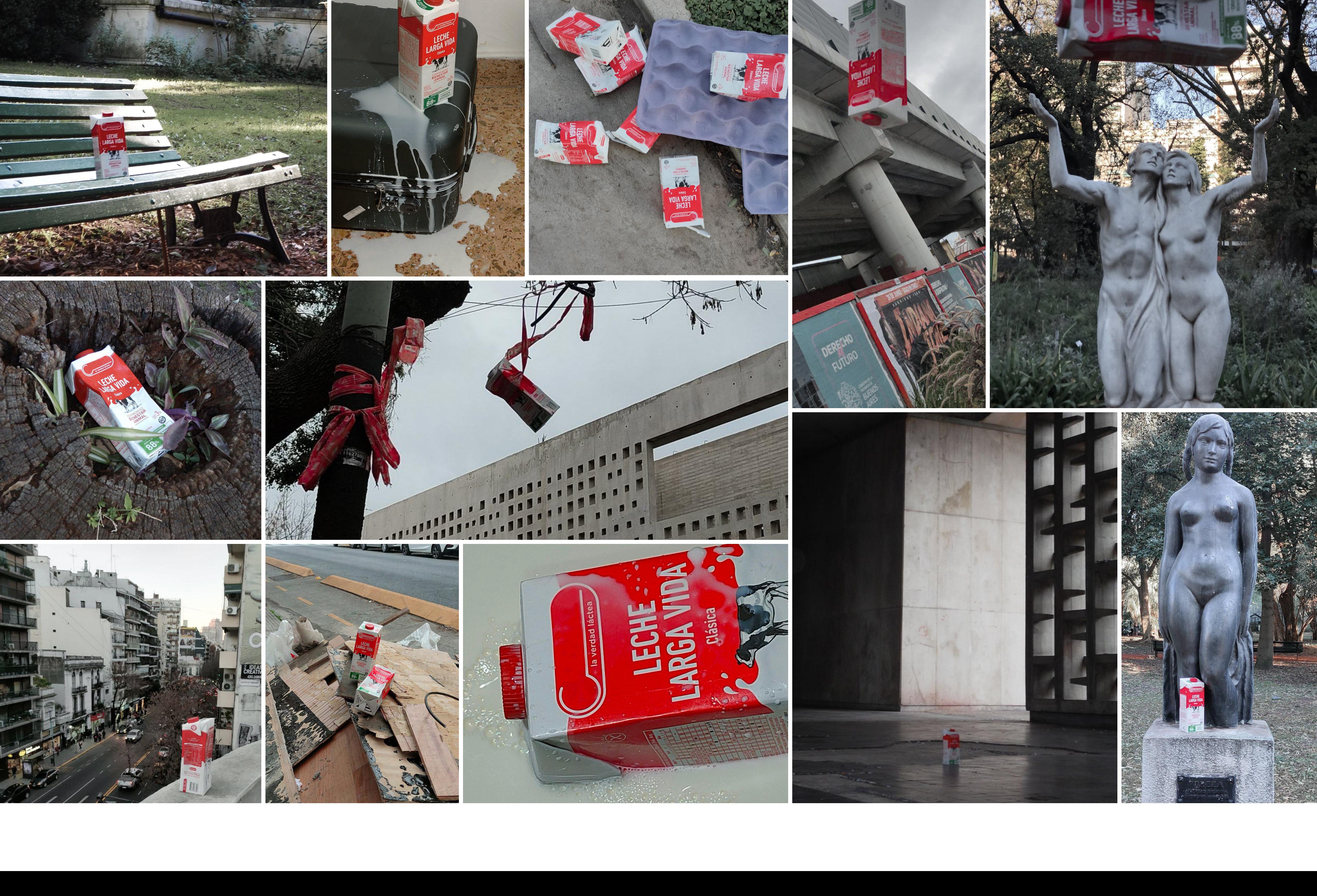
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**duration:** 1 month

dadaist premise of creating an apparently serious artistic work on an unusually humble theme. The milk package and its frivolous claim to depth is a metaphor for all those attempts of existential reflections, so common in the contemporary world and in photography, that fail to scratch the real shell of being. The series follows an aesthetic of rejection, of abandonment; of the liminal, alienating, fleeting, which represents an existence as brief as arrogant in its title.



[View all posts](#)



# SONORA

## WAGON REFURBISHING

project type: Academic partnership with various NGO organizations

end date: jun 2023

duration: 3 months

teammates: FADU's architecture and urbanism team

whereabouts: Hurlingham, Buenos Aires; developed during an international exchange at UBA

Non-profit associations collaborated with students in the design and creation of a multifunctional space for underrepresented communities.

The reconditioned wagon, a symbol of rebirth in a marginalized neighborhood, offers a communal space that is equally suitable for children eager to play, for teens to stay off the streets and for the elderly to share their stories: here the recording headquarters of "Radio Sonora" produce socially committed media.



THE PROJECT IS A  
NON-PROFIT COLLAB  
BETWEEN THREE  
DIFFERENT ENTITIES  
WORKING TOWARDS A  
COMMON GOAL:

Sonora Social NGO promotes culture and equity in underdeveloped parts of the urban agglomeration, using visual and radio languages as a mediating tool.



The SiuS uni course gathers students from different disciplines, making them apply the skills learned during studies on a real case, with concrete limitations.



The state-owned rail company provided a disused wagon, the land ownership for placing it and volunteered the manpower and all materials for the refurbishment.



### FOCUS AREA FOR RADIO SONORA

### MAIN COMMUNITY SPACE

The central area is conceived as a continuous space that can accommodate all of the many different cultural and educational activities organized by the Sonora: the open space promotes socialization and community aspects.



### STOREROOMS AND SERVICES

### MAIN COMMUNITY SPACE

The central area is conceived as a continuous space that can accommodate all of the many different cultural and educational activities organized by the Sonora: the open space promotes socialization and community aspects.



### STOREROOMS AND SERVICES



### FOCUS CABIN FOR RADIO SONORA

### STOREROOMS AND SERVICES

Radio broadcasting and podcasts are the heart of the association's activity: the space is designed to encourage dialogue between equals, through direct participations of the local population awareness is raised on sensitive issues. The table allows an unfiltered conversation where nobody shall be isolated.



### STOREROOMS AND SERVICES



### GIVING A VOICE TO THOSE WHO DON'T HAVE ONE



### COMMUNICATING THE UPDATE



### Ser comunidad en una sociedad dividida.



### Ser voz de los que no tienen.



### Ser herramienta para un futuro mejor.



### A WORK IN PROGRESS...

The wagon will occupy a space nearby the Hurlingham station, some 22 km deep into the suburbs. The project also consisted in designing the connections to the pedestrian paths, an access ramp and an outdoor patio with benches and racks.



### ...COMPLETE IN EVERY DETAIL

Since the work was needed by the ONG to proceed, detailed technical tables and charts had to be drawn for all of the furniture, for the hydraulic and electrical systems, for the insulation of the wagon and for the access ramp.



### Technical details:



### Technical drawings:



### Access ramp:



### Access ramp dimensions:



### Access ramp materials:



### Access ramp insulation:



### Access ramp connections:



### Access ramp safety:



### Access ramp maintenance:



### Access ramp accessibility:



### Access ramp durability:



### Access ramp cost:



### Access ramp timeline:



### Access ramp resources:



### Access ramp safety:



### Access ramp accessibility:



### Access ramp durability:



### Access ramp cost:



### Access ramp timeline:



### Access ramp resources:



### Access ramp safety:



### Access ramp accessibility:



### Access ramp durability:



### Access ramp cost:



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### Access ramp resources:



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### Access ramp accessibility:



### Access ramp durability:



### Access ramp cost:



### Access ramp timeline:



### Access ramp resources:



### Access ramp safety:



### Access ramp accessibility:



### Access ramp durability:

**THAT'S IT.**

**THANK YOU.**