Farshad Saffari

in www.linkedin.com/in/fsdgshda/ +39 351 280 7931





www.farshad-saffari.com



saffari.farshad@gmail.com

Possess a Valid Driving License and Personal Vehicle - Open to relocate - Italy

Experiences

Industrial Designer/Design Engineer - Innovation Specialist

08/2022 - Present

Eco Step Italia S.R.L, Morbegno, Italy Product Development

Core team member for developing new products, improving, or adapting existing products based on

- requirements. Oversaw projects and iterations, resulting in the creation of 15+ products, securing 7+ tenders, and increasing revenue by 30+%.
- Enhanced safety and ergonomics of urban-use
 Designed and tested graphics for rendering or final products and production handling.
- Introduced innovative features like plastic bumpers and safety guards to protect users and containers.
- Developed mechanical interfaces for IoT integrated devices and containers, enhancing modularity, upgradability, and repairability.

Prototyping and CNC Programming

- Realized new ideas and products using different
- Managed and operated rapid prototyping tools.
- Worked alongside workers to instruct on assembly processes and eliminate potential errors.
- Programmed Tekna 955 5D CNC machine to cut and make holes in extruded aluminum.

CAD and Part Design

- Utilized SolidWorks and Rhino 3D to design and develop 400+ unique parts, contributing to the production of 15,000+ units across various projects.
- Designed Molds for hydraulic press-forming Sheet metal parts, injection molding ABS, rotational molding HDPE, and thermoforming.

Freelance Industrial & UX Designer Milan, Remote, Italy

Dream Nest AS

 Baby Sleep Monitor and Enhancer Designing, 3D modeling, and preparing 3d models for prototypes.

Accessory Power

- Designing, 3D modeling, rendering for Enhance and <u>InnoBrain</u> GoGroove brands.
- 1x Headphone Stand & USB Hub combo.
- 2x Speaker Designs
- 1x Lighting Design

AVIBOT s.r.l.

 Designing a muscle therapy product and preparing the 3D printed prototype

 Modified aluminum profiles, reducing cost and weight while retaining functionality.

Presentations, Manuals, and Graphics

- market research, user tests, and customer Prepared rendering and presentation materials, and documentation for showcasing projects to clients or participatina in tenders.
 - Created manuals and catalogs for all products in
 - products for public use.
 - Conducted 20+ technical meetings with Italian and international customers and suppliers, using feedback to enhance satisfaction and drive improvements.

Technical Drawings and Bill of Materials

- Created detailed drawings for assembly, welding. bending, and various manufacturing methods.
- Developed comprehensive bills of materials and established a part coding system.

Working with big Partners

· Worked as manufacturer and technical consultant with the giants in industry like, Nord Engineering, Ecologia Soluzione Ambiente, KGN, EMZ, Astech, Namdal Ressurs, Silea, Ama Roma, ETRA.

Skills: SolidWorks, Sheet Metal Forming, Bending and Stamping, Ideation, Sketching, Rhino 3D, Rendering (Keyshot), Prototyping, 3D printing (SLA/FDM) (Preform/Orca Slicer), laser cutting and engraving (Light Burn), CNC programming (emmegi CAM PLUS) Stamp design, extrusion, plastic part design, injection molding, thermoforming, rotational molding, Photoshop, Fiama, Illustrator, Office, Word, Excel, PowerPoint.

02/2021 - 12/2023

 Designing UX & UI modest fashion marketplace desktop and mobile website design

3D Modeling, 3D Printing EEG device

Skills: Ideation, Sketching (Hand & Digital (Concepts)), 3D modeling (Rhino, Blender, SolidWorks, Fusion 360) Rendering (Keyshot, Blender), Photoshop, Figma, Illustrator, FDM 3D Printing (Cura, Orca Slicer) Technical Drawina.

M.Sc. Thesis, Talent in Residence

Polifactory, Milan, Italy

- Conducting research on a haptic navigation system to improve the navigation experiences. Approaching challenges of designing wearable devices, haptic feedback, and cognitive load during navigation.
- Creating a functional prototype, programming Arduino (C++), designing a custom PCB with KiCad.

Product & Experience Design Inetrn TINKER DESIGN LIMITED , Remote, London, UK

- 3D Digital simulation and animation of product, designing app and website's UX and UI and visual communication of product Website landing page.
- Visual communication and compelling marketing outputs Design packages such as InDesign, Photoshop and Illustration, Motion graphics, video editing, and UX, UI design.

Student Designer

Politecnico di Milano, Milan, Italy

Braun - SAES Group - Ferrero - European Space Agency

3d modeling and realizing the product with Rhino3d

Blender, Fusion 360

- Fiama (User Interface)
- 3d printed using Formlabs resin printers.

Skills: Research, User test, Rhino 3D, Blender, Figma, Keyshot, 3D Printing, Arduino, KiCad

03/2020 - 06/2020

01/2022 - 04/2022

 The final purpose of the design internship was to be on the journey of articulating a new concept, helping to raise awareness in steps for investment for commercialization.

Skills: 3D modeling (Blender), Animation (Blender), Rendering (Blender) Experience Design Web & App (Adobe XD, Figma).

02/2019 - 02/2020

02/2019 - 04/2022

09/2013 - 09/2018

Skills: Ideation, Teamwork, sketching, prototyping, 3D modeling, rendering, Technical Drawing.

■Education

MSc. Integrated Product Design

Politecnico di Milano ,Milan, Italy

Thesis "Tactile Navigation Product System to improve Grade: 110/110 urban life experience"

BSc. Industrial Design

Art University of Isfahan, Isfahan, Iran

Thesis "Smart product design to improve the everyday Grade: 18,71/20 life of design students"

Languages

Italian English German

Upper intermediate - B2 Advanced - C1 - TOFFL iBT 99 Pre-intermediate - A2

'Achievements.

2020 - Hack The Crisis Winner

Canary Biometrix for diagnosing COVID-19 at early staaes

2020 - Finalist Global Grad Show for COVID-19 -

lifeline

2020 - A'Design Award Winner

Furniture, Decorative Items and Homeware Design, PinTheTime

2019 - Finalist Vodafone 5G smart city and smart campus

Wellness at Work

2018 - Featured in Global Grad Show (Dubai Design

Week) - NAII

Soft - Smort Skills

Creativity and Innovation - Adaptation - Decision Making Product Evaluation - Design Thinking - Teamworking Research and Trend Finding

Certificates

2022 - A Simple Framework for Designing IoT Products -PTC.

2022 - New Business Markets in the Internet of Things (IoT) - PTC

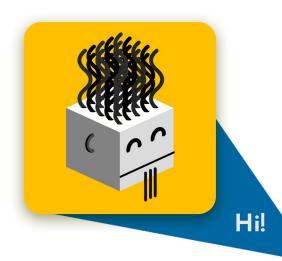
2022 - Introduction to User Experience Design -

Georgia Institute of Technology

2022 - Introduction to Haptics - Stanford University

2022 - SOLIDWORKS Sheet Metal - LinkedIn Learning

2021 - Smart Product and City Design Certificate -INSA Lyon Spring School



Design Portfolio

Farshad Saffari

Industrial Product Designer - Innovation Specialist



















Other Projects

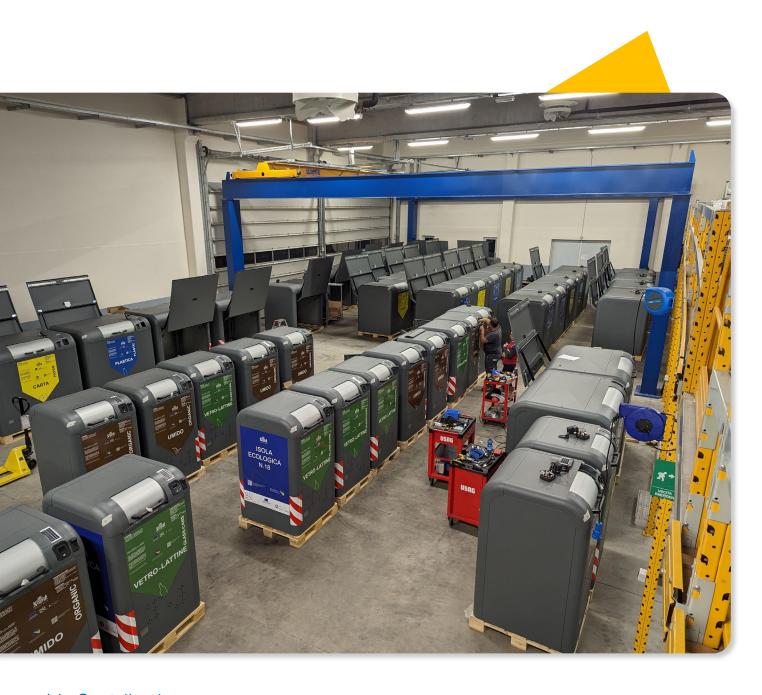


Environmental Technologies

Mechanized and Smart Waste Container Design and Production







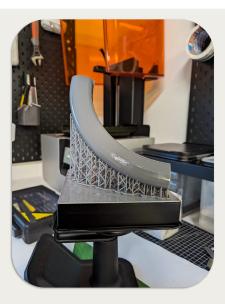
What I do at EcoStep?

As an industrial designer I am responsible for introducing new products depending on criteria introduced by different tenders or market needs or the problems we find in the existing products on the market.

Evaluating prototypes either Sheetmetal bending, 3d prints, aluminum casting and plastic parts.

I provide files for production and instruct the operators and staff how are the products assembled and what are the necessary hardware for production.























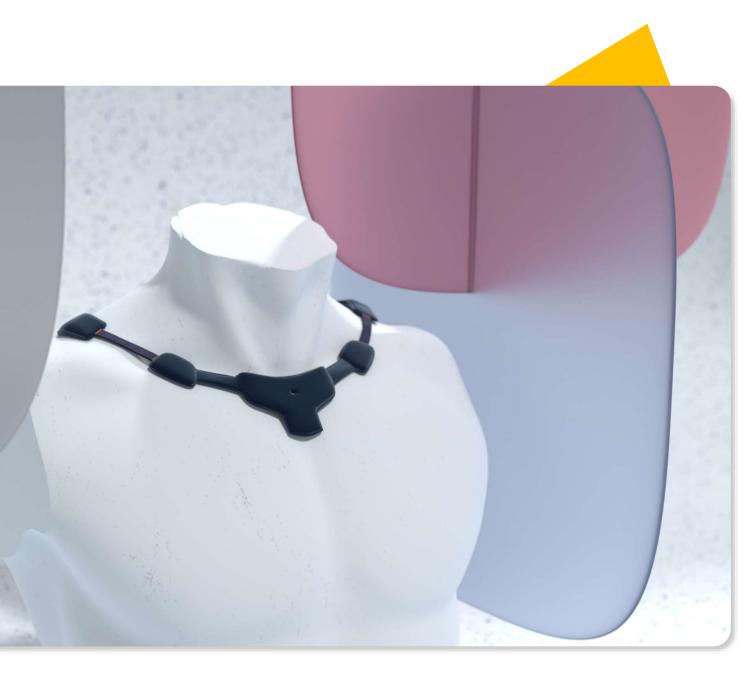
Tactile Navigation Product System

Farshad Saffari As a talent in residence at Polifactory Supervisor: Stefano Maffei









What is Navitile?

Navitile is a wearable tactile navigation product system that utilizes haptic technologies to improve the navigation experience in and out of cities.

As a result, this project became a **platform** for **development** of other haptic devices in different environments.

- Reduced sensory overload
- Improved Navigation Experience
- © Easy to learn
- Intuitive
- Directional Information
 - Opportunities to be used as a platform, in navigation, fitness, healthcare, and as an open-source platform for makers and researchers.

My Contribution:

Research • Ideation • 3D Modeling (Rhino, Fusion 360, Blender) • Prototyping (Arduino, KiCAD)

The project started with a deep research and study about haptics and use cases of it. Haptics is about anything related to

the sense of touch and divided into:

- Kinesthetic
- Tactile

There are several different situations to use the haptics and I have decided to focus on:

- Guidance
- Abstract Communication
- Background Awareness

Research Question:

How could we improve the urban life experience by using haptic technologies? I wanted to use haptics to reduce sensory overload on eyes and ears and improve the urban life experience by removing distractions and concerns related to



Background Research

Haptic wearable for







Urban Navigation Closed Space Nature/Open Space

Around city

Micro Mobility

- Tourism
- Campus Hospital
- Nature Hiking
- Mountain climbina Warehouse
- Office • Running

Using vibration and using ERM motors was the best choice for the Navitile according to my analysis.

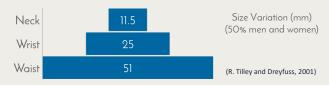
To understand the best motor type and location I have conducted some user test and also considering the durability of the product, the user experience and anthropometrics we I have chosen to use neck and shoulders for our use.

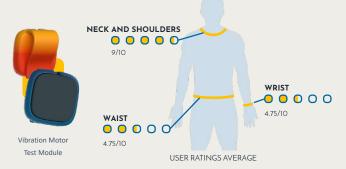






User test with 3 motors - 3 location - 3 user













Previous work by others are:

- Very specific use cases
- Only Academic research
- Focus on technology and mechanics not design or the user.
- Low attention to the experience or product design

I wanted to focus more on:

- Production considerations
- Durability
- User experience

Inspiration

The number of tactile patterns that human brain can handle and remember are limited to around 20. According to different situations that this device could be used I have created two lists of patterns. Level 1 patterns have higher priority and need to be simpler and easier to learn. Level 2 patterns can use more abstract vibration patterns.

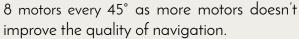
Information to provide

Level 1 Communication:

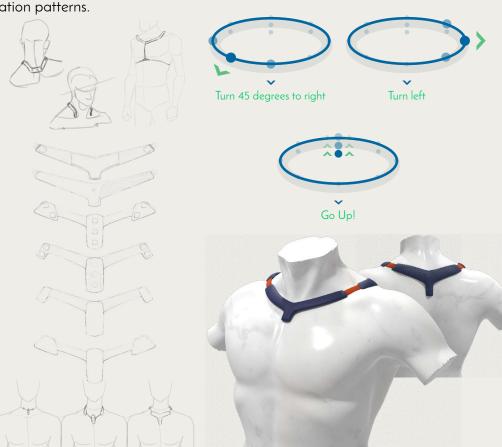
- Turn Left
- Turn 45° Left
- Turn Right
- Turn 45° Right
- Go Straight
- Turn Back
- Turn 45° Left Back
- Turn 45° Right Back
- Go Up
- Go Down
- Wrong Way
- Compass Mode

Level 2 Communication:

- Remaining Time
 >20 min
 5<x<20 min
 5> min
- Continue
- Arrival
- Started
- On/Off
- Stop
- Low Battery
- Connected



3 motors vibrate at the same time for simple navigation tasks to give the user differentiation points, and possibly to create haptic illusions of degrees between each 45 degrees.



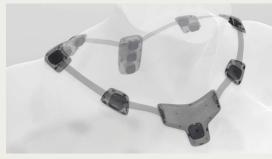
Ideation



Implementation

1st prototype's Weaknesses:

- Motors need support
- The product needs to be smaller
- Electronics need better ways to be implemented



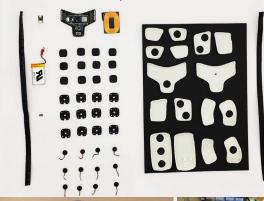


2nd Prototype had to be:

- Minimal
- Discreet
- Representing Urban Life
- Easy to use
- Comfortable



8 rigid parts that are connected with a flat cable and fabric. It contains 12 motors, 8 each 45 degrees and 4 more on the back to create a haptic display. Each motor has its own flexible mounting case with a pad to be in contact with the body.







I have used KiCad to design a custom PCB for it and mounted an Arduino Nano 33 BLE sense. With this model of Arduino, I could also get the directional information and relative position of the user, in addition it could give us the possibility to use the gesture sensor on it to control the device.













Implementation





• 21 functions User test:

- 11 primary • 3 users
 - 10 secondary
 - 4 situation
 - · Walking, sitting, navigation, single motor test

Questions:

- I think that I would like to use this system.
- The product is comfortable to wear for a short period of time.
- The product is comfortable to wear for a long period of time.
- The clues are easy to follow. 4.67/5
- I would imagine that most people would learn to use this system very quickly.

Phone App:



3.33/5

2.67/5

4.67/5

4/5







- Trainina
- Select navigation mode
- Choosing destination
- Device statues
- Integration with other

Correct readings

85%

• In campus

Sample navigation Consisting primary and secondary functions

64%

Identifying each single motor • Back

79%(sitting)

82%(Walking)

Primary Commands • Left Back

- Front
- Right

• Go Up

• Left

- Right back
- Go Down
- Wrong Way

Scale up opportunities

- Navigation
- Navigation • Tourism
- Urban Safety
- Personal trainer
- Adjusting training form
 - Fitness tracking
- Healthcare

Fitness

- Correct posture
- Fall detection
- Body balance
- Open-Source Platform
- Makers & researchers
- Materials to build
- APIs

63%(Sitting) 60%(Walking)

Secondary Commands • Low Battery

- Turned on
- Continue
- Stop
- Arrived

- - Started
 - More than 20 minutes
- 5 to 20 minutes
- Less than 5 minutes

Lightweight fully functional prototype

Implementation

Further development

nale

New sanitization system for circular fashion

Farshad Saffari Ana Maria Gonzalez Gloria Diaz Oriane Rainero Sebastian Gonzalez







What is Nale?

Nale system aims at changing the sanitization system in order to extend the lifetime of our garments and save resources and time for the consumer.



Time Saving



Better care for sustainability



Necessary laundry only



Water and Energy saving



Money Saving



Reduction of Toxic agents

My Contribiution:

Ideation • 3D Modeling (Rhino + Fusion 360) • Rendering • Drafting • Prototyping • UX/UI Design



Check out the descriptive video https://youtu.be/2-39UY3Yfvs







90%

60ltr

6,7

The need for this solution comes from the identification of the following big issue: the damage of garments and excessive resources consumption due to the overuse of washing machines.





Nale system aims at extending the time between each necessary laundry by tackling the two main problems:

stains and odours

With Nale you can prolong the time between Laundry washes to avoid overwashing while still feeling fresh, extending the lifetime of your clothes and helping the environment.

Design Challenge



1. Powder funnel

3. ST pills

5. PRE Nale

7. ST station 8. DO Nale 9. ST Nale

1. ST brushes

PRE. is a small portable and analogue product to pre-treat garments when stained and facilitate the posterior removal. Afterwards, at home, the S.T automatic stain remover can be used to take care of stains in around five minutes.

D.O. is a simple deodorizer based on electrolised water that will refresh and sanitize your clothes fast and comfortably.

All of the products are ted with efficient natural solution to care for the environment and leave garments ready to be back in the closet or to be worn without needing to use the washing machine that often.

The full system is supported with an app that helps to correctly manage the products and makes the user aware of his/her impact.

The Nale System



D.O Nale



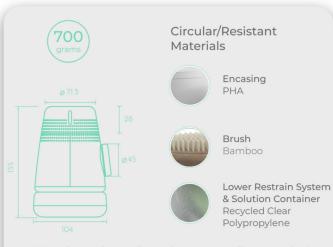
D.O. is one of the most relevant products of the family since it will be used on a daily basis to refresh, sanitize and deodorize garments before putting them back into the wardrobe and being able to wear them for more occasions before washing them.

It is a completely safe product that quickly sanitizes and refresh your clothes spraying electrolyzed water, without needing to achieve high temperatures. It is divided into two parts, the body and the water deposit.

From the deposit, the electrodes, electrolyze the water and the pump drives it up the body to the spray nozzle.



D.O works with effervescent pills that are based on sodium chloride to create the hypochlorite sodium when electrolyzed. They come in a package of 90 pills, which in daily use basis means 3 months. Each of the deposit loads can be used for up to eight garments.



S.T. nale mechanically and automatically gets rid of stains in about 3 minutes. It includes 4 different programs and pills and 3 different brushes to adapt to garments in the best way.



It has two deposits, one to add the pill and prepare the cleaning solution and one for rinsing water.

On the bottom, the brushes can be attached and replaced to eliminate the stain by an eccentric rotation without damaging the fabric. It also includes a Restraint System to hold clothes in place centering the stain and collect the water released.

The interface provides setup instructions and allows to easily select the program using the rotational knob.

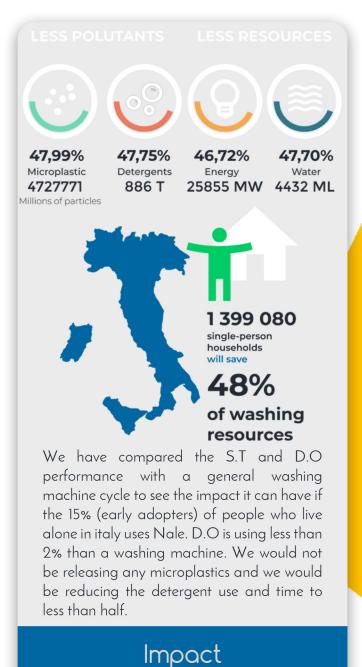
The product works with thanks to the solenoid valve that will open the solution or rinsing deposit depending on the process step, the pump will drive the water to be sprayed and the motor will turn the brush.



S.T Nale



PRE. Nale

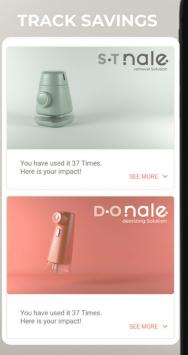


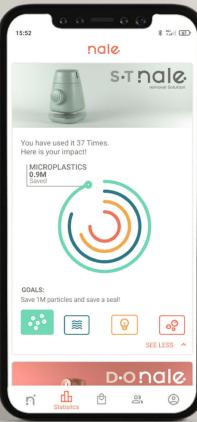
APP.nale

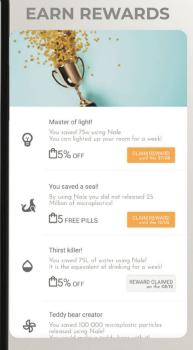
Connecting the system

Connectivity

Nale APP







APP Nale

An important point on the system is the Nale App. It was created with the following key points and goals in mind:

Establishing a connection between the user and the products in order to make them aware of the impact they can have by changing their cleaning habits.

Gathering information about the cleaning and sanitization habits to provide it to third parties.

Providing access to all the information about the products in order to solve all the possible questions or issues and ensure the correct use of them.

Facilitate the purchase of the devices, the maintenance, and the hiring of subscription models to increase the revenue and make the system use smooth. Encourage the relationship between the users creating a user community where to exchange information and experiences about the system.

Give access to complementary information about sustainability and clothes care aiming to raise curiosity and awareness.

To make the user aware of his/her impact and encourage the use of Nale we have set an achievement/reward system. By using the products, you can see the resources you saved compared to a washing machine, the things you could achieve with that savings, like lighting up your room for a week, and receive discounts and promotions when accomplishing the achievements.



Breeze

Refresher in Public Spaces

Farshad Saffari Alessandro Fasano Caterina Castelioni Hannah Roche









What is Breeze?

Breeze is a walk-through device which can be installed in different public spaces like airports and shopping malls, to let the people who pass through it feel a refreshing breeze on their skin and feeling ready to continue their day.



Touch a gentle breeze



Smell clean cotton sheets



Color smart glass will give users privacy



Sound of a gentle wind in the forest

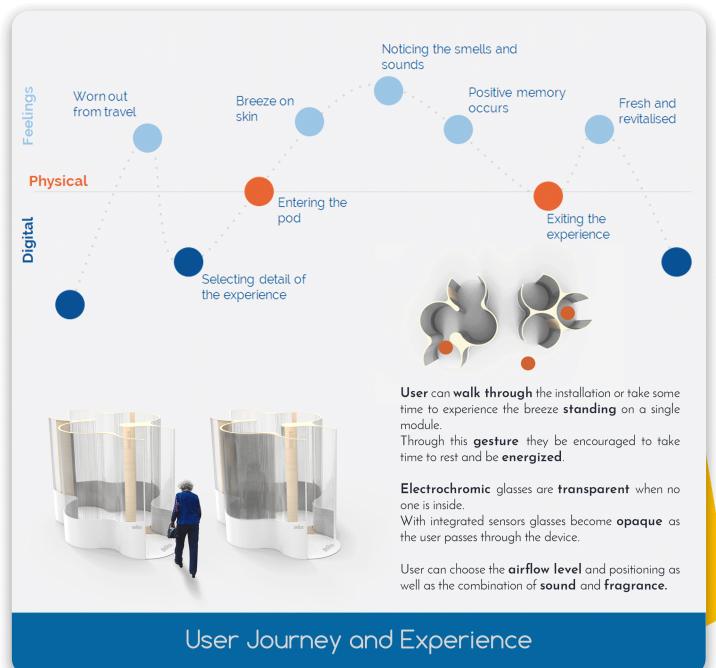
My Contribiution:

Ideation • 3D Modeling (Rhino + Grasshopper) • Rendering



Design for wellbeing starts with understanding the positive experiences in personas life and selecting one of them and deepen our understanding of it and extracting the meaning of the positive experience. Then we recognize the persona's psychological needs and find out the materials and skills which engage in this experience.

Design for Wellbeing





Double layer with holes in glass forces the
air and creates the path





Fans are hidden on the lower part to create indirect ventilation







Diffuser spread a comfortable fragrance **Speakers** dip the user into a memorable soundscape



Components









Uber

Creating valuable partnerships with brands in order to further the Breeze experience and audience

Customization



For the future implementation of this positive feeling of freshness and cleanness, we can envision Breeze integrated into different buildings structures and in autonomous cars to:

Seamless choice of combined sensations

Possibility to **share** the experience with other users

Cleanness and sanitizing purpose

Future Scenario

WAW

5G Well-being Monitor

Farshad Saffari Ilaria Tarozzi Fabrizio Tropea











What is WAW?

WAW is a service to let people be healthier in all workplaces, which has a 5G connected device to monitor their well-being. This project developed during the Vodafone 5G Challenge for Smart City and Smart Campus in 2019. The aim of this hackathon was exploring the design potential of the 5G network.



5G

Smart 5G connected product service



Productivity

Improve work experience and productivity



Well-being

Physical and mental wellness



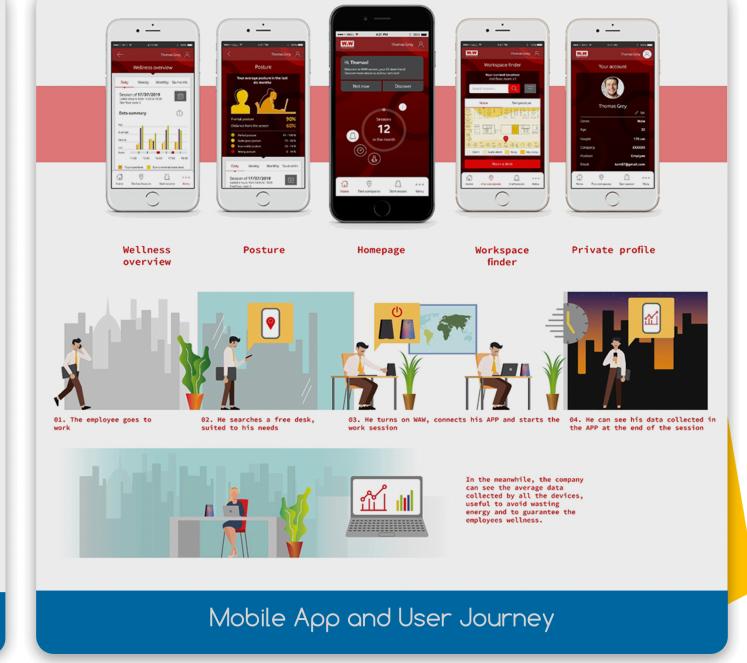
Satisfaction

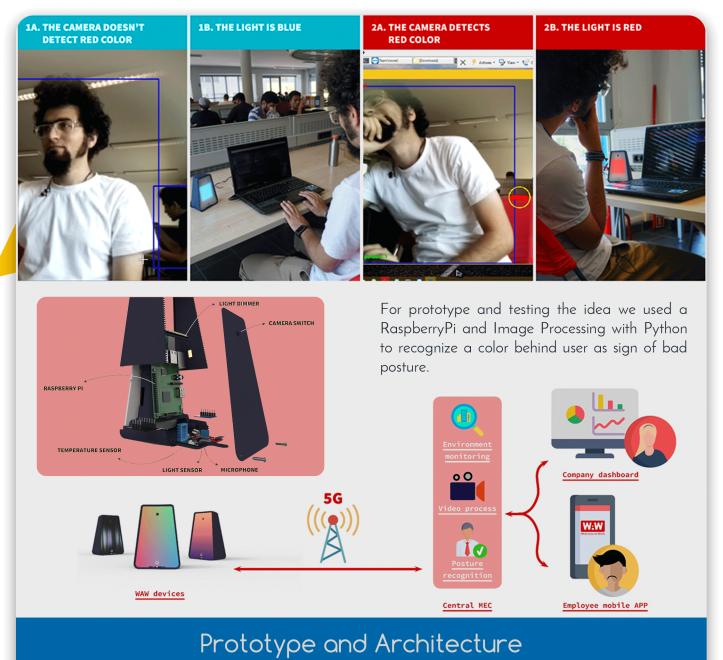
Improve personal satisfaction and efficiency

My Contribiution:

Ideation • 3D Modeling (Rhino + Grasshopper) • Rendering • Programming (Python + C++)(RaspberryPi + Arduino)









Washi

A Companion for Better Hygine

Farshad Saffari Ana Maria Gonzalez





My Contribiution: Ideation • 3d Modeling (Blender) • Rendering

What is Washi?

A friendly companion that prompts behavioral change and allows the whole family to build better hygiene and water usage habits.

Hand hashing is said to be the #1 tip for pre venting the spread of virus and bacteria. While this seems like a simple activity, it is usually not done properly and for the right time to make it effective, in fact according to studies about 97% of people wash their hands incorrectly.

With a friendly display and customizable covers, it is a product that adjusts to both adults and children. Its technical simplicity gives it potential to be used in homes and public places like schools as a hygiene educational tool.

To provide a solution to this situation we crea ted Washi, a waterproof attachable device that helps people build hand hygiene and water saving habits by using nudge techniques that induce be havioral change, Washi works by using proximity sensors, time tracking, and easy to understand visual cues and feedback.

PinTheTime

Planner Clock

Farshad Saffari Zahra Ghiasi Hossein Farsi







What is PinTheTime?

We do not look at the clock just to know the time; by looking at a clock we review the tasks that we have to do in a day at specific times in a day. All of us had experience of using a piece of paper to write down the obligations we have to do in a day, but many times we fail to do all of them; moreover, we forget to do them. It is a soft round clock covered with felt, with the use of pins and paper you can pin your tasks on it on the desired time of day. With PinTheTime you will never miss an appointment or task to be done again.



Analog not Digital

Using analog methods to reduce distraction with digital devices.



Planning

Having a plan and knowing what is your next task today makes you confident.

My Contribiution:

Trend Research • Ideation • Mechanical Design • Prototype

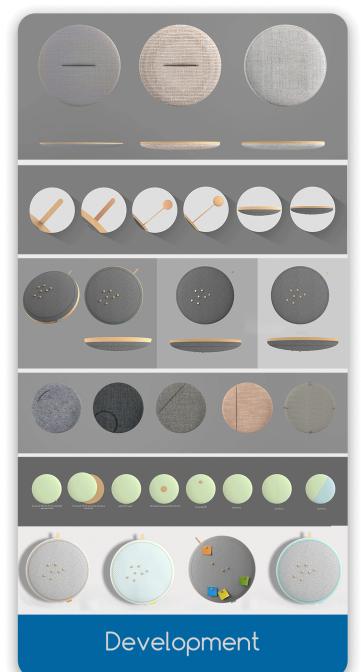






PinTheTime developed through trend haunting and market researches to be presented in galleries. We tried to approach the meaning of time and the feeling about time and hours more than the number that we just read and we look through the meaning behind time and to-do lists.

Ideation





NoGoMo

Personal Development AI Enabled SCP

Farshad Saffari















What is NoGoMo?

NoGoMo is about to help students to learn better and more, help them to plan their life and reach their goals and help them to be motivated and concentrated on the tasks they are about to do. It is designed after various iterations. About 40 different students participated in participatory design sessions, interviews, brain type tests and voted for the best ideas.

Knowldege



Keep track of what you learn and yourself up to date with NoGoMo's suggestions and training. Tell, type, or select what you learned to NoGoMo to let him know more about your knowledge.

Goal



Set goals, and with the help of AI understand what the steps are you should take to reach your short term and long-term goals. Moreover, schedule your life based on your skills and the future you want to have.

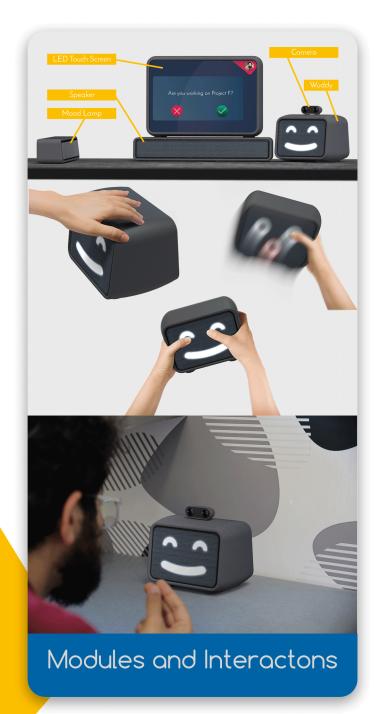
Mood



By taking advantage of IoT, we can enhance the user's learning experience and also break time. NoGoMo can optimize the environment according to the user's mood to help him achieve the most he can.

My Contribiution:

Reaserch • Interview • Ideation • 3D Modeling • Rendering • UX and UI • Team Managment

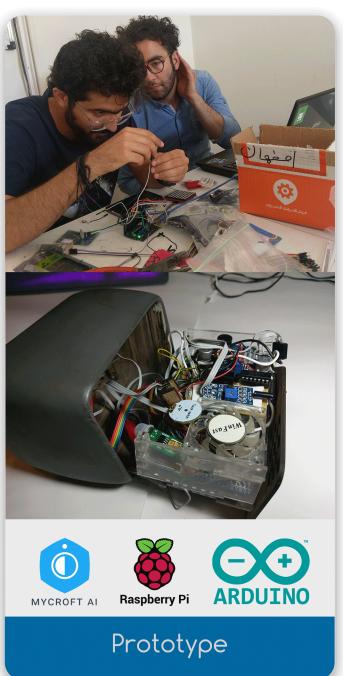




NoGoMo integrates different services with its services and creates a system for better learning. It gets info from the users by speech, type and selecting predefined info, user can shake the Wuddy to learn new things, or press Wuddy if he is tired, or caress it to input new learning or ask questions with speech. With using different AI technologies NoGoMo can keep track of user's learning and the sources and also come up with training and suggestion to help the user to improve skills over time. More than that create the best environment for learning for each user.

Workflow









Some functions of NoGoMo has been prototyped and evaluated. As the user sits in front of NoGoMo it senses him and starts learning session with a smile. With this smile, the user feels more concentrated on his work, because of feeling observation. The user can also ask questions about different topics and it gives audio feedback. It could sense touch, vibration, and pressure and give vibration feedbacks too.

Test

Exerity

Workout Tool for Space

Farshad Saffari Edward Rossi Caterina Castelioni Greta Vergani Alberto Pezzeti Victoria Emond Erin Lee











What is Exerity?

Exerity is an exercise tool for astronauts to help them to improve blood circulation in their body by stretching and massage.

Inspiration is space, but it can also be used on earth for rehabilitation, gentle exercise, and fitness tool.



3D Printing

Possibility to print one's 3d object directly in ISS.



Materials

Free choice of the material to allow total customization on the space object



Dimensioning

Designed to adapt to the user's ergonomic dimensions perfectly



Level Training

Diversity in elastic band resistance to

My Contribiution:

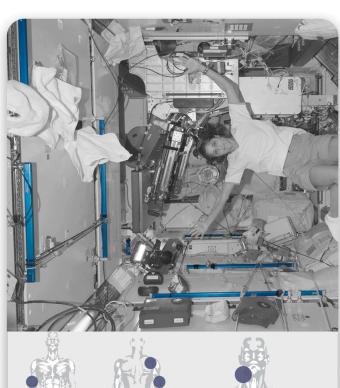
Research • Ideation • 3D Modeling (Rhino + Grasshopper) • Rendering

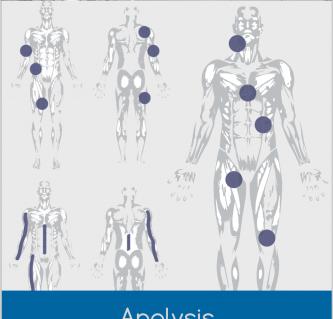
Vision

shift meaning understanding sport in ISS context: from mandatory activity flexible and enjoyable exercises, adding more possibilities to use.

Mission

A solution carefully designed to add variety and pleasure to training sessions in the ISS by focusing the muscles in a different way than the usual one and adding a relaxing meaning.





Analysis

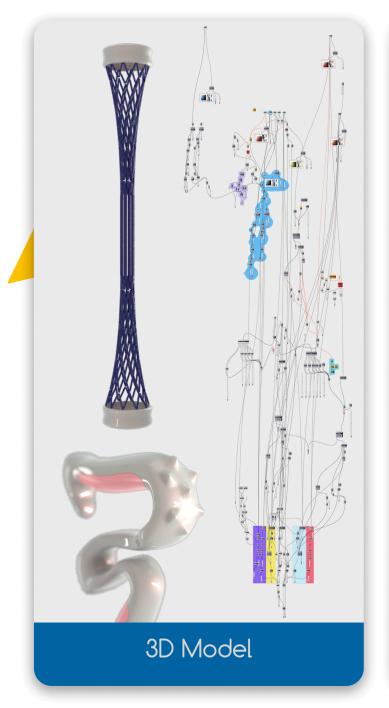


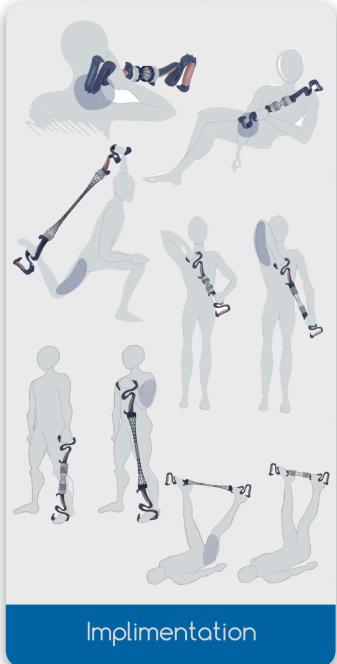
Exerity has some **bumps** which enhance the massage experience.

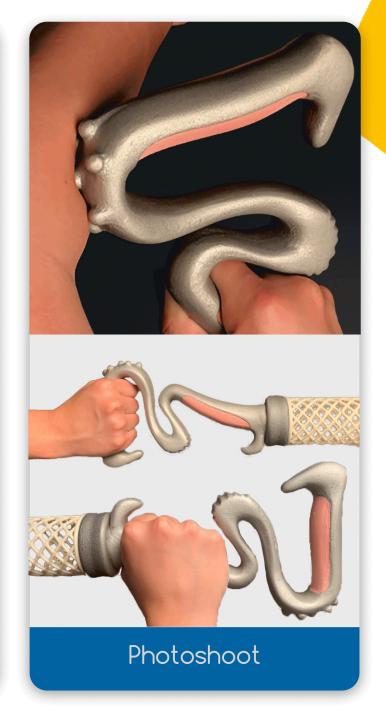
Hook shape Exerity gives it the ability to hold on bars in the space agency.

Inspired by the auxetic structure, we designed a shape composed of several filaments that enable the product to be twisted and extended.

Inspiration & Idea







Blobby One

Soft and Minimal Clockface for Fitbit smart wtatches

Farshad Saffari



My Contribiution:

UI Design • Coding (Javascript, CSS)

Thank You

For more projects and details please visit my website







