

Portfolio 2021

I am Edwing Mosquera
I would like to Welcome
you to my Design
journey

As a Product Designer, I enjoy facing challenges and experimenting with new ideas. I'm passionate in everything concerning product development and Innovation mainly focused on User-Centered approach through UX/UI **Design**.



Education

M. Sc. Product Design for Innovation

Politecnico di Milano
Milan, Italy
2020

B. Sc. Industrial Design

Universidad Industrial de Santander
Bucaramanga, Colombia
2009

Work Experience

Freelance Designer

ESSI Soluciones
Eficientes
04/2007 - 06/2010
Girón, Colombia

Freelance Designer

ETA Consorcio Diseños
Viales Urbanos
06/2010 - 08/2010
Bucaramanga, Colombia

Industrial Designer

OCA Arquitectura Interior
03/2011 - 02/2014
Bucaramanga, Colombia

Product Design Intern

VOJD Studios
03/2018 - 08/2018
Berlin, Germany

Freelance UX Designer

More to be added
06/2020 - Present
Como, Italy

Industrial Design Intern

Constructora JK Salcedo
03/2007 - 12/2009
Bucaramanga, Colombia

Industrial Designer

Industrias Pico
01/2010 - 06/2010
Bucaramanga, Colombia

Freelance Designer

Corporación Bucaramanga
Emprendedora
08/2010 - 09/2010
Bucaramanga, Colombia

Industrial Designer

Fundación Cardiovascular
de Colombia
02/2014 - 02/2017
Floridablanca, Colombia

Product Designer

VOJD Studios
03/2019 - 05/2019
Berlin, Germany

Abilities

Industrial Design
Product Design
Design strategy
Design Research
Design Thinking
User-Centered Design

Branding
Product Management
Concept 3d Modeling
3d Printing
User Data Analyzing
Organizing

Resiliency
Creativity
Goal Oriented
Communication
Future Focused
Cooperation

Software use

Rhinoceros
Solidworks
Blender

Keyshot
3d Studio Max
Adobe Illustrator

Adobe Photoshop
Adobe Indesign
Adobe XD

Languages

English
Professional proficiency

Italian
Professional proficiency

Spanish
Native proficiency

Achievements

03/2008
“Sociedad Colombiana de Arquitectos”.
WINNER - Public contest for the Architectural design of six Educational Infrastructures in Girón, and Cúcuta.

03/2008
“Sociedad Colombiana de Arquitectos”.
WINNER - Public contest for the Architectural design of an Educational Infrastructure in Cúcuta.

11/2015
Pfizer Colombia, Best research papers.
SUPRAtube.

Edwing Mosquera

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Email

edwinmosquera85@gmail.com

Cellphone number

+39 324 783 02 49

Connect

www.linkedin.com/in/edwing-ignacio-mosquera-cuesta/

My Journey

Throughout my professional career, I have developed different projects in the field of, furniture design, interior architecture, medical devices, and digital products. This experience, have helped me to gain more insight about the importance of satisfying people needs for finding new enjoyable experiences and meanings.



SignCare

Vital Sign Monitor



Project Ravans

Pain treatment system



UCIM 1300

Modular Mobile
Intensive Care Unit



Space4Inspiration

Conceptual experience
for space tourism



Summary

I help to developed a
transportable multipurpose
Vital Signs Monitor

My role

Product Design
UX Design
UI Design

Development

2013 -2015





Design approach

Immersion



Research

Ethnographic studies, market analysis



Context

Customer interviews



Empathy

Creating persona archetype

Ideation



Divergence

Brainstorming



Convergence

Focus group



Product

Concept, design interaction

Creation



Construction

Wire-frames and prototype building



Tests

Prototype testing

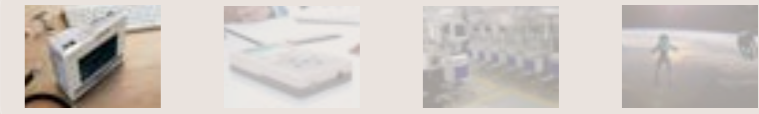


Product statement

The vital signs monitor SignCare is an equipment multipurpose: it is designed to be used in clinics, homes and even in ambulances, also is a device capable of simultaneously measuring of **multiple parameters**: 2-channel of electrocardiography (ECG), respiration (RESP), pulse oximetry (SPO2), 2 channel of

temperature (T°) and non-invasive blood pressure (NIBP), all within a portable, robust, low-power solution, designed with the AAMI standards and operated by a touch screen 7", also has connectivity through ethernet allowing remote patient care.





Project Goals

1

The development of a Portable, Intuitive, Versatile, Connected device at a low cost that allows to be acquired by a large number of medical institutions

2

The development of the project and its production must be carried out with technology from the local region.

3

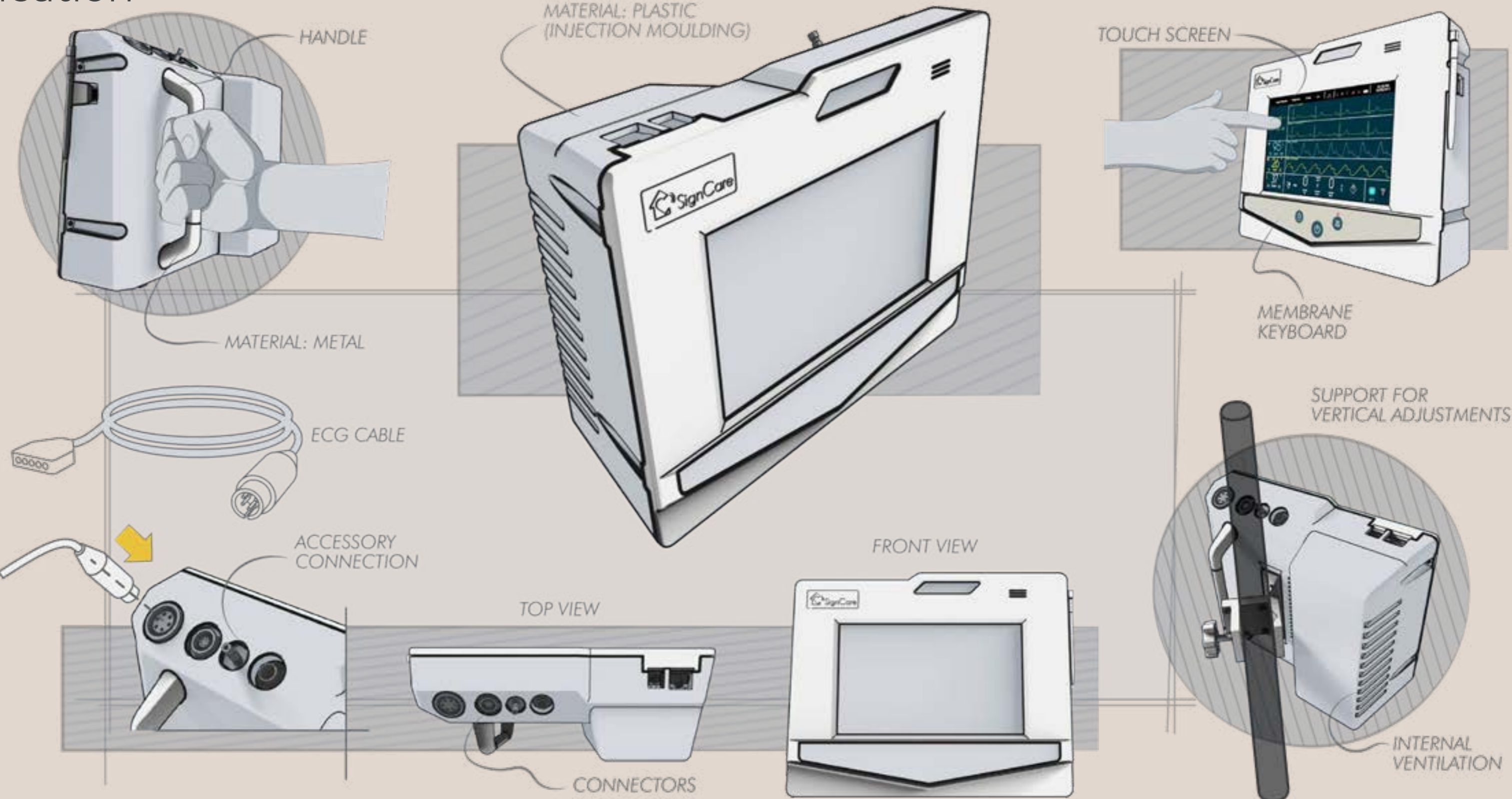
The price of the product must be accessible to different medical institutions, especially those in rural areas.

4

Product quality must be at the same level as the main competitors in the market.



Ideation



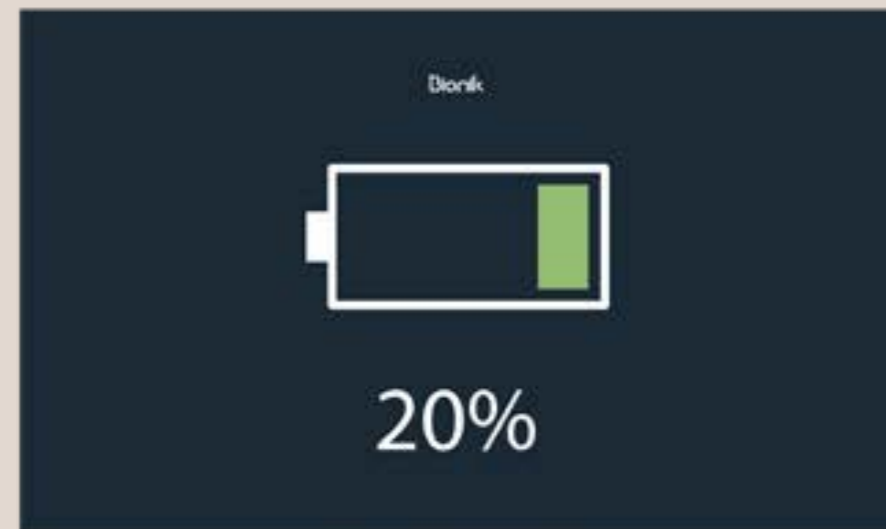


User Interface

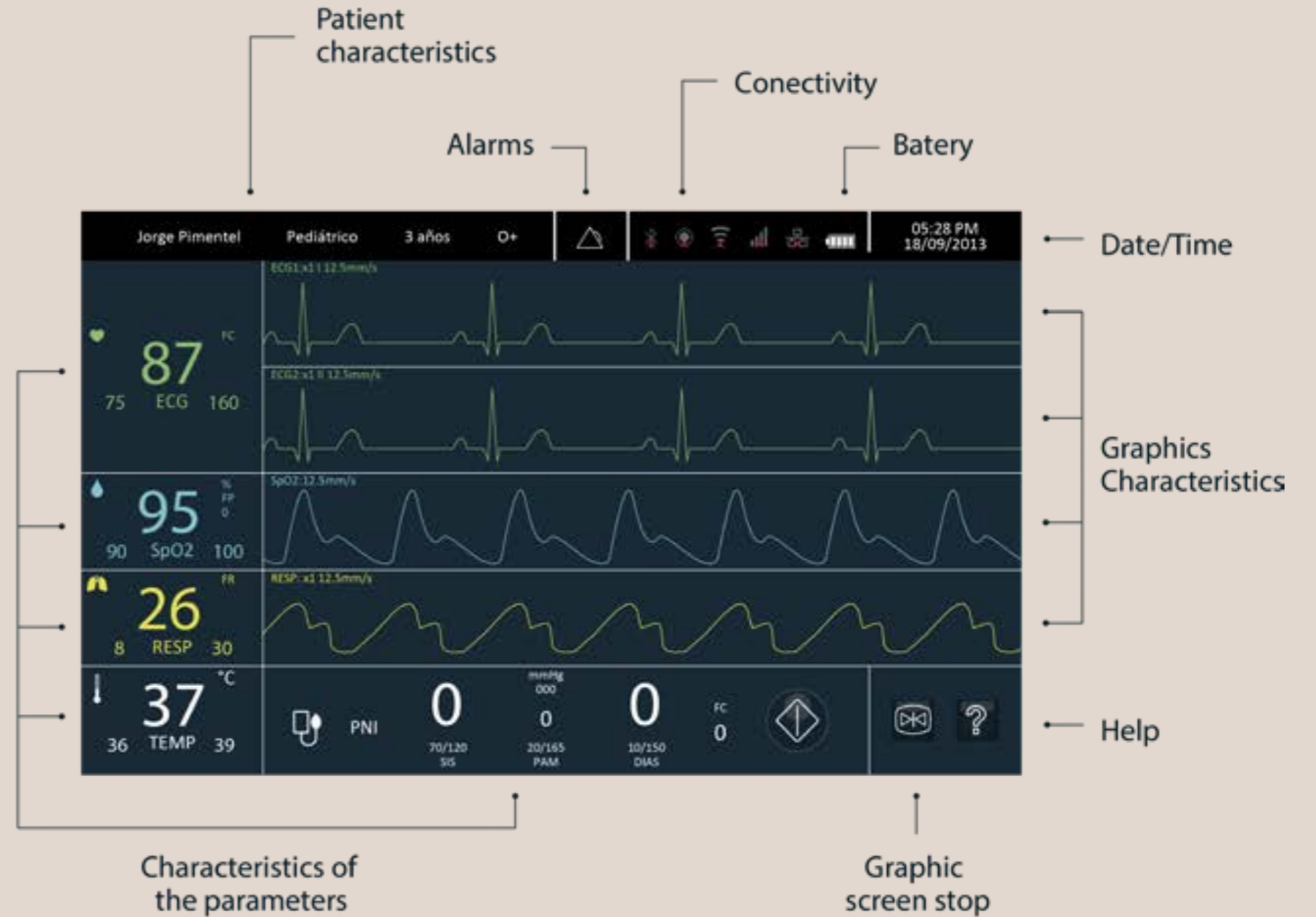
The graphical interface was developed following the guidelines of biomedical products, maintaining in this case a priority over the visualization of the vital signs graphs, and quick access to the multiple system options.



Loading the System

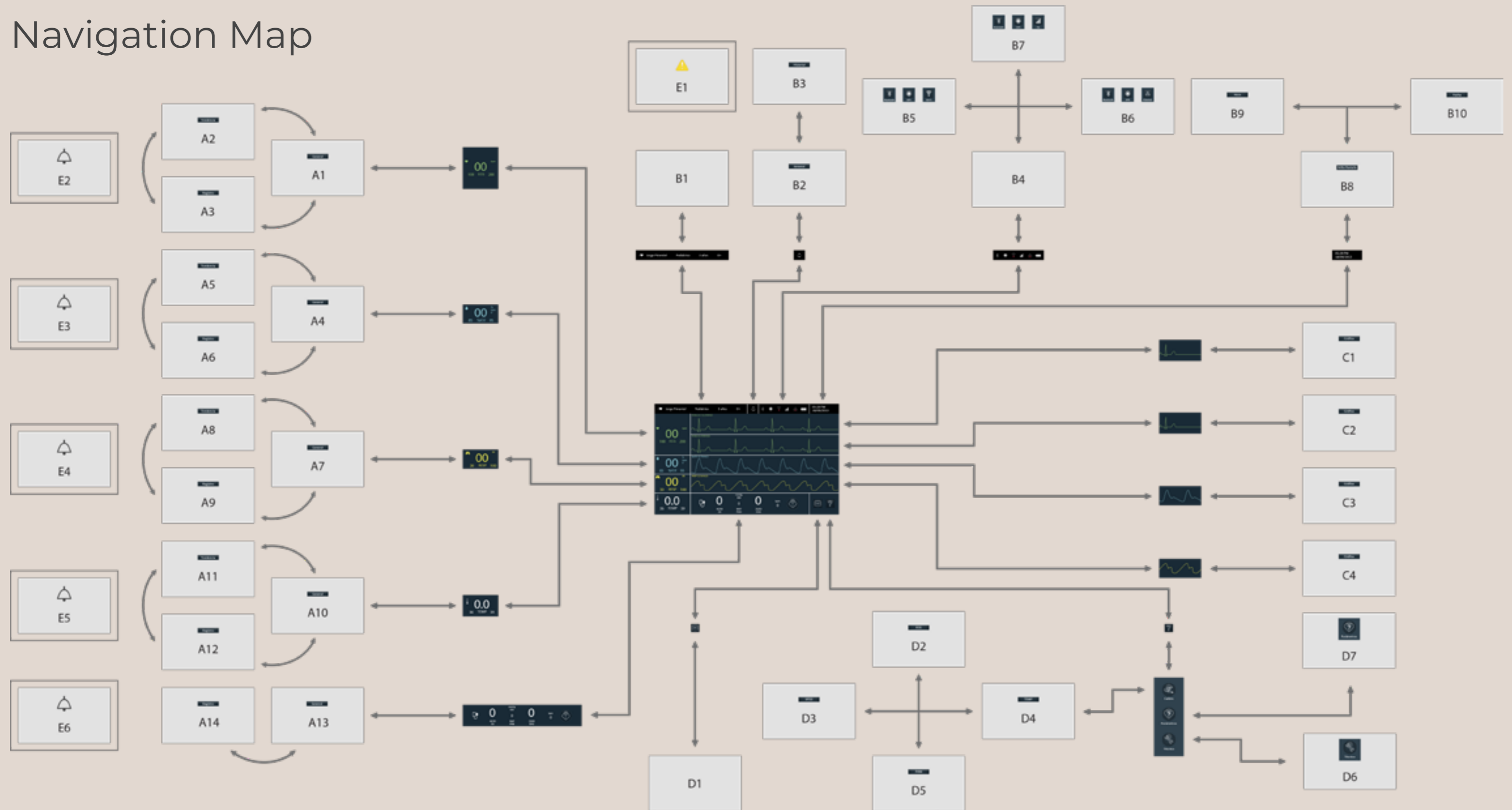


Charging Mode





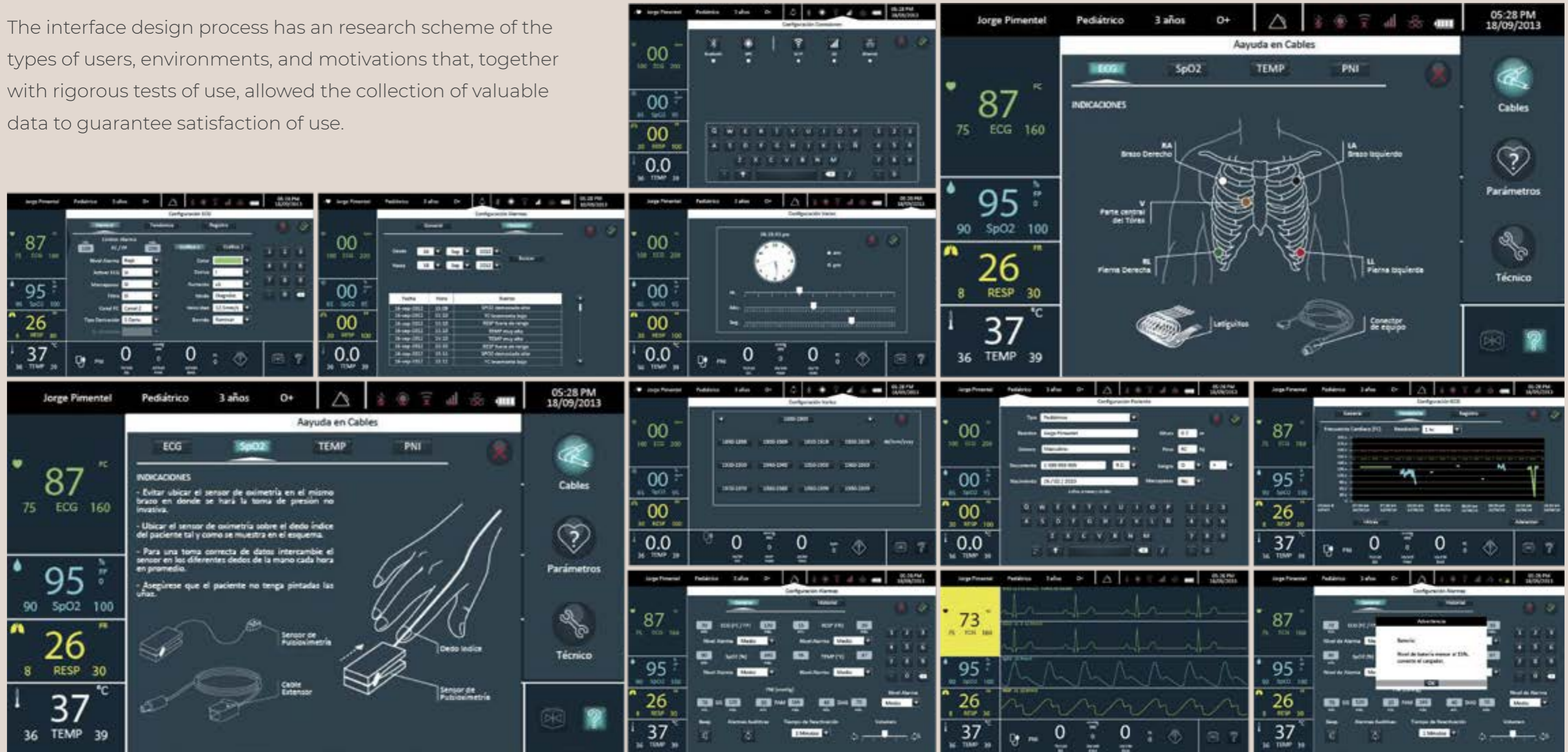
Navigation Map





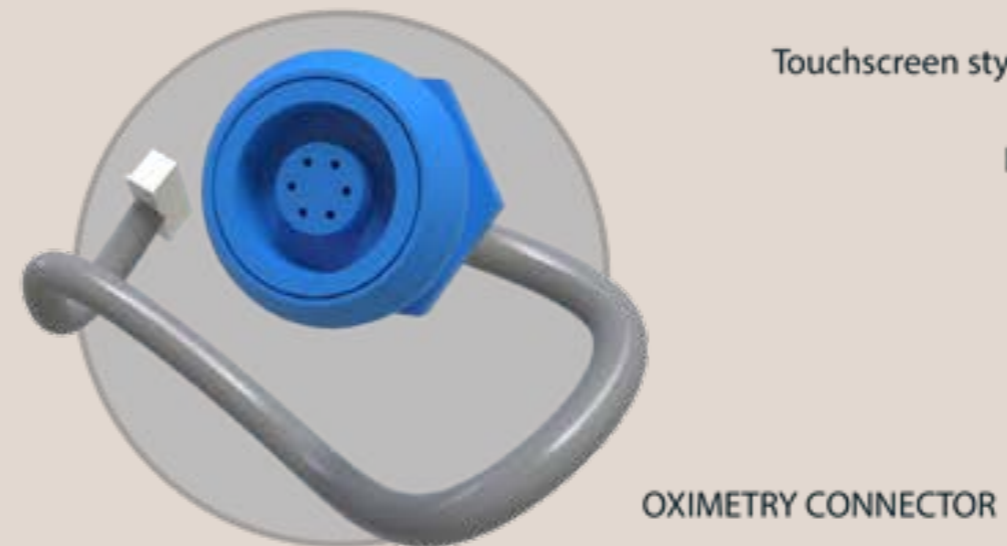
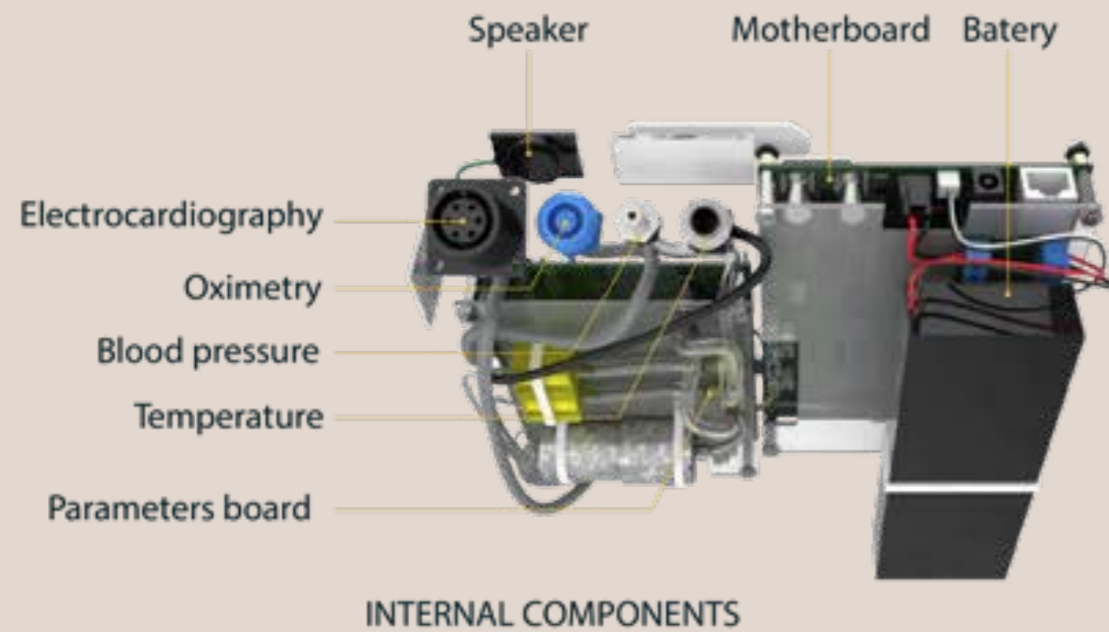
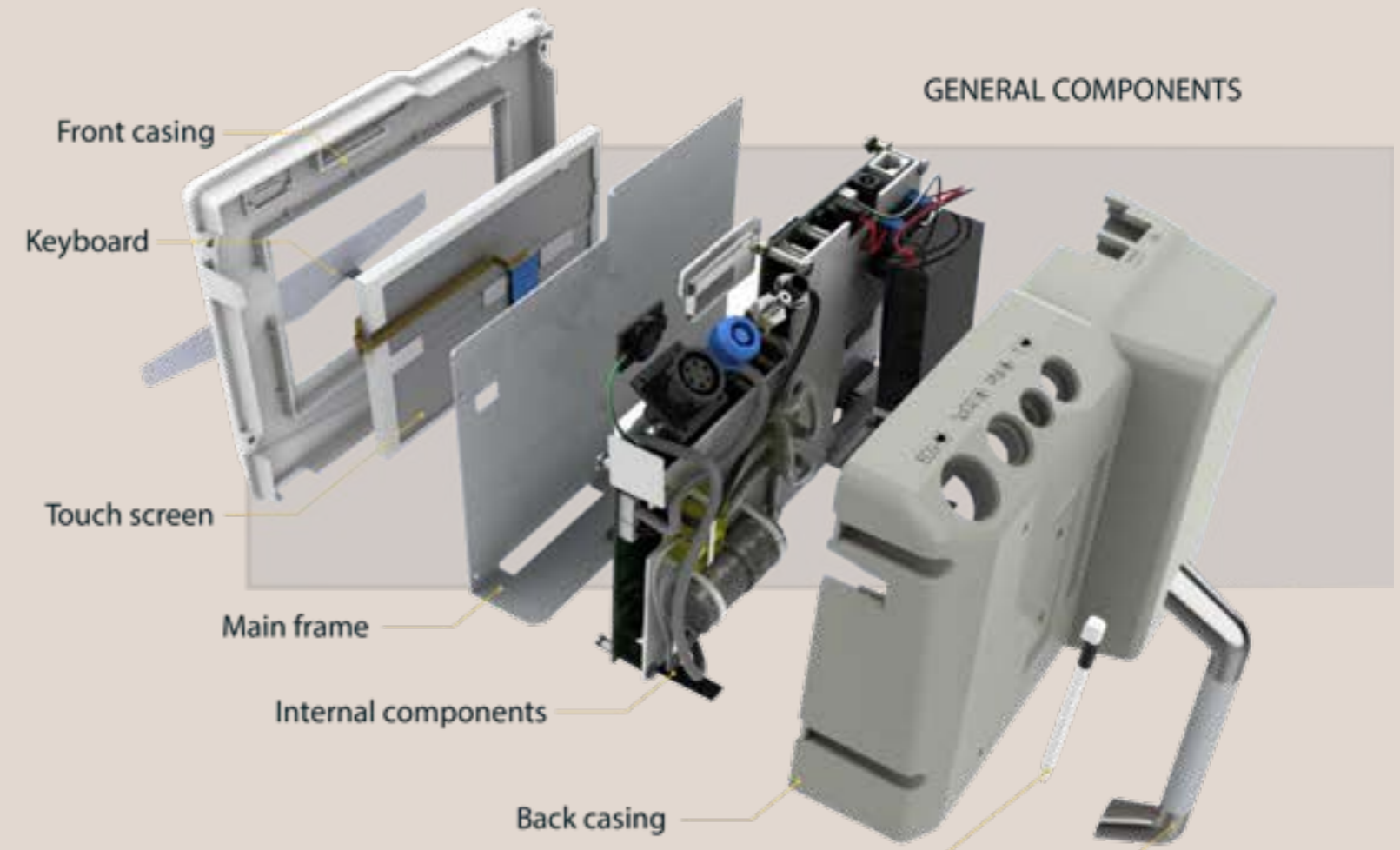
User Interface

The interface design process has an research scheme of the types of users, environments, and motivations that, together with rigorous tests of use, allowed the collection of valuable data to guarantee satisfaction of use.



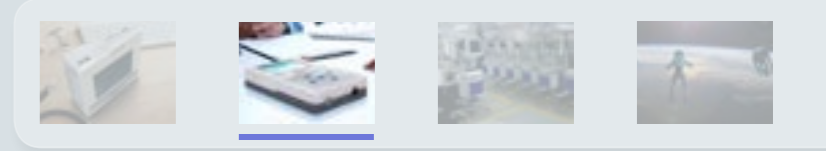


Detail Engineering





 **SignCare**
Monitor de signos vitales



Summary

We develop an easy and intuitive device to help people with the pain treatment

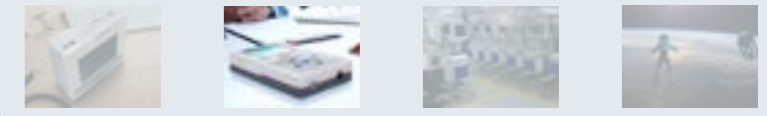
My role

Product Design
UX Design
UI Design

Development

2015 -2017





Design approach

Immersion



Research

Benchmark and Market Analysis



Context

Moderated usability tests



Understanding patient needs

Creating Persona archetype

Ideation



Divergence

Brainstorming



Convergence

Qualitative/Quantitative Evaluation



Product

Concept, Design interaction

Creation



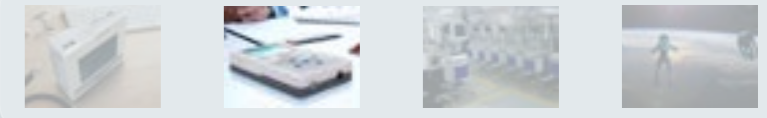
Construction

Wire-frames and Prototype building



Tests

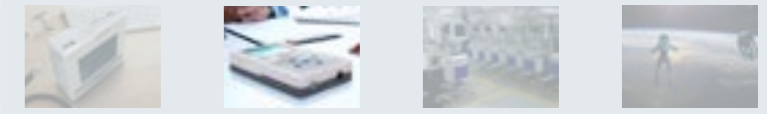
Prototype testing



Problem statement

This is a transcutaneous vagal stimulation device that integrates a respiratory motion detection and analysis module, with an electric pulse generator module connected to a pair of electrodes that need to be located **on the Antihelix of the ear**. Vagus nerve stimulation is used in therapeutic applications in patients with

cardiovascular disease, major depression, and disorders associated with chronic pain. The developed device is lightweight, safe, rechargeable and adaptable to the patient's anatomy.



Project Goals

1

Product quality must be at the same level as the main competitors in the market.

2

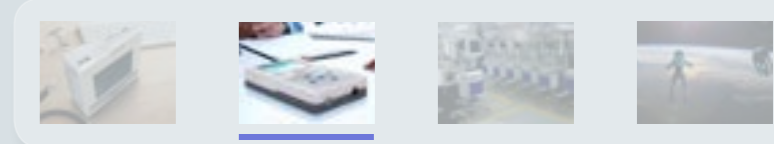
The price of the product must be accessible to different customers

3

The development of the project and its production must be carried out with technology from the region.

4

Use technology to complement user experience and add value



Research and Inspirational sources

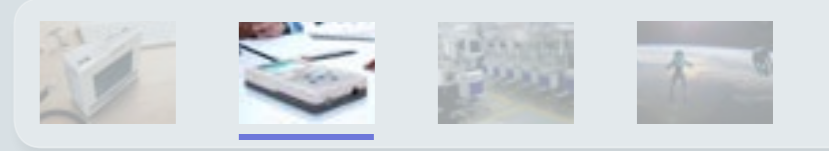
Research

Throughout a research that include the market, physician, patients, possible user, among other, we were able to identify main problems and objectives for the development of the devise in order to improve its performance an the user interaction.

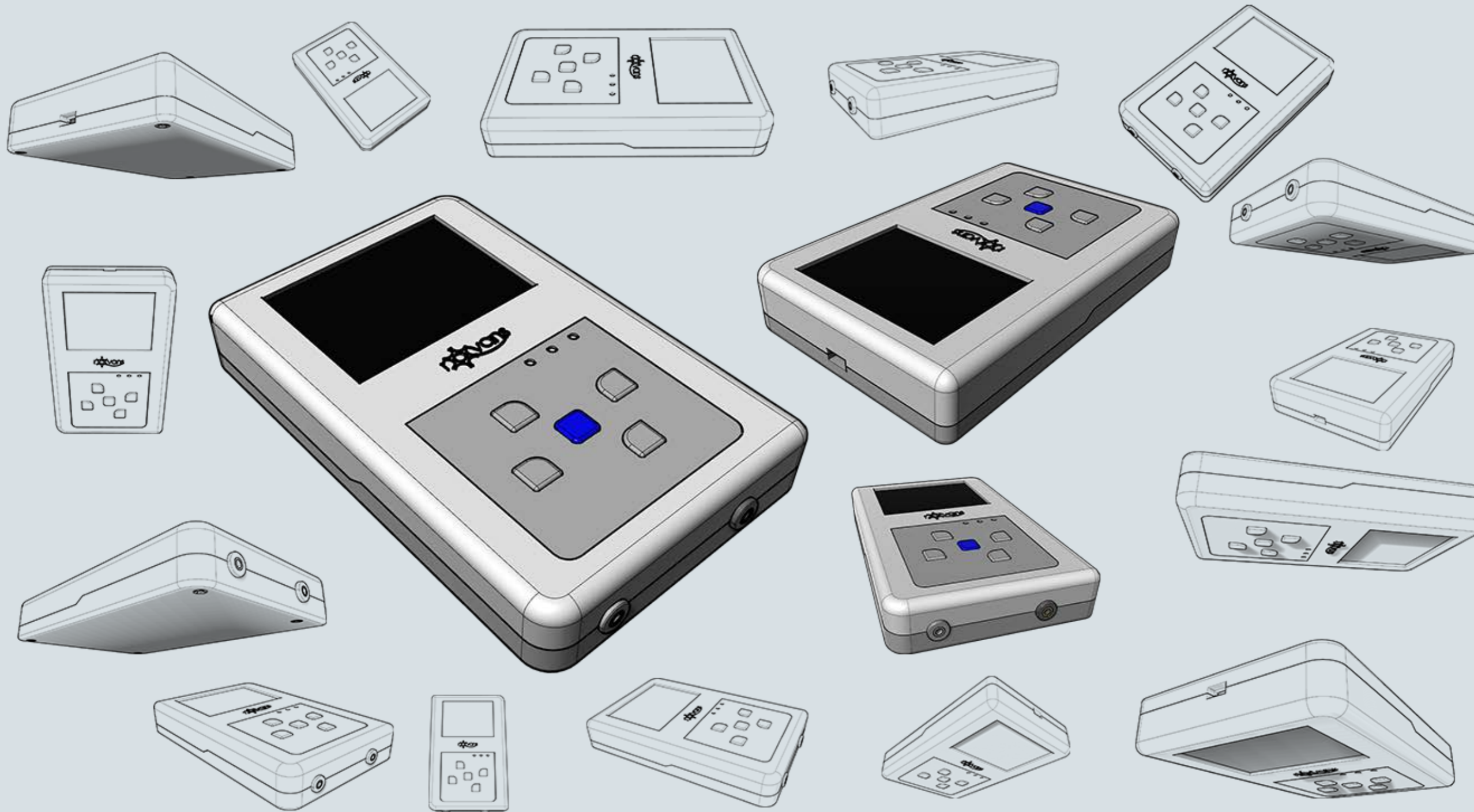


Inspirational sources

Taking as inspiration products presented in the market, with which people interact with more frequency, we were able to identify possible alternatives that will be suitable for the enhance of the user experience.



Ideation



Gold

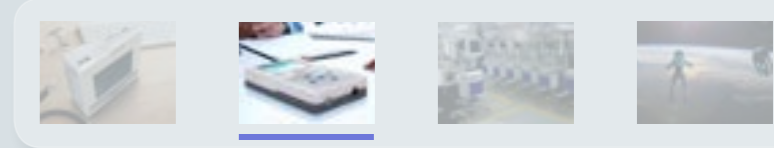


Silver



Polymer

Colors

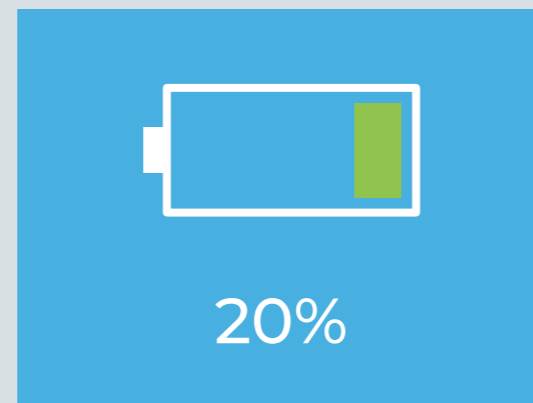


User Interface

The graphical interface was developed following the guidelines of biomedical products, maintaining in this case a priority over the visualization of the vital signs graphs, and quick access to the multiple system options.

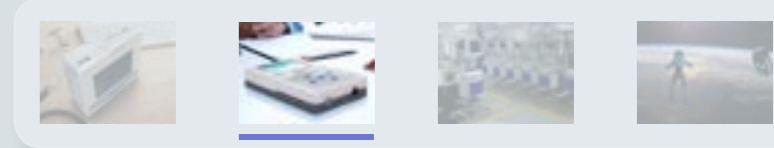


Loading the System



Charging Mode

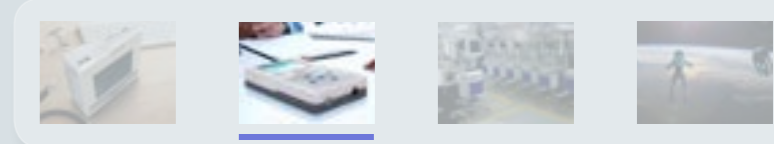




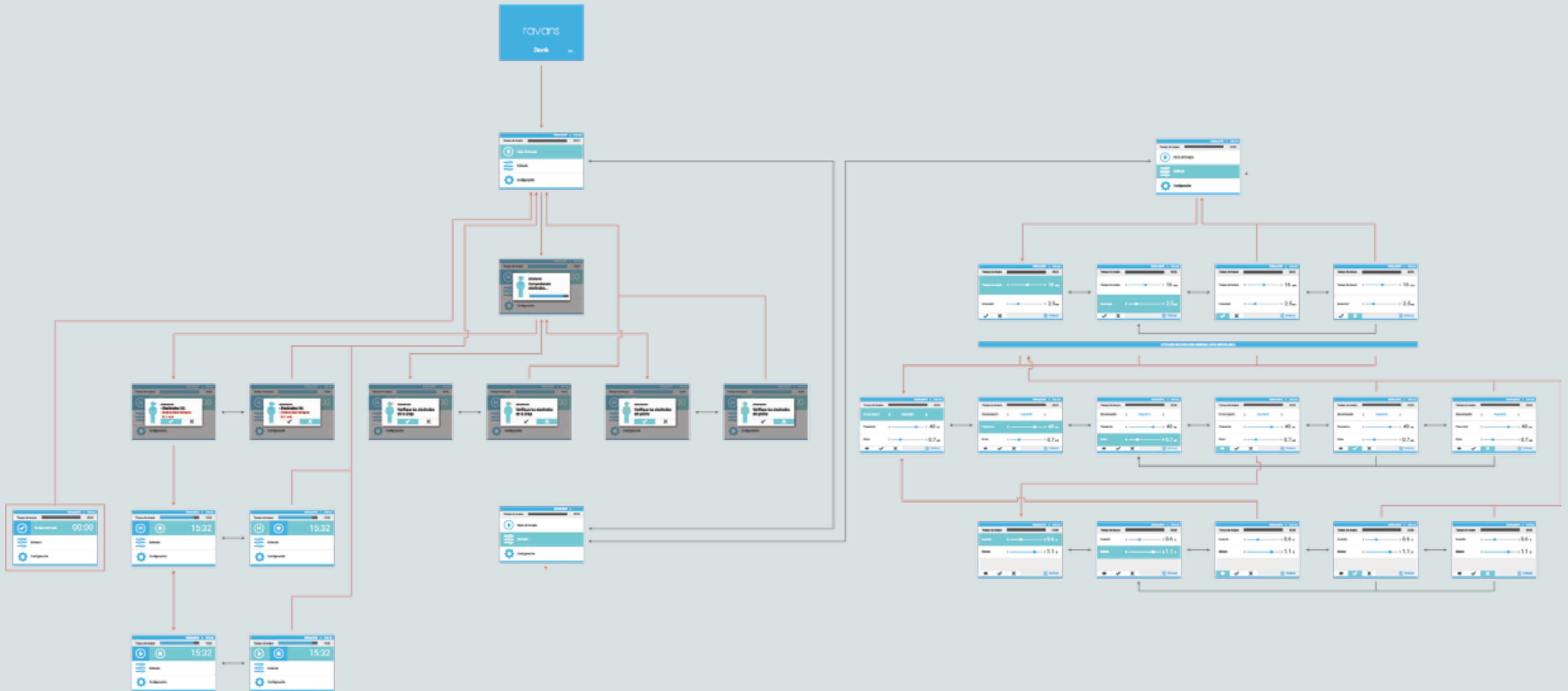
User Interface

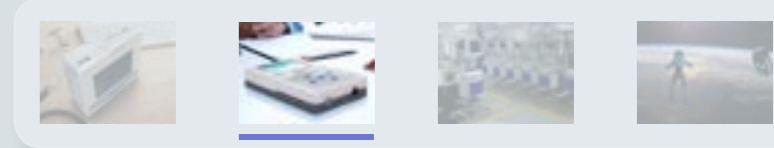
The image displays eight screenshots of the Ravans user interface, arranged in two rows of four. The top row shows the main menu, therapy start, therapy completion, and therapy progress screens. The bottom row shows the main menu, therapy duration and intensity sliders, and configuration screens for date, time, and brightness.

- Top Left:** Main menu screen with the Ravans logo and Bionik version number.
- Top Middle-Left:** Therapy start screen showing a play button and 'Inicio de terapia'.
- Top Middle-Right:** Therapy completion screen showing a checkmark and 'Terapia terminada'.
- Top Right:** Therapy progress screen showing a pause button, a square stop button, and the time '15:32'.
- Bottom Left:** Main menu screen with 'Inicio de terapia', 'Estímulo', and 'Configuración' options.
- Bottom Middle-Left:** Therapy duration and intensity sliders showing '16 min' and '2.5 mA'.
- Bottom Middle-Right:** Main menu screen with 'Inicio de terapia', 'Estímulo', and 'Configuración' options.
- Bottom Right:** Configuration screen with 'Fecha', 'Hora', and 'Brillo' (30%) options.

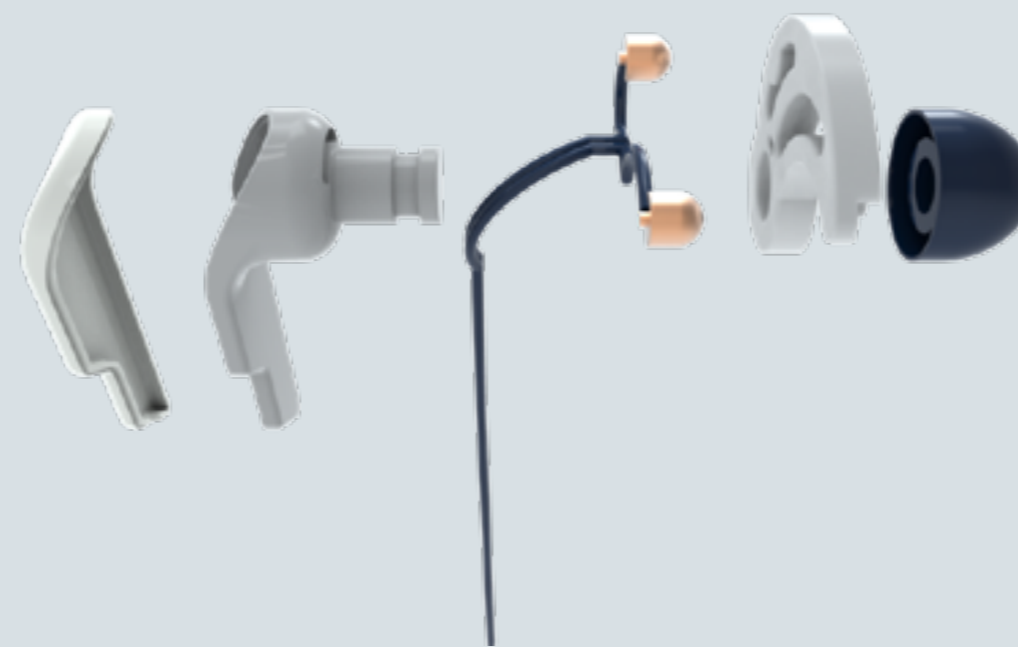
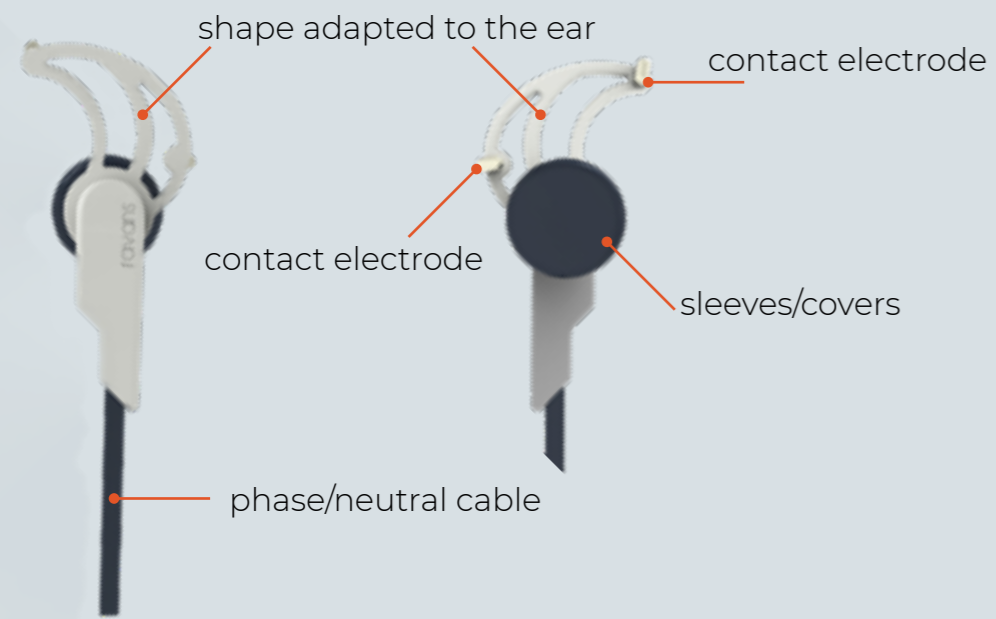
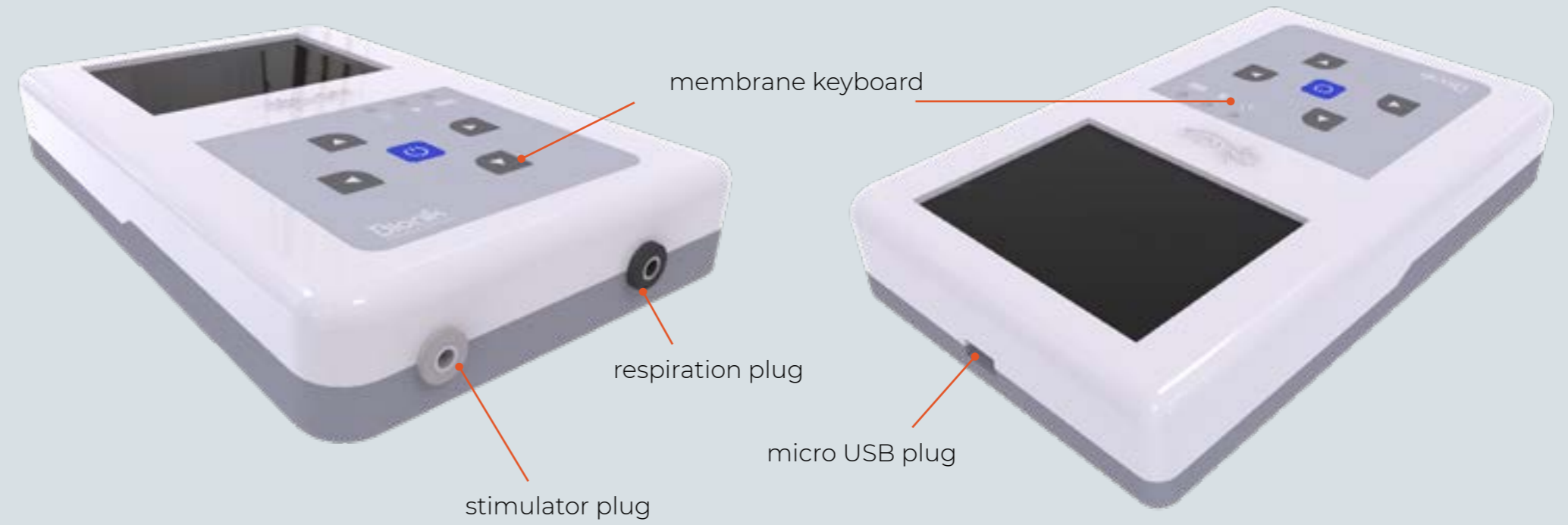


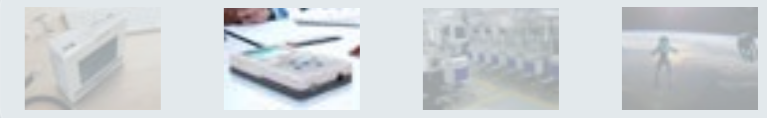
Navigation map





Detail engineering

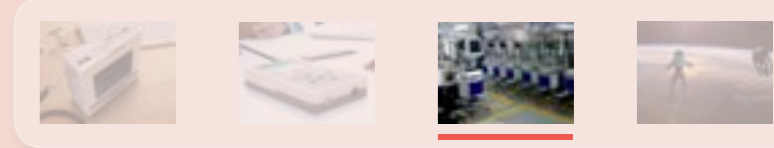




Models and Test

The models were made by different processes, such as thermoforming, 3D printing and plastic injection. Likewise, tests of performance, resistance of materials, ease of use and learning time were performed, among others.





Design approach

Immersion



Research

Benchmark and Market Analysis



Context

Contextual observation, interviews



Empathy

Creating Persona archetype

Ideation



Divergence

Storyboarding



Convergence

Feedback review



Product

Concept, Design interaction

Creation



Construction

Prototype building



Tests

Prototype testing



Project overview

The Mobile Intensive Care Unit is a **modular** mobile system of monitoring, surveillance and life support. It is a mobile structural unit to be set easily in a treatment place, providing a complete system with the specifications and/or basic components for the implementation of an intensive medical care

unit. Additionally, the device could be integrated with a Vital Signs Monitor, a mechanical lung ventilator, an electrical panel, and infusion pumps. Finally, the structure provides a powerful support for 15 minutes.



Project Goals

1

Creating an integrated **modular** device for organizing the most essential elements and instruments in the intensive care room

2

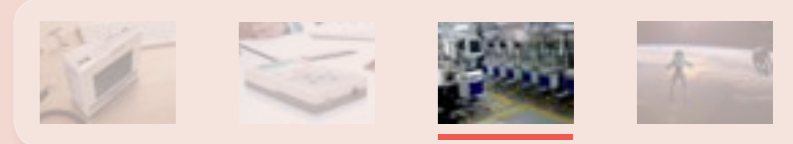
Use the device not exclusively in a hospital but also in remote locations. So the product should allow the efficient transportation of the patient for the good care of the treatment.

3

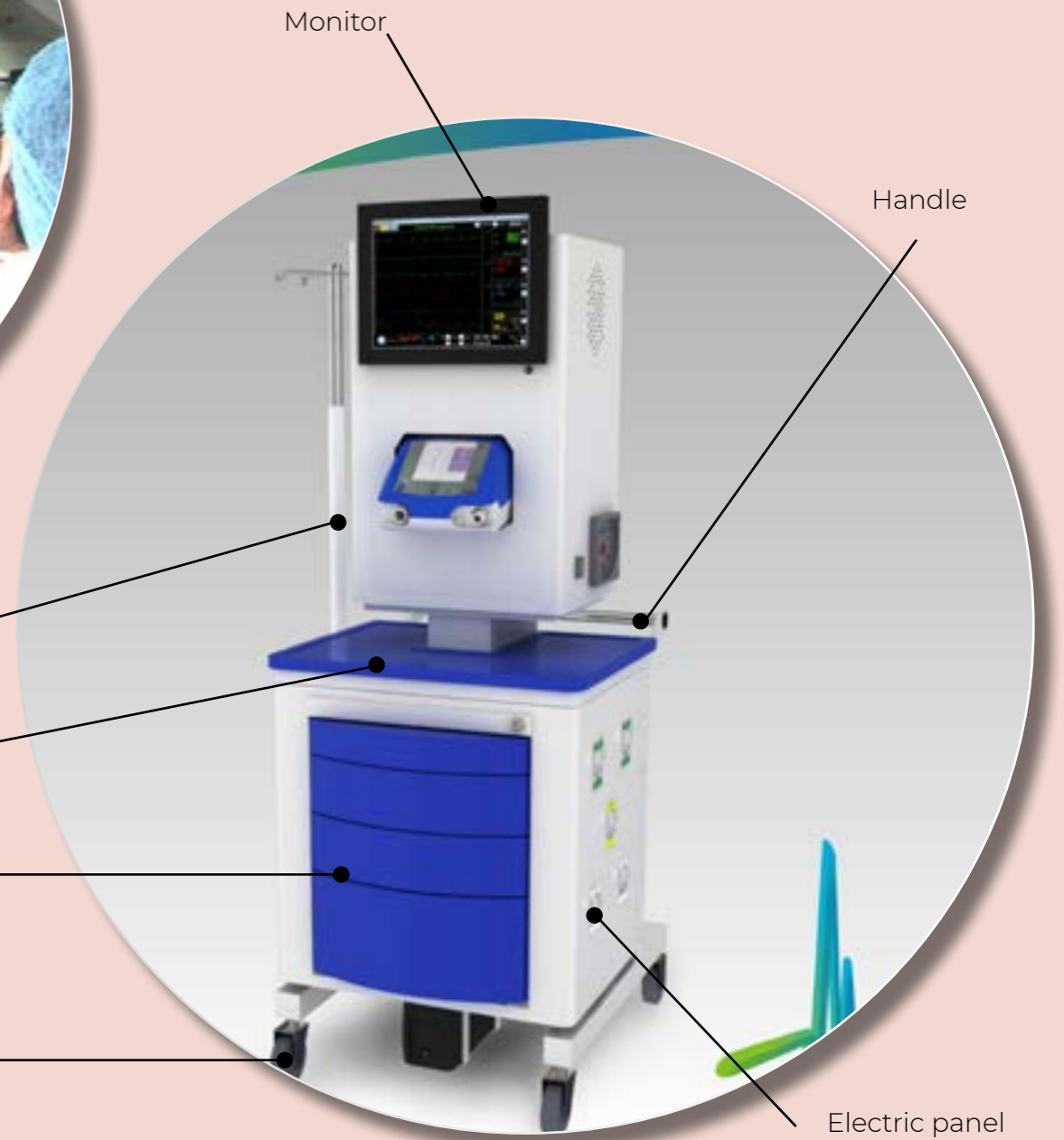
Use technology to complement user experience and add value

4

Take the UCIM 1200 as an inspirational source and reference point for the project redesign.



Exploration

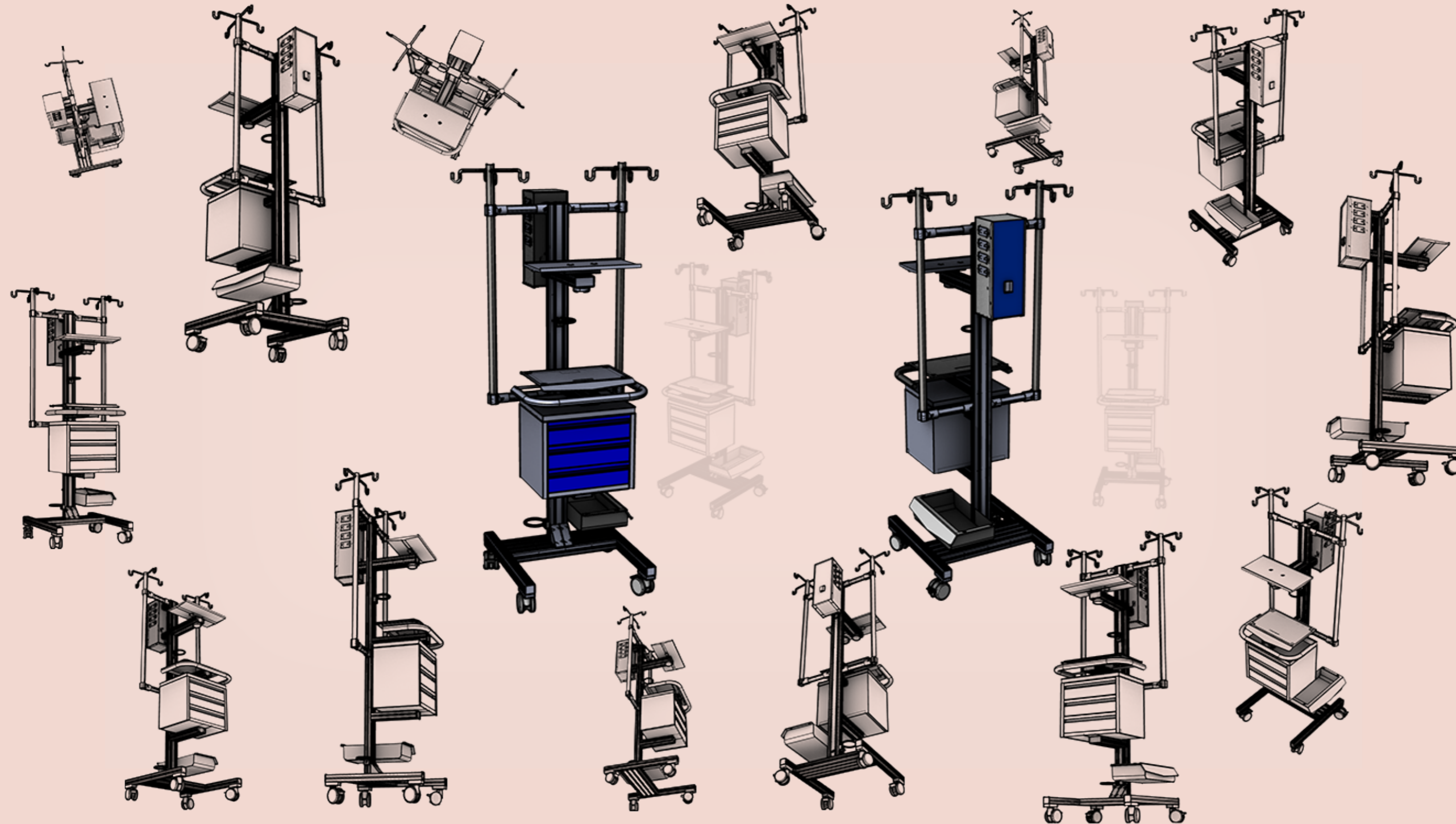


Surveys and meetings

UCIM 1200



Ideation



Gold



Silver



Polymer

Colors



Features

Taking notes



Adjusting pumps

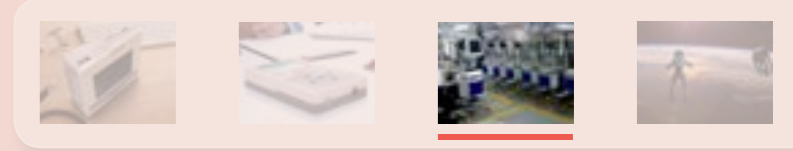


Checking elements



Transporting

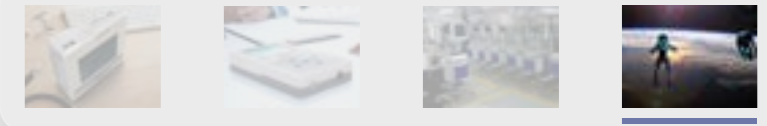




Development







Summary

We envisioned a innovative transport system for a comfortable traveling experience and creation of new colonies on Mars.

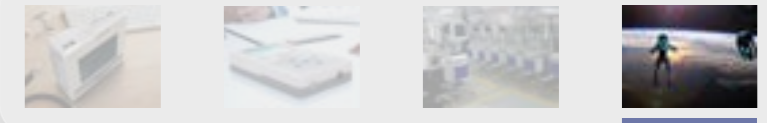
My role

Product Design
UX Design

Development

2017





Design approach

Immersion



Research

Benchmark and market analysis



Context

Astronauts and staff interviews



Astronaut Understanding

Creating astronaut archetype

Ideation



Divergence

Co-Creative workshop



Convergence

Card sorting



Product

Concept, design interaction

Conceptual Creation



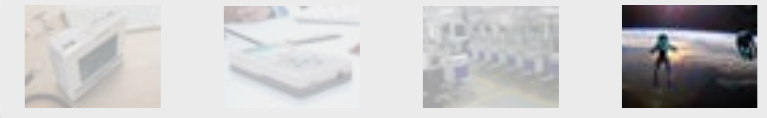
Conceptual elaboration

Sketches, design developments



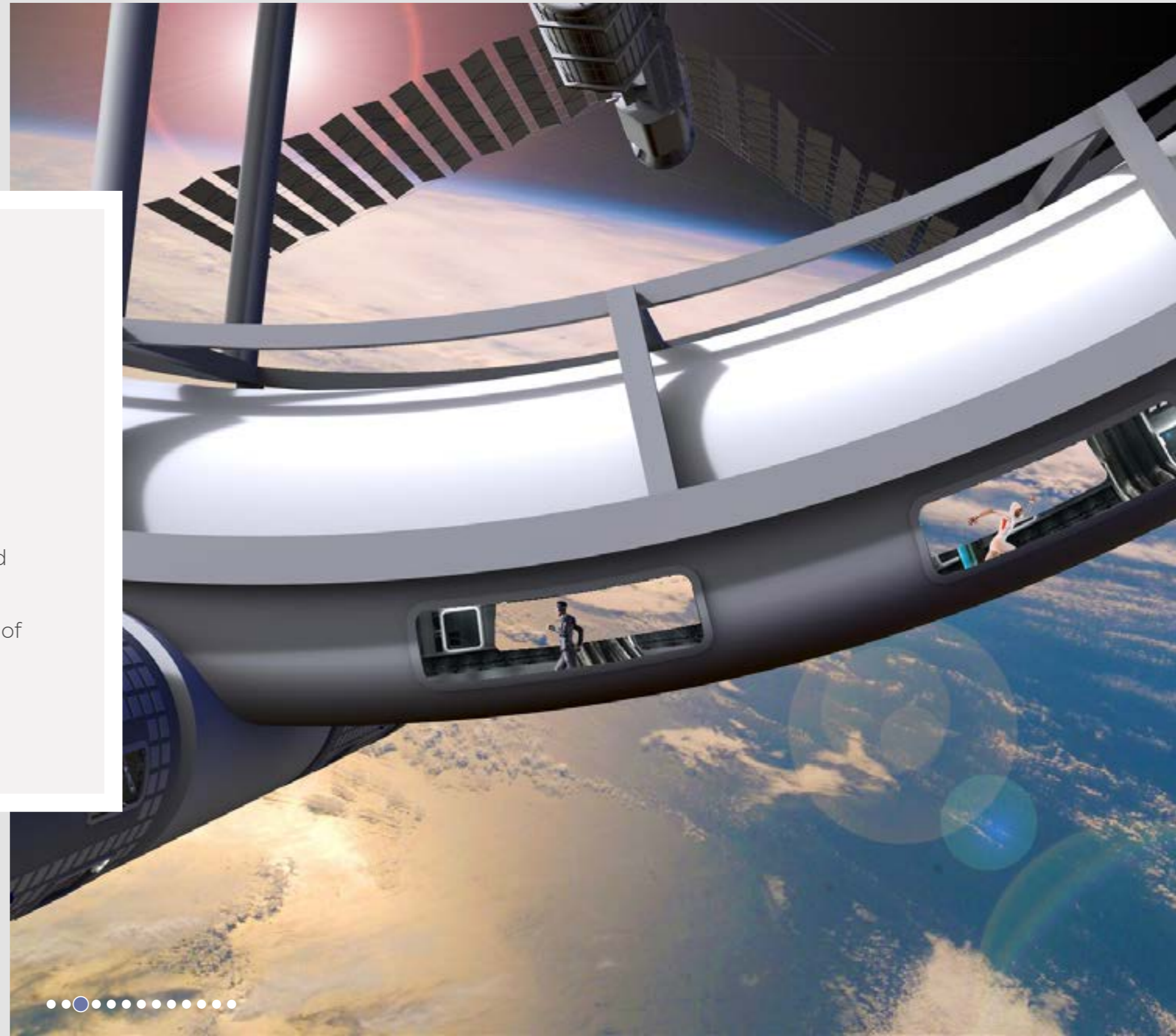
Computer generation

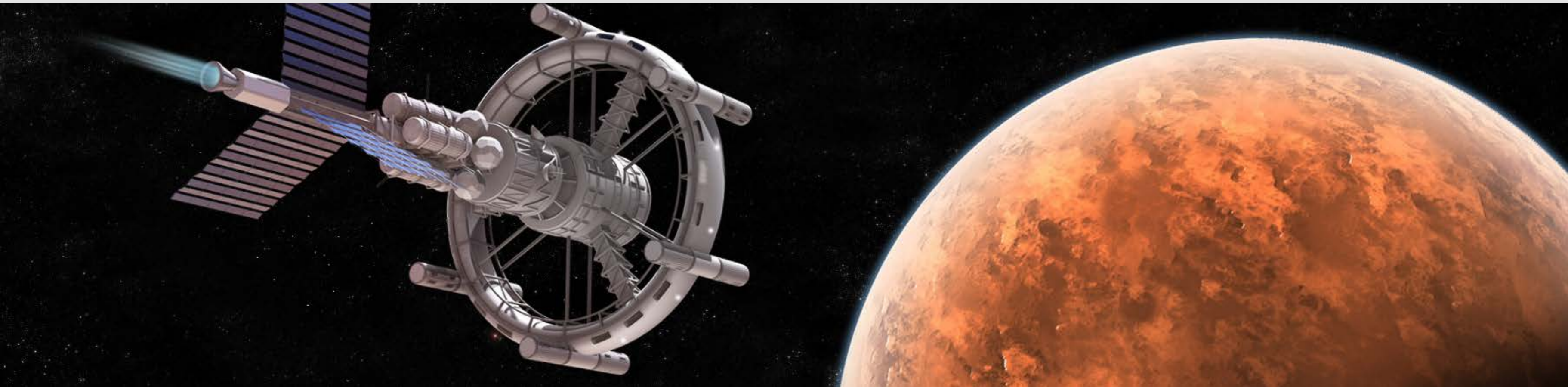
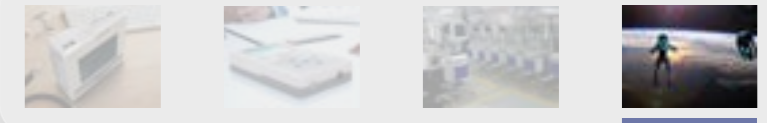
3d Model building



Problem statement

With the aim of searching and developing new ideas for the strategic programs of the space, this Polytechnic University of Milan course was supported by the European Spacial Agency (ESA). With the help of experts and scientists that suggested a theme project, my team envisioned a revolutionary transport system that combines traveling, training, and the construction of new colonies on Mars.





Project understanding

Phases of development of the experience

1. New food experience in space

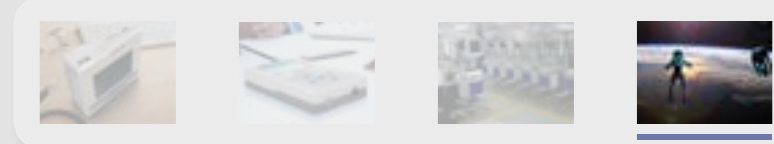
An exploration regarding the experience of eating in space. We developed a conceptual proposal of **3d printed food** to enhance the eating experience for space tourism in 2045.

2. Enjoy space like a tourist

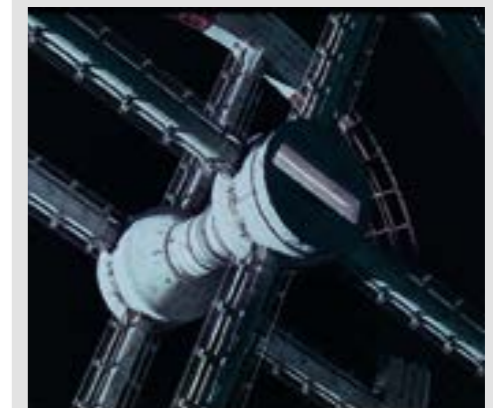
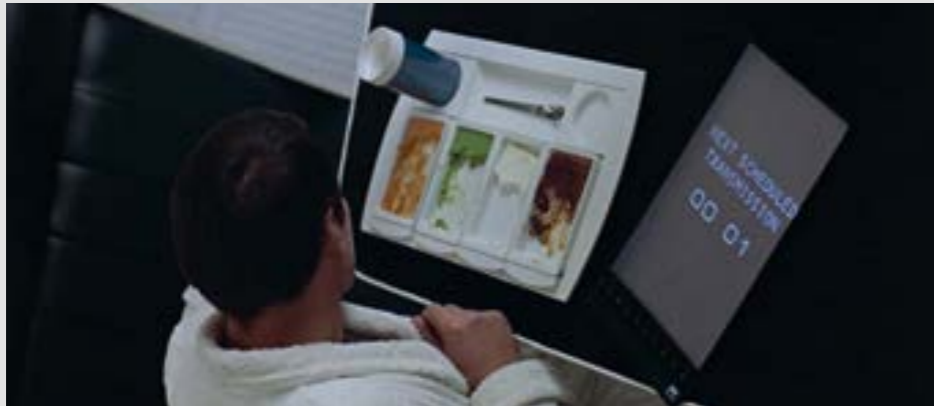
An exploration regarding the experience we can provide to space tourists. We developed a conceptual proposal to stimulate the development of space tourism.

3. Mars, the final destination

We might have to find a new home, and Mars is the closest opportunity we can explore. We envisioned a revolutionary transport system that combines traveling, training, to arrive on Mars.



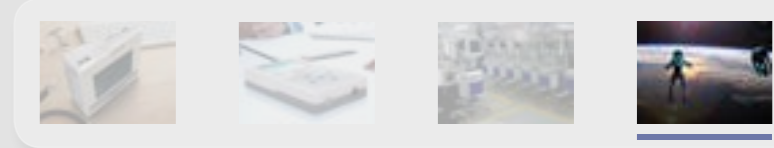
Inspirational sources



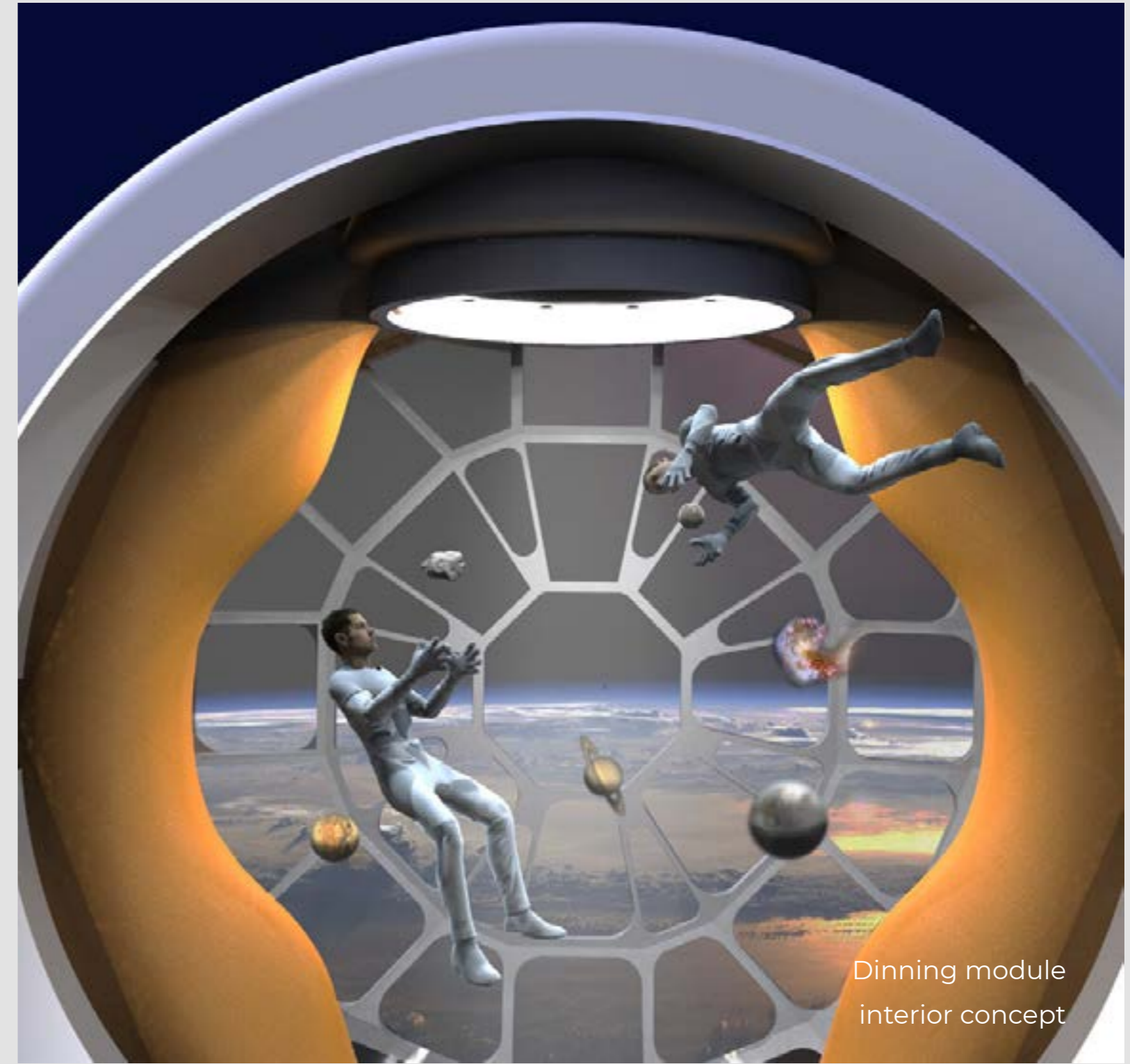
1. New food experience in space

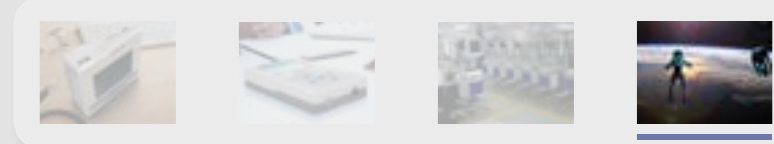
2. Enjoy space like a tourist

3. Mars the final destination

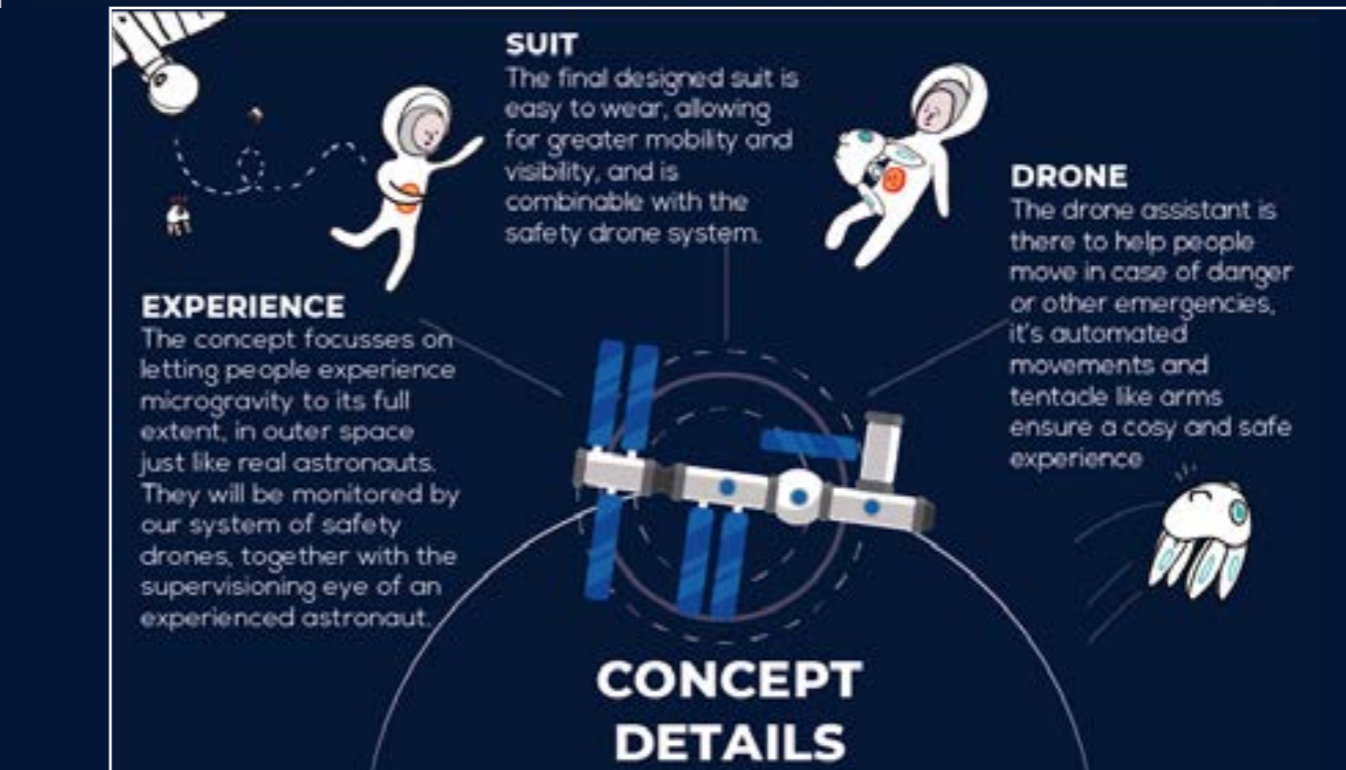
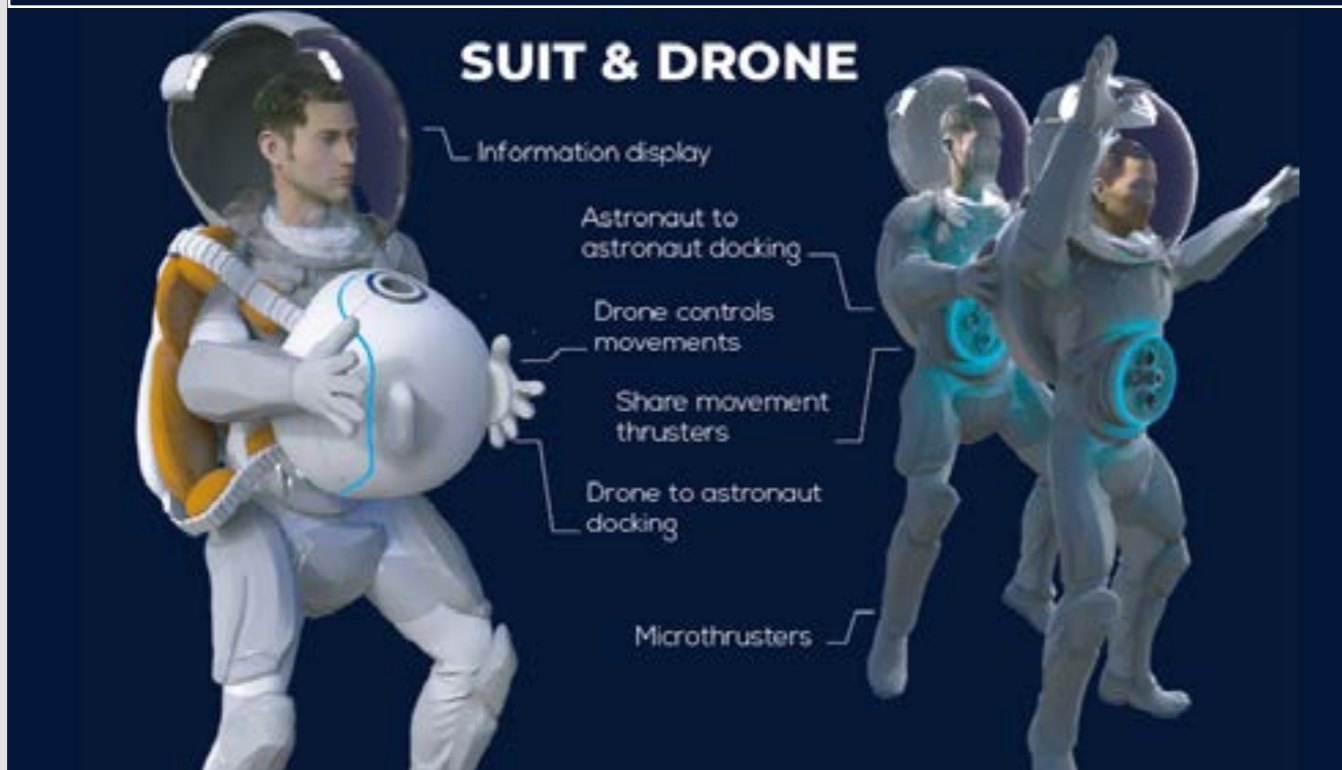
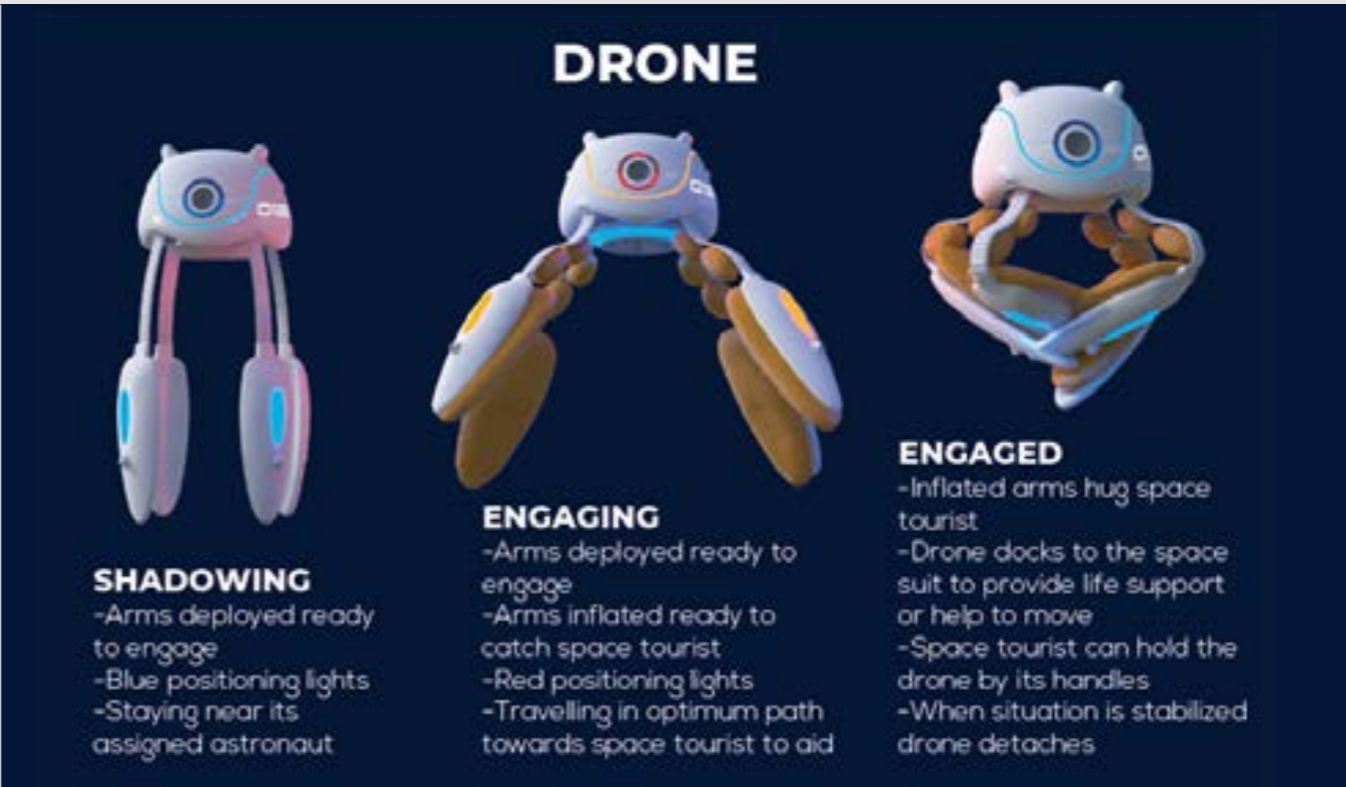
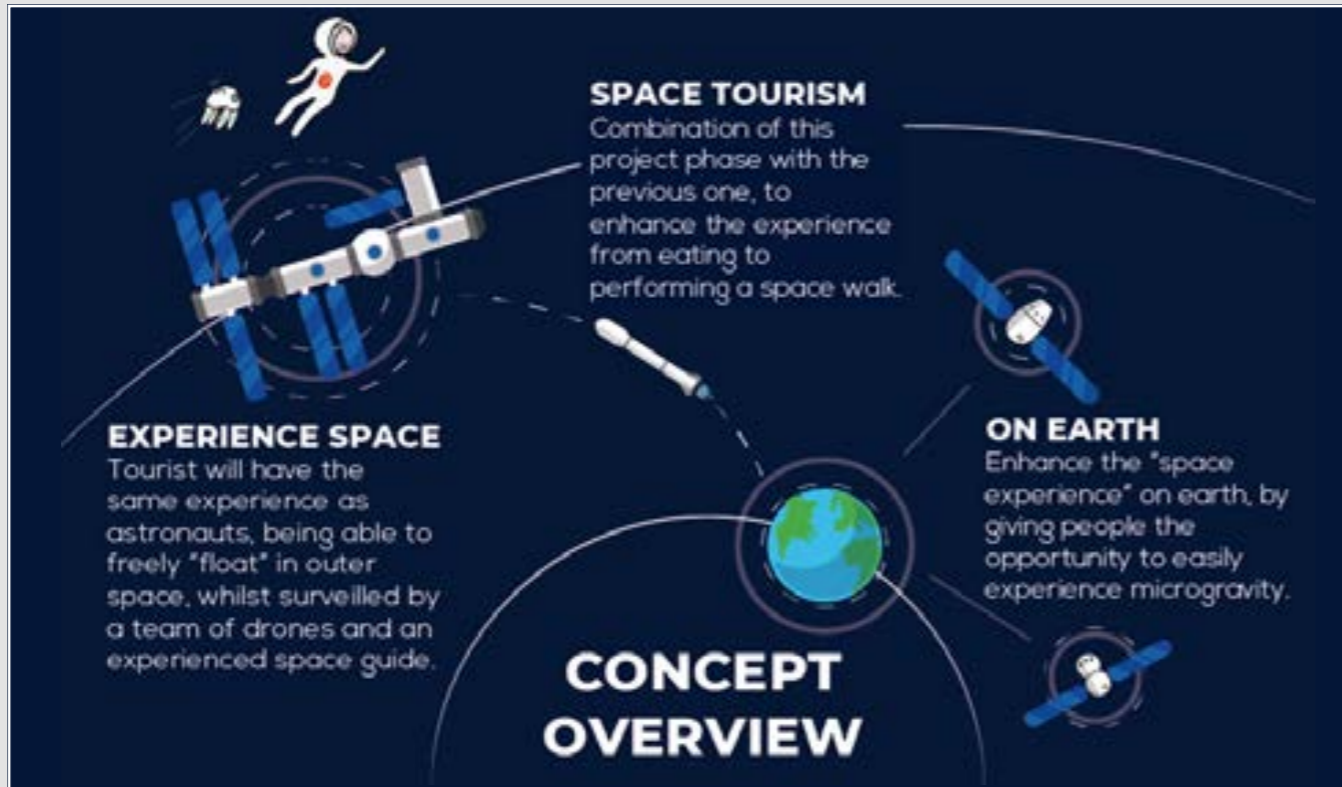


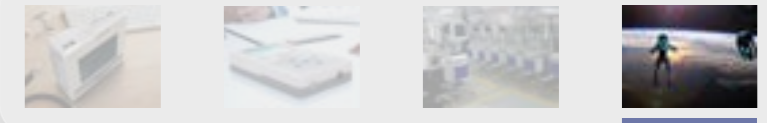
1. New food experience in space





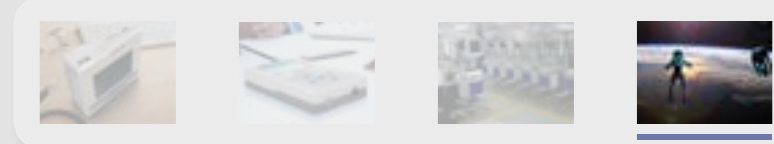
2. Enjoy space like a tourist



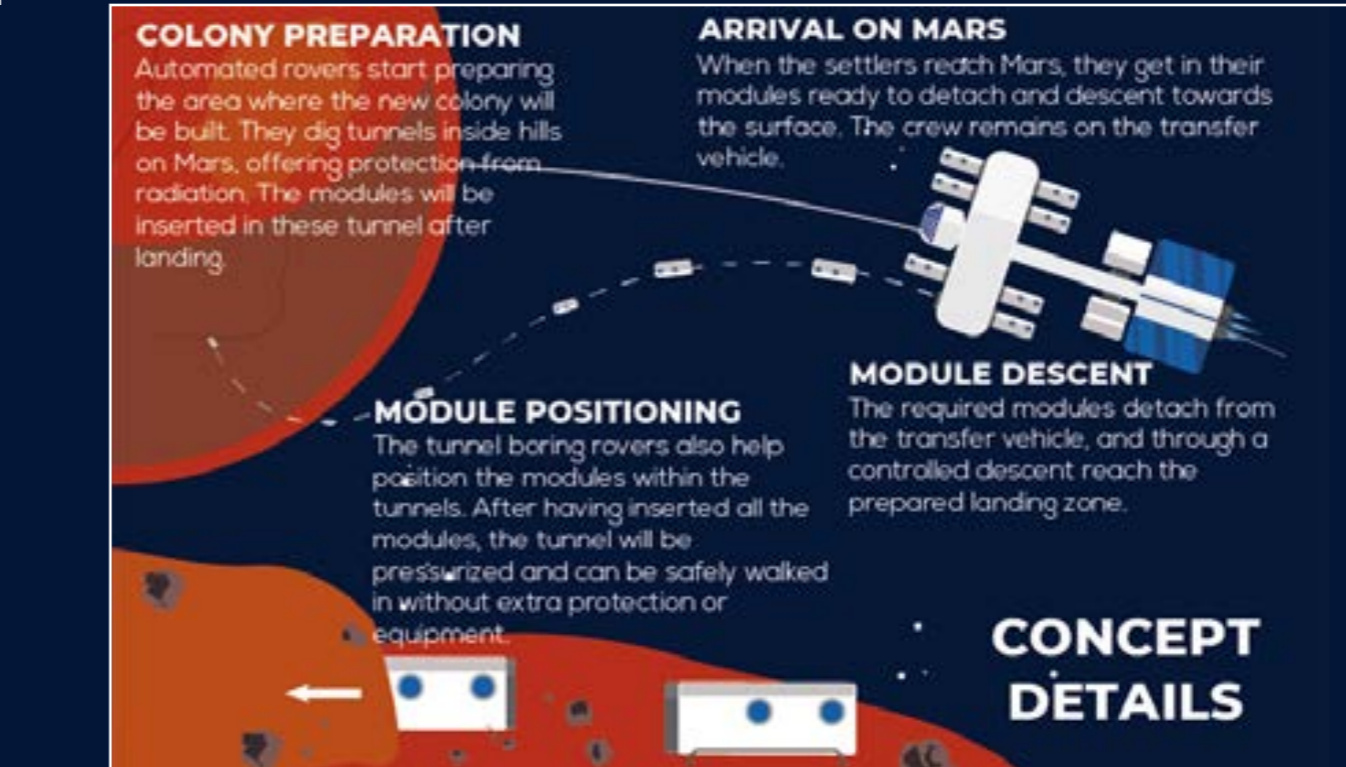
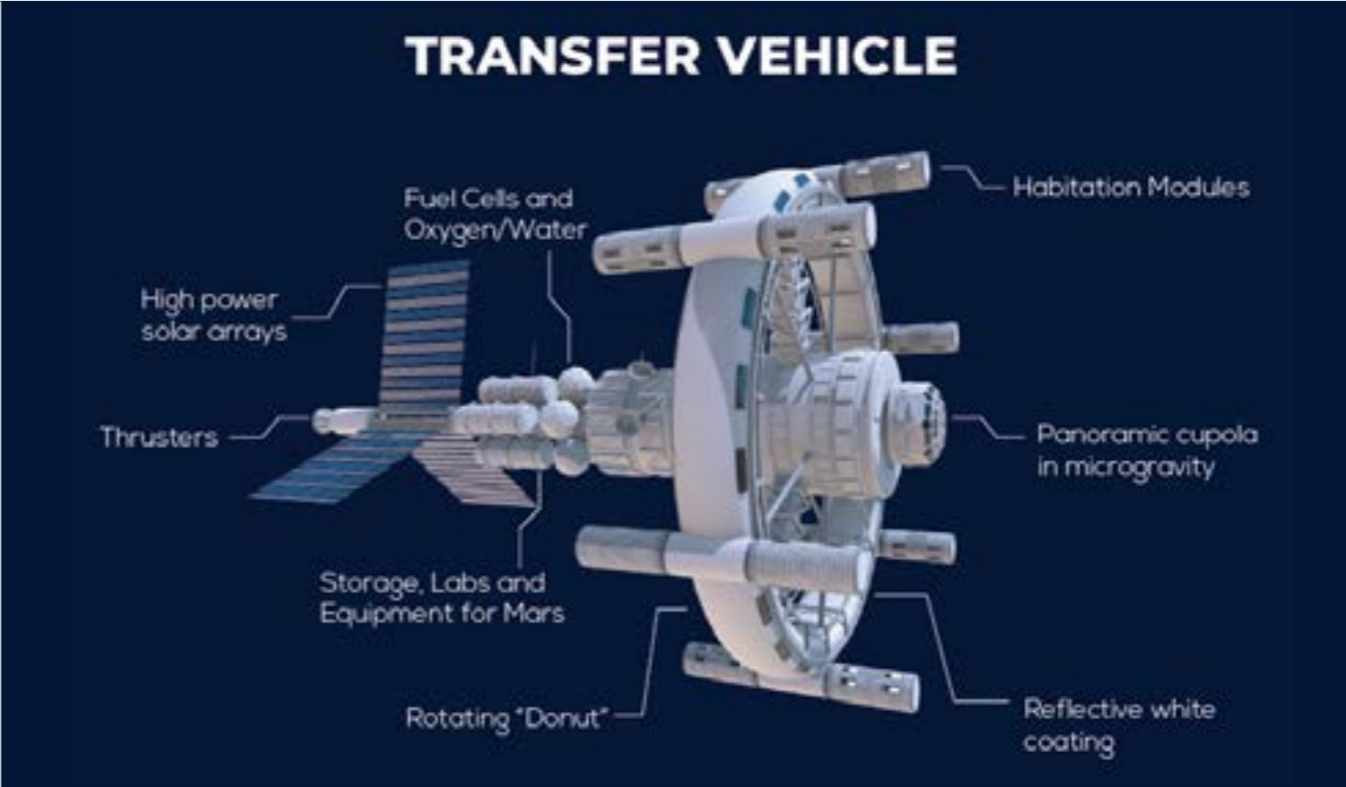
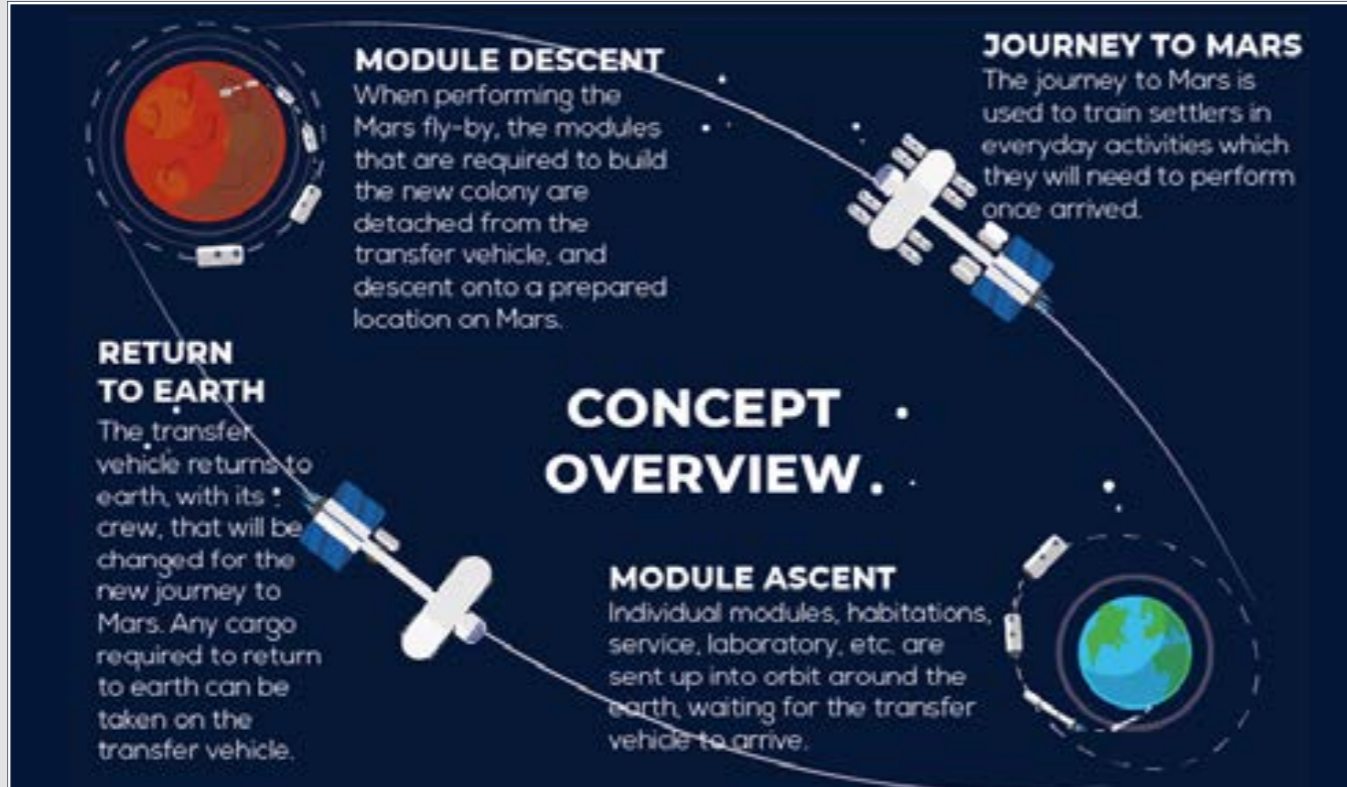


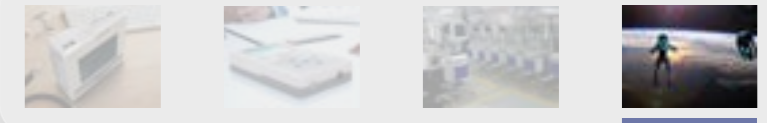
2. Enjoy space like a tourist





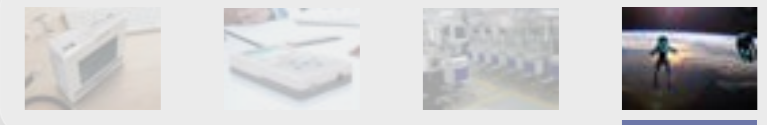
3. Mars the final destination





3. Mars the final destination





Portfolio 2021

Thank you for your
attention

“Good design is actually a lot harder to notice than poor design, in part because good designs fit our needs so well that the design is invisible”

Don Norman

Edwing Mosquera

Via Francesco Anzani 9, Como, Italy

Email

edwinmosquera85@gmail.com

Cellphone number

+39 324 783 02 49

Connect

www.linkedin.com/in/edwing-ignacio-mosquera-cuesta/