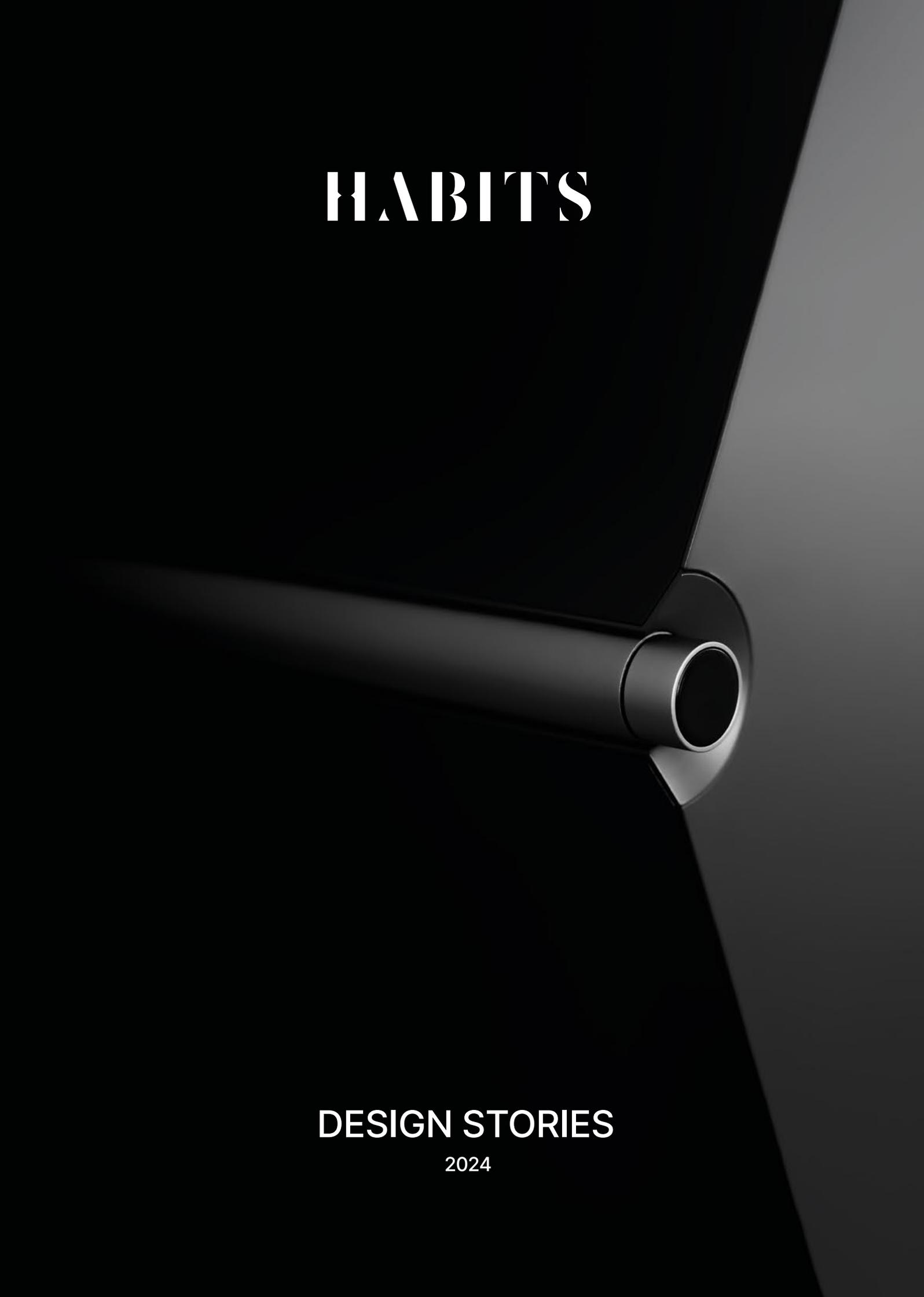


# HABITS



DESIGN STORIES

2024

**Habits is a multidisciplinary industrial design studio, focused on technological and interactive projects, helping companies to build products that will shape the future.**

**“We study science and art.  
We design new habits.  
Prototyping our ideas  
embedding electronics,  
we reduce the gap between  
physical and digital.”**

HABITS DESIGN STORIES

Printed March 2024

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**Haier**

+ 10 years

major appliances and  
future products

**Panasonic**

+ 22 years

speakers, TVs, phones,  
advanced materials



**Schindler**

+ 7 years

elevator cabins, lighting,  
controls and future UX

**Comelit**

+12 years

interphones, home  
automation touchpoints, UX

**ABB**

**ARMANI**

**BUGATTI**

**BRAUN**



**CANDY**

**CAMPARI**

**DeLonghi**

**esa**

**EVOKA  
GROUP**

**Ferrolti**

**FLOS**

**Hatari**



**IMETEC**

**KOHLER**

**LUCE  
PLAN**

**LUXOTTICA**



**Rinnai**

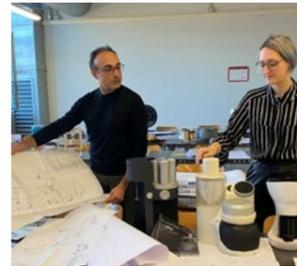
**80+** ongoing worldwide stories

# Italian heritage, worldwide stories



Since 2004, we provide our design services to global clients from the city steeped in the culture of design, Milan. We are deeply connected to the historical heritage of Italian design, drawing on its roots to transfer it to a global scale.

Recognizing the unique Asian technological know-how, we started a branch in Bangkok to be better in touch with local manufacturing expertise and capabilities. Our work is a bridge between the advanced Asian manufacturing capabilities and the Italian Design.



We are a team of 30+ industrial designers / mechanical and electronic engineers / model makers / UI/UX designers/ interaction specialists / interior designers / user researchers / university teachers with a global point of view.

We are ready for new  
design challenges.

Currently we design in  
Light & Air / Audio & Video  
/ Home automation / Food  
appliances / Clothes caring /  
Wellness & Health / Digital UI  
/ Interior & Exhibition

Decorative and Architectural Lighting / Outdoor & Technical Lighting / Air Conditioning & Cooling / Air Treatments, Purification / TVs / Speakers / Cameras / Elevators / Controls & Switches / Entry Door & Intercom / Security Systems / Refrigerators / Built-in Kitchen Appliances / Food Processors / Small Appliances / Water Dispensers / Taps and fittings / Bikes / Phones / Laundry Machines / Tumble Dryer / Washbasin / Rehabilitation / Wearables / Sport Equipment / Pet Care / etc.

## INDUSTRIAL DESIGN

The shape is calm and precise, interpreted in terms of the substance, meaning and language, not purely on the decorative aspects.

## DESIGN RESEARCH

We forecast trends and market insights, focusing on new design opportunities. We test on field our vision to build future products on them

## UX/UI INTERACTION

We work on cross channel platforms (physical interfaces, IoT, mobile, web) to create meaningful interactive experiences.

## BRAND + VISUAL

We define new unique brand visual design languages, helping companies to stand out.

## CODING + ELECTRONICS

We bring to life prototypes through high-fidelity interactive mockup and interfaces.

## PROTOTYPING + ENGINEERING

We create realistic and functional prototypes to test our concepts, anticipating manufacturing matters.

## RETAIL AND INTERIOR

We spread brand values and product innovations through spatial and exhibition experiences.

Cooperating with multinational corporations requires us to be confidential, so most of our successful works stay behind the scenes.

180+ international awards.



reddot design award

x19



x28



x16



PLUS X AWARD

x35



x7



x2



x11



x2



x1



x10



German Design Award

x4



archiproducts DESIGN AWARDS

x2



◀ **Leg**  
Detail | fire extinguisher  
2015, Daken

# Logic *via* Art

The word **VIA**, with its latin meaning “through”, indicates how science, technique and virtue merge together in creativity and self-expression. As during the Renaissance period, when the artists themselves were the inventors of their own techniques, we believe in a multidisciplinary modus operandi, solving complex problems with visionary and analytical solutions.

**Industrial +  
Interaction  
Design**

---

**Interior +  
Exhibition**

---

**Future  
Visions**

---

**Research for  
Innovation**

# Industrial + Interaction Design

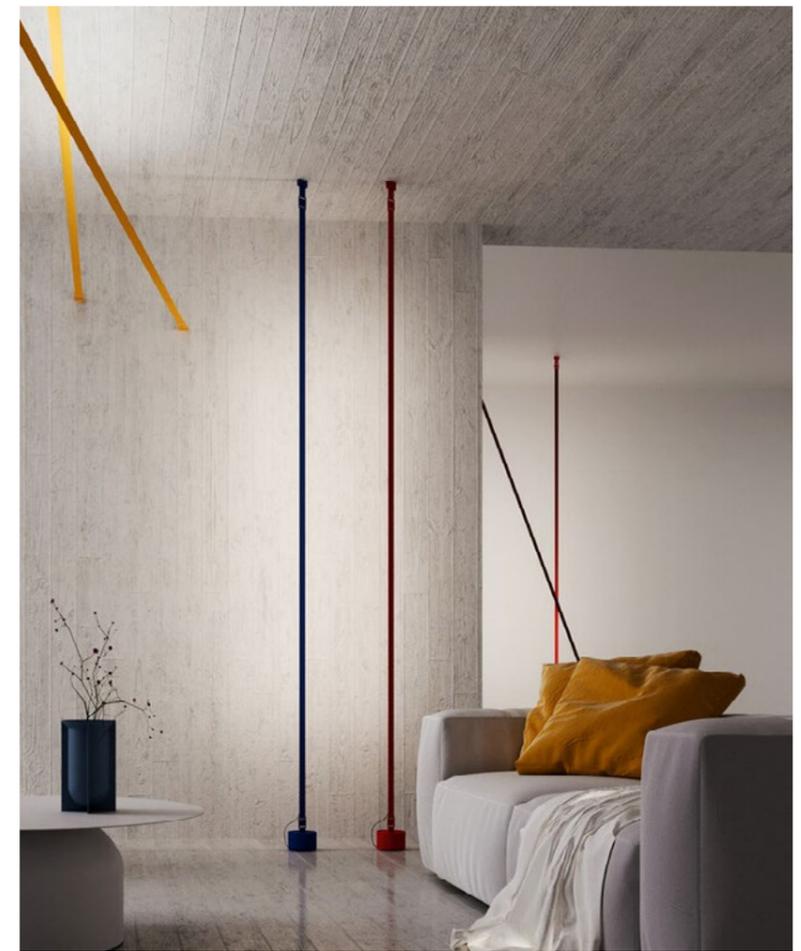
The design language applied by Habits is essential and concise. Calm and precise, it is a mindful balance of honesty, beauty, innovation, discretion, coherence, ethics. The shape is interpreted in terms of the substance and not purely on the decorative aspects.



# Light *is* *our* DNA

**Decorative, outdoor, architectural, interactive**

20 years of experience in lighting innovations and more than 50 lamps on the market. Over the past two decades, the lighting industry has undergone significant changes, from the introduction of electronics to the arrival of information technology. Habits has always anticipated the development of new technologies in lighting, interpreting and bringing to life new shapes and experiences.



## Design the unexpected

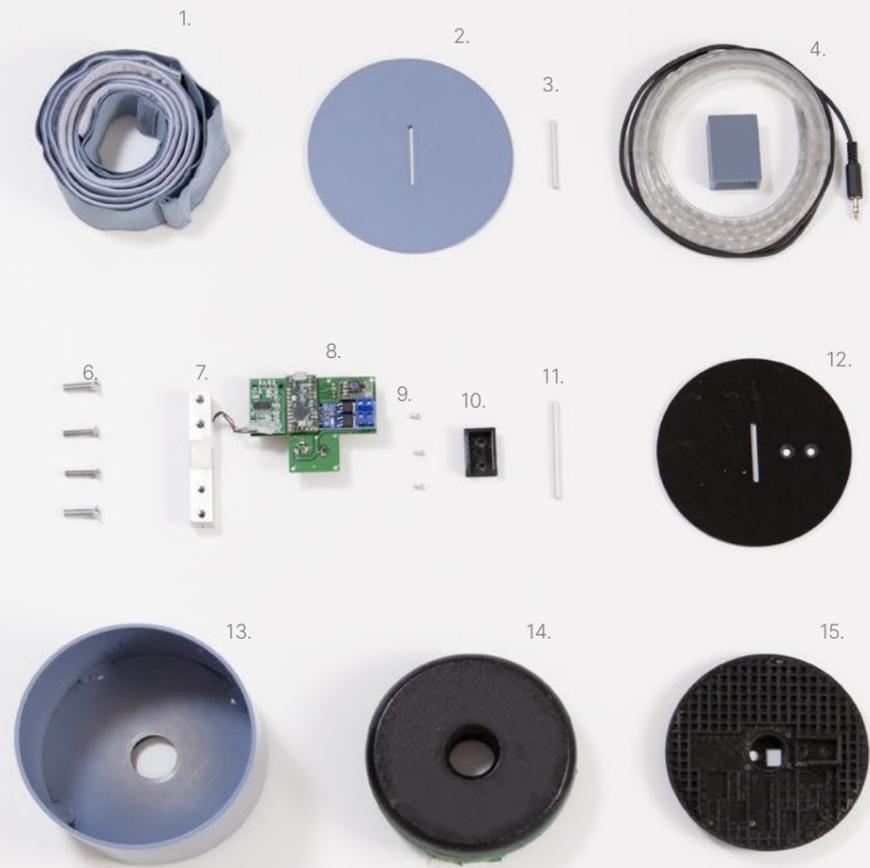


### **Elastica**

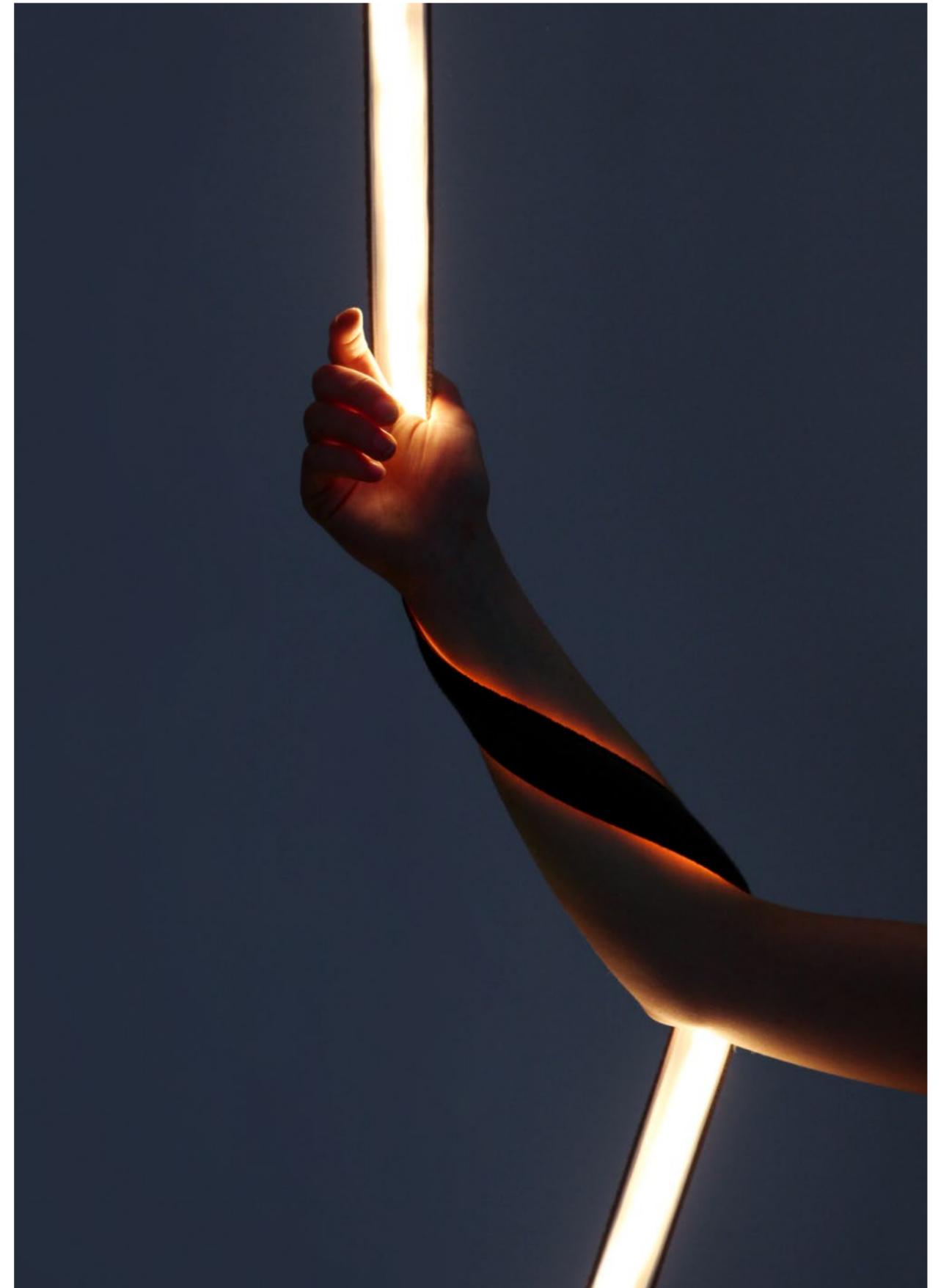
Flexible light  
2018, Martinelli Luce

Elastica is a flexible linear lamp for ceiling-floor installation. A heavy base together with the elastic material allow different heights adaptability, as well as the inclination change.

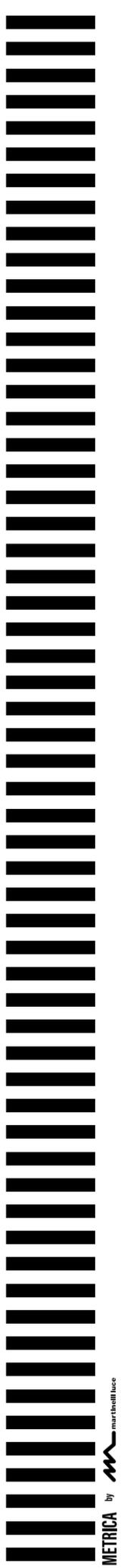
The on / off and the light intensity adjustment is possible through the natural interaction with the elastic fabric. The lamp is made out of two-toned fabrics, on one side the white textile diffuses the light of the strip led, on the other side, the colored lycra strips mark colorful lines in the interiors.



- |                     |                       |                            |
|---------------------|-----------------------|----------------------------|
| 1. elastic band     | 6. load cell screws   | 11. lower band block       |
| 2. base cover       | 7. load cell          | 12. laser cut sensor cover |
| 3. upper band block | 8. electronics        | 13. base                   |
| 4. led stripe       | 9. electronics screws | 14. weight                 |
| 5. ceiling hook     | 10. electronics block | 15. electronics case       |



**“We thought about how to exploit the mechanical properties of an elastic strip. With our solution elasticity becomes a metaphor for intensity in an innovative light modulation experience.”**



◀ **Metrica**  
Adjustable lamp  
2021, Martinelli Luce



# Light per cm

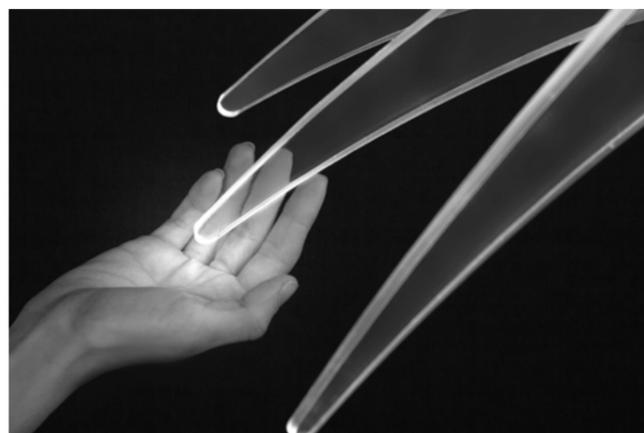
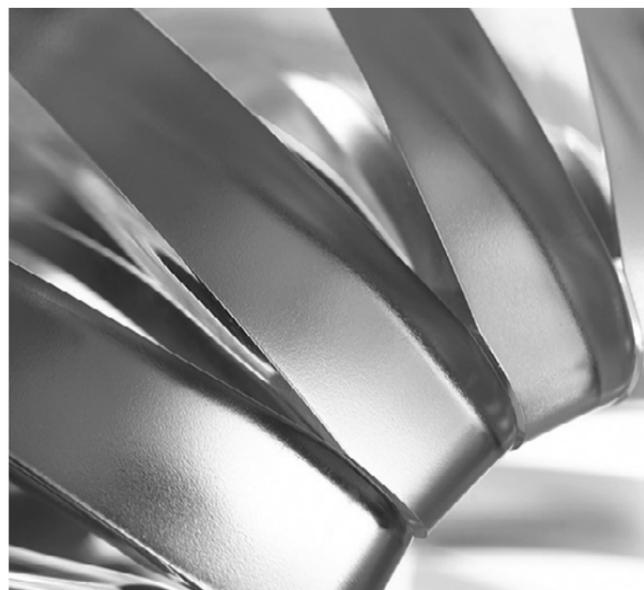
Metrica takes its name from the classic measuring instrument, the roll meter, inspired by the same gesture of extraction: by replicating the same movement, the LED light source can be extracted or repositioned inside the lamp body. Analogue movement is interpreted by an optical sensor capable of switching the LED portion on and off.



# Modularity and transparency

A new perception of the luminous object, with light, material and colour interacting through a game of transparency, reflection, refraction and diffusion.

The body of the lamp consists of ribs in injection-moulded transparent methacrylate, hiding the bulb, guaranteeing transparency and brightness. The ribs transmit light at the edges amplifying their brightness as there were many bulbs of a virtual chandelier.



▶  
**Agave**  
Suspension lamp  
2003, Luceplan

**Agave Prototype**  
Suspension lamp  
2003, Luceplan





# Process contamination

E04's detail of the electrical cable graft is obtained by hydroforming an aluminum tube. This technology was transferred in lighting design from the production of bicycle frames. We achieved a new and surprising "blossom" form factor, and the first double emission cylindrical lamp on the market.



DESIGN PLUS  
powered by: light+building

**E04** ▶  
Hydroformed lamp  
2006, Luceplan

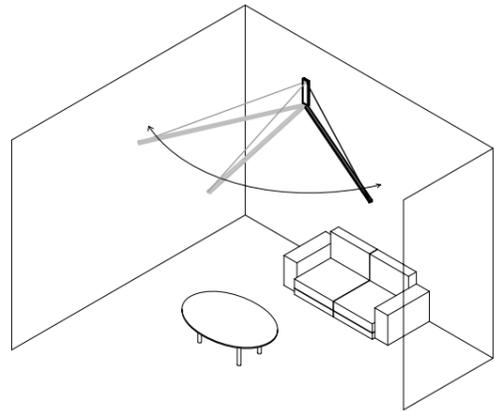




# Design the essential



◀  
**Minimini**  
Suspension lamp  
2009, Luceplan

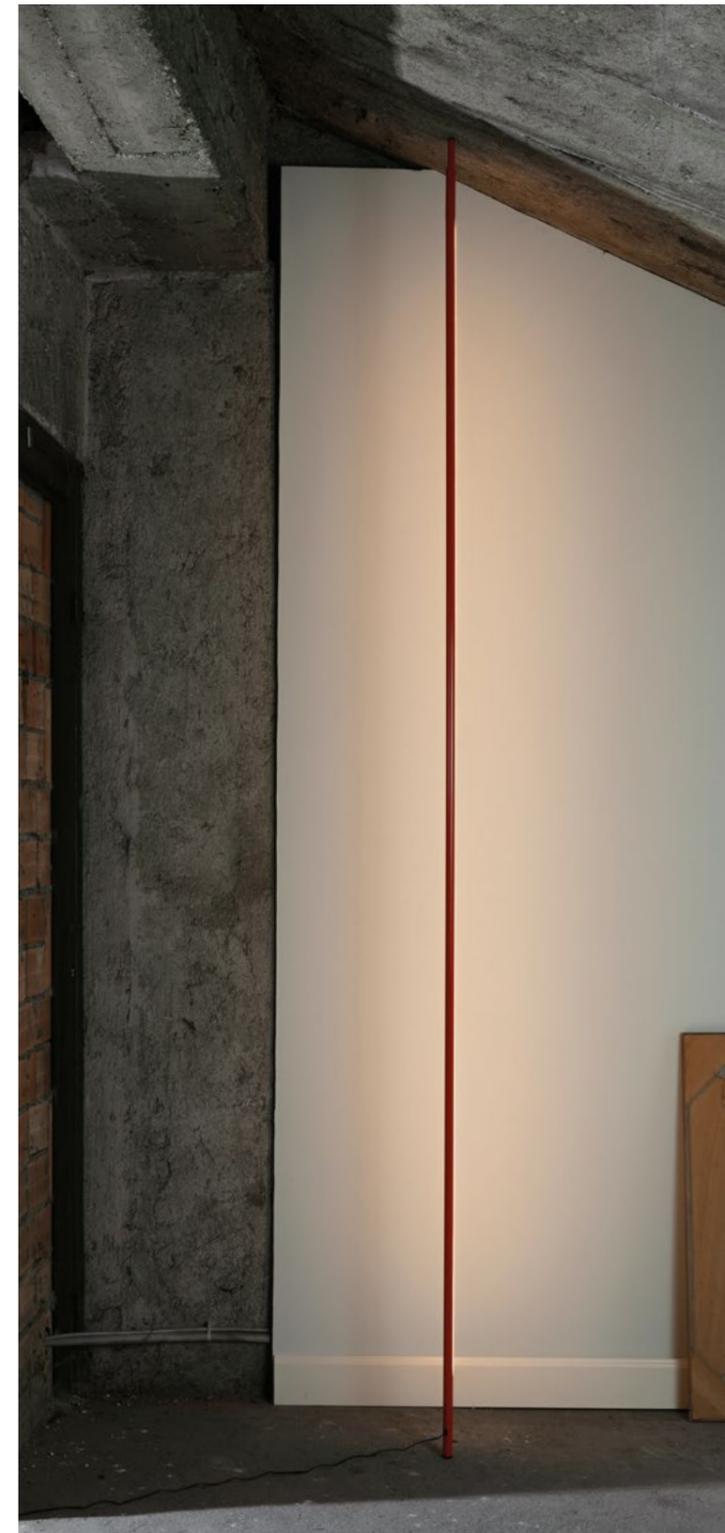
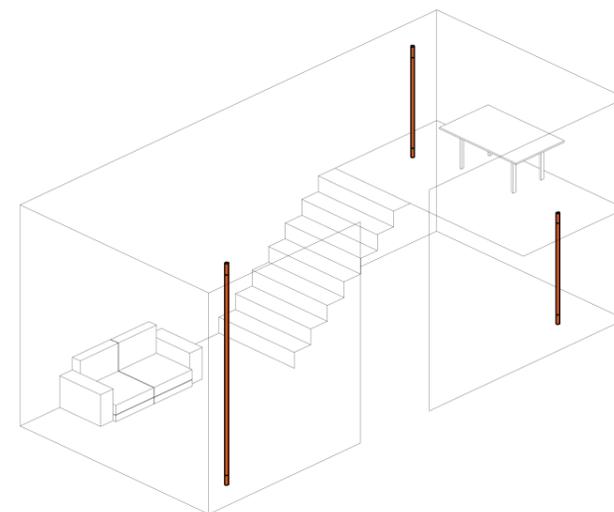


# Light as a sign



►  
**Genoa**  
Wall lamp  
2020, Design Luce

►  
**Verticale**  
Floor-ceiling lamp  
2021, Design Luce





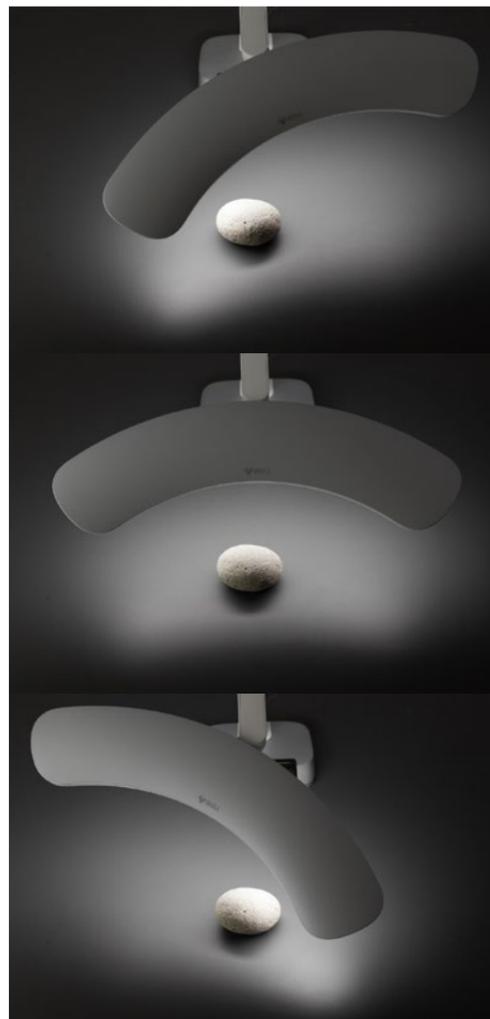
▶  
**Study on  
cast shadows**  
Lamp prototype  
2022, Bull

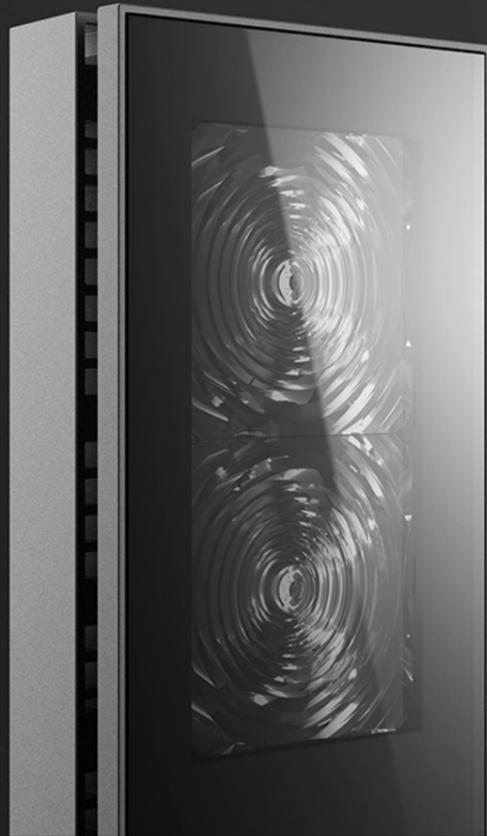
◀  
**Shadowless**  
Desk lamp  
2022, Bull



# Light is shadowless

Shadowless is a table lamp designed to give the user adaptive and shadowless lighting, thanks to the distribution of the light on the arc shaped head and a unique joint system.





# Outdoor lighting

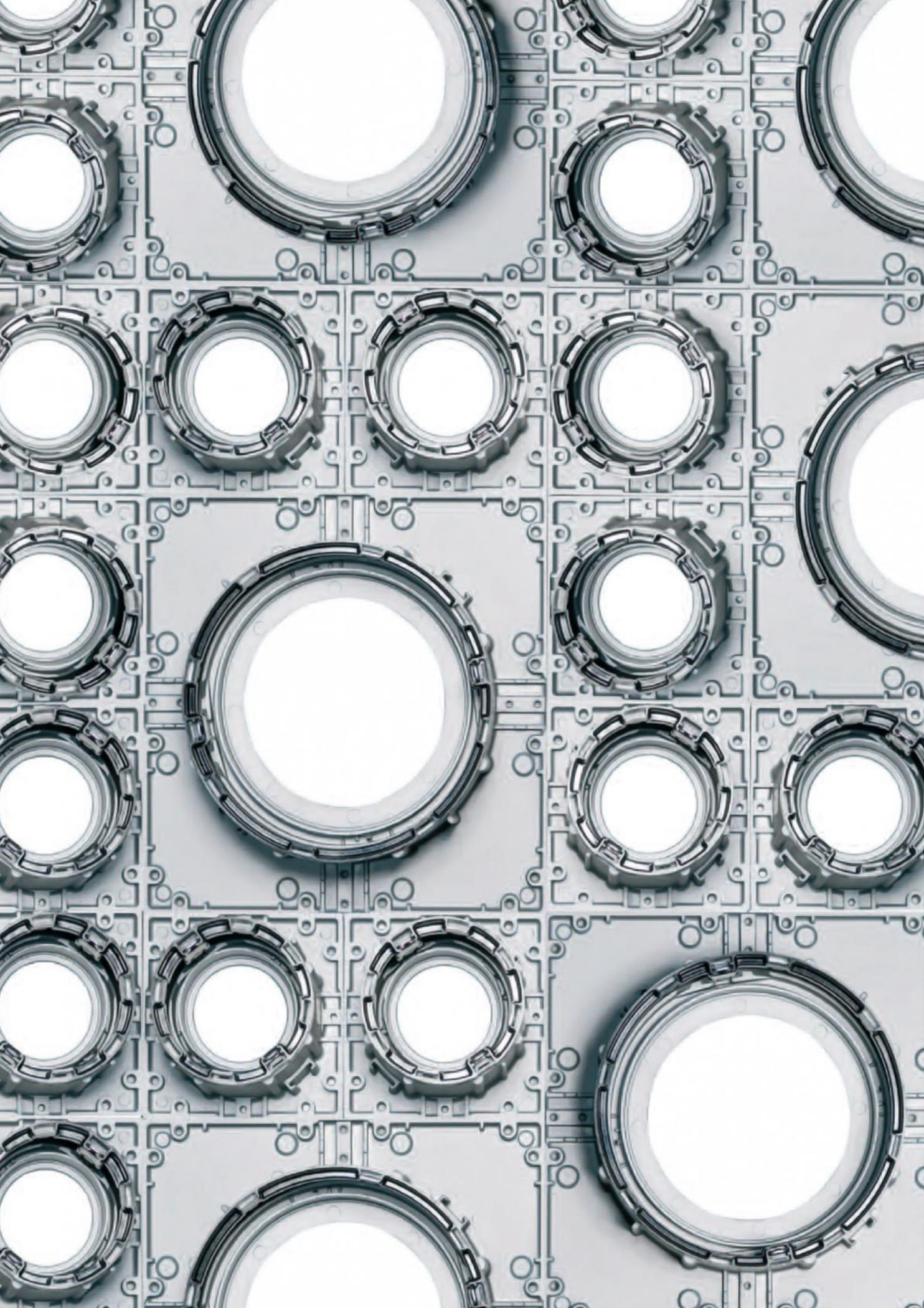
Habits has a deep tradition and knowledge of technical lighting, developing multiple outdoor light systems and lamps. We combine optical, electrical, and mechanical performances with formal balance, seeking lightness in complexity.



◀ **D70 Boxer**  
Modular floodlights  
2018, Castaldi Lighting



◀ **KEA**  
Light module  
2016, Castaldi Lighting



◀  
**e01**  
Architectural light  
2008, Luceplan

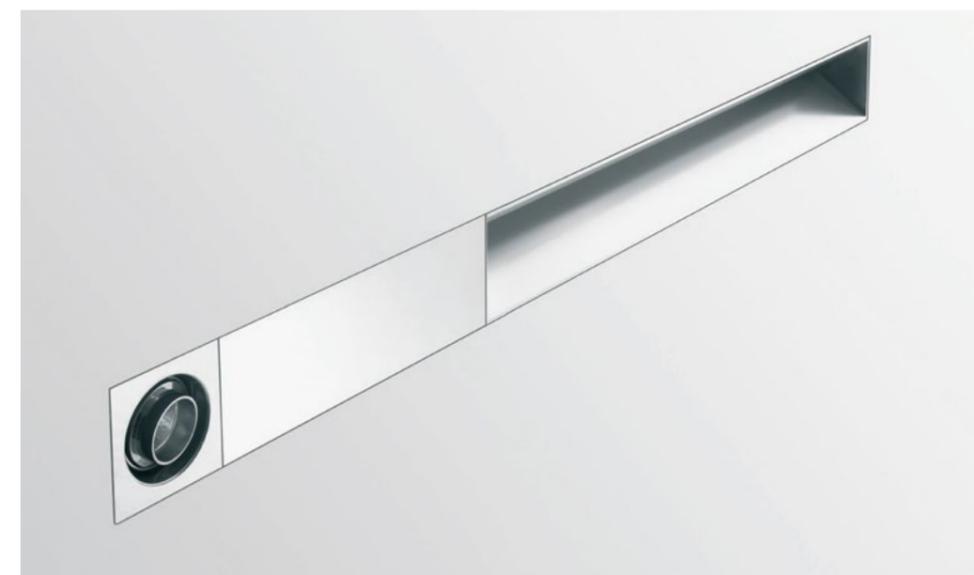


▲  
**e06**  
Minimal projector  
2008, Luceplan



## Architectural Solutions

Simple, primitive shapes and the use of mimesis help to create a sense of harmony and balance, in a dialogue with the architecture.



▶  
**e01 + e03**  
Linear Light  
2010, Luceplan



# Building automation

## We design technologies for architecture

Habits developed an empirical and analytical approach in the definition of new relationships between people and home automation products. The design process focuses on creating iconic and functional products, discrete and integrated in the architecture. We often use light as information in the way of ambient feedback.



San Cataldo Cemetery in Modena  
1984, Aldo Rossi



▲  
**Mini**  
Intercom  
2015, Comelit

▲  
**Mini Handsfree**  
Entry Phone  
2015, Comelit

## A distinctive architectural design language for Comelit

30+

Products designed



reddot design award

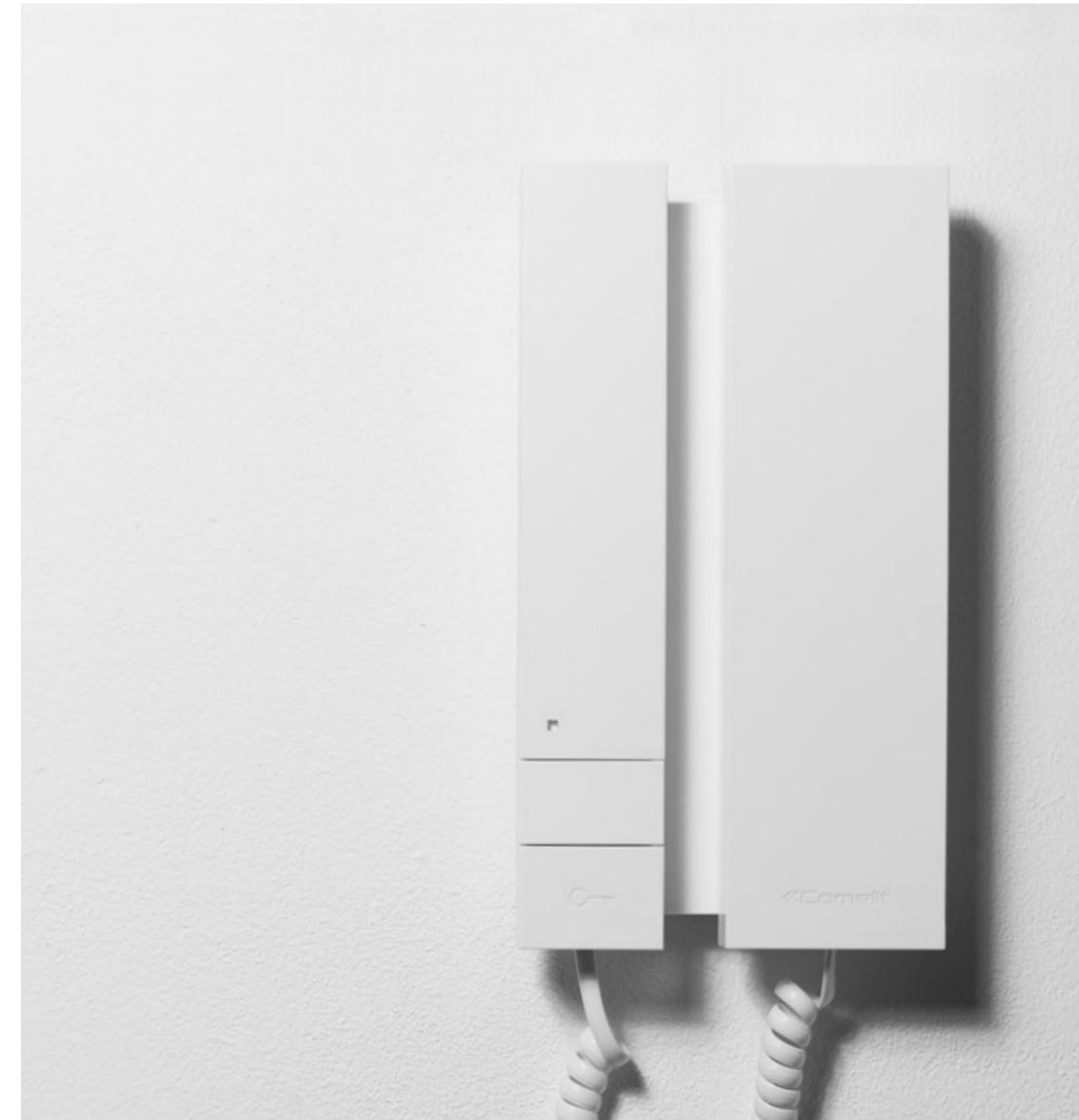


DESIGN PLUS  
powered by light-building



German Design Award

▶  
**Mini Audio**  
Door entry phone  
2015, Comelit



▶ **3ONE6 Sense**  
Entry Unit  
2013, Comelit

## Sensored metal

The Sense 316 door entry panel is made entirely of AISI 316 stainless steel. In contrast to traditional products, the metal surface is free of buttons, as the surface itself is touch-sensitive. The front panel is made using a sophisticated production process to achieve the required differences in material thickness needed for the capacitive sensors to work.

Sense 316 sets itself apart with a metal surface offering the highest level of material uniformity and through the absence of any apertures on the front panel. This simplicity of look and materials makes for a very robust and compelling appearance.



reddot design award



▼ **Quadra**  
Entry Unit  
2015, Comelit

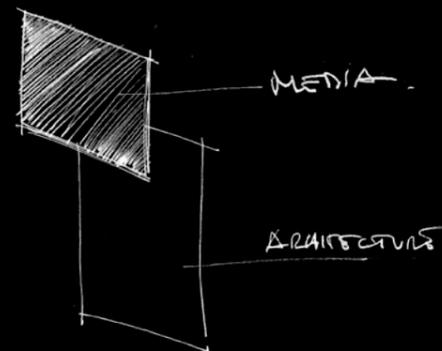




◀  
**Vedo**  
 Anti-intrusion system  
 2021, Comelit

# Surfaces and layers

Hub is an alarm system for home automation: the white rectangles design represents the home integration as an interior element, while the black elements mean the computational intelligence of the system.



▶  
**HUB**  
 Home automation  
 2019, Comelit



**HUB** ▲  
 Home automation  
 2019, Comelit

# We design business with companies

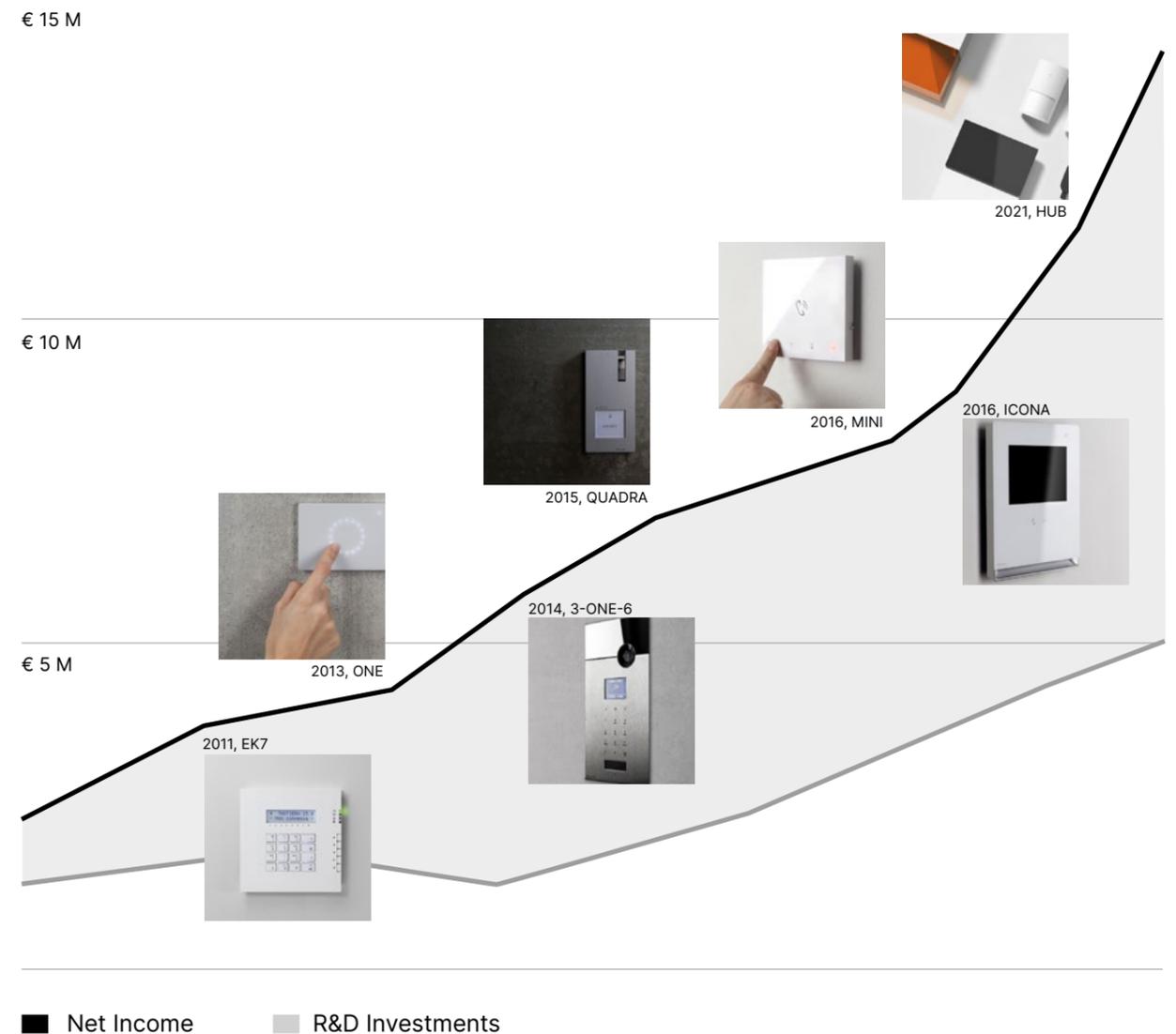


**30** | + PRODUCTS LAUNCHED ON THE MARKET

**14** | YEARS OF COLLABORATION

**18** | DESIGN PATENTS + 1 OF INNOVATION

**26** | DESIGN AWARDS



## Our design increased Comelit revenue-to-investment ratio

Habits is the main leading figure of Comelit's product design since 2009. Habits changed the image of the brand which became recognisable and iconic, shifting from electrotechnical to architectural design language. Since Habits took over the creative direction, turnover has duplicated from EUR 42 million to EUR 86 million, increasing in foreign revenues and boosting the net profit margin by 10%.



## Design by metaphors: metal as a shield covering “eye” technology

Starting with the metaphor of the eye, we identified a number of distinctive elements that led us to consistently design the entire product family.



◀ **Eye**  
Security Camera Series  
2021, Arenti

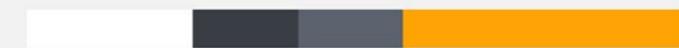
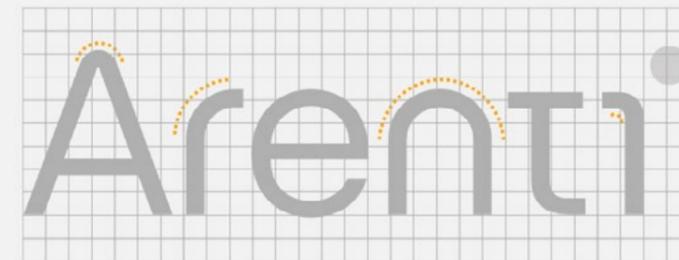


reddot design award



RETINA  
AREN TI

We defined the brand name Arenti, from the anagram of the word retina, referring to the eye.



◀ **Arenti identity**  
Logo, website, app and packaging  
2021, Arenti

# We design shadows

The switch becomes visible only when illuminated by the ambient light, creating a physical shadow through the layering and composition of materials.



reddot design award



**G27 series** ►  
Wall switch series  
2020, Bull

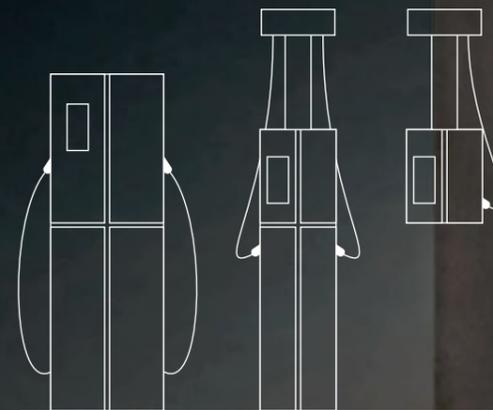
# Light as power

The EV-charger is characterized by a linear vertical light feedback, which divides the body of the object. The lighting behavior is used to indicate the level of charge.

The product is flexible to configure and install both on a wall or a pedestal. This feature was achieved through the design solutions and manufacturing technologies adopted.



▲  
**Ginka, TV commercial**  
EV charger  
2022, Forth



▲  
**Ginka | Variants**  
EV charger  
2022, Forth





# Domestic landscape

+20 years in home appliances field, design new domestic rituals, imaging natural interactions.

We have reimagined the relationship with the space of living of most of the home appliances. The design language of Habits is marked by minimalist and pure shapes and a seamless interaction between humans and machines, exploring physical + digital interactions.

# Innovating an archetype



reddot design award

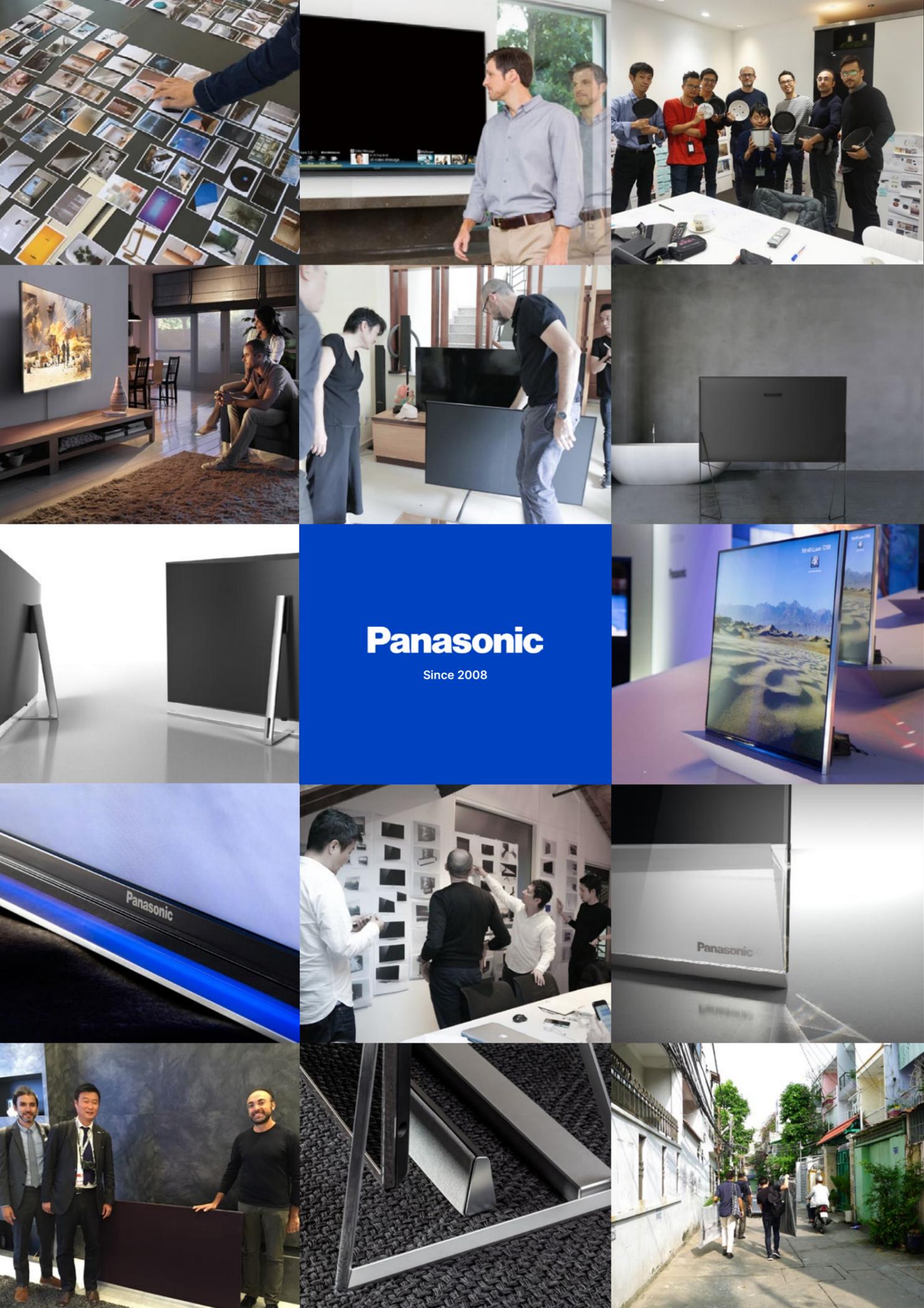
**BORN** ▲

Jacqueline gives a touch of refined elegance to the perfect tea-brewing. Its shape recalls the traditional ceramic teapot, reinterpreted with a contemporary continuity of the parts' composition.

It combines aesthetics with IoT in a seamless way. Its base becomes bright with a light behaviour that gives an ambient feedback about the process status.

►  
**Jacqueline**  
IoT water kettle  
2017, Bugatti





**Panasonic**  
Since 2008

Since 2008 we support **Panasonic** in new products design, enhancing their technological achievements.

We have reimagined the relationship with the *space of living* of most of the home appliances, developing more than 20 projects together, defining new **televisions fitting with the contemporary interior.**

Matsushita Denko  
**Lighting**  
Working at Nishisansō

Matsushita Denko  
Kitchen concepts

Panasonic Entertainment & Communication DECT  
Phones, PBX Speakers

Panasonic Malaysia  
Fridge, Washing Machine

Panasonic China  
Small Domestic Appliances

**Product Design**  
Department of Panasonic  
in Osaka in 2000

Panasonic  
Televisions  
Projects

Panasonic Living  
Appliances  
Fridge, AC Unit

Panasonic Advanced  
Molding Design for  
innovative materials

TBWA  
Smart IoT  
Products



# Integration through freedom of positioning

360° freedom screen for open spaces and innovative installations.



GOOD DESIGN

▲  
**Transparent OLED**  
 TV  
 2014, Panasonic

## Space integration by transparency

Transparent OLED for total integration in the interior context.

▲  
**DX800**  
 TV  
 2014 Panasonic

# Integration by hiding, becoming a textile furnishing accessory

First sliding TV, integration by upholstery hiding.  
For different screen ratio, different contents.



▶  
**Sliding TV**  
TV  
2015, Panasonic

▼  
**AX900**  
TV  
2019, Panasonic

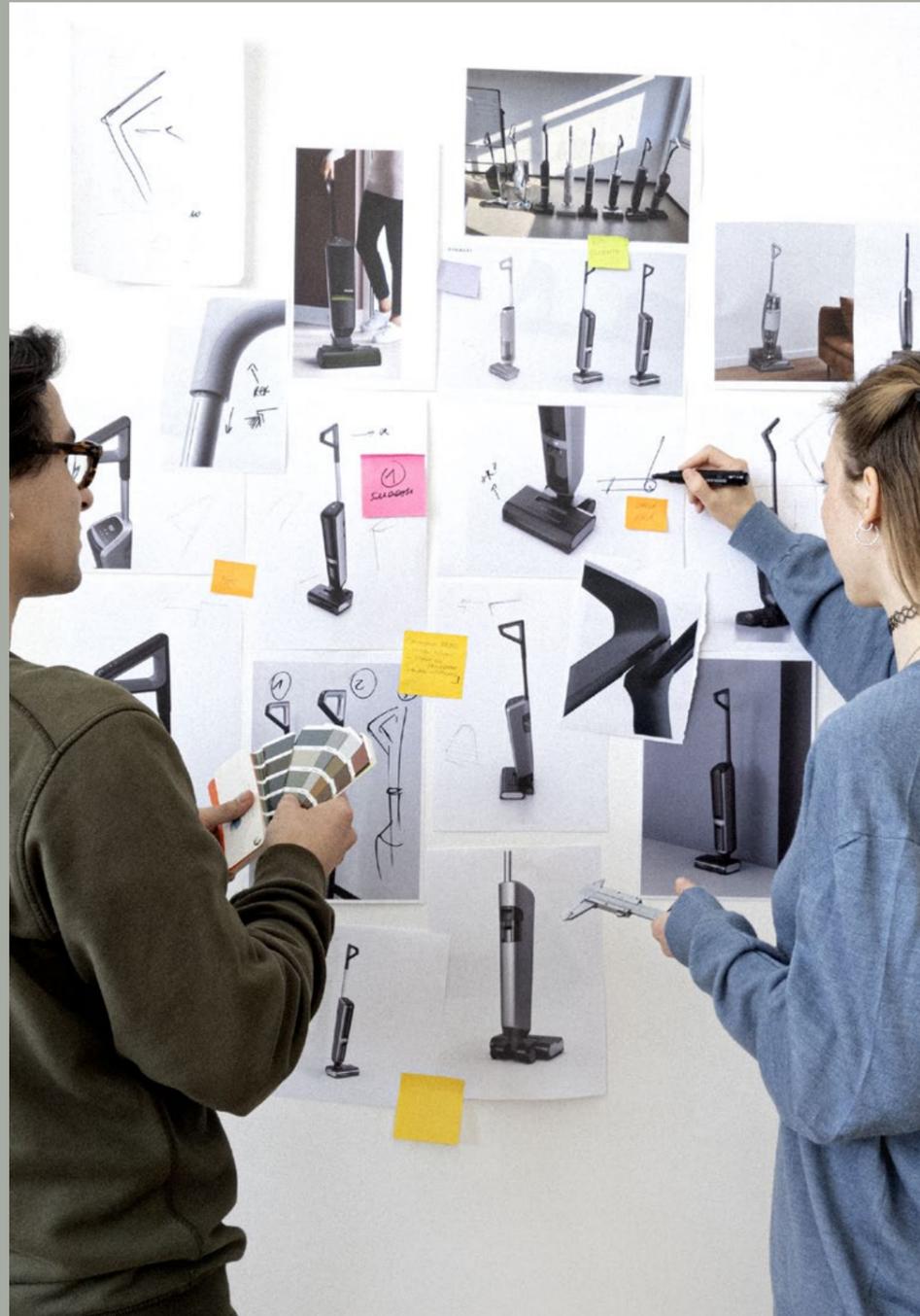


# Integration by abstraction

First no pedestal TV, integration by making the black  
screen abstract, designed not be intrusive and easy  
fitting any interior style.

# Shaping details

At Habits Design Studio, we research, ideate, sketch, and prototype iteratively. Throughout the process, by delving deeper, we achieve simplicity by mastering complexity.



►  
**Shield**  
Vacuum mop  
2022, Borine



▼  
**Shield Design Process**  
Vacuum mop  
2022, Borine



# Inspired by the wind

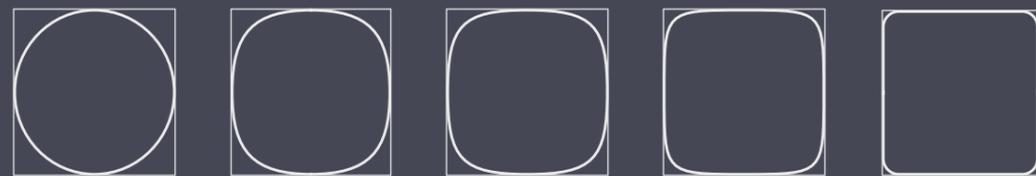
We designed the ventilation appliances series for **Hatari**, Thailand's leading air treatment company.



The flowing, harmonious lines are reminiscent of the gentle flow of air, interpreted differently but consistently across products.



▲ **Flow**  
Ventilation appliances series  
2021, Hatari



DOMESTIC

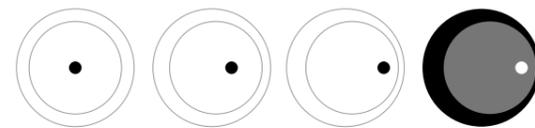
PROFESSIONAL

As if shaped by the wind, products design ranges from sinuous shapes, for domestic and consumer products, to rigid curves for higher performance and professional ones.





# Inspired by kinetics



## **Moon**

Autonomous vacuum cleaner  
2022, Borine



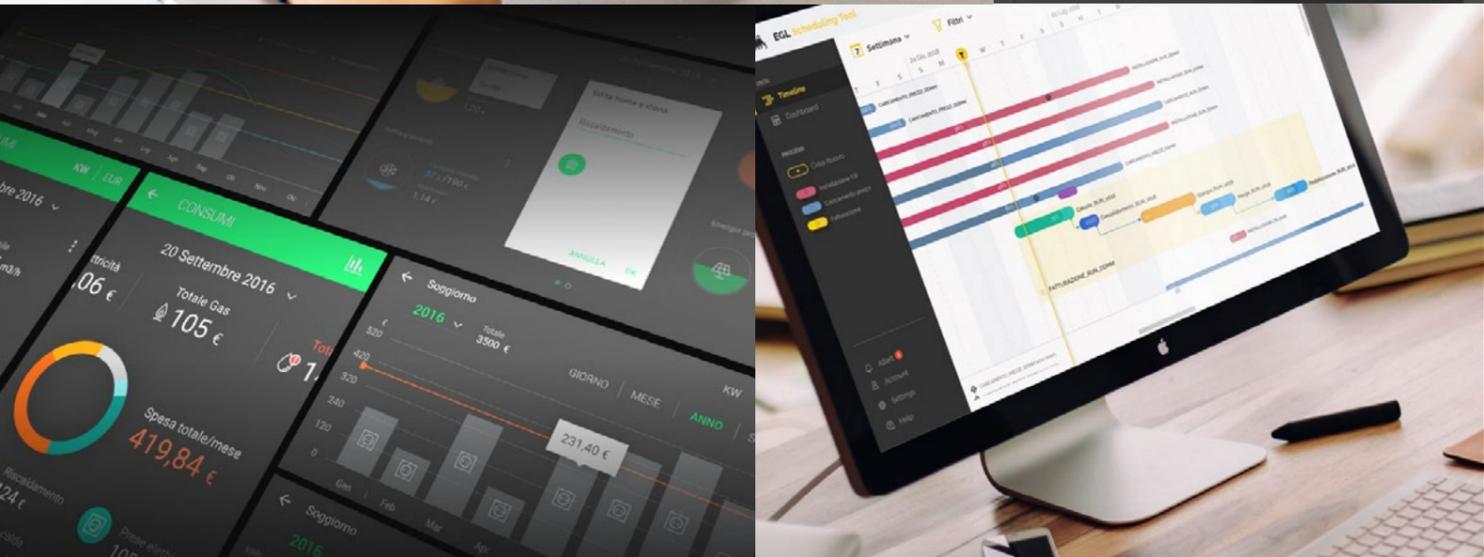
# A drop of water

The knob reminds the elegance of a water droplet due to the volume curvature and transparent material. The body shell surface, mirroring the gentle ripples of a droplet, complements the knob's motif. Thanks to the recessed geometry, the interface design provides more space for the hand rotating the knob.



▼  
**Fon**  
Instant water heater  
2023, Rinnai





# Physical to digital

We create holistic experiences

We design innovative interfaces that connect human habits and technologies. We have experience in designing full digital assets of our physical projects, from integrated visual interfaces to mobile and web app.

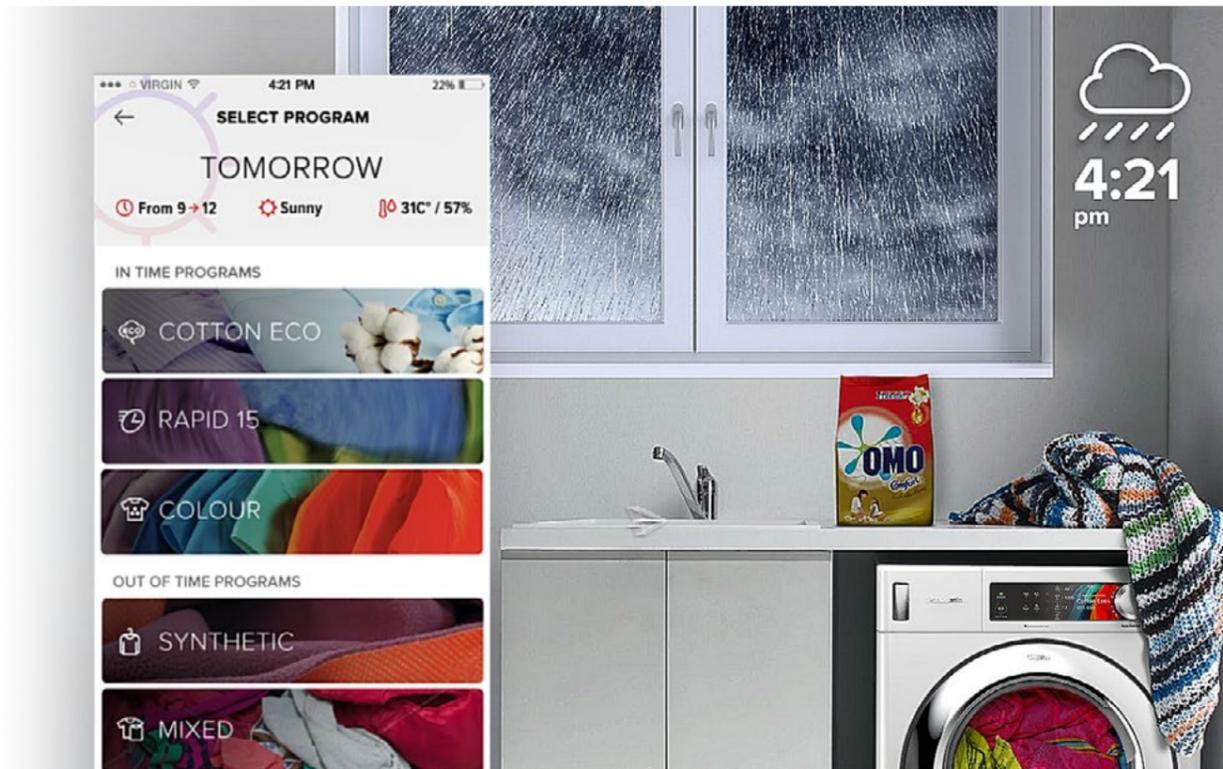
# Advanced full digital designs, from wireframe to GUI



**Sense Interface**  
Entry door monitor  
2016, Comelit



**Comelit Home App**  
Domotic App  
2013, Comelit



We validate through interactive prototypes our UX concepts

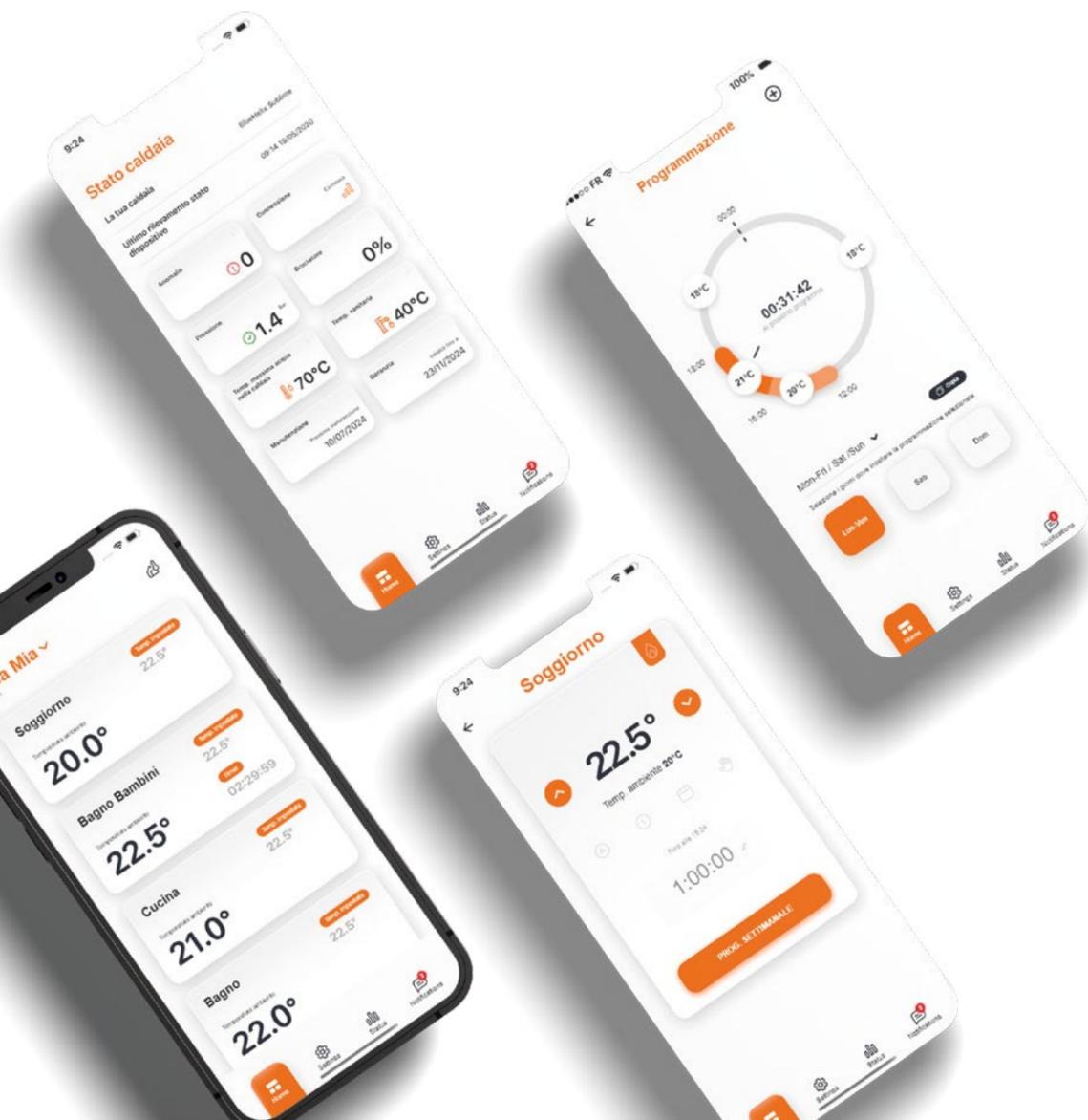
**Panasonic PAP**  
Washing machine UI  
20217, Panasonic



# Meaningful lighting

The Bluehelix Sublime water heater design gives a shape contrast (flat panel in the lower part + soft curve in the top one) to the front face of the product. The concave upper part is both aesthetically pleasant and functional, designed to reflect the light feedback in the ambient.

In addition we designed the interfaces both embedded in the product and remote (app); we worked on the overall product experience.



**Ferroli App**  
IoT System  
2020, Ferroli

**Bluehelix Sublime**  
IoT water heater  
2020, Ferroli



# *Dynamic linear language*

In this UX/UI and industrial design project reimagining oven interfaces, emphasis is placed on linearity and dynamism of the elements, harmonizing seamlessly with the product's lighting. The clean, linear design of controls enhances usability, while integrated lighting provides visual feedback and an engaging user experience.



Seamless GUI,  
lighting and  
industrial design



▲  
**ID Ultimate Oven Series 6**  
Oven ID and UI  
2023, Haier



# We bring to life real product experiences

From visual concepts to prototyping in our Lab for IFA 2023 fair.



For better results

Cut the fruit into same-sized pieces and do not overlap them on the tray

CLOSE THE DOOR TO CONTINUE



STEP 2/5 - 15 m

LEVEL 
Min
Max

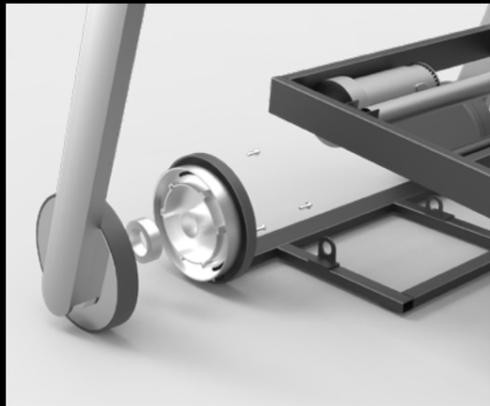
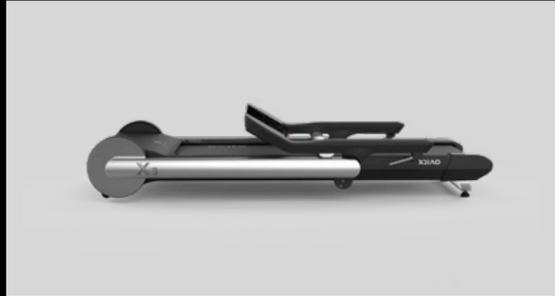
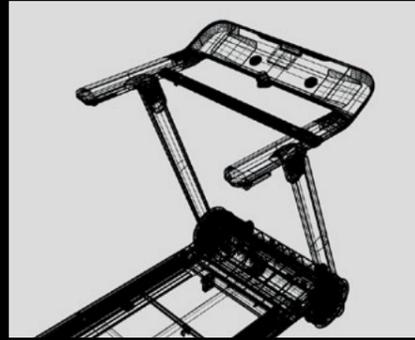


# Design *for* movement & wellness

## Harmonizing human form and function

Habits designs industrial products for mobility and sports. Our projects have an aesthetic sense related to athletic gesture and movement. Shapes are designed almost in symbiosis with the environment in which they will be used. They are conceived with a humanistic approach.

# Design process from mockup to engineering



▶  
**X3 PRO**  
foldable treadmill  
2018, Xquiao

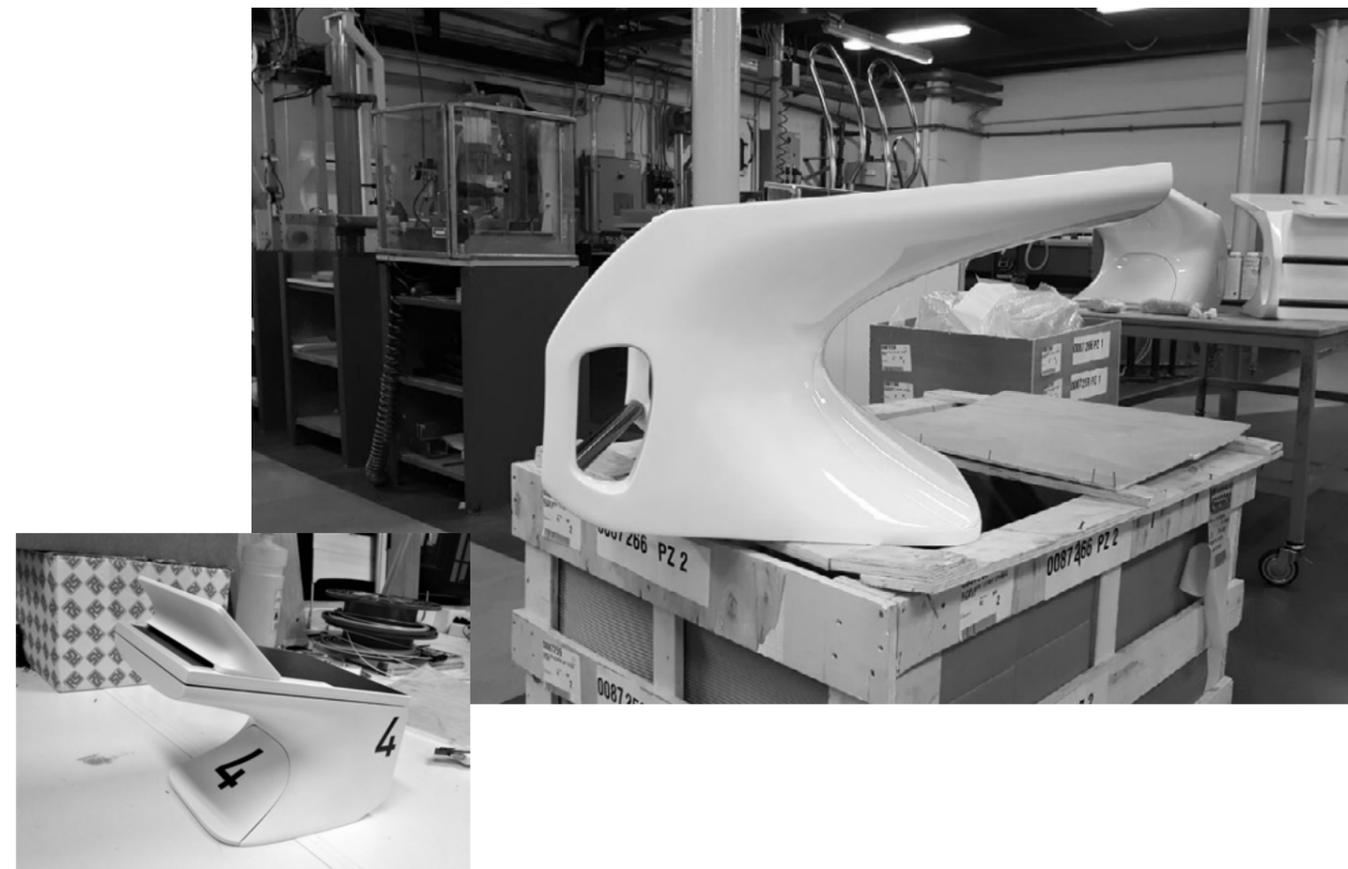




# Streamlining for high performances

Track-Start blocks, with their streamlined and slender shape, represents the effectiveness and power of track starts.

The high-strength fiberglass construction allowed an extremely dynamic shape and cantilever structure of the object.



◀  
**Track-start**  
Starting Block  
2014, Myrtha Pools



# Natural symbiosis

SCOUT is an "adventure" dirt bike for kids. We combined a usually metal-only product with an unconventional wood insert, to represent the link and symbiosis with nature.

SCOUT  
bike for kids  
2022



# Interior + Exhibition

Habits has been imagining new spaces for more than 15 years, working mainly with Italian haute couture brands and multinational corporations. We create pure and iconic projects. Our specialties include visual merchandising, storefronts, shop-in-shop design, flagship stores, temporary installations and exhibition booths.



# Branding *through* spaces

We design interiors, environments and exhibitions for various brands and companies, conveying through architectural composition the corporate values. In our international projects, we find the distinctive identity elements that are understandable worldwide, without losing the local and original roots.

# European Space Agency shop identity

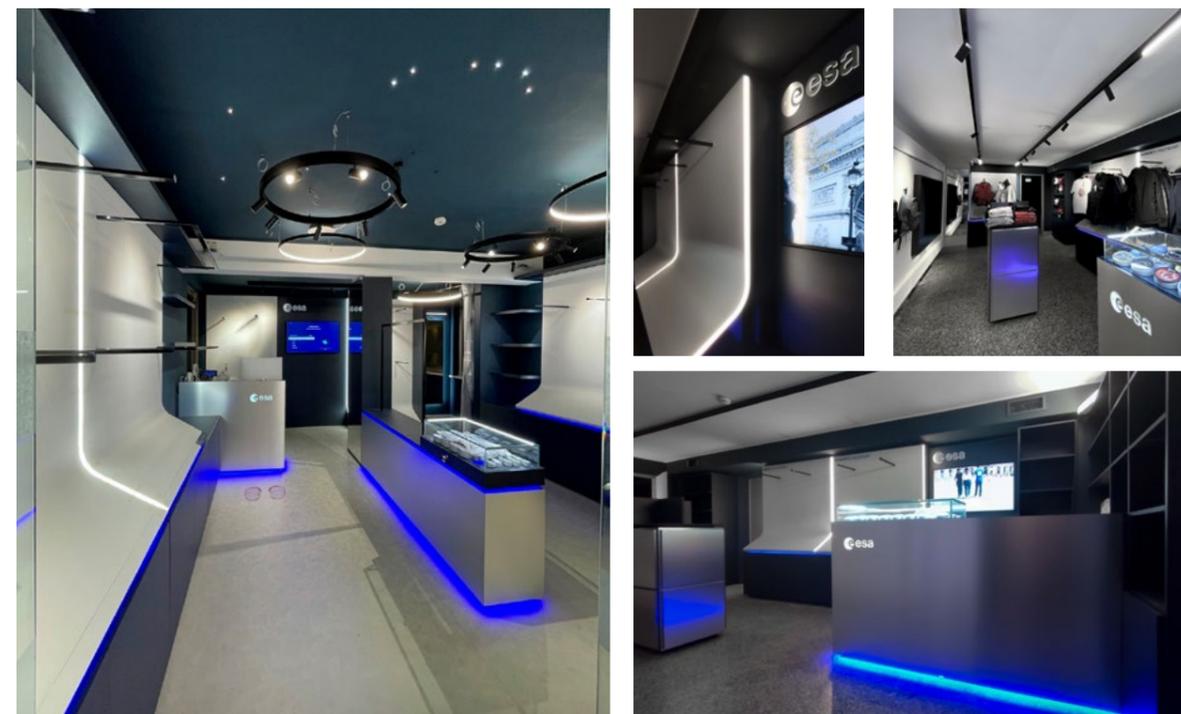
We designed a system of furniture modules that would evoke an imaginary interior of an astronaut station. The interaction between shapes and light creates suspended surfaces with a sense of weightlessness.



▲  
**ESA Shop in Rome**  
 flagship store  
 2022, ESA

# Architectural guidelines book for new ESA establishments

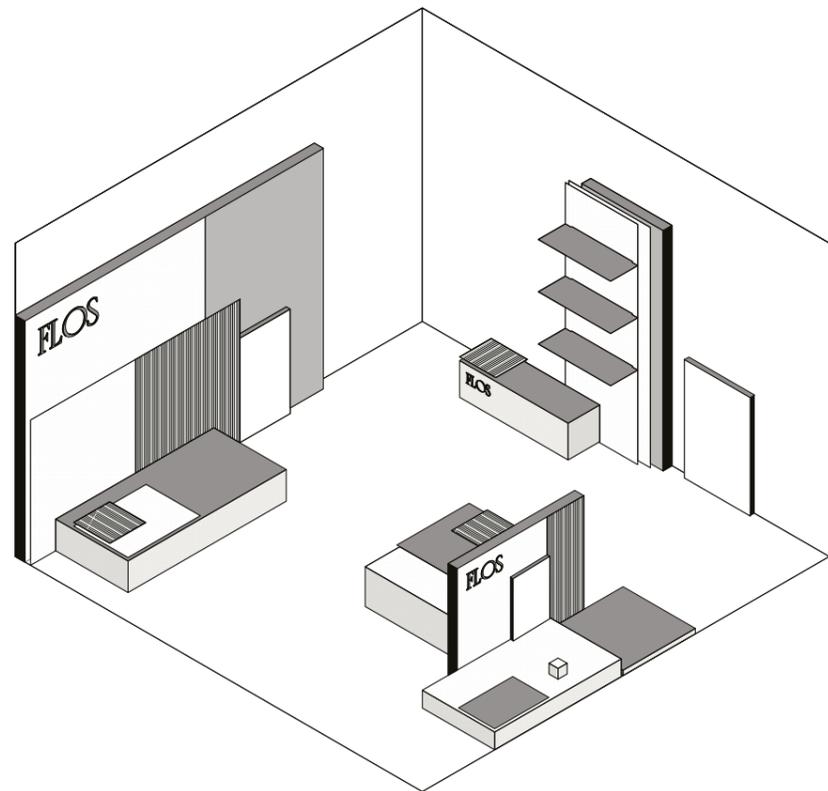
Rome, Frankfurt and Paris



Environmental branding project for the headquarter and other establishments of the European Space Agency. We designed all individual brand touch points in buildings and the comprehensive guide listing all the rules to be followed for ESA's internal and external signage.



# Material *slices* defining spaces



Flos Design Space is the result of an abstraction set-up process that restores, through different material levels, the syntax of the living landscape.

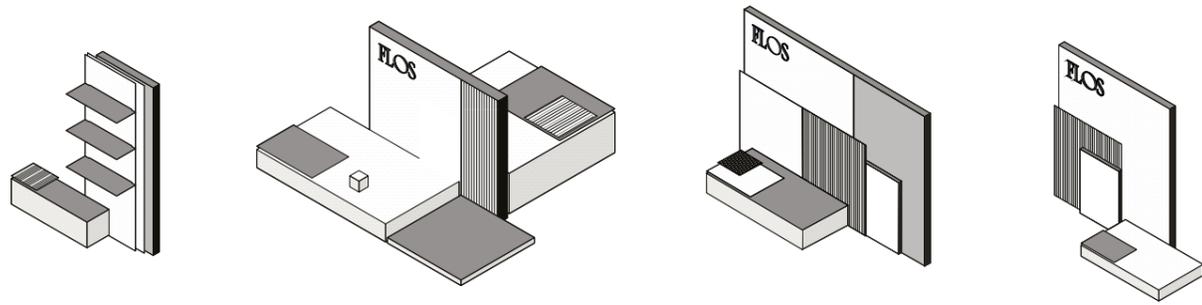
Solids, planes and lines of light are overlapped like theatre wings, drawing a depth of scene on which the lamps are portrayed as protagonists.

**Flos Design Space**  
Milan Showroom  
2021, Flos

# FLOS



**Flos Design Space** ▼  
Shop in shop modules  
2021, Flos



Hong Kong



Jakarta



Taiwan



Beirut



Miami



Los Angeles



Zurich



Berlin



Milan



Florence



Verona



Okayama



**A worldwide format**

# Campari signature brand touchpoints



The signature elements of Campari have been translated into an elegant and unique setting within a prestigious location in the heart of Rome. Materials and geometries are designed to achieve a look that is modern, but also consistently integrated into the context of placement. From a custom project, the set-up has become a format proposed in other locations too.



▲ **Campari Counter**  
Hotel's rooftop counter  
2022, Campari



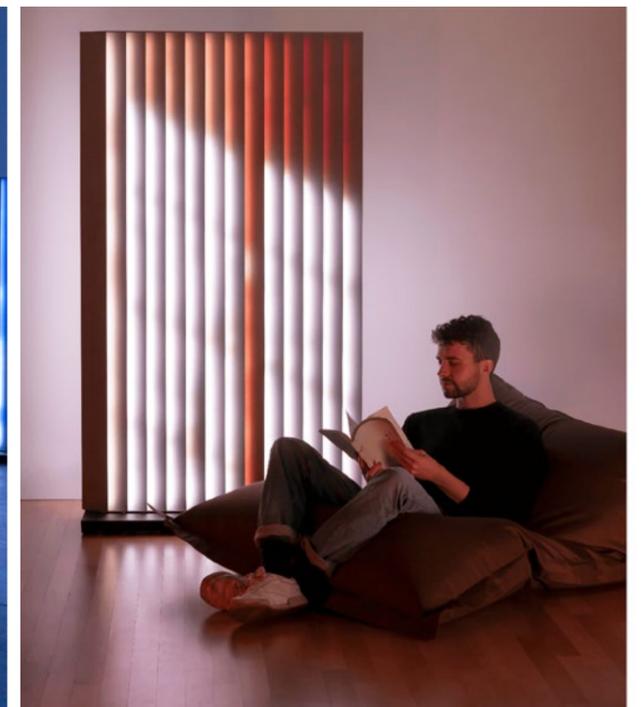
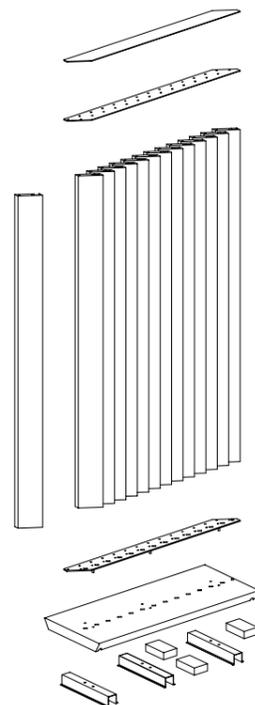
◀ **Panorama**  
Ambient Virtual Reality  
2023

# PANORAMA

## Ambient Virtual Reality

PANORAMA is a partition that seamlessly blends the real and digital world, using cutting-edge technology to create a virtual ambient easing the constant pressure of sensory overload.

It provides a defined, intimate and private space, with a dynamic background that adapts to changing activities. The screen transforms into a backdrop that blurs the boundaries between reality and the virtual realm, inviting us to engage not as mere observers, but as active participants and central players.

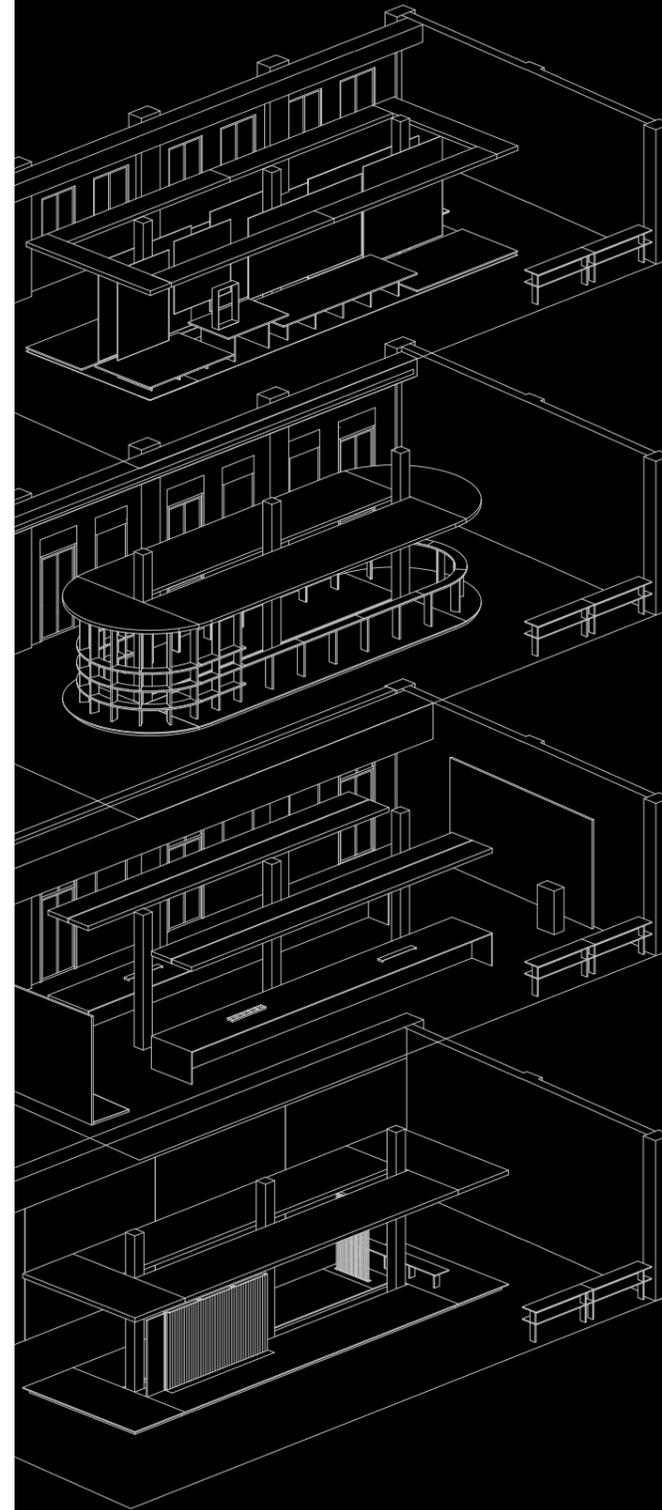


Hatari & HABITS

# DESIGNING THE WIND



▲  
BANGKOK DESIGN WEEK 2024



4<sup>th</sup>

/ DESIGN FOR MODERN LIVING

3<sup>rd</sup>

/ PERFORMING WIND

2<sup>nd</sup>

/ TECHNOLOGICAL HEART

1<sup>st</sup>

/ WIND EMOTION

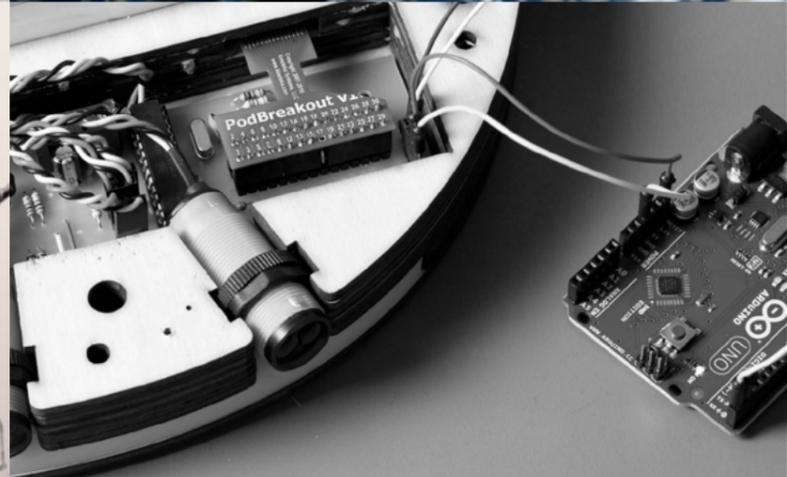
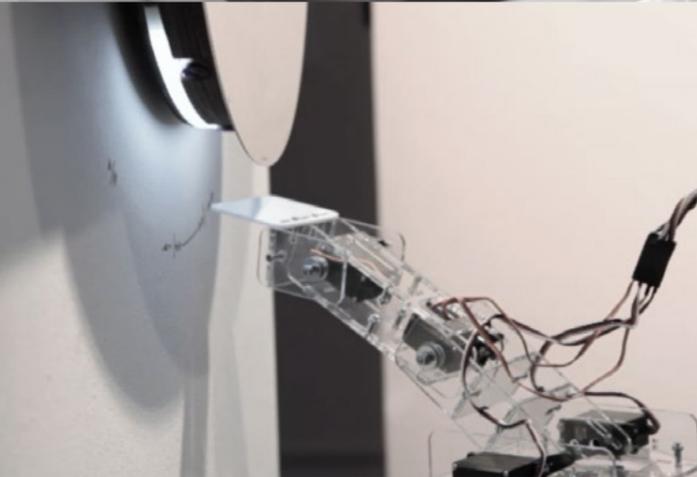
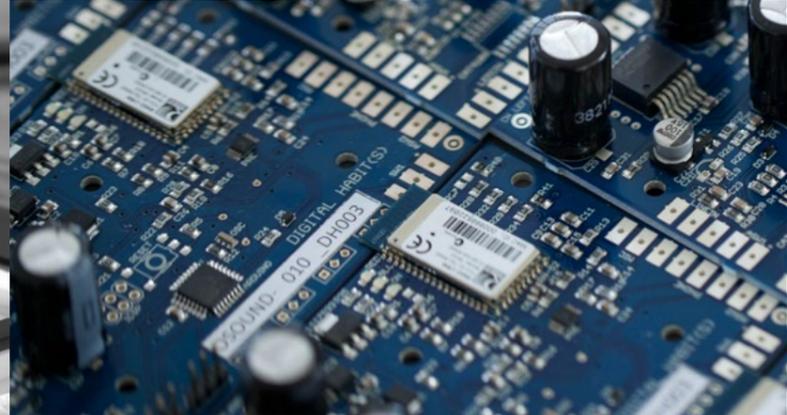
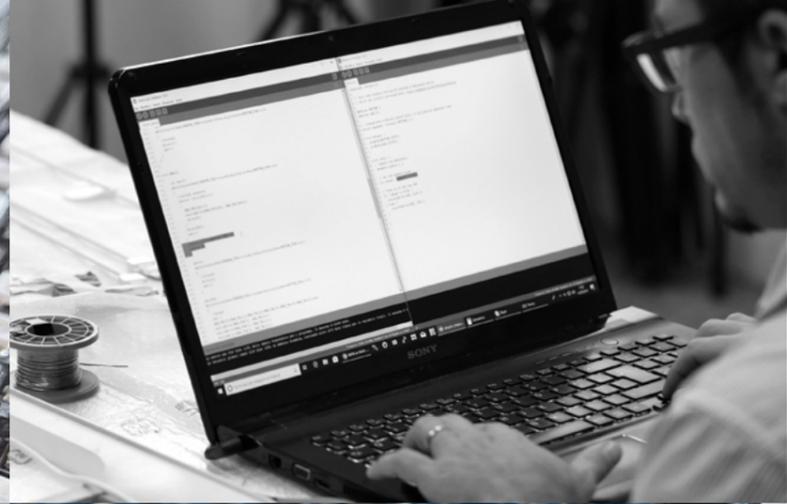
## Four thematic floors exhibition

DESIGNING THE WIND is a confirmation of the long-term collaboration and friendship between Hatari company and Habits Design Studio.

The exhibition unfolds the great synergy between the two realities by showcasing a wide array of design solutions, displayed in each floor with a different point of view.

# Future Visions

Our design is an attitude toward innovation. We believe innovation is the base for honest and sustainable design, not styling. We create visions, through designs and prototypes, where the imagination and the reason demonstrate a result that has an impact on the material culture, a value that can be transformed into a tangible reality.

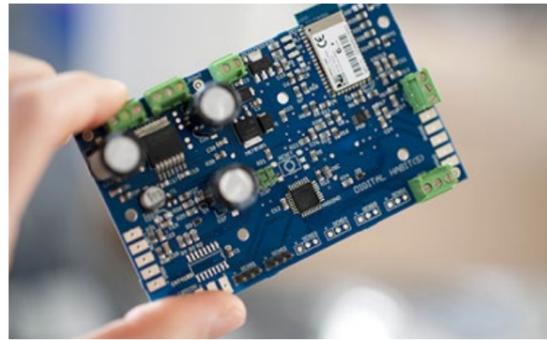


# Future design *by* experimenting

**400m<sup>2</sup> high-tech workshop laboratory**

We are inspired by technology to realize ideas from the beginning. Our culture of prototyping creates a seamless progress from concept to prototyping to product, using pervasive systems. We transform advanced technologies in tangible user benefits. We prototype hi-resolution interactions through Arduino (or other USB based microcontroller dev. systems), Raspberry Pi (or alike System on Chip, SoC); physical prototypes are built through various technologies, such as FDM and SLA 3D printers, milling, laser-cut machines.

# Interaction Design through Physical Computing



## DIGITAL/HABITS

The professional activity of Habits Studio has always challenged future perspectives about products and expressive codes.

Since 2010, we have collaborated with **Massimo Banzi**, the inventor of **Arduino**. This was our first step in the development of our new custom board for prototyping a collection of connected interactive products, called Digital Habits.

The design approach of Digital Habits takes a new angle to look at products, relating with them and developing new habits. The creations of Digital Habits are not simply products or graphic interfaces; they are experiences resulting from the contamination of electronics, technology, traditional design and physical computing. The new paradigms of this exploration of the future are open source design, digital manufacturing and natural interfaces.

The Digital Habits collection consists of interactive products that intervene on multiple levels of human perception creating an instinctual relationship between actions and results, between behavior and settings. These items designed for the home acquire new meaning thanks to an original approach that balances the physical world and the virtual habits.



```

#include "EEPROM.h"
#include <SoftwareSerial.h>
#include <Bounce2.h>
#include <Wire.h>
#include "AT42QT2120.h"

const uint8_t isrPin = 2; // inter-
rupt vector 0

AT42QT2120 qTouch;

#define PINRGB 9
#define PINW 10
#define SW 7

Habits_NeoPixel strip = Habits_Ne-
oPixel(11, PINRGB, NEO_GRB + NEO_
_KHZ800); // 10 pixels WS2812 RGB

bool ledState = LOW;
bool oldState = LOW;
Bounce debouncer = Bounce();

bool A2DP=false;
bool AVRCP=false;
bool HFP=false;
bool TWS=false;
bool BLE=false;
bool SPP=false;

bool line_Done=0;
bool effectON=0;

#define MAX_NEC 20 // Maximum n°
of commands for a presetted effects
(Check MEM and buffer limits)

const boolean invert = false;

struct effectCMD // Data structure
for each command received for a pre-
setted effect
{
bool pixelsRGB[16];
byte r;
byte g;
byte b;
byte w;
byte d;
effectCMD() // Constructor
{
for(int i = 0;i < 16;i++)
pixelsRGB[i] = 0;
r = g = b = w = d = 0;
}

uint8_t Preset[MAX_NEC]; // Static decla-
tion for maximum n° of commands for
presettted effects

uint8_t RGBWDH[7] = {0,0,0,0,0,0,0};
// RED, GREEN, BLU, WHITE, DELAY, HRZ, VA-
RIATION
uint8_t RGBWDH_old[7] =
{0,100,50,0,0,0,0}; // RED, GRE-
EN, BLU, WHITE, DELAY, HRZ, VARIATION

uint8_t parserStatus = 0; // 0 Not
connected - 1 Connected
uint8_t effectStatus = 0; // 0 - 1
chromatic colour - 2 App effect - 3 Sta-
tic effect
uint8_t parserStatus_old = 0; // 0 Not
connected - 1 Connected
uint8_t effectStatus_old = 0; // 0 -
1 chromatic colour - 2 App effect - 3

```

```

a presetted effect
uint8_t N_PresetEffect = 0; // N° of
commands received for a presetted ef-
fect
unsigned long time;

void setup()
{
pinMode(13, OUTPUT); //MUTE (input or
OUTPUT HIGH for forcing play)
digitalWrite(13,LOW);

pinMode(4, OUTPUT); //Route serial
data (LOW -> BTmodule, HIGH -> USB )

pinMode(6, OUTPUT); //USB Phone char-
ge (HIGH -> charge)

pinMode(PINW, OUTPUT);
setPwmFrequency(PINW, 256); //256

set_fst_bt_param();

Serial.begin(115200);
Serial.setTimeout(10000);

#include "Habits_NeoPixel.h"
#include "EEPROM.h"
//#include <SoftwareSerial.h>
#include <Bounce2.h>
#include <Wire.h>
#include "AT42QT2120.h"

const uint8_t isrPin = 2; // inter-
rupt vector 0

AT42QT2120 qTouch;

# define PINRGB 9
# define PINW 10
# define SW 7

Habits_NeoPixel strip = Habits_Ne-
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_KHZ800); // 10 pixels WS2812 RGB

bool ledState = LOW;
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Bounce debouncer = Bounce();

bool A2DP=false;
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byte g;
byte b;
byte w;
byte d;
effectCMD() // Constructor
{

```

# Chromatic synesthesia

Cromatica is a digital product that combines a desk lamp and a speaker, controlled by gestures and an app. It is the first open source experiment in a real, industrial design product that allows users to mix light and sound effects.




**Cromatica**  
 light & sound scenarios  
 speaker  
 2015, Digital Habits

Maker Faire

# Unconventional materials

Personal Audio Concrete Object.

P.A.C.O. is a digital loudspeaker manufactured in concrete and fir. The concrete body enhances the deepness of bass and the harmonic wood of the top gives clearness to the treble.

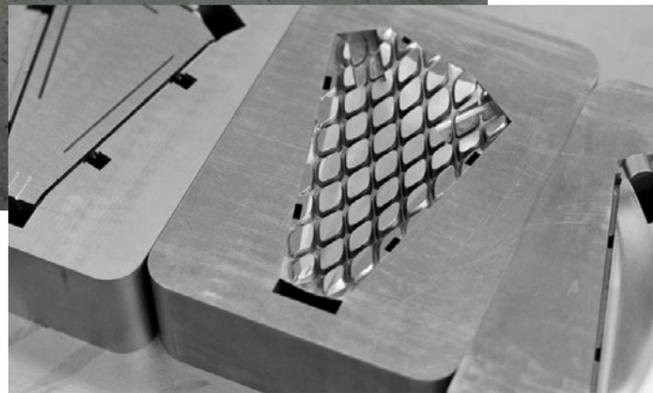
The top fir board is spotted by a black glossy capsule that hides sensors that enable hand movements recognition. Music controls can be played using the gestural interface.



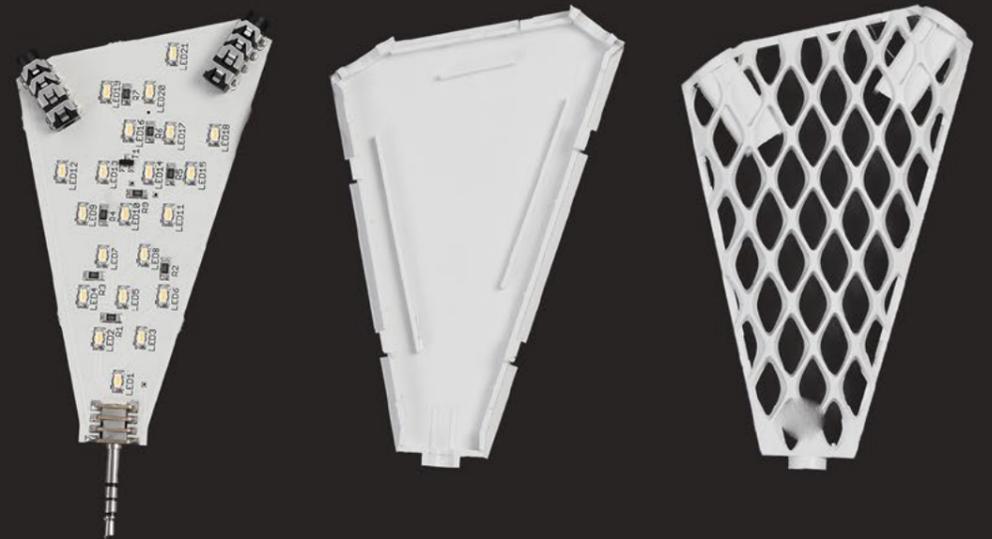
reddot design award

▶  
**PACO**  
concrete bluetooth speaker  
with gesture control,  
2014, Digital Habits





## Fractal interactive modularity

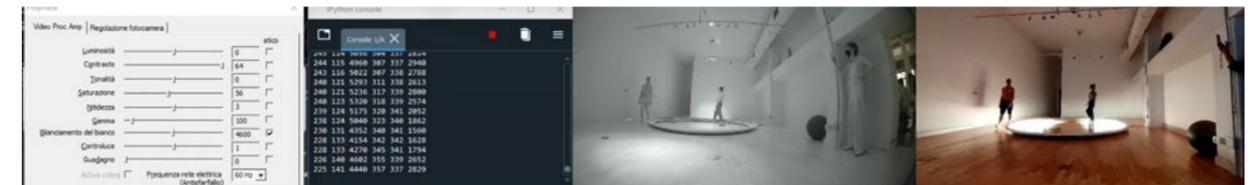
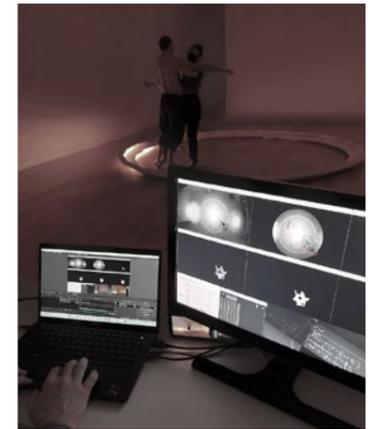
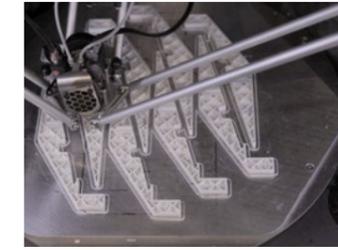


Dragon is a lamp with modular components that can be freely connected and controlled remotely from a device. Its accompanying software syncs automatically, mapping the chosen layout, type, and arrangement of the modules to the desired lighting effects. The Dragon's triangular modules can be combined and aggregated infinitely to create unique, high-impact lighting scenarios.

►  
**Dragon**  
fractal chandelier  
2014, Digital Habits

# Sincronia

AI motion-responsive luminous arena



▲ **Sincronia**  
Interactive luminous arena  
2022

**Sincronia** is an interaction design performance that investigates the relationship between movement, light, and sound. The circular arena, controlled by an AI-Based Computer Vision, reacts to moving bodies and creates a harmony of luminous traces.

Habits displayed "Sincronia" during Milan Design Week 2022 at Superstudio Superdesign Show.



2013

Digital Reinassance,  
Via Cerva



2014

Digital Habits, Superstudio

2018



Elastica, Superstudio

+10 years

# Milan Design Week

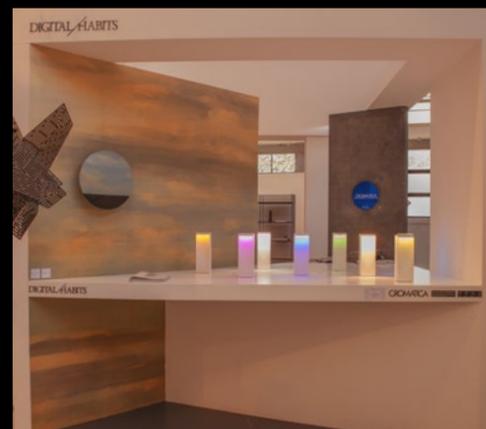
Since 2013, every year, we showcase our future visions through Studio exhibitions during Design Week in Milan, exploring new archetypes, technologies and perspectives.

2016



Synesthesia, Superstudio

Cromaticca, Superstudio



2015

2022



Sincronia, Superstudio

2023



Panorama, Ambient virtual reality Opificio 31

2017

Humanistic Interfaces, Superstudio



# Research for innovation

Habits' expertise goes beyond the development of new products. Study, analysis and research are fundamental to the creative process of projects, making them innovative and up-to-date.

We research,  
understand and  
translate people's  
desires, observing  
their *habits*

## An international experience in research for design, from Milan to Bangkok.

Our process follows the project from brief to research to design development. This holistic process ensures that our research findings and insights are focused and relevant for product design improvements. Design-orientated insights are then translated into opportunities for design improvements.

We have conducted many user research projects in Europe and Asia, both for exploration at the beginning of the project and as product validation.

Thanks to our branch in Bangkok and team members from China and Southeast Asia, our coverage and perspective on the region is deep and grounded.



**+15**  
Countries

**+7**  
Languages

**In our design process we test prototypes with users to validate our ideas.**



▼ Work in progress of one of our current main client's project. Pictures from initial brainstorming to one of many testing phases in a 600m2 showroom setup fully equipped with our 1:1 interactive prototypes.



# Our physical and digital research tools

## ▶ Digital Ethnography

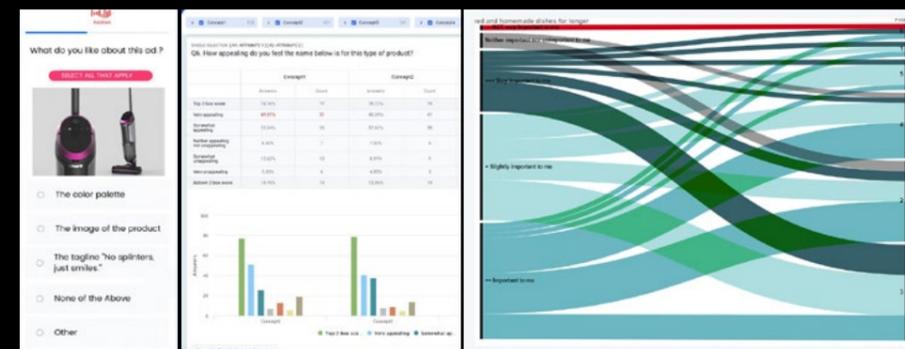
- Survey with users screening
- Interview
- Digital workshops
- Daily tasks diary

## ▶ Desk analytics

- Trend research
- Report analysis
- Benchmark
- Sentiment analysis
- Moodboard
- Blue skies research
- Technological transfer
- AI-based research

## ▶ User observation

- International Home Visits
- Expert interview
- User testing
- Workshops
- Focus group
- Prototyping Advertising



◀ Online tools used to conduct qualitative surveys of our projects by interviewing selected users.

**“The design process is based on careful and curious research that merges and creates: memories, know-how, insights, opportunities, dreams and functions.”**



▲ Haier design consultants

## We are trusted design advisors

In our 20 years of experience, we have forged trusted and lasting partnerships with national and international clients. We offer our expertise shaping company's identities and design language, manage collections, and provide insight and mentorship for concept development.





**BRAUN**



**+ 180** Students' projects

# We work with Universities and future designers

Teaching is a way for us to analyze, synthesize and formalize the knowledge achieved in design practice. We provide our knowledge and expertise to foster the growth and advancement of ideas. Collaboration allows us to explore new topics along with the next generation of designers.

All members of our team have an active role in the theoretical construction and in spreading our design model. We have been leading courses, workshops or individual lecture for many years, at various Italian and global Universities and institutions.

At Habits, we are experienced in supervising students during their thesis project development. We take the role of mentors, guiding and reviewing the evolution of student concepts from the research phase to advanced development and prototyping, helping them to reach successful results.



“Reflection | Design driven by the future” 2019.

Exhibition displayed both at Habits Design Studio, in Milan, and at WestBund Art & Design Education, in Shanghai.

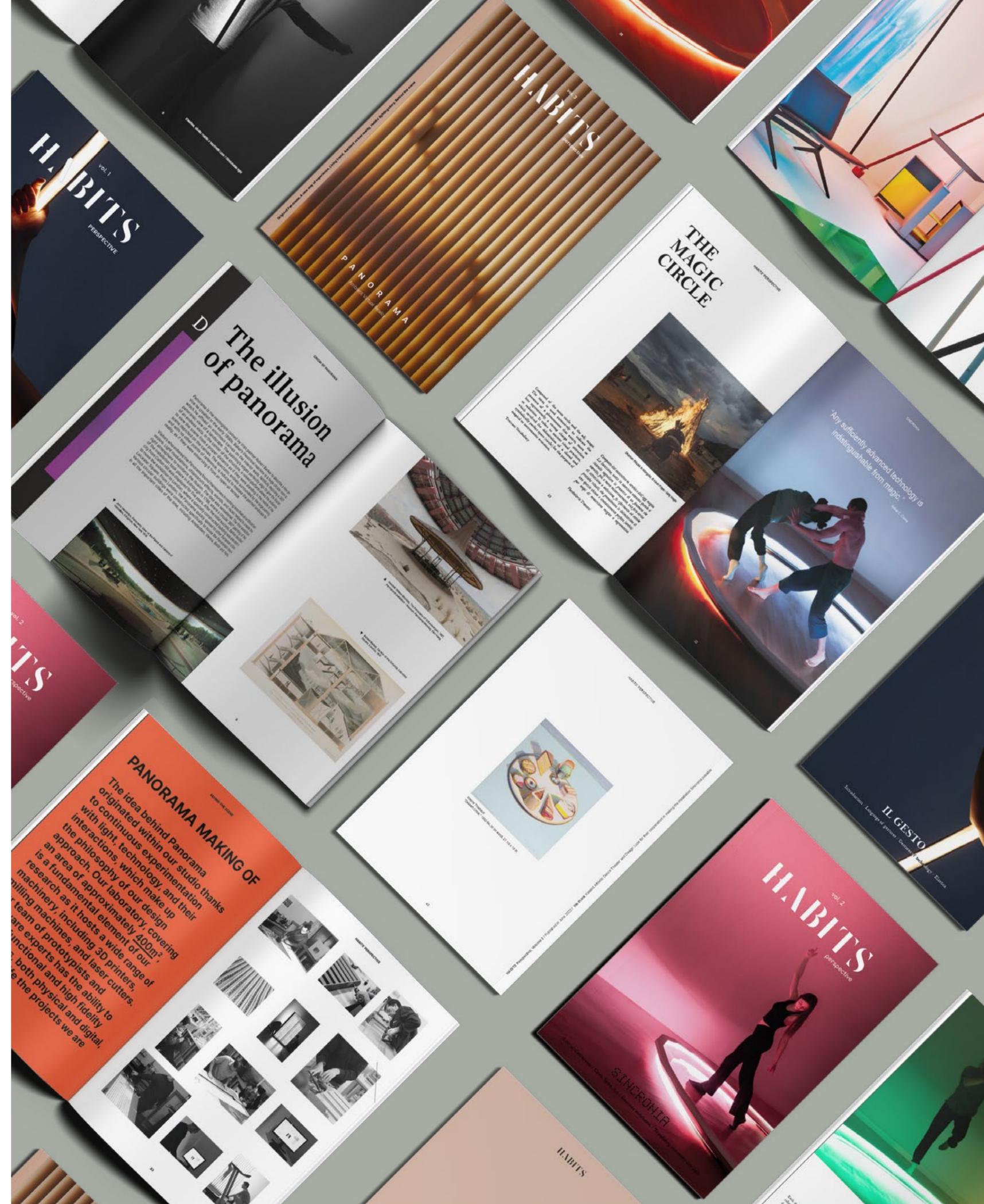


**+50**  
M.Sc theses

# HABITS' perspective

"Habits Perspective" is a studio publication offering a personal perspective on topics of interest and experimentation.

Each volume is meant to offer an overview, though not exhaustive, of a topic that we have had the opportunity to study in depth through our work and that we believe reflects our way of doing design. The in-depth analysis, the background and captions contribute to make the readers part of the project atmosphere, leading them through the lines of thought that led to the genesis of the project and making them aware of how sometimes non-linearity represents the shortest way to reach the objective.



9 CRAFTING THE WONDER, AS A DEEP  
AND GENUINE APPRECIATION OF  
REAL BEAUTY. 7

For more info surf on [www.habits.it](http://www.habits.it)

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