

SAMI KIVIHARJU
PORTFOLIO / CV

2015

CONTENTS

CV	3
Frame	4 - 6
Shift	7 - 10
Särmä	11 - 14
Flow Grow	15 - 17
Stax	18 - 20
Fiskars Grip	21
Wine glass	22
Ilosana	23
Kati Kynnäs	24
Lost Gravity	25

ABOUT ME



I'm an industrial designer graduated from Aalto University School of Arts, Design and Architecture. In addition to the field of industrial design, I'm also very interested in branding and graphic design.

I enjoy working in a team, sharing ideas and having critical discussions on the aspects of different solutions. I think it's an important quality of a designer to be able to evaluate different concepts objectively and not get too attached to one's own ideas. Many times, for good ideas to emerge, enough not-so-good ones need to be reviewed. When doing so, we're better off without our egos in the way.

I believe designers play a pivotal role in how the future develops. Our sense of responsibility should be expressed in not only how we emphasize usability, but also how we take into consideration the whole life span of the product. Design should be implemented in each step of the way from material choices and manufacturing methods to packaging and recyclability. This notion of design as a holistic approach rather than something that can be separated from or added to the product, is also something I consider important to promote in my work.

CV

EDUCATION

Master of Arts, Aalto University
Industrial and Strategic Design
2012 – 2014

Bachelor of Arts, Aalto University
Industrial Design
2009 – 2012

Helsinki Upper Secondary
School of Visual Arts
2002 – 2005

SKILLS

GRAPHICS :

Photoshop
Illustrator
InDesign

3D :

CATIA
Solidworks
Pro/ENGINEER
Rhinoceros 3D

DESIGN WORK

2014

Microsoft
Internship, MA thesis

2013

Ilosana, Speech Therapist
Web Design & Illustrations

Kati Kynnäs, Law Firm
Visual Identity

Katri Mäkinen, Law Firm
Visual Identity

2012

Karantia Oy Perusturva
Structural re-design for civil
defence shelter equipments
Team: Kiviharju, Leino, Pekonen
+
Assembly instruction illustrations
with Lassi Leino

Salon K, Wellness Salon
Visual Identity & Marketing Material

Aalto-1 Satellite Project
Marketing material

AWARDS / RECOGNITIONS

Nokia Design Sprint Summer 2013
1st prize, with Sanghyun Ryu

Helpotus Design Competition
2nd Prize, with Kaipainen, Leino, Pekonen

Nordstock LG Hi-Macs Design Competition
1st Prize

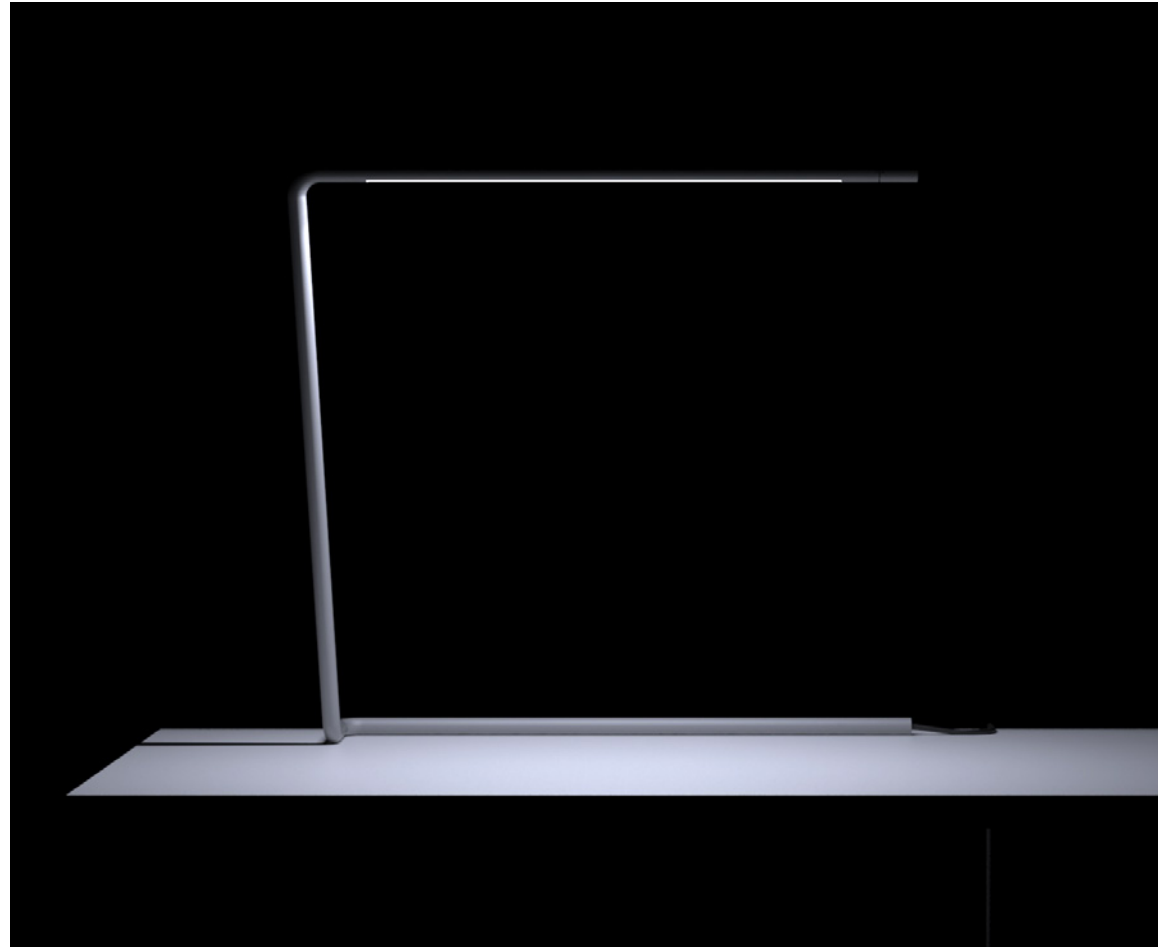
Favoptic Print Design Competition
3rd Prize

CONTACT

info@samikiviharju.com

FRAME

Frame is a minimalist task light concept. I'd had the idea for the light for a long time and decided to model it as an exercise for SolidWorks 3D modeling software. The main idea behind Frame is to provide horizontal light source over the work area without taking much space on the table.



DESIGN



Frame is made from a bent hollow aluminium tube. Essentially the tube can be thought of as a support structure for the power cord which climbs up to give power to the LEDs over the work area. The tube is shaped to go along the edge of the table so it takes very little space. The user can adjust the light with a dimmer switch at the end of the tube.

STRUCTURE & ELECTRONICS



The power cord travels inside the tube and connects to the electronics. A circuit board with LEDs and a potentiometer is fitted inside the tube from the other end. The control knob connects to the main body with magnets. Additional weights placed around the cord near the bottom corner prevent the structure from tipping over. Plastic plugs are used to seal the hollow tube.

SHIFT

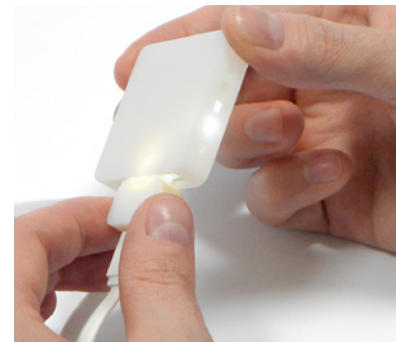
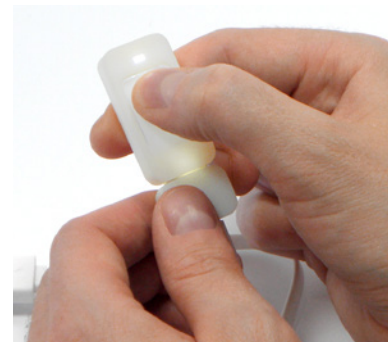
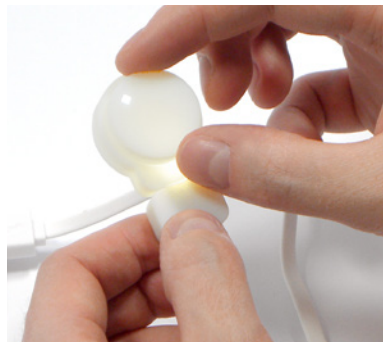
Shift Light Guide Demo Device was made as a part of my master's thesis during a six-month internship at Microsoft. My project included explorative prototyping on the topic of light guides. Light guides are clear optical components that transfer light by means of total internal reflection.

The goal of the project was to come up with a way to introduce light guides in a tangible and interactive way. I came up with a device consisting of two light sources, a light intensity controller and six light guide modules. The modules have simple interactions and they attach to either of the two light sources. A unique light guide mechanism designed for each module adapts the light to provide visual feedback of the operation. While the light sources stay the same, the illumination effect for each interaction is different.

The casings were 3D printed, sanded and lacquer coated. The light guides parts were milled from acrylic and polycarbonate. A custom storage box and an instruction booklet for the device were also made.

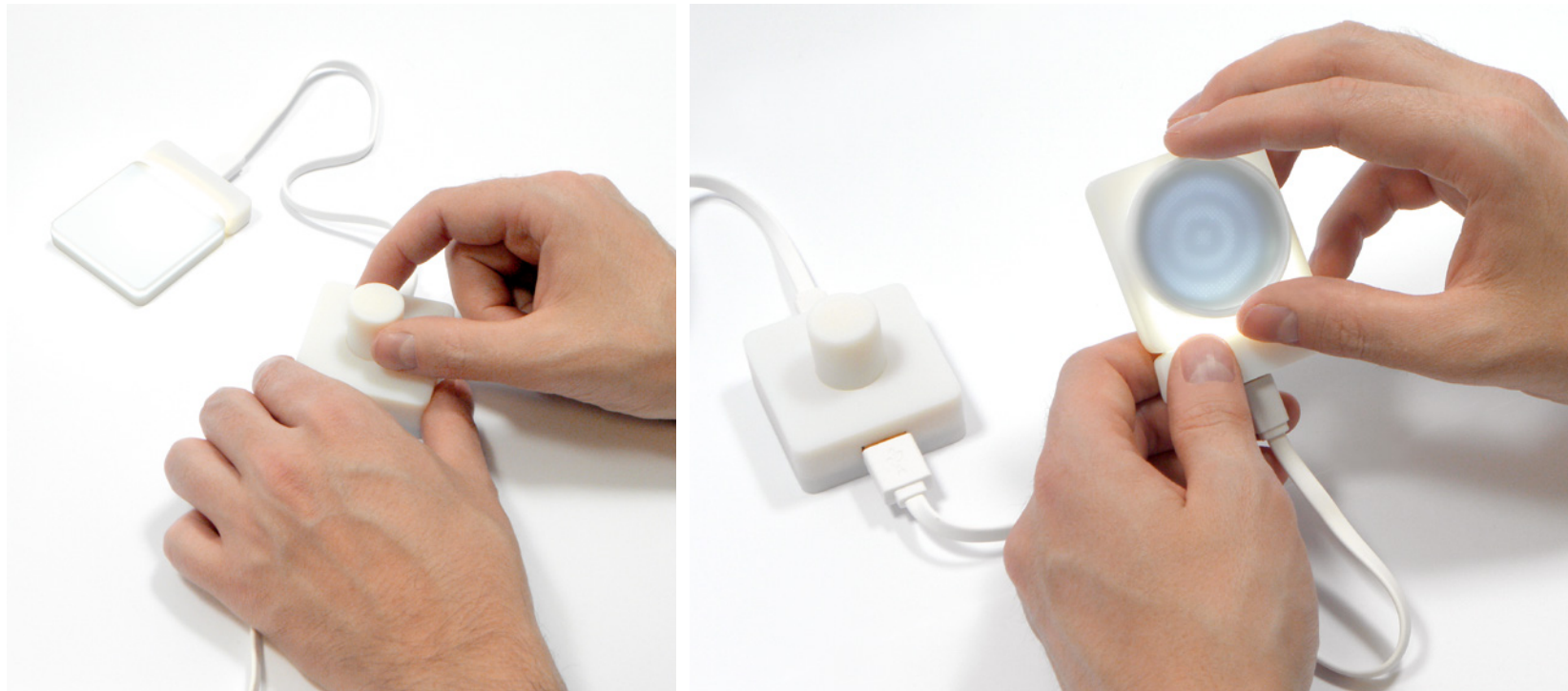


SMALL MODULES



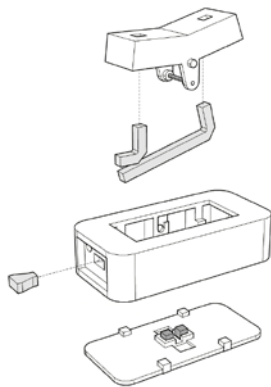
Modules for the single-LED light source include (from left to right) a rocker switch, tuning knob, push button and slider module. The light guides designed for each module redirect the light to give visual feedback of the operation.

LARGE MODULES



The modules for the larger light source (with six LEDs in a row) were designed to demonstrate light guides ability to diffuse light. The light guide panel module on the left distributes light evenly on a surface. The module on the right has five patterned light guide layers inside which create an animation when the knob is turned.

STRUCTURE



The light guides are integrated into the 3D printed modules. Some modules were also designed with a mechanism for haptic feedback. The booklet provides simplified illustrations of the light guide construction in each module.



SÄRMÄ

Särmä is a bathroom assistive device family designed together with Verna Kaipainen, Lassi Leino and Matti Pekonen. Särmä was our entry for Helpotus design competition arranged by Skanska kodit and Avaava. It earned the 2nd prize.



SHOWER SEAT

We wanted to make the shower seat durable but lightweight. The seat stays up with magnets integrated into the backrest. When the seat is up, it hides the rest of the seat behind it resulting in a minimalist and unobtrusive appearance.

The backrest is a separate element and it is snapped into place after the seat has been attached to the wall. It provides extra support for the back and completely hides the mounting element.

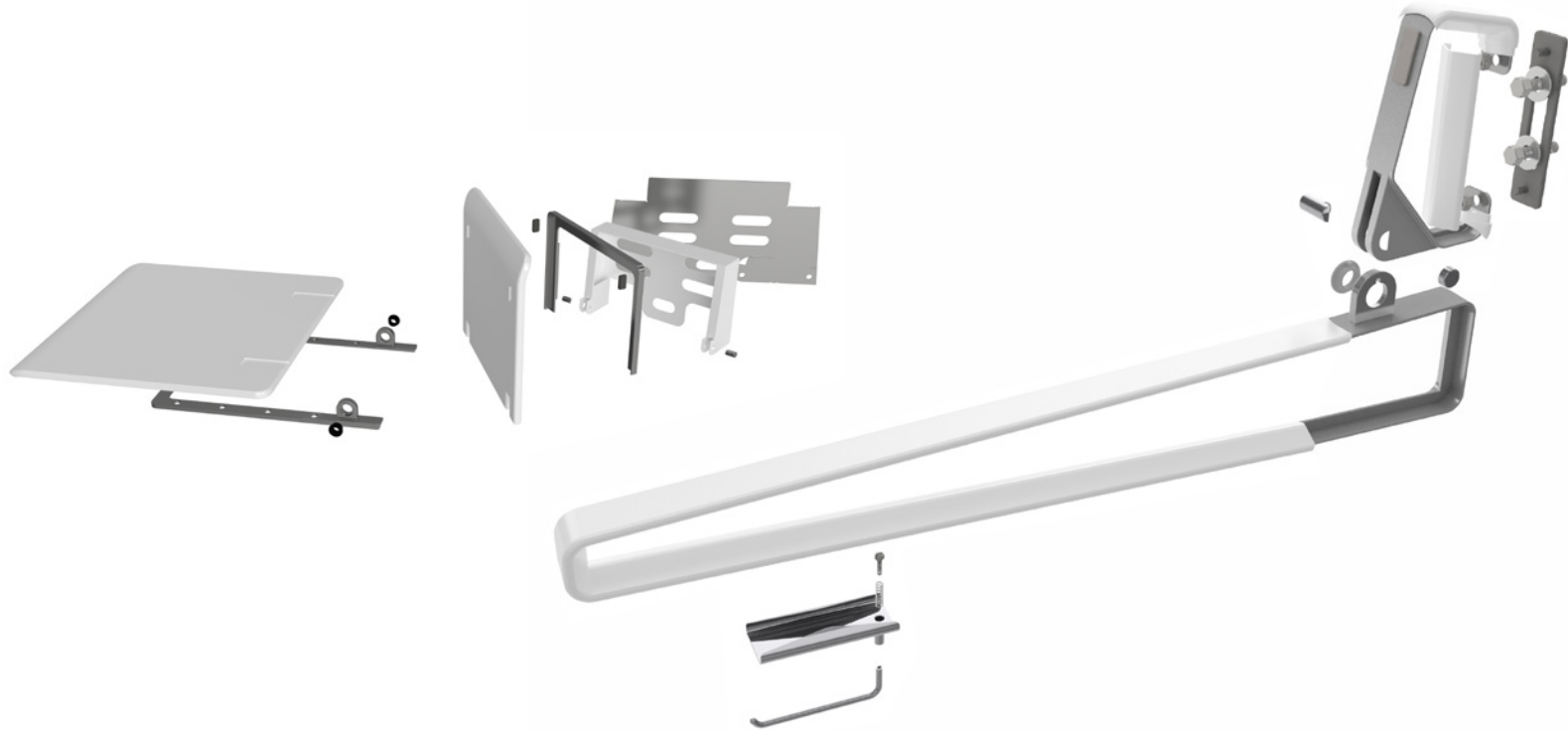


SUPPORT RAILS AND GRAB BARS



The support rails are based on a geometrical loop form which makes them rigid and easy to grab. Similarly to the shower seat, magnets are used to keep the rails from falling down accidentally. The same geometrical loop form is also used in the grab bars which come in two lengths. Both products have rounded triangular profiles dimensioned according to the direction of the grip.

STRUCTURE



Särmä products are injection molded with metal inserts to reinforce the structure. The mounting element for the shower seat can be bent from sheet metal. The mounting of the rails and grab bars is designed so that the bolts and screws stay hidden.

FLOW GROW

Flow Grow herb planter was designed together with Janne Karsisto and Valeria Azovskaya in a product design course. The assignment was to come up with a product using ForMi, a new nanocellulose material from UPM.

Flow grow is a two-part planter featuring a unique self-watering system and a water level indicator. A functional prototype of the planter was made using 3D printing.



USE



Unlike conventional self-watering planters, Flow Grow doesn't have a separate watering tube. Instead, the lid works as an easy watering surface directing the water to the sides and to the bottom of the planter. A floating indicator stick behind the small window shows how much water is left. An elevating mechanism inside the planter allows the user to easily remove the inner part by rotating it.

PROMOTIONAL GIFT



We suggested that UPM could have a small-scale production of Flow Grow planters to be given as promotional gifts to their business associates. These planters would have herb seeds pre-planted in coir fiber so the user could start growing the herb simply by adding water.

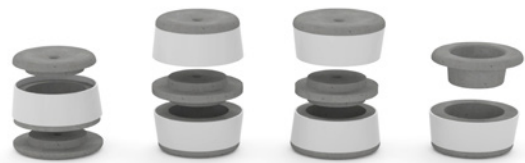
STAX

Stax Concrete Bollard System was my winning entry for Nordstock LG Hi-Macs Design Competition. Hi-Macs is a composite made of natural stone and acrylic resin. The aim of the competition was to find new outdoor applications for Hi-Macs.

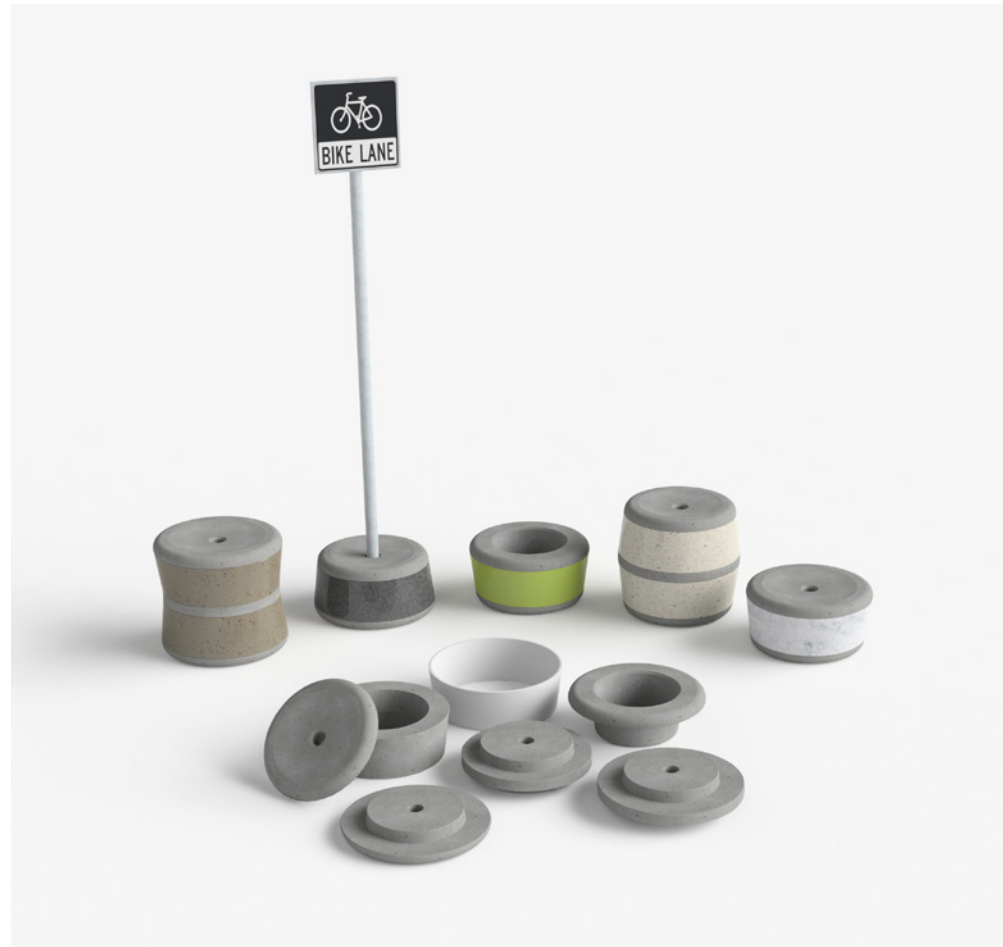
In my concept, hollow shells made of Hi-Macs material are combined with modular concrete parts. The subtle form and a wide range of Hi-Macs color and pattern options, makes it easier to fit concrete bollards into different architectural environments.



MODULARITY



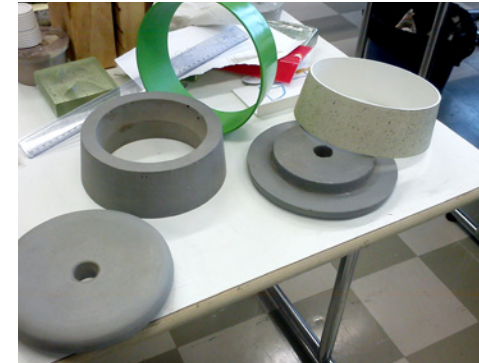
Stax consists of six different concrete parts and a Hi-Macs shell. The shell is fitted around the middle concrete part and the lids are placed on both sides. Alternatively, two bollards can be combined with a joining part. The lids are concave which helps to stabilize the bollard on uneven surfaces. The bollards can also be used to support traffic signs.



MANUFACTURING

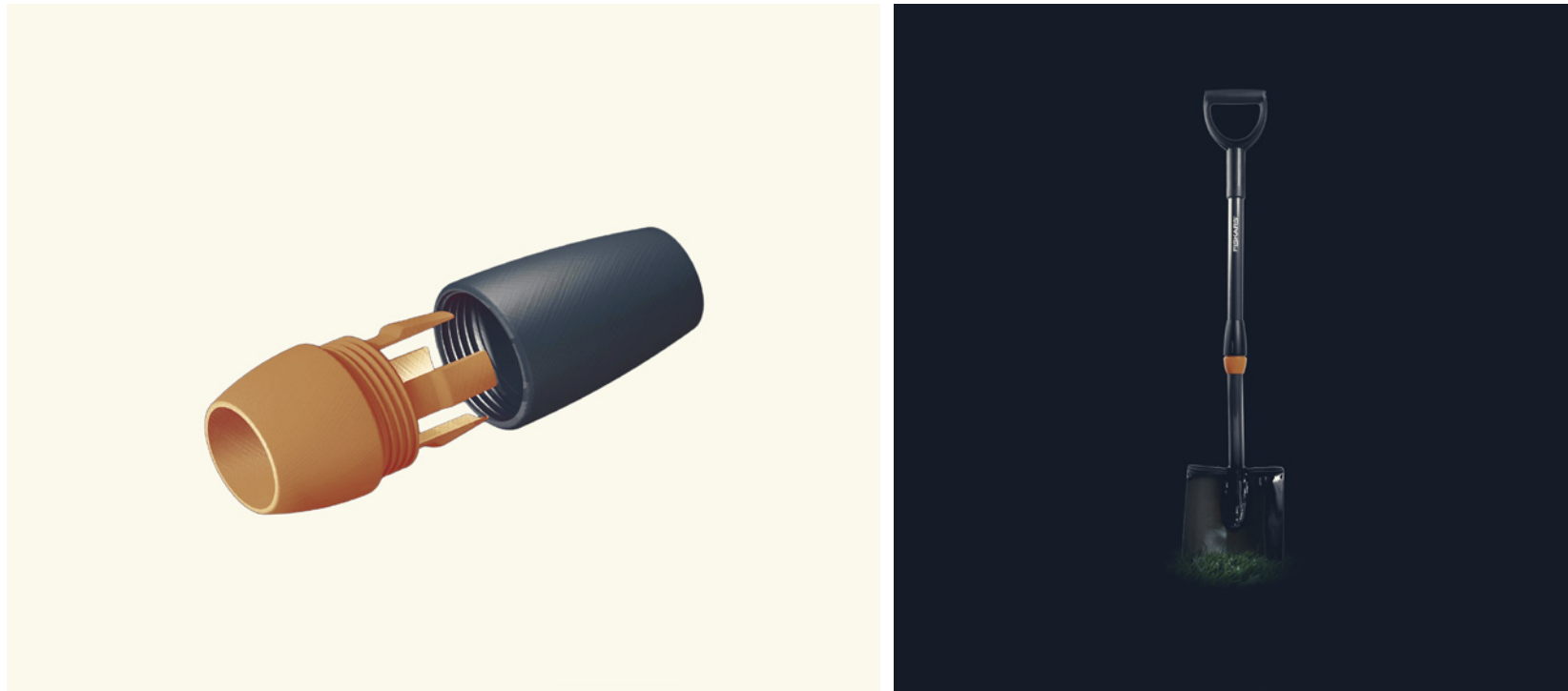


Hi-Macs material is used efficiently around the bollard. Multiple shells can be made from a single Hi-Macs plane by cutting the form and then heat forming it into a cone.



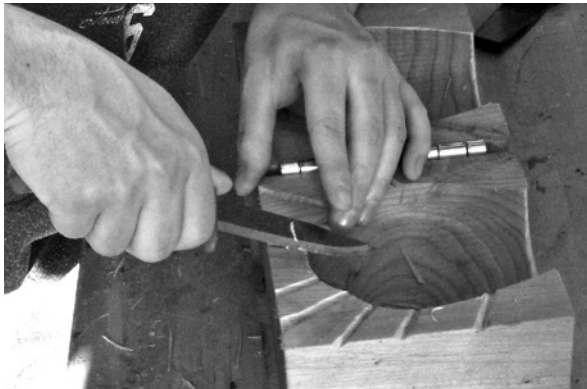
A 1:3 scale model of one bollard was made. To represent the concrete parts, plaster modules were made using a potter's wheel. The shells were 3D printed.

FISKARS GRIP



Fiskars Grip is an product concept for Fiskars designed to improve the ergonomics of a shovel. It was designed together with Lassi Leino and Ulla Tikkanen during a course about plastics. The grip is inserted around the shaft by temporarily removing the handle. It tightens around the shaft when the two parts are screwed together. A 3D printed functional prototype of Grip was made.

WINE GLASS



I participated in a glass course where the assignment was to design a glass for an alcoholic beverage. I decided to make a glass for red wine. During the course, we also had the opportunity to try glass blowing. The final works, however, were made by professional glass blowers Alma Jantunen and Johannes Rantasalo. The glass was blown into a wooden mold.

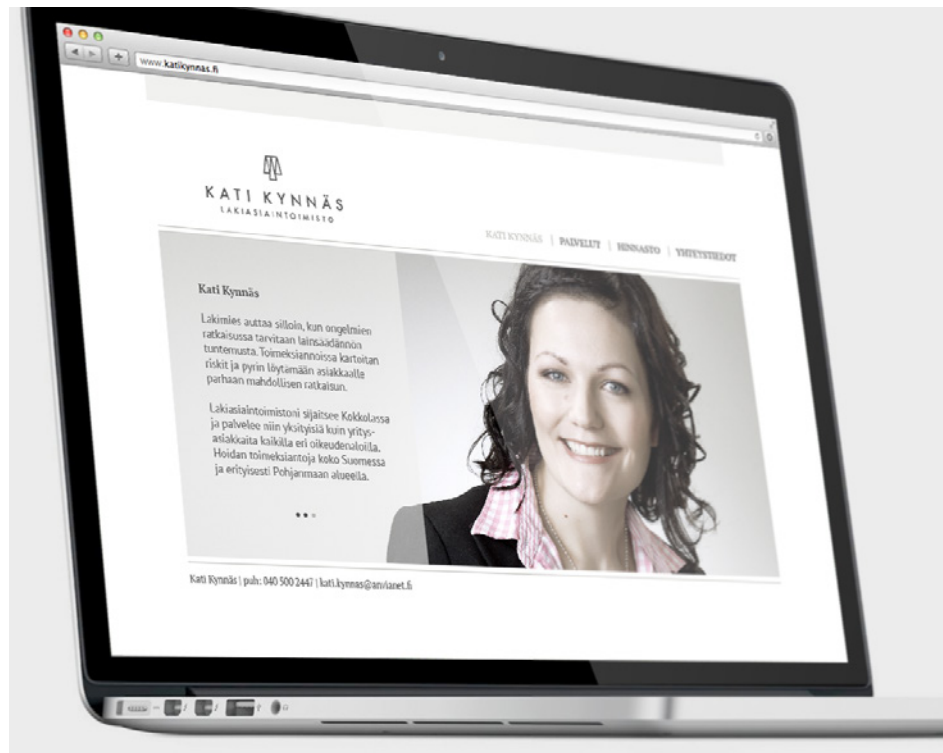


ILOSANA

Leena Mäkinen is a speech therapist working in Oulu. She wanted a friendly looking website for his company Ilosana. I designed a website for her with a variety of illustrations supporting the content.



KATI KYNNÄS



Kati Kynnäs is a lawyer working in Kokkola. She wanted a visual identity for her new company. I designed a logo, business card and website for her.

LOST GRAVITY

Lost Gravity is a small tabletop sculpture I made in a jewellery course. The figure was first shaped out of cheese wax and coated with conductive paint. It was then placed in a copper sulfate liquid where a thin layer of copper was applied over it with electrolysis.

Finally, the wax was heated and melted through the small holes in the copper shell resulting in a light-weight hollow structure. The base of the sculpture was sand cast from bronze.

Despite its heavy appearance, the spaceman jumps effortlessly on the moon supported only by a thin wire mounted to the bronze base.



