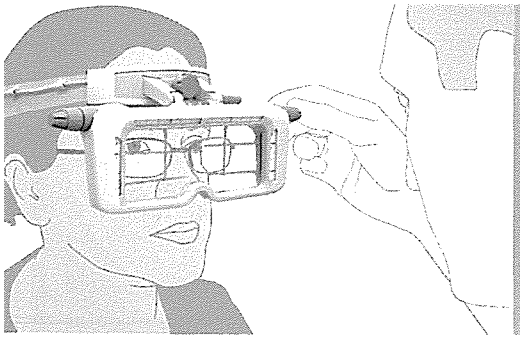
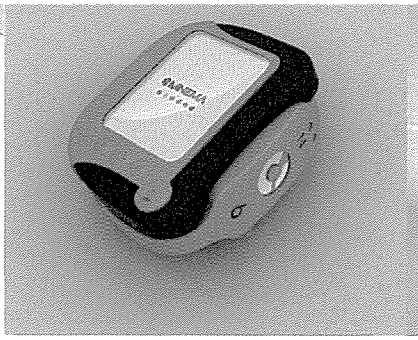
Industrial Design

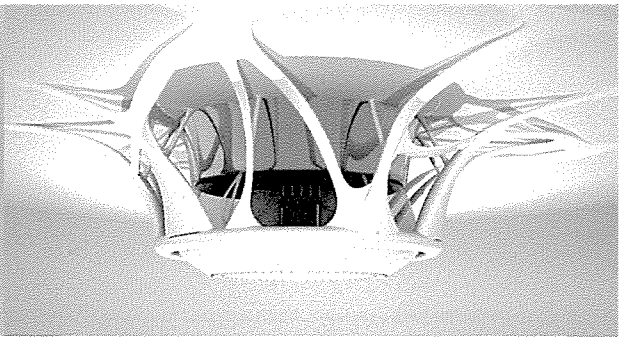
Final Year Studio 2010

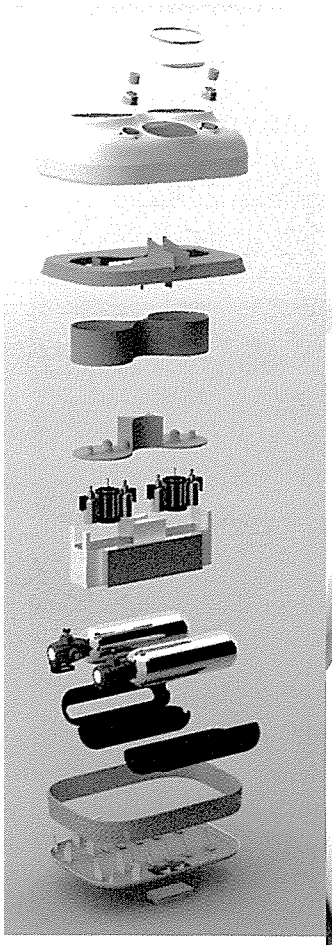
UNSW
THE UNIVERSITY OF NEW SOUTH WALES

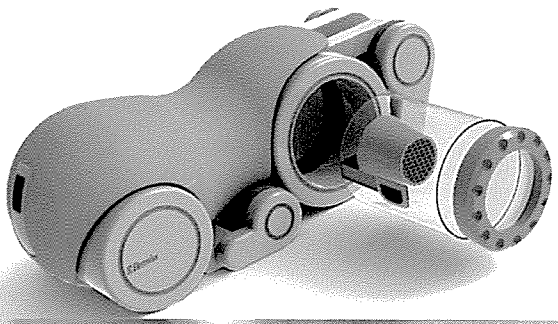
BUILT ENVIRONMENT

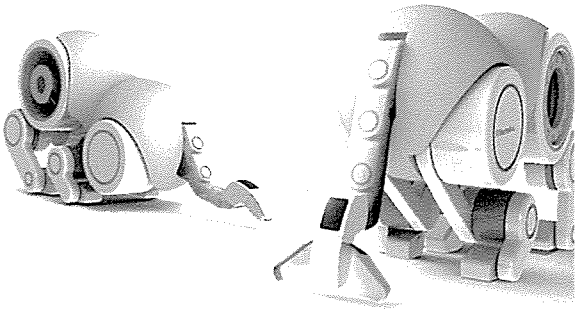










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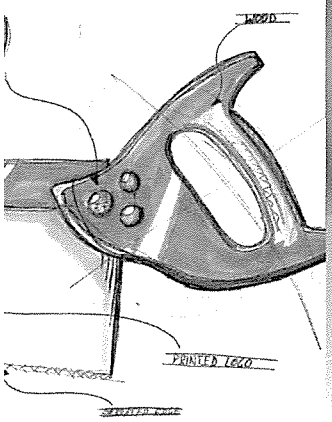
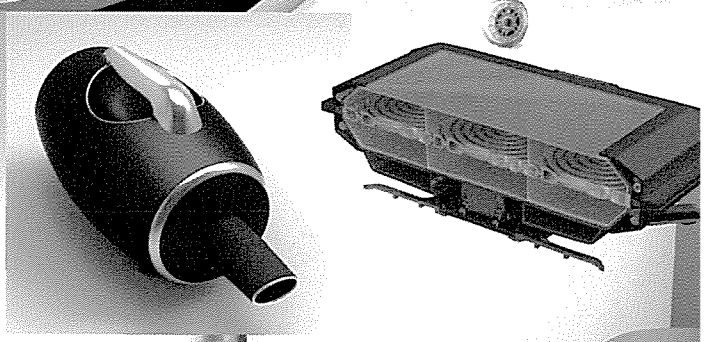
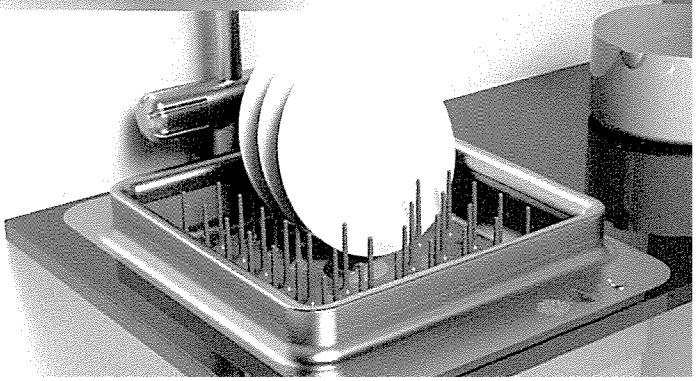

WOOD
PRINTED LOGO




Dynamo
laundry detergent
35 LOADS
Watermint
600 mL



pre form3d

Landmarking the start of the next journey from pre-formed designer to post-formed design professional

Contents

Message from the Dean
Faculty of the Built Environment

Professor Alec Tzannes
Dean
UNSW Built Environment

This year has seen UNSW Built Environment continue to develop as a leading source of knowledge focused on the design, management and construction of the 21st century city. The aspiration of the faculty is to contribute, at the highest level of academic achievement, to the making of valued and sustainable built environments.

New research initiatives undertaken in the last twelve months build on the faculty's strengths concentrating on themes that include sustainable design and development, urban typologies and emergent digital technologies. Each degree program integrates research outcomes to ensure our students are equipped with knowledge of relevance and intellectual skills to enable successful future careers in a global context.

Design, including understanding evidence based design processes, is at the core of many degree programs at UNSW BE. Design is studied at every scale and in the context of achieving in the future, lower carbon industrial products, buildings and cities. Design of enduring cultural value also matters and underpins the intellectual rigor of the curriculum. Student experiences involve interdisciplinary projects to enhance contemporary relevance and utilize the breadth of discipline knowledge available at UNSW BE.

This catalogue presents selected projects from our final year students. It reflects the hard work and talents of all involved. On behalf of the faculty I congratulate all the students who have completed their degree program and now become our alumni.

We wish you every success in your chosen field of endeavor. In many respects, our relationship is just beginning as we look forward to your ongoing participation in the life of our university through the many events and activities that we undertake to support research and the future generations of built environment graduates.

Introduction from the Course Convenor

The industrial design program has over the last two decades carefully designed a teaching structure that delivers, a well-rounded and demanding course that enables the students to address the rapidly changing technology boundaries of the twenty-first century.

The program takes the students on a steady but steep learning curve about everyday mass-produced items. The year one projects address domestic objects and explore their design function, design history, communication and the basic fundamentals of design. The student's in year two takes onboard ergonomics, environmental considerations and marketing which assists in developing more user friendly and appropriate outcomes. In the third year, students are developing an understanding of consumer behavior, material and technology and are applying these new skills to more international issues in studio.

Year four is considered to be the bridging year whereby the career direction and anticipated step into the 'real world' can be shaped by a chosen project topic. The students are required to focus on a project territory that becomes the basis of their final major project, their portfolio piece. The research topics range from Metropolitan, Domestic, Office, Medical, Transport through to Sport. Within these fields the student must identify an unmet need that can be addressed with design intervention.

All final projects are anticipated to be inherently well rounded, visceral and present a solution that suit the ever-changing sophistication of the users needs and aspirations. All of the skills and abilities mastered in previous years teaching are delivered to a professional standard that assists the young graduate in achieving a transition towards their chosen design careers.

The students exhibiting in this year's catalogue are the final culmination of this teaching journey. As studio convener I hope you find the student projects to be feasible, functional, appropriate and persuasive.

Andrew Fowkes
Course Convenor
Industrial Design

As studio convener I hope you find the student projects to be feasible, functional, appropriate and persuasive.

Message from the Program Director

Dr Miles Park
Program Director
Industrial Design

This year marks a number of outstanding achievements for UNSW Industrial Design students, not least the exceptional student work on display in this graduand student exhibition catalogue. The work contained within this document represents a snapshot of the skills, knowledge and achievements our students have acquired during their four years of study at UNSW.

The design projects on offer demonstrate an engagement with real world needs. Each project offers a showcase of the best each student's abilities as a young professional designer. Design is increasingly being recognised as a powerful process to understand complex problems and offer insightful and effective solutions. Designers bring skills and knowledge to visualise and give form to the future. Our students are required to balance technical, cultural and economic factors within a framework of rapid social change. For our graduand designers, change offers new and exciting opportunities for design innovation.

Both in industry and internationally our students are achieving recognition and respect as talented and leading design professionals. During the past year we celebrated the 20th anniversary of the Program. This event offered us the opportunity to hear from past graduates and learn about their rewarding careers. Our graduates are working in many parts of the world in a diversity of industry sectors. In addition, during the past year Industrial Design students have received many outstanding awards and prizes, including; Australian International Design - Dyson Student Awards, Cormack Innovation Awards, Furnitex VIVID finalists, Southern Cross Packaging Awards and a UNSW University medal. The notable achievement was last years graduate Sam Adeloju's 1st prize in the highly prestigious International James Dyson award. Sam wins a substantial cash prize along with travel to Europe to work with Dyson engineering teams on developing his student major project.

I wish to personally thank my many colleagues, full and part-time academic and professional staff, visiting 'sessional' staff for their contributions, and above all to the exhibiting students who have shown resolve, maturity and commitment in giving their all to their education as Industrial Designers.

On behalf of all Program staff, I congratulate them on their achievements and wish them every success with their future career.

Both in industry and internationally our students are achieving recognition and respect as talented and leading design professionals.

Industrial Design
Student Awards 2010

Samuel Adeloju
International James Dyson Award - Winner

Kristina Zlomislic
UNSW University medal

Samuel Adeloju
Australian International Design Award® - Dyson Student Award – Silver Award

Justine Smith & Gonzalo Portas
Australian International Design Award® - Dyson Student Award – Finalists

Joseph Luis Tan
Cormack Innovation Awards - First prize

Eric Chau
Cormack Innovation Awards - Second prize and AIP Scholarship

Michael Brock
Cormack Innovation Awards - Third prize

Tristan Dimitroff
Cormack Innovation Awards - Highly commended

Alfred Boyadgis & Mina Chung
Furnitex VIVID (Vibrant Visions in Design) Semi-finalists

Danielle Taouk
Southern Cross Package Design Award – Silver & Commendation (Overall Award)

Stanley Darmawan, Shanshan Wang, Alfred Boyadgis & Xiao Ling Li
Southern Cross Package Design Award – Commendation

Samuel Adeloju
International James Dyson Award - Winner

Industrial
Design Museum

1

As technology is changing ever faster, the products of the past are becoming obsolete sooner. These foundations stones of our industry are invaluable in seeing just how much has changed over nine decades. The nature of tools has evolved radically from being labour saving devices of the early twentieth century. To data and image transfer in the nineties and then onto an advisory or enabler role in the early twenty first century. It is necessary to look backwards into the past when looking forward into the future. To reflect on each decade and see not only how the scale and speed of technology has changed but also to observe how materials and styles have been affected by such technological developments. The design museum creates a window that informs the student in a 'hands-on' way of these stages before they disappear from our society.

The collection has grown at a steady pace through global auctions and generous donations by faculty staff and students. Allowing the industrial design program to acquire some of the rarest products ever made. Many items have been designed by some of the great pioneers of our industry from Raymond Lowey, Henry Dreyfuss, Mario Bellini, Ettore Sotsass, Richard Sapper through to more recent hero's Philippe Stark and Marc Newson. Many of the products in the collection have never been imported into Australia before, so it's a unique opportunity for the students to see design classics that have never been showcased before. Its intention was to bring together the icons that established product design as a true profession.

These are the guiding principals of the museum.

1. Industrially manufactured objects of aesthetic value and timeless quality.
2. Objects that are innovative in their use of new materials and unite technological advances with beautiful design.
3. Objects characterized by simplicity, balance and purity of form.
4. Objects that are perfect in their design and have remained unchanged since their creation.

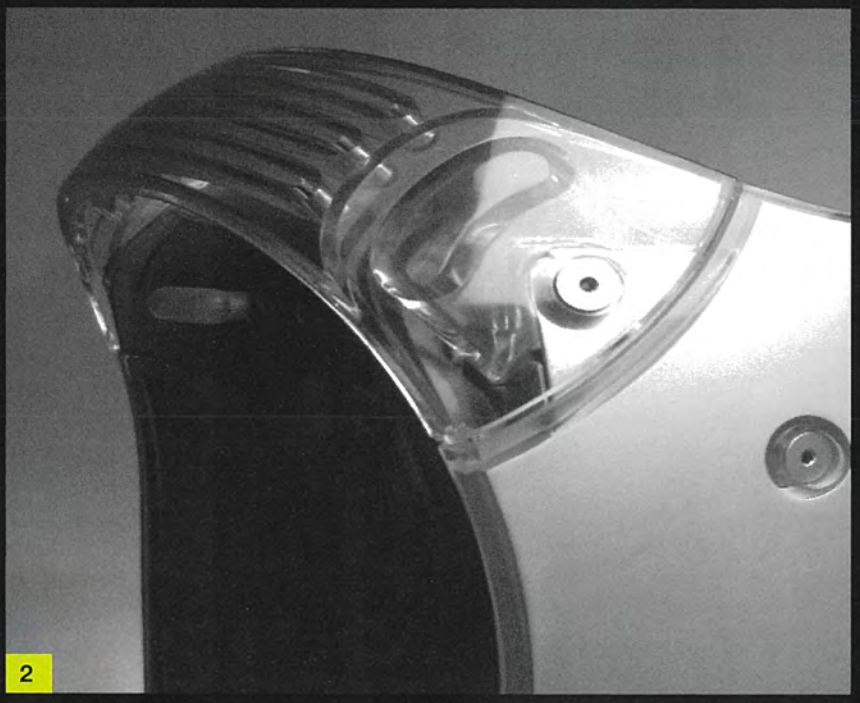
As the IDM is our museum the ID Program can refocus the displays to correspond with a particular studio module that are exploring material and processes or a period in time. Alternatively it can be restocked to inspire students working on a design competition.

The design collection has been gathered from all over the world via Internet auctions and private sales. Whilst a growing proportion of the products are donations by members of the Built Environment staff. These objects hold a sentimental place, icons that mean something to the owner beyond simple function. These objects that are just too nice to discard are the objects we need in order to understand that a product delivers more than a service.

Andrew Fowkes
[IDM Curator]

As technology is changing ever faster, the products of the past are becoming obsolete sooner.

1. Gameboy, Nintendo: Gunpei Yokoi 1989
2. Apple Mac G3, Apple design Team, Steve Jobs. 1999
3. Polaroid Sx70, Edwin Land, Henry Dreyfuss Associates 1972
4. AGFAmatic 2000, AGFA design team, 1981
5. Grillo Phone, Richard Sapper 1965
5. Braun Nizo Super 8 Camera, 801. Dieter Rams 1975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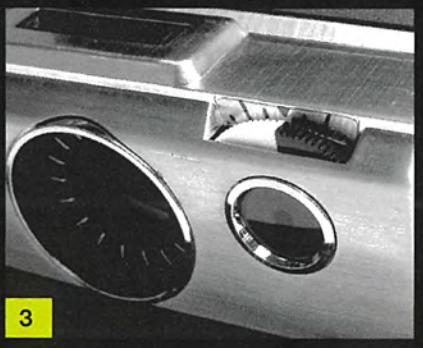
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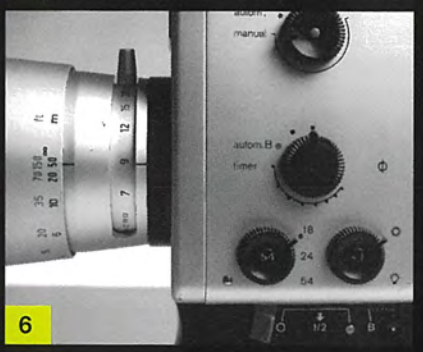
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These objects that are just too nice to discard are the objects we need in order to understand that a product delivers more than a service.

ID20 - Twenty Years of Industrial Design at UNSW

This year marks the 20th year anniversary of Industrial Design Program at UNSW. To mark this occasion a public exhibition of student work spanning the last 20 years was held in August during Sydney Design week. During the exhibition a special evening was held for student alumni and staff. Notable past staff who attended the evening included, Heinz Leuttringhaus, Jonathan Talbot, Michael Hort, Christian Tietz and Ruth McDermott. Special note was made of Lance Green's significant and longstanding contribution to the Program. It was a great opportunity for graduates and past and present staff to meet again and celebrate 20 years of Industrial Design at UNSW.

The theme of the exhibition was 'storytelling'. This was expressed through a timeline of photographs, slideshows, rendering and models threading together stories of people, places and products. It offered the viewer an opportunity to juxtapose and contrast design 'now and then', and 'before and after' graduation. Additionally, it offered a means to reflect upon what has changed and what has remained constant over the last 20 years of Industrial Design at UNSW.

A clear example of change is the pervasiveness of digital technologies that now touches all stages of the design process. Presentation techniques have moved from marker pen renderings to photorealistic 3D computer renderings. While model making remains a mostly hand built process, it is now complemented by the Program's rapid prototyping and laser cutting facilitates. Despite these developments the role of the computer in design has had a presence since the early days. From the start Industrial Design purchased a few precious CAD stations; the cost of which would today seem absurd for machines with such limited capability. Over time CAD modelling has evolved from faceted low-resolution forms, plonked into unrealistic virtual settings, to visualisations indistinguishable from photographs – as many of the images in this document demonstrate. A larger picture of change during the last 20 years is how Industrial Design and manufacturing has shifted from a local production setting to one of regional manufacturing and global markets. Computer information technology has offered designers new tools to engage in this changing landscape. Design is now distributed activity and manufacturing now occurs concurrently in different locations for niche and global markets.

What has remained constant over time? The design process remains and still underpins the core of the Program. So to does the importance of design communication as a means to efficiently and effectively communicate design intent. And thirdly, the ability for students to engage with an astonishing range of projects representing a diverse range of industry sectors all linked by the desire to offer improvements through innovation and meet everyday user needs.

What lies between these two extremes of radical change and consistency from the past 20 years may reveal more about the Program and the directions it will take in the future. A topic that will be explored in detail over the coming year as the Program team undertakes a comprehensively review of the Program to set a trajectory for the next 20 years.

Dr Miles Park
Program Director
Industrial Design

A clear example of change is the pervasiveness of digital technologies that now touches all stages of the design process.

1


2


3

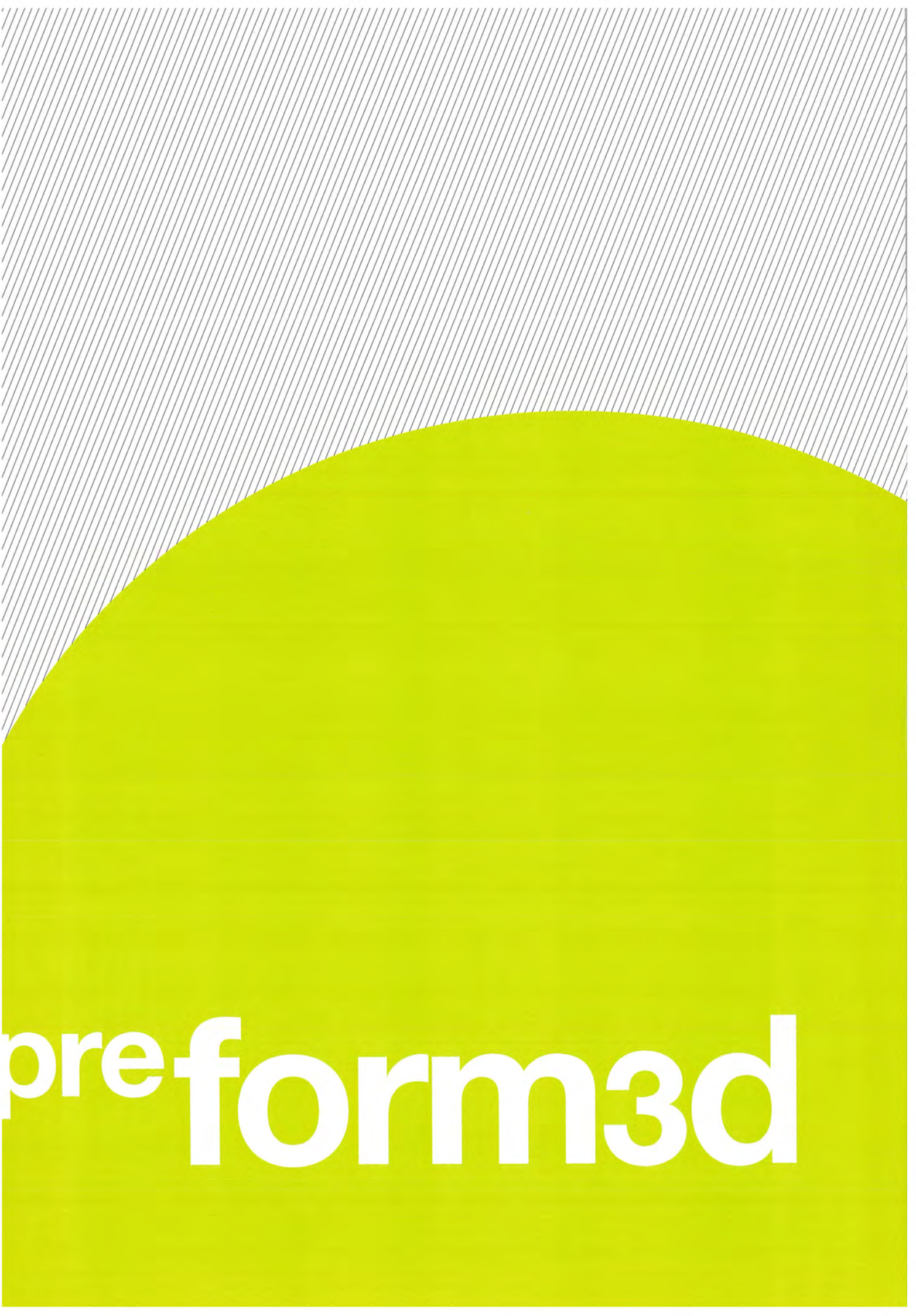

4


5


6

1. Transport marker and pastel rendering 1995
2. The Industrial Design Programs first graduates 1993
3. The first graduate show at Elizabeth Bay house 1993
4. Marker and pen rendering on Canson paper 1993
5. Student Alumni ID20 evening 2010
6. Alumni ID20 evening Past staff and Students 1995 - 1998

What has remained constant over time? The design process remains and still underpins the core of the Program.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Message from the Students

Four years of the Industrial Design program at UNSW equips a graduate with a multitude of skills. We've studied a variety of business, marketing and research subjects, all aiming to equip us with the skills required to be a successful design professional. While these subjects might be important, it was always our design studio that challenged our abilities and pushed us to be better than we were the previous week. And gave us an unnatural fondness for blue foam, biros and A3 bond pads.

While 80 students started the course in 2007, only 20 showed the commitment and passion required to undertake the major project. We made the decision to make the most of our time in the Industrial Design program and have no regrets of our time studying. We found problems, challenged assumptions and delivered 20 insightful products that represent the culmination of four years of hard work and dedication.

Tom Baker

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Valt

Ride, lock and leave. More than just protecting your head, Valt gives peace of mind when taking short trips away from the bike

Valt is the result of extensive ethnographic research into the lifestyles and routines of 16-35 year olds, examining transport behaviour and the factors affecting their means of moving between points A and B. Building on the insight "it's not about the bike", Valt makes utility cycling even more convenient by providing a simple solution for locking and leaving the bike and helmet. While existing cycling helmets deliver performance benefits from technical improvements, Valt offers a simpler experience of using pedal powered transport. All you need is a Valt and a bike.

The Cliplock clasp provides the user with a means of locking their bike and leaving their helmet as they run into the shops to grab some milk or meet a friend for a glass of Chardonnay on Friday afternoon.

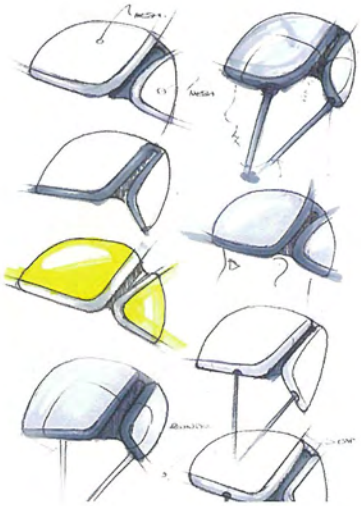
Given that 4 in 5 Sydney cycling commuters wear their helmets incorrectly, Valt 'fits itself' ensuring optimised protection at all times. Actuating the adjustment system causes the straps to retract, snugging the helmet comfortably against the bottom of the chin. By providing storage for the excess helmet strap, the adjustment system also increases the useful size of the bike lock making the helmet functional over a wider range of locking scenarios.

Overall Dimensions (mm)
258 x 290 x 215

Material
Polycarbonate and Santoprene outer;
EPS inner

Manufacturing
Injection Moulding

Ideation Sketches



Digital Verification of Ergonomics

Section View Showing Internal Product detail

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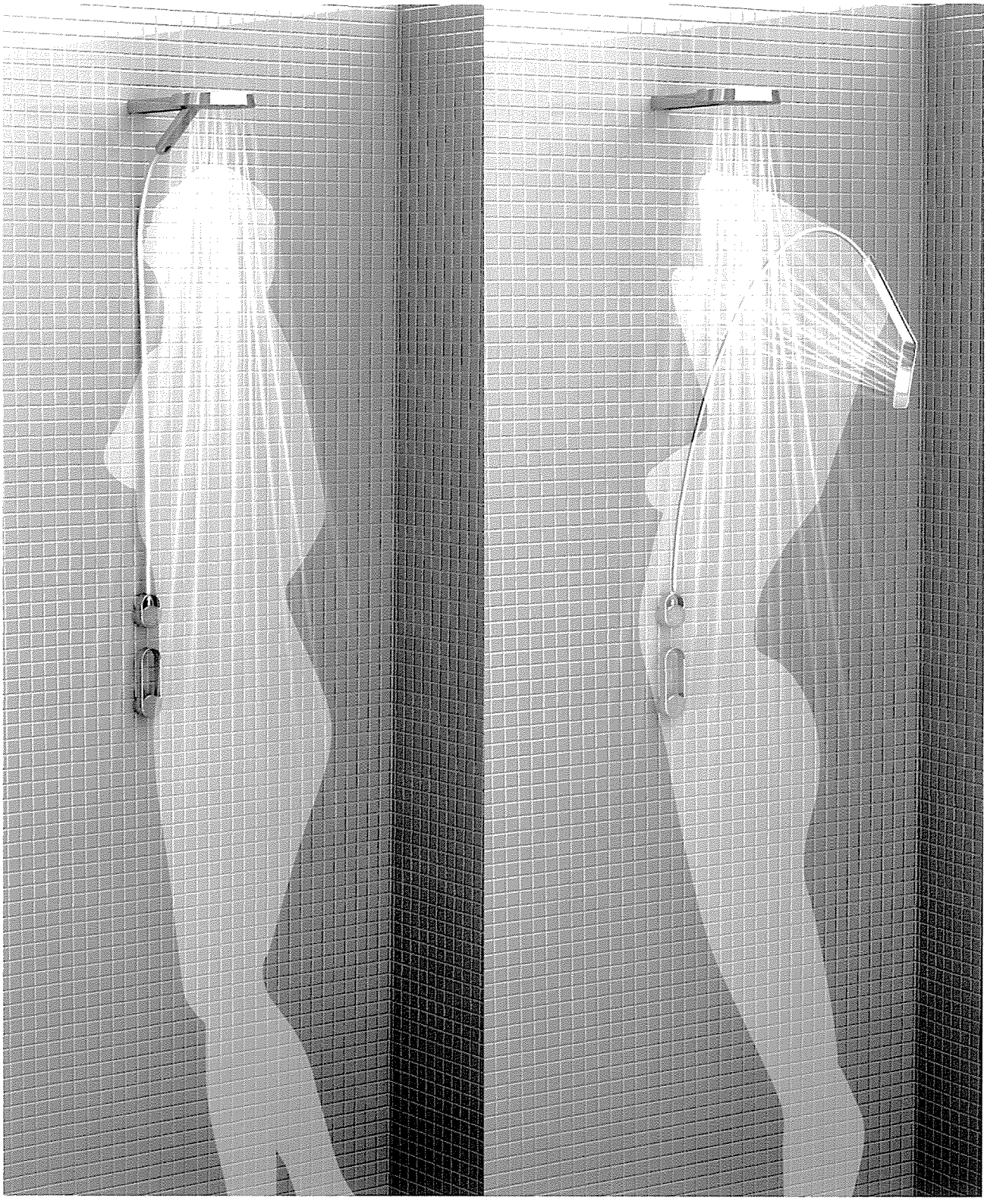
Tokyosink: Spatially Efficient Dishwasher and Basin

Multi-Dose Laundry Concentrate Delivery Packaging

In-car Vacuum for Leading British Auto Manufacturer

Closure Innovation: Liquid Contents are Kept Separate Until Consumption

Reece Innovation Award Finalist: Unum, Integrated Dual Showerhead



Berty Bhuruth

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OPTImetric

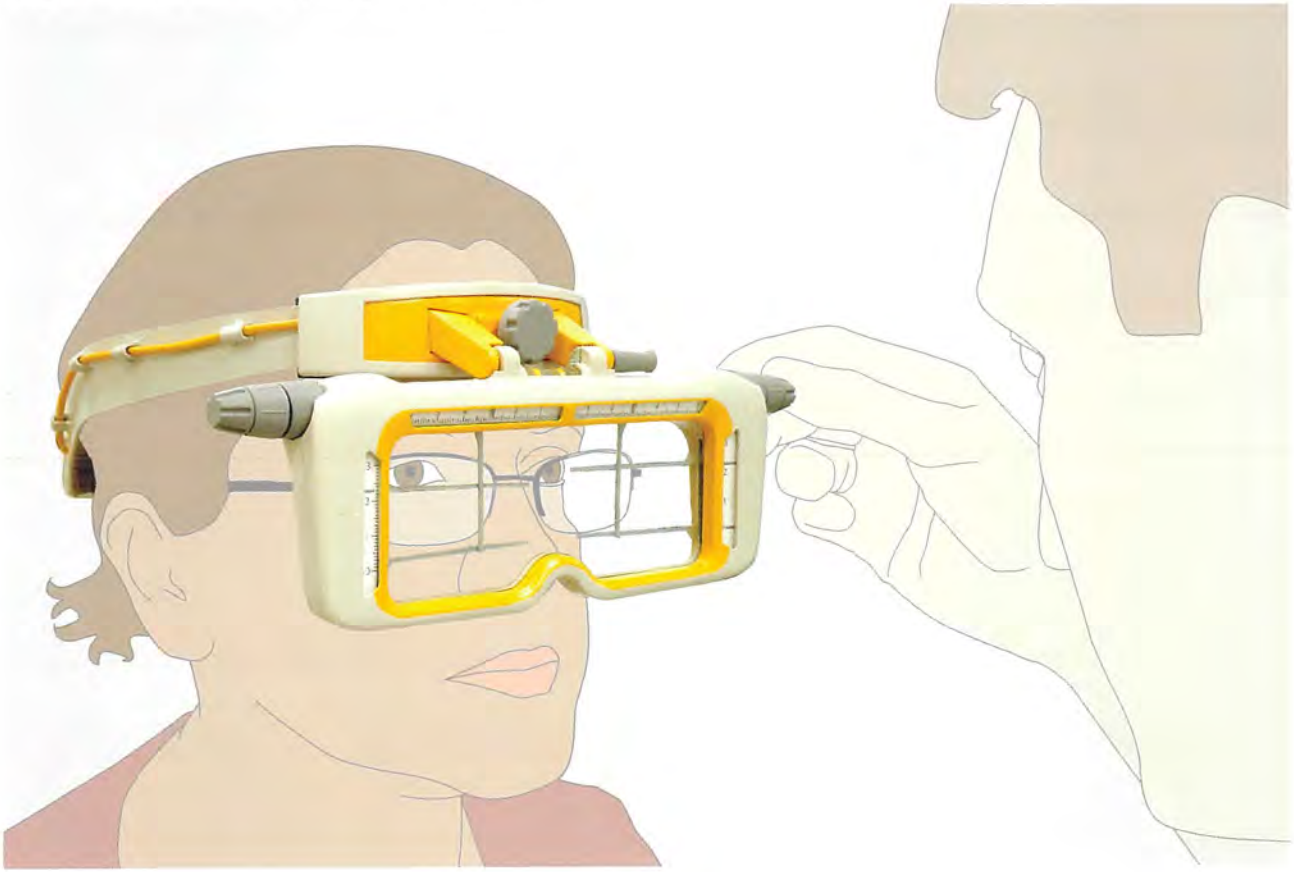
Primary Eye Care for Developing Countries

OPTImetric is a diagnostic tool for eye care personnel in the developing world. Over 600 million people suffer from limited vision due to the lack of access to basic eye care and corrective spectacles. Most of these people don't have access to eye care because they live in remote or rural communities.

A new approach to this issue is to train locals into eye care personnel who can perform corrective vision screening in their community. An important part of the vision screening process is to measure the pupils and determine the centre of the eye. However inaccuracy's in data gathering through mis-measuring can often result in eye strain, caused by inappropriate specifying of corrective lenses.

The OPTImetric device has been designed to take accurate measurements and photographs of the patients pupils quickly and safely. The data collected from the patient is recorded and then downloaded to a cell phone using a software application. The information can then be sent to a nearby hospital where the lenses are cut. If the patient appears to be suffering from additional eye conditions i.e River blindness or conjunctivitis; the digital image of the eye can be referred to an ophthalmologist for review.

Using OPTImetric to Measure Pupil Height and Distance

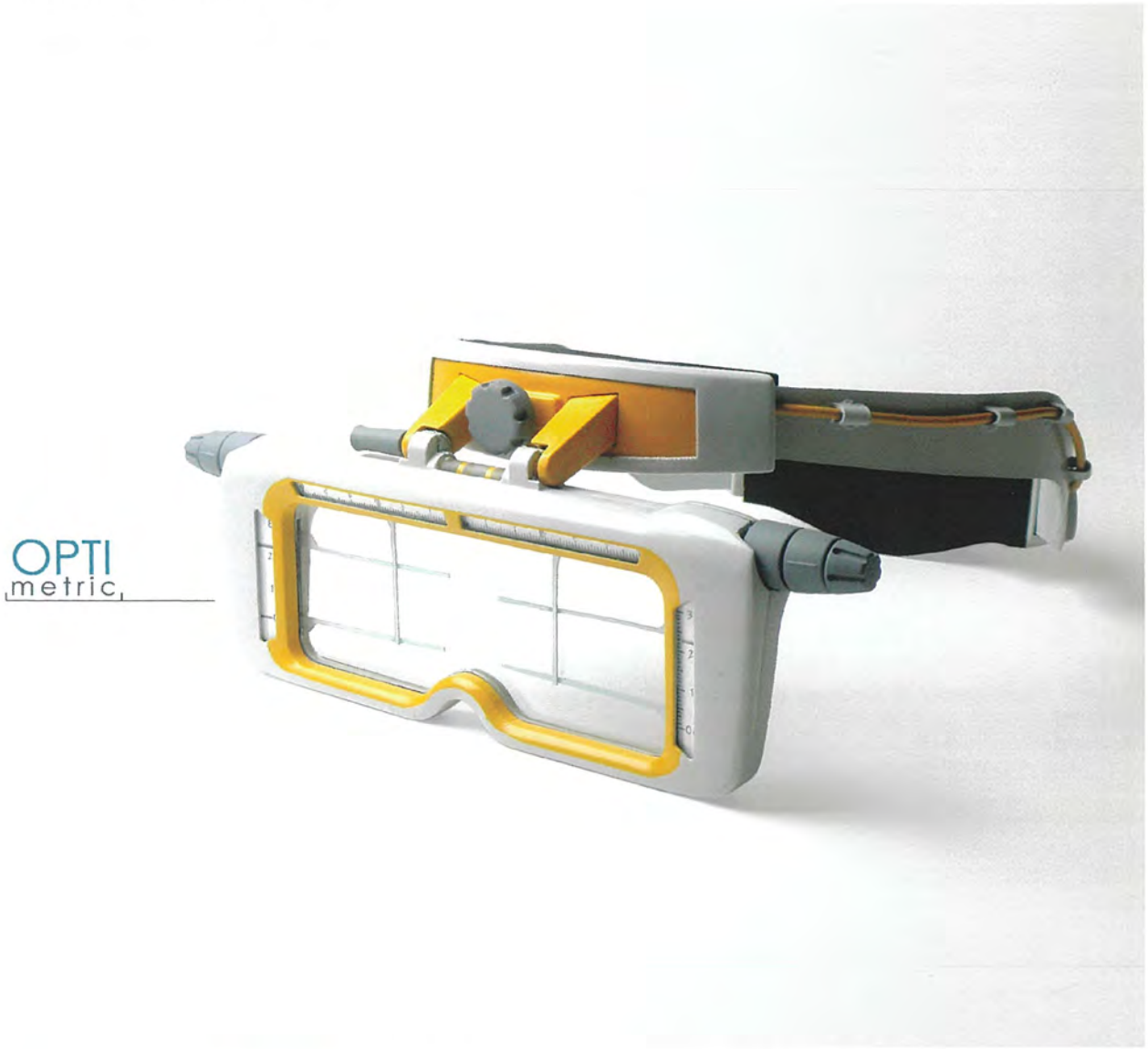


Overall Dimensions (mm)
232 x 254 x 100

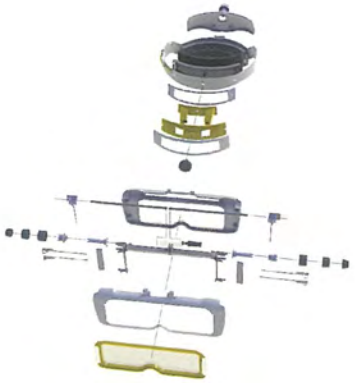
Material
ABS, Nylon, Polycarbonate, Stainless Steel

Manufacturing
Injection Moulding, Chemical Milling

OPTImetric - Pupillary Measuring System



Exploded Assembly



Travel Case

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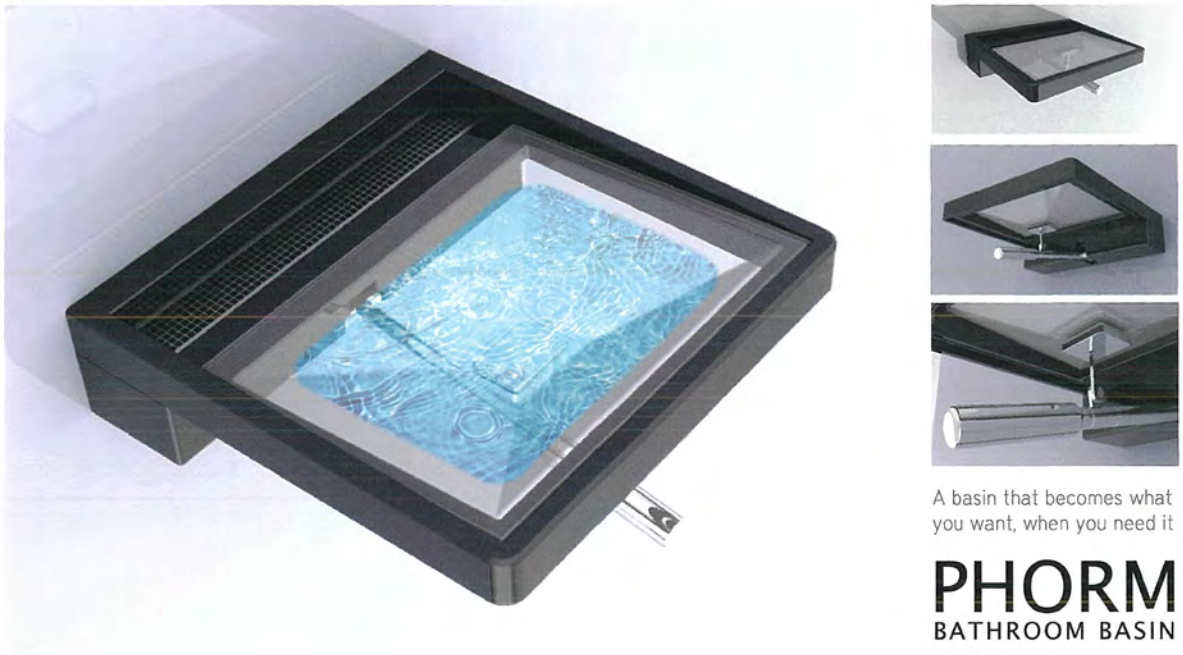
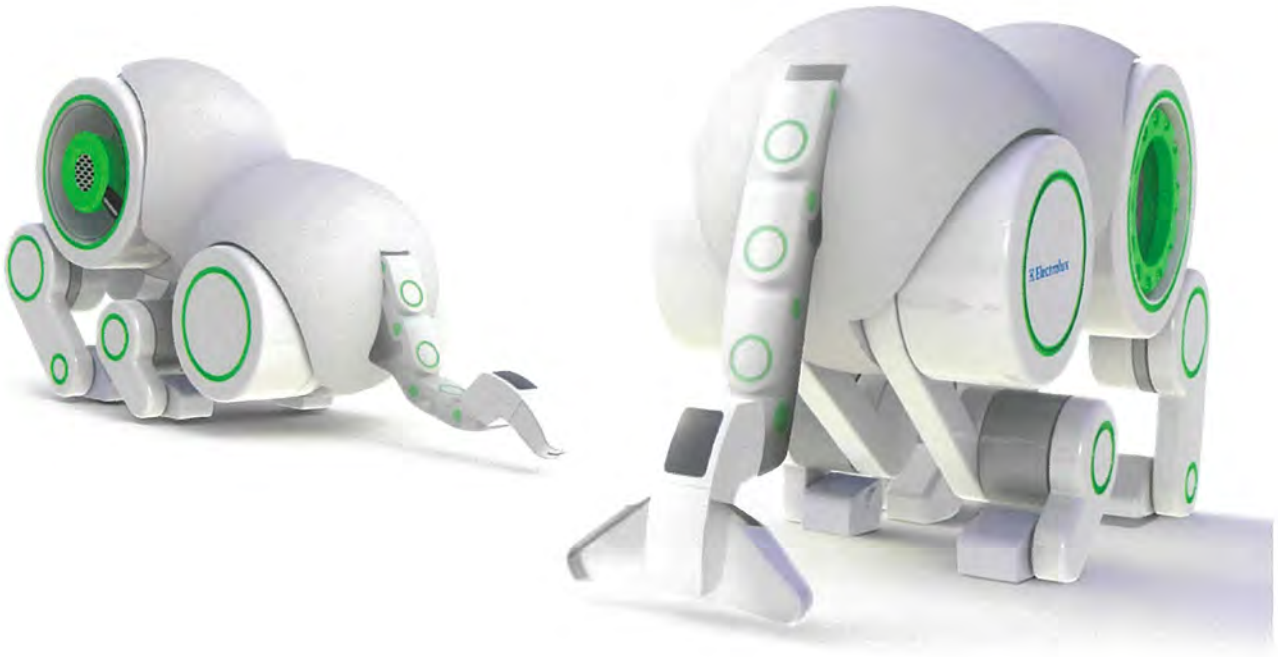
Phorm Basin – Sloped Basin that Transforms into a Cavity Basin When Required

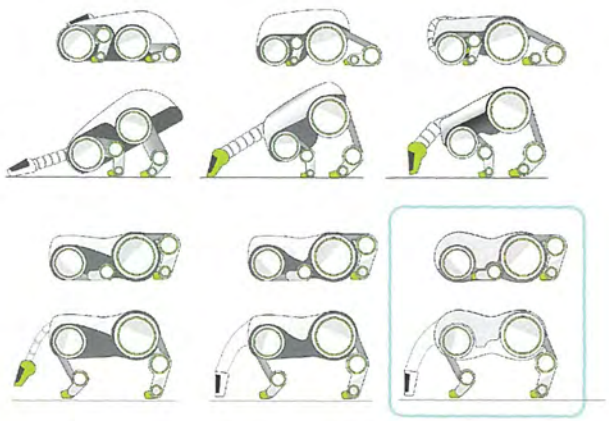


Vacuum Designed Using Audi's Visual Language

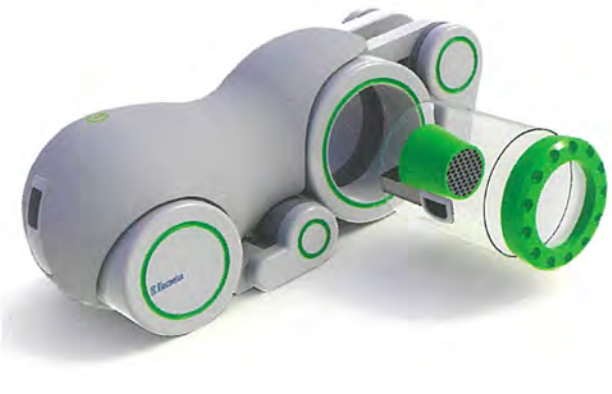
Instinct Robotic Vacuum Cleaner – 2010 Electrolux Design Lab Semi Finalist



Concept Development – Designed to Emulate a Grazing Animal



Dust Container Integrated into Hub-Less Wheel Joint



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Sani-Flex

Sani-Flex is a portable toilet solution. The system creates a clean and hygienic environment for the user

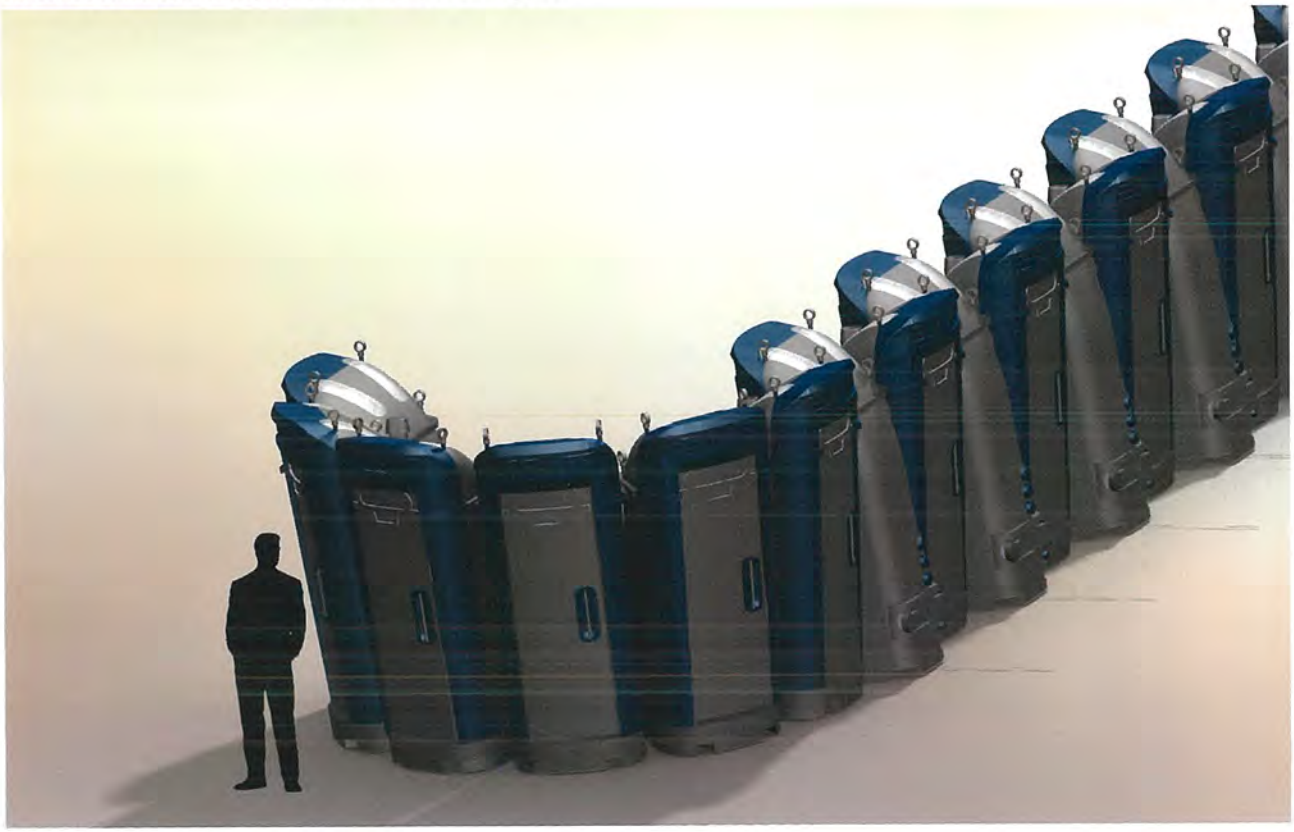
Sani-Flex is a portable toilet solution designed for high traffic public events (such as New Years Eve and sports events). It encourages cleanliness with a durable inbuilt cleaning system for the seat whereby it is stored behind the bowl in an alcohol bath and is only lifted into place when required.

Sani-Flex is designed for a more human toileting experience than the primitive experience that we've come to expect from existing portable toilets. It does not smell, is well lit (internally and externally) and has a soft embracing form that creates an illusion of space and is welcoming. It is also designed to be friendly to both maintenance personnel and the people who use it, as the unit does not need to be shutdown when being serviced, as it can be maintained from the outside as all facilities are accessed from the rear.

The tapered sides of the system allow for more adaptable applications as six will create a semi circle or when placed facing alternative directions, can be accessed from both sides with consequently more waiting space. The horror of design of conventional units has been solved to create a more comforting environment (similar to domestic toilets) whilst still using economically competitive materials and production techniques.

In a world where design takes on new and exciting electronic products, the bare essentials have failed to be addressed. Sani-Flex solves all the problems and discomfort associated with conventional portable toilets.

Six Units Form a Semicircle; Alternate Directions Make a Line

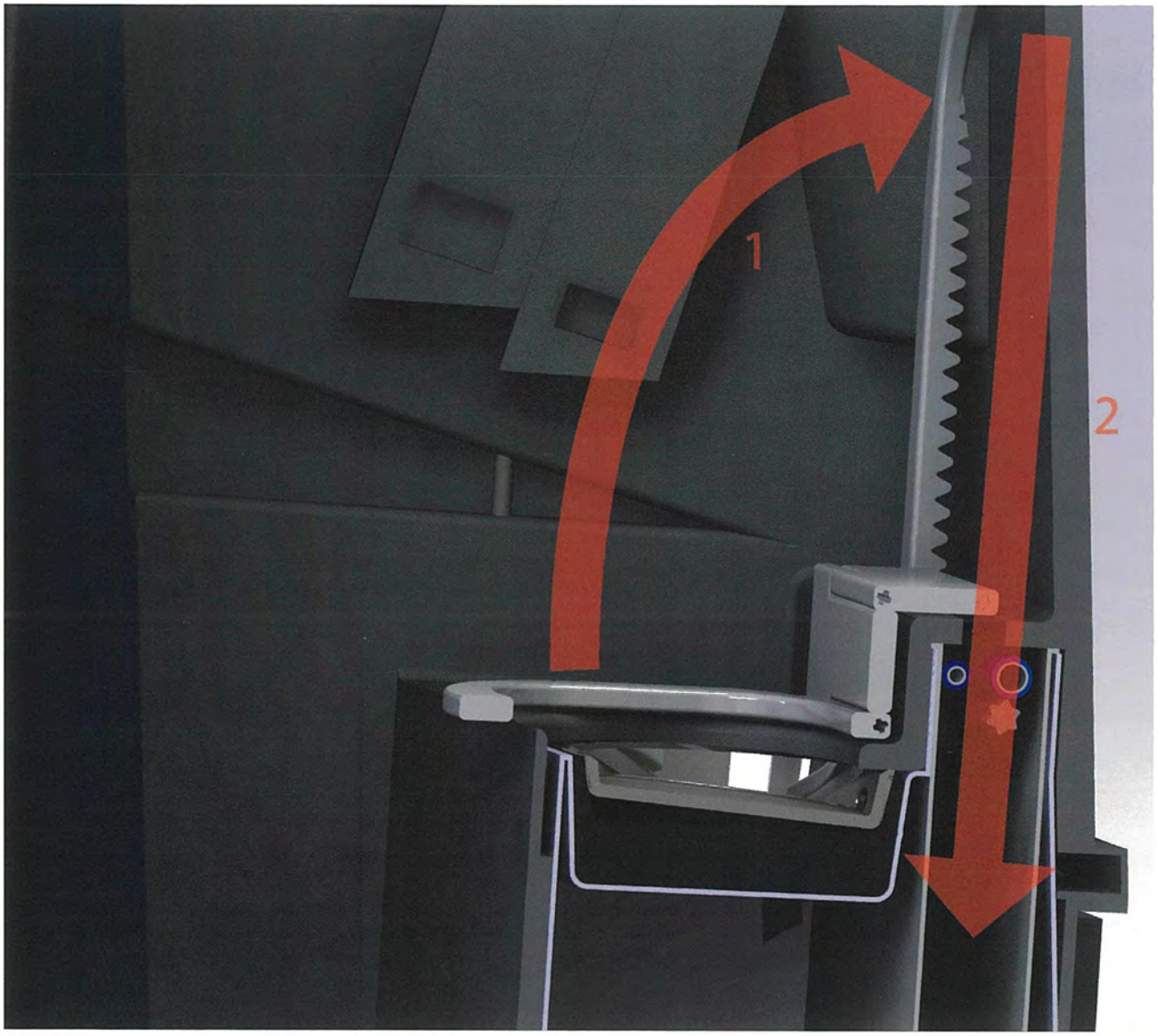


Overall Dimensions (mm)
1000 x 1200 x 2450

Material
Primarily HDPE, contains PC, PP and a steel skid

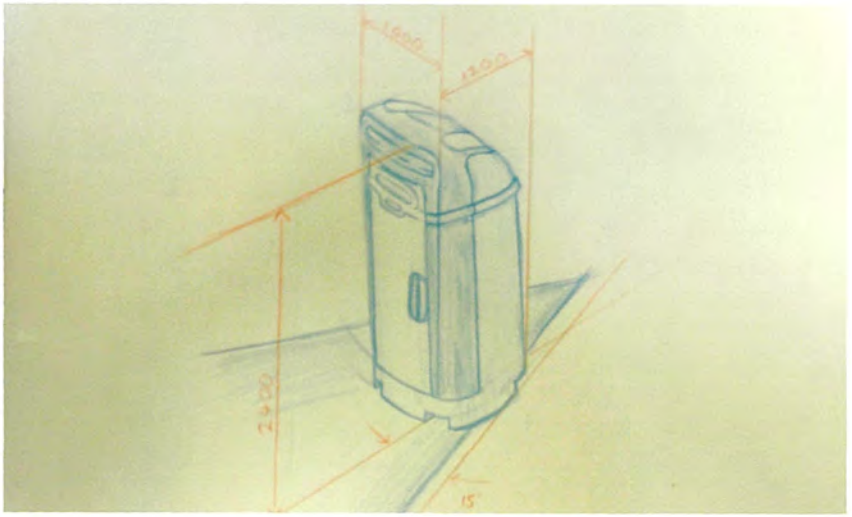
Manufacturing
Overall forming pieces are rotationally moulded, however smaller details such as the seat is injection moulded, thermo formed or pressed

The Seat Slips Behind the Bowl into Alcohol Bath Between Uses



The Model, Viewed at Night

A Hand Drawn Sketch



Carol Cheng

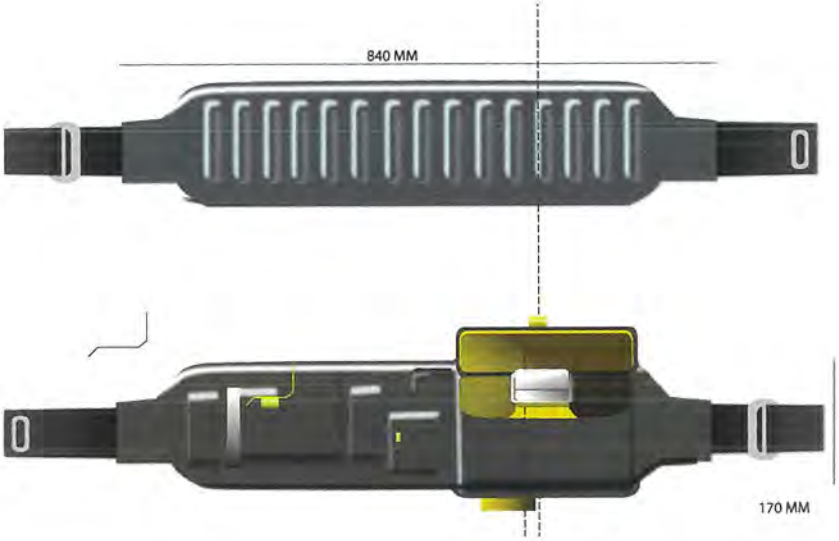
Thermate

Working in the outdoor environment is not an easy job, it may endanger the industrial workers' lives whilst handling heavy duties. Over-exposure to heat affects the productivity, safety and effectiveness of the work flow. Industrial sites such as for mining and construction have high thermal density produced by machinery or ineffective traditional ventilation system puts the workers at risk of hyperthermia and shock.

Compared with traditional circulation of air-conditioning systems, evaporative cooling method will be a better alternative in such cases.

'Thermate' is aimed to achieve portable conditioning and back pain release using liquid nitrogen flow through the system providing a reliable and cost-effective solution on a daily basis. Due to the extremely cool condition of liquid nitrogen, only nitrogen gas is allowed to be released for cooling.

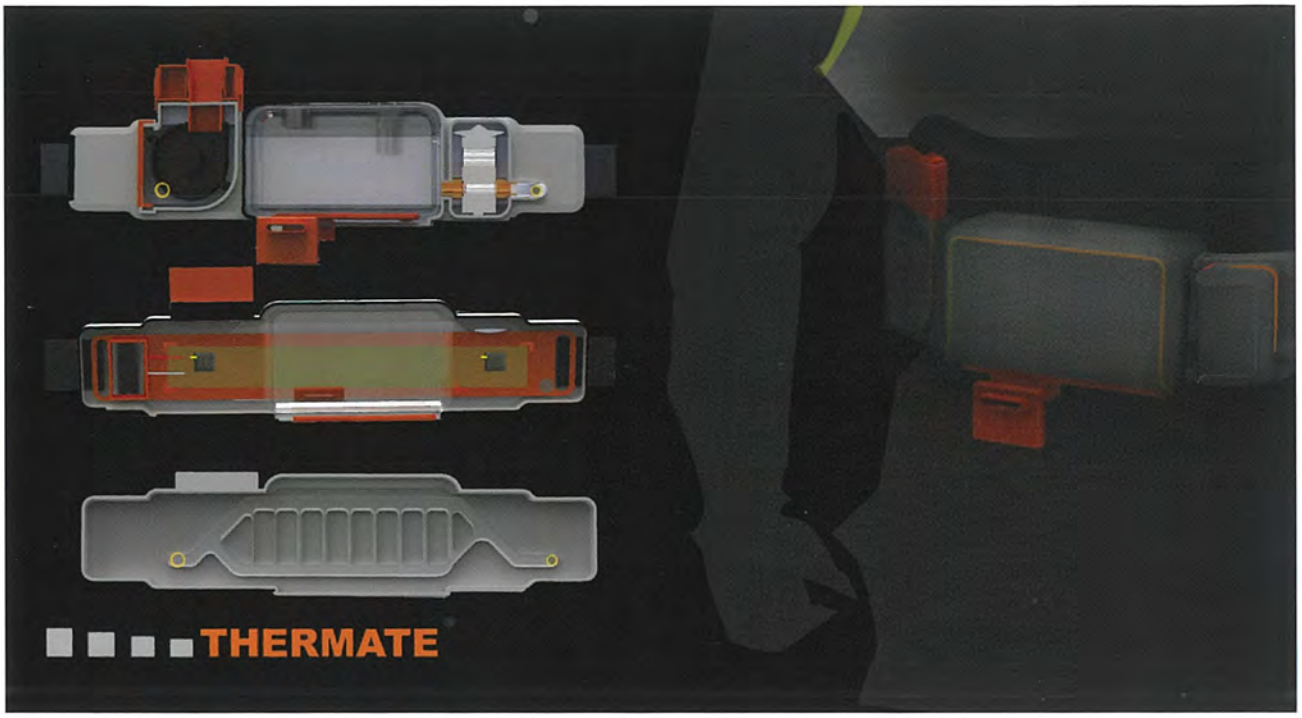
Gas separator and pneumatic valve are being used to secure any leakage of liquid nitrogen and overpressure of nitrogen gas lest it builds up. Thermal expansion valve which is general ly used in automotive air-conditioning controls a steady amount of nitrogen gas by the contracting the built-in diaphragm. The blower which plays the key role of the cooling system will enhance the micro-climate i.e. circulation of airflow under the clothing, sucking nitrogen gas into vest and evenly distributing into the rest of the vest. Lastly, to prevent moisture from making contact with freezing nitrogen which may form ice causing blockage of nitrogen flow, a special layer of GORTEX is used to completely seal the product.

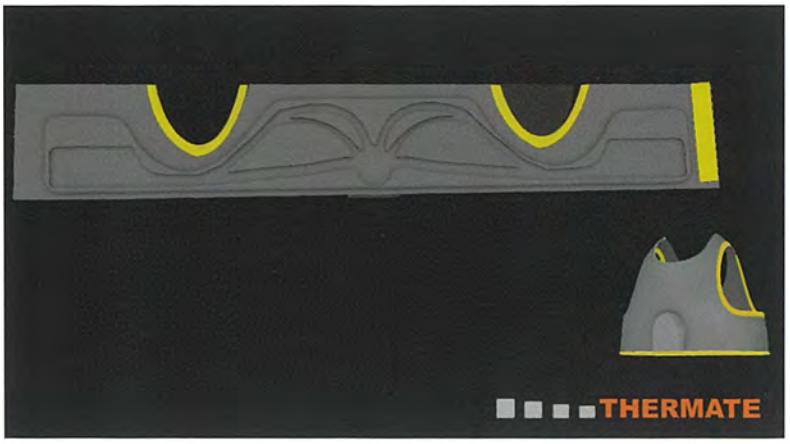


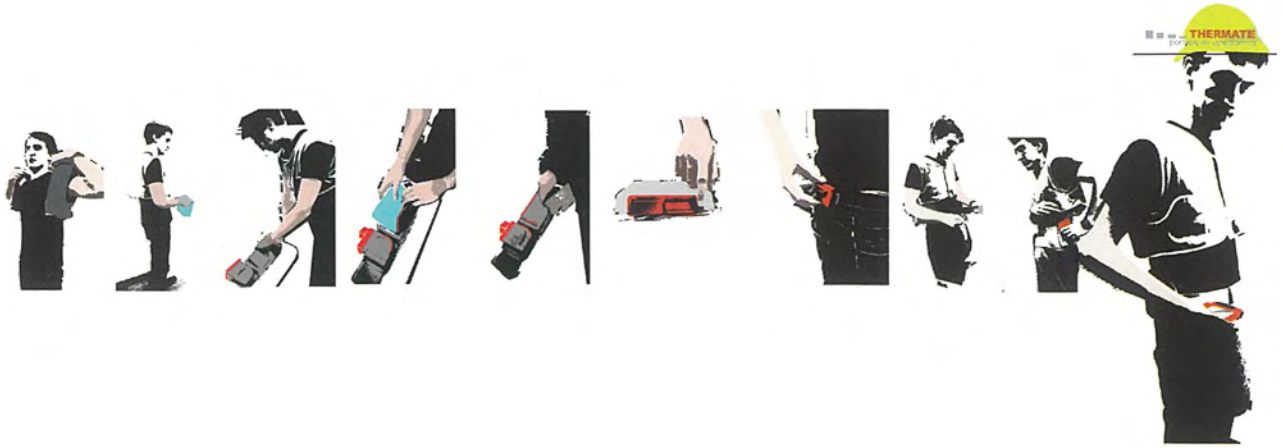
Overall Dimensions (mm)
Vest - 34 x 85
Belt -118 x 16 x 80
Remote - 95 x 70 x 20

Material
Gortex, EVA, Franklin's Lamitex®
Cryogenic Neck, Spearlab-Foam

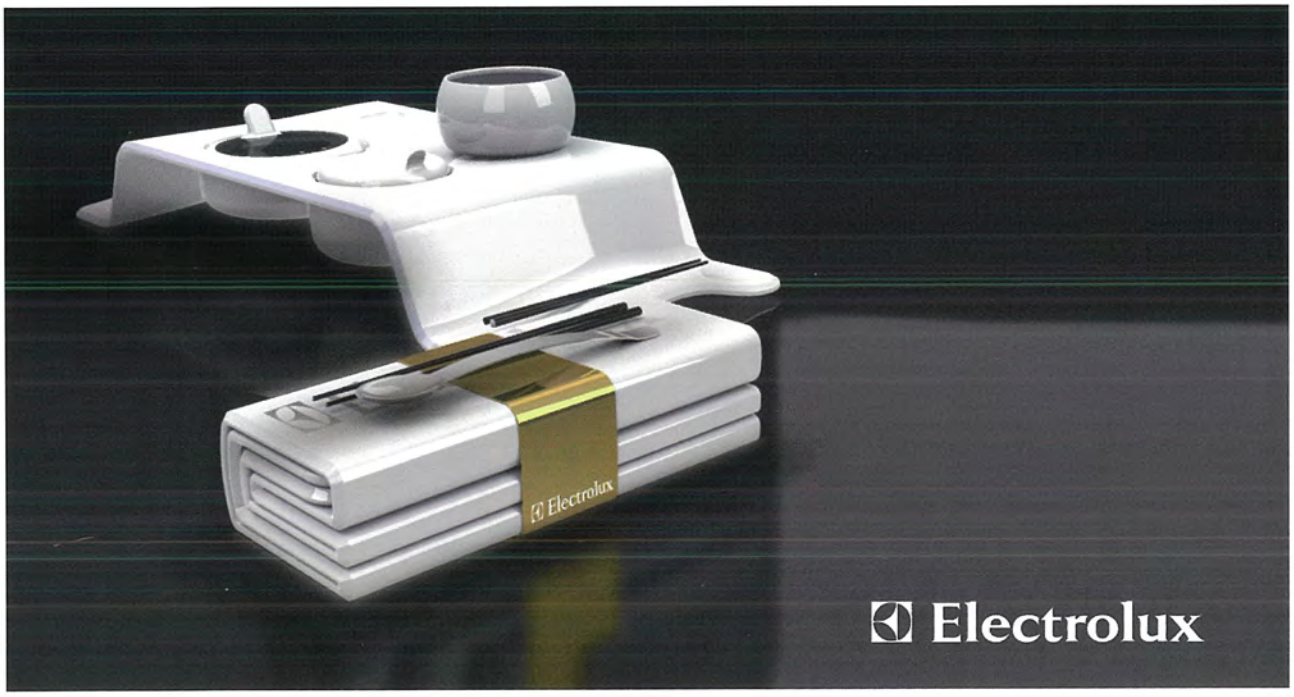
Manufacturing
Sewing, Vacuum Forming,
Compress Forming

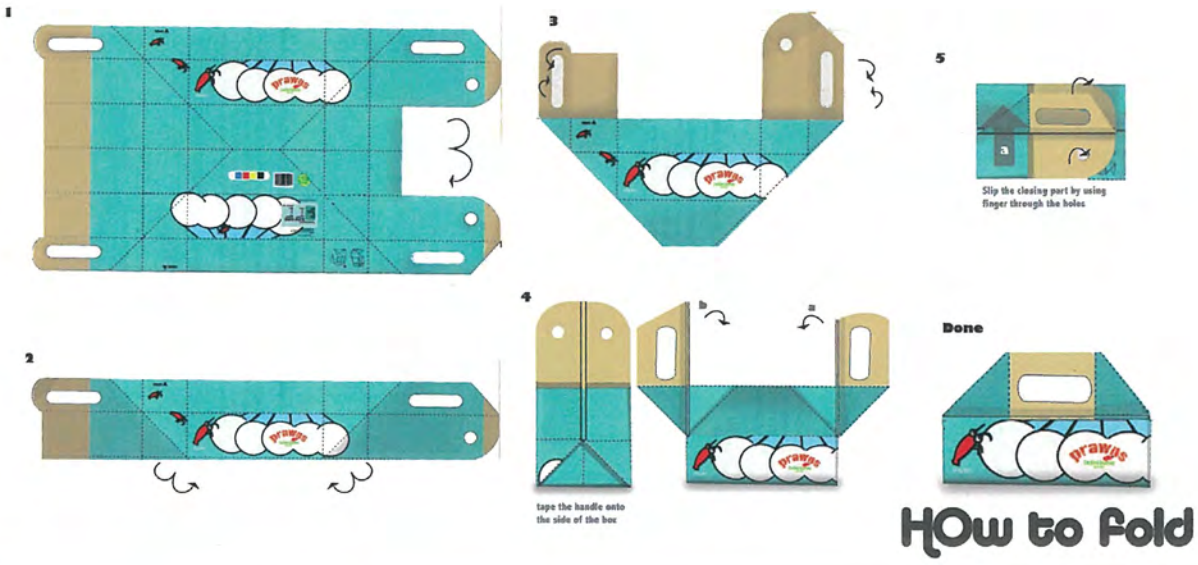


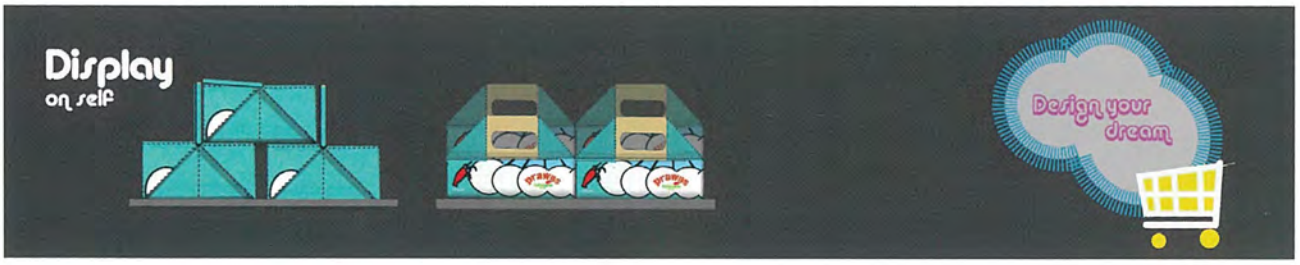




Carol Cheng




1
2
3
4
5
Slip the closing part by using finger through the holes
tape the handle onto the side of the box
Done
How to fold


Display
on self
Design your dream


The Leaf
BATHROOM INNOVATION AWARD 2010

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Mnema: Personal Mnemonic Device

A Memory Aid device designed to help user's confidence and assist independent living

Mnema is a personal mnemonic device designed to aid a Traumatic Brain Injury Patient suffering from memory problems community rehabilitation and promote independence. Mnema allows the user to remember, record and help navigate their world through visual, sound and tactile feedback.

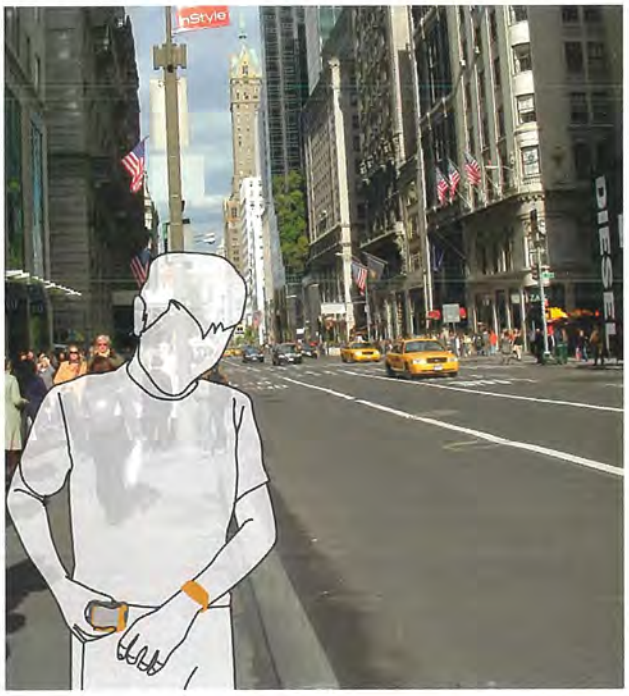
The rehabilitation product market lacks a product which helps to ease a person who has suffered a traumatic brain injury back into the community. The person is overwhelmed with the amount of information which has to be processed and remembered while simultaneously dealing with the chaos of the urban environment, namely public transportation, changing environments and unforseen circumstances.

Mnema consists of two components, one worn on the wrist and the other a handheld device that can be clipped on the belt or worn around the neck. The wristband helps to alert the user that something important is coming or that they have a meeting and to help find their way through the visual compass. The handheld device indicates to the user who, when and where they are meeting, why they are meeting the person and shows visuals, if available, of the location. Once they arrive at their destination they are prompted to record the meeting, in which the device transcribes the conversation to make it easier for the user to reminisce at a later time.

Mnema also contains GPS and RF/Bluetooth modules to allow the carer of the user to keep in sync with the meetings and location to prevent unwanted situations or excessive concern.

Exploded View of Mnema

Worn on the Belt or Attached to a Lanyard around the Neck



Overall Dimensions (mm)
Handheld Unit - 80 x 65 x 30
Wristband - 60 x 65 x 25

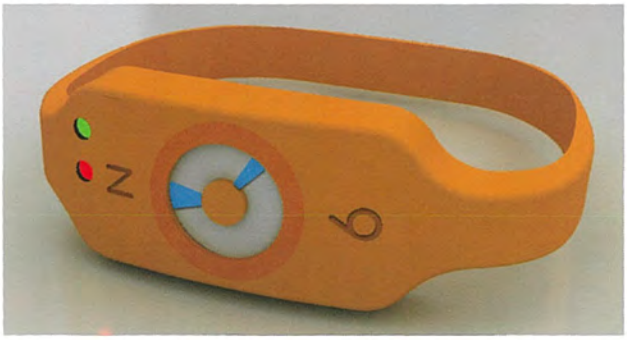
Material
Silicone Rubber, ABS,
Electronic Components

Manufacturing
Compression Moulded, Blow Moulded,
CNC Cut

Mnema Handheld Device with the Wristband

Navigating on the Handheld Device

Wristband Interface



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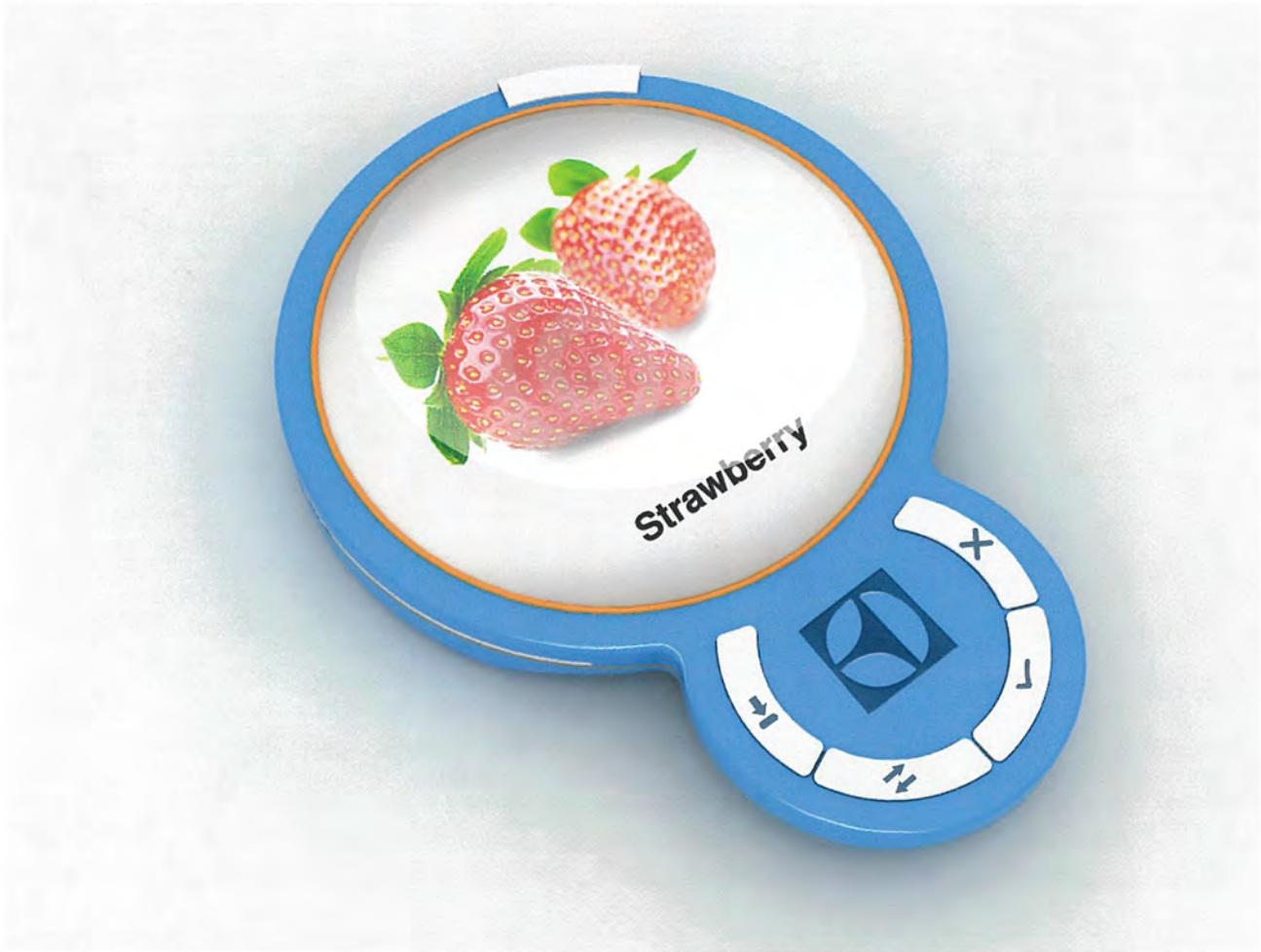
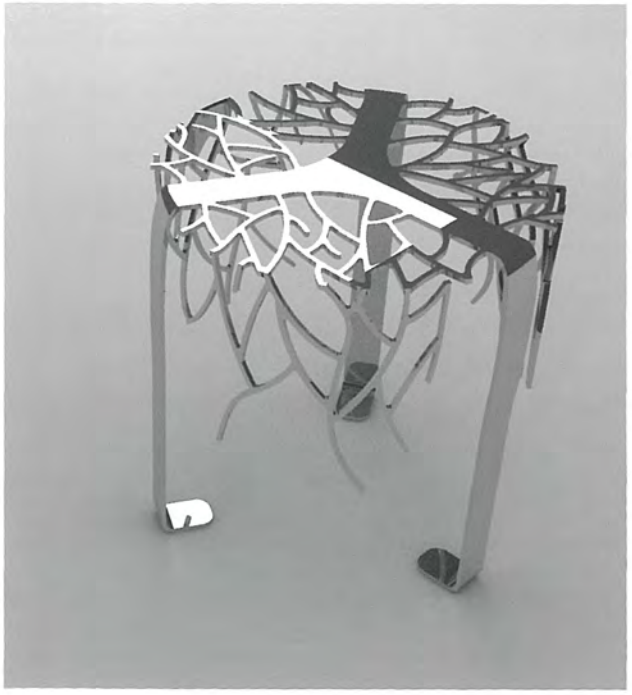
Giro Concept Helmet

Stainless Steel Magazine Rack

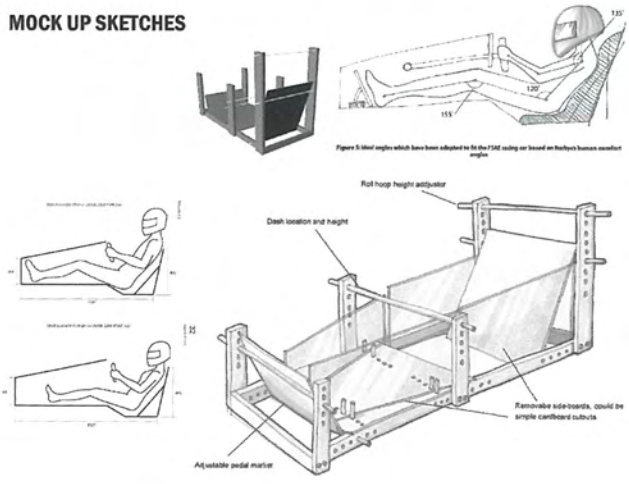
Augmented Reality Focurio (Food Curious) Explorer for Children



Magnesium Branch Chair



UNSW SAE Race Car Ergonomics



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AGS Hazard Alert System

Personalized Driver Hazard Warning system which communities road information warnings to motorists

The AGS Hazard Alert System is a vehicle to infrastructure communication application which affords communities a new channel of communication from the road to the road users. Motorists are given a new way to perceive the road and potential threats, hence mitigating dangers that may be involved. Current methods of hazard warnings are limited to external solutions such as signage, lighting and gate systems. While effective in certain situations they lack the flexibility and ability to engage drivers on a more personal level which can lead to drivers missing or not heeding the warnings.

Communities, Road Authorities and Emergency services can now set up points of influence along the road, analogous to one posting notes at areas preceding and around hazardous locations for passer-bys to 'read'.

The antenna system is small and lightweight, making them easy to install, interchange and blend into its surroundings. The AGS system runs at radio frequencies akin to existing E-tag systems to allow for quick data transfer and for it to both transmit and log information, while also fulfilling the roles of a road toll system. As drivers enter an area of influence under an AGS system antenna, the transponder unit will activate and notify users verbally of incoming hazards or special circumstances.

This system affords peace of mind for the inexperienced, timely information for those who want to avoid traffic and most importantly protection for not only the driver but also passengers, children in school zones and workers on the road.

AGS Antenna on a Street Sign

AGS Receiver - rear view

Overall Dimensions (mm)
Transponder unit - 35 x 65 x 55
Antenna unit - 35 x 181 x 160

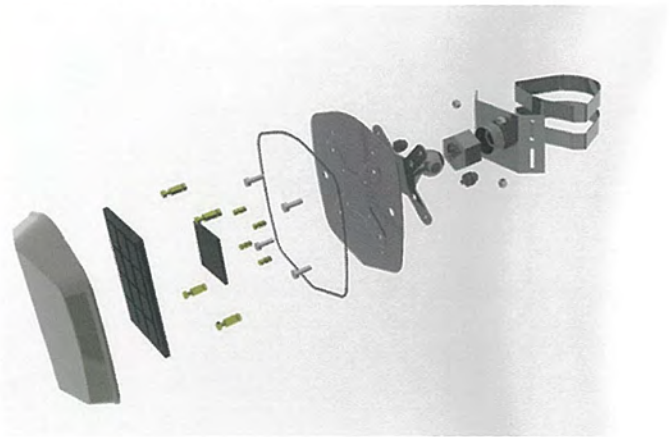
Material
Transponder unit
Antenna unit

Manufacturing
Injection Moulded ABS
Injection Moulded ABS/ Pressed Galvanised steel

AGS Receiver - front view

AGS Transponder mounts onto windscreen

AGS Antenna - exploded view



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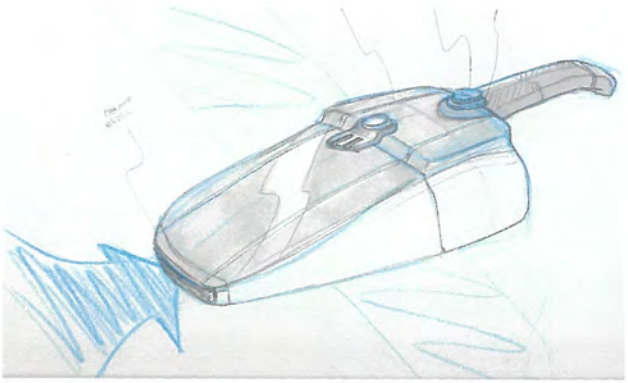
Reece Spout Design

AutoVac Style exercise

IN SITU

Sydney Metro Seating Design

AustoVac Sketch



3D Hard Modelling

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9th Life

Personal Flotation Device for Extreme Water Sports – Kiteboarding

Kiteboarding is an extreme sport that is becoming increasingly popular within Australia. Personal flotation devices (PFDs) make it hard to swim in, restrict mobility, are uncomfortable to wear, do not fit in with the kiteboarding image and interfere with equipment - therefore they are rarely used by kiteboarders. Kiteboarding is performed in extreme weather conditions with high winds and rough waters. The current PFD safety level of 50 is not designed for these conditions and, even if worn, provides an unsuitable level of safety.

My design solution, 9th Life, is a flotation device that is designed specifically for kiteboarding. This innovative design utilises the technology of a pulse oximeter to monitor the user's vital signs, such as heart rate and blood oxygen levels, and assess their risk of drowning. In high risk situations the lifejacket will automatically inflate, bringing the user to a safe upright position and signal for help via GPS. 9th Life is different from other products on the market as it provides users with the highest levels of safety in a personal flotation device without compromising user mobility and by being the most comfortable lifejacket on the market specifically designed for kiteboarding. The product's innovative inflation system is the only automatic system in a flotation device that is not triggered when submerged in water. By designing the lifejacket's appearance to fit in with the kiteboarding image and style, 9th Life has successfully changed kiteboarder's perceptions and gained their willingness to wear the product.

Arm unit containing CO2 inflation canister, trigger mechanism, GPS and electronics

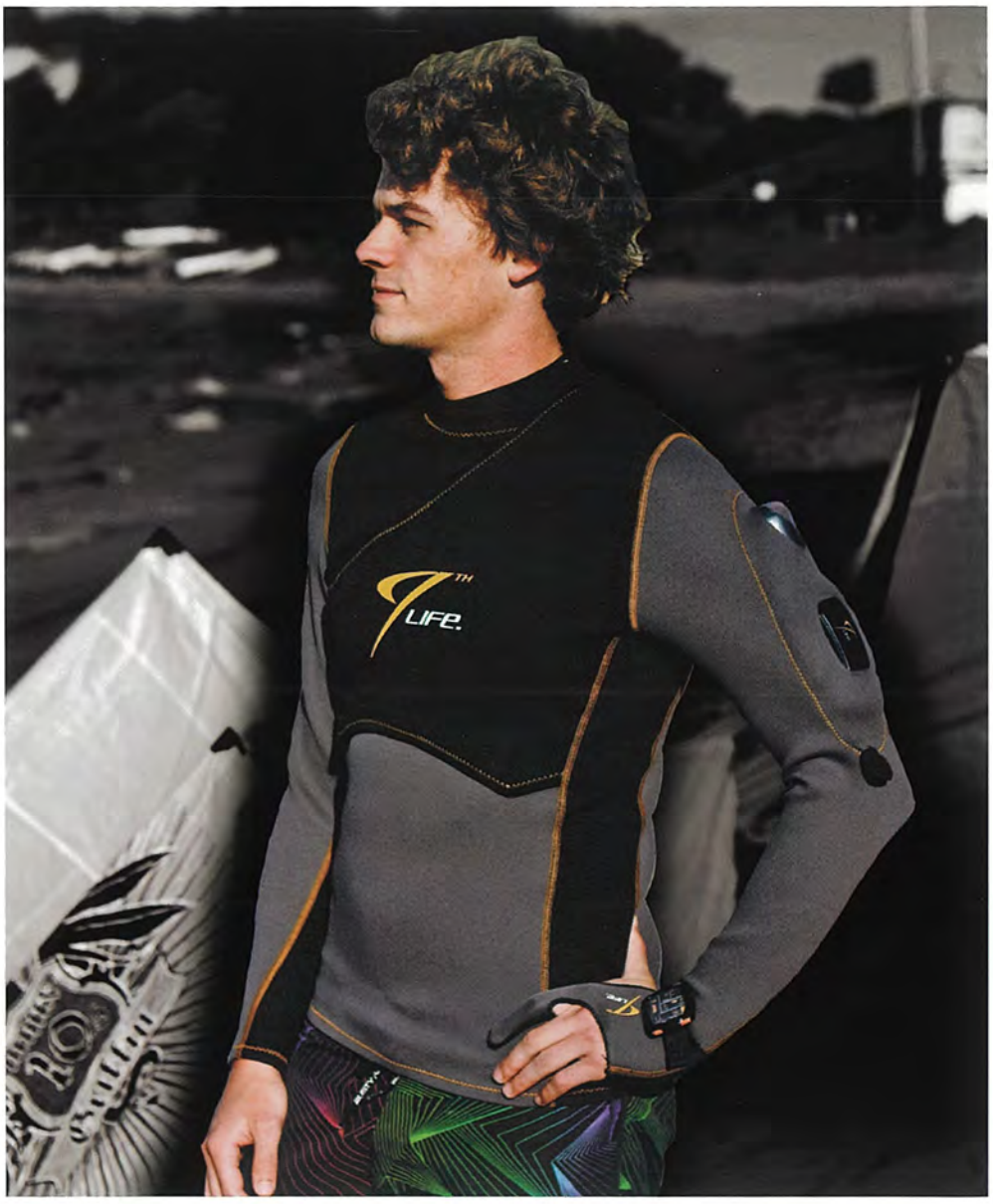
9th Life safely floating a user in need of rescue

Overall Dimensions (mm)
small, medium and large sizes available

Material
Neoprene,
polyurethane coated fabric,
ABS and polyetherurethane

Manufacturing
Wetsuit top – sewn and flat locked,
Bladder – high frequency welded,
ABS components – injection moulded

9th Life does not limit mobility and fits in with the kiteboarding image



Watch and pulse oximeter does not interfere with users grip

PFD bursts out revealing its bright safety colour

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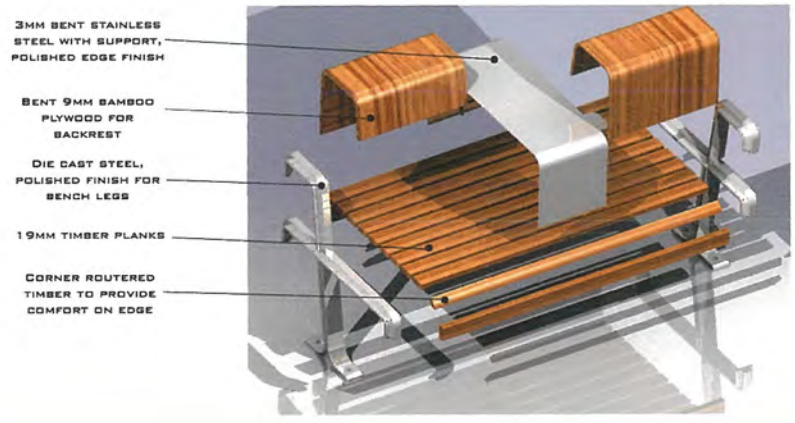
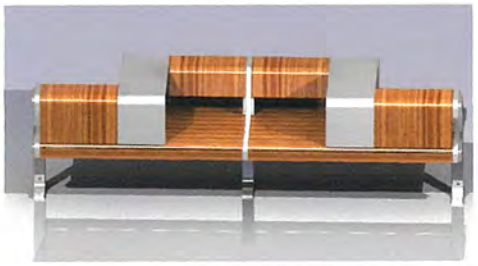
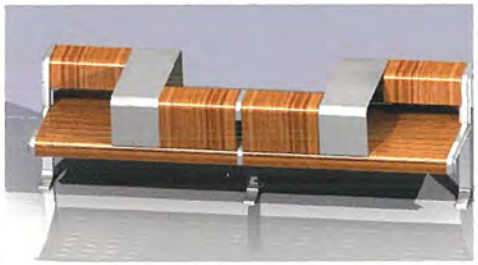
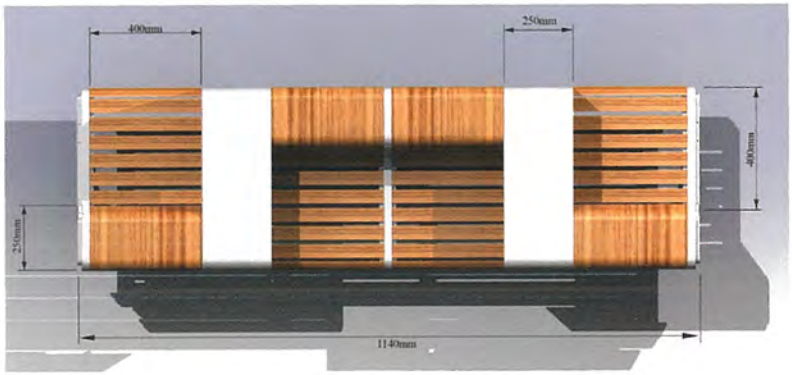
Aerial induction cooking and range hood system 2050

ECOmodular outdoor seating



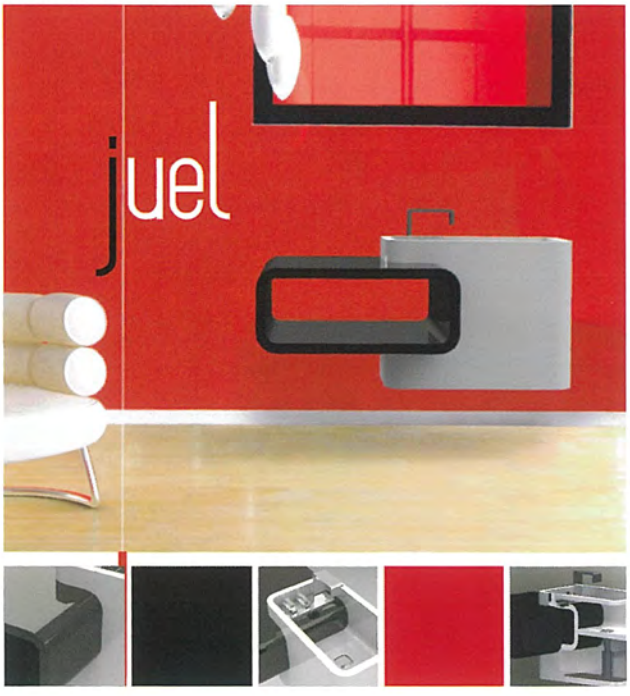




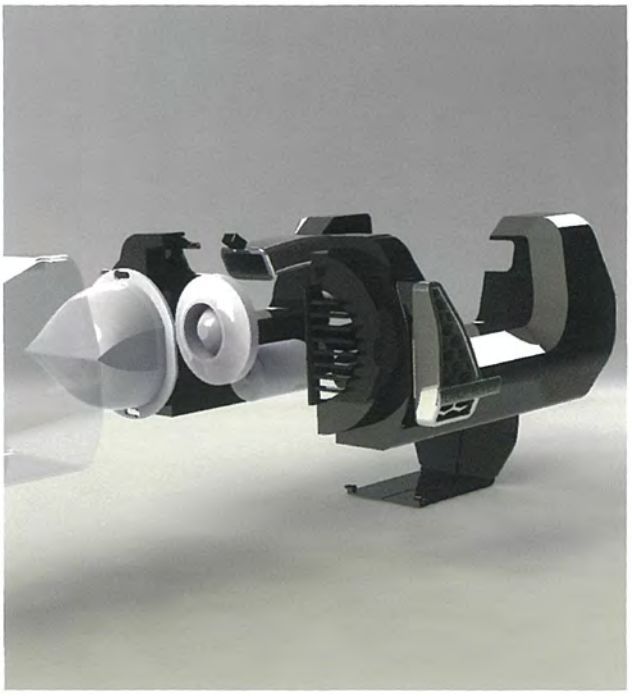


Autovac designed for Land Rover

Minimalistic wash basin



Autovac assembly and component volumetrics



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Dash

Personal grocery carriage

Dash aims to reduce the impact that grocery shopping has on the environment. Firstly by preventing shopping trolley theft, found to be a huge issue as it costs grocery stores across Australia $50 million a year to maintain, replace and collect stray trolleys. Dash assists shoppers [in the same way a stolen trolley does] by enabling shoppers to take their grocery home without getting sore hands from heavy bags.

Through research and observation it was found that besides carrying groceries, plastic bags were also used to separate items. Even when plastic bags are not needed for their carrying function, plastic was still used. Thats why a part of Dash is a machine washable, compartmentalised bag that has a pocket to keep your drinks upright, room for your larger items as well as small ones. The tartan panels stretch to accommodate for various shapes, as well as to hold them snug when full.

By making it easier to walk home with groceries, Dash aims to encourage people to walk short trips to the shops. With an increasing number of people living closer and shopping more locally, walking not only reduces carbon but also increases general wellbeing. This would have particular impact to younger couples or individuals without children that would shop more frequently but less in quantity.

Unfolding Dash

Panels are Designed to Accommodate Various Shapes

Prototype Mock-up

Concept Exploration

Overall Dimensions (mm)
Unfolded: 490 x 1238 x 400
Folded: 560 x 150 x 110

Material
Aluminium, Nylon textiles, Glass fibre Reinforced Nylon, Silicone.

Manufacturing
Aluminium Extrusion, High Pressure Moulded parts, Injection moulding.

Dash, Personal Grocery Carriage

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x2 Dual Sink concept, Reece Bathroom Innovation Student Finalist 2010

Shine, travel mini, Cormack Innovation Award Highly Commended 2009

The **increasing accessibility of air travel** and new **stringent carry on luggage restrictions** has led to a boom in travel minis.

Currently in the market the minis are very literally **minis of the original product, packaging and all**. While this may expand the brand further, there is no consumer insight. Shine addresses, **the needs and wants** of the travelling consumer.

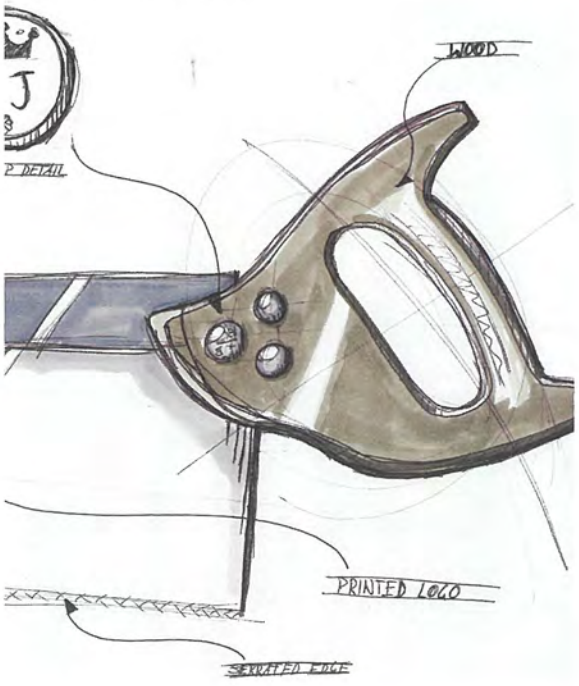
Shine shampoo pushes **travel minis further**. Using soft packaging so you **don't pack air**. It is lighter than normal minis **so your bags will be lighter.It is better for the environment**, its pop-top lid means that you **don't have to use it all at once**.

Shine stands out.

Shine: Travel Mini Shampoo

Hand Held Car Vacuum, Styling Project

Marker and Drawing Exercise



Pause Perch Public Seating, FBE Collaboration Project

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SnowGlazed

Make your own instant Ice Cream!

SnowGlazed is a domestic Ice cream machine that creates Instant Ice cream in less than 2 minutes. It allows the customization of different flavors, depending on different preferences. Current domestic Ice cream appliances only creates 1 flavor at a time, and it requires long waiting time of up to about 3 hours to freeze and churn the ingredients.

With flash freezing technology, cold snacks could be made in a short time span of 90 seconds to 120 seconds. In order to cater to different preferences, Ice cream power mix are prepackaged and sold in tubs. To cater to different occasions, prepackaged powder could be purchased either in big tubs, or smaller "cups. To make ice cream, simply add water to the Ice cream powder, place the cup into the appliance, set the temperature, and wait for 2 minutes.

With part of the cup exposed and clearly visible to the user, it would bring around much interaction between users as they are able to see the whole magical process of "fresh" ice cream being made. Disposable packaging of powder in smaller cups also makes cleaning up minimal, making it ideal for home parties.

Flash freezing components such as compressed carbon dioxide cylinders sits at the base of the product. Replacement of compressed carbon dioxide gas requires user to flip the main body of the product. This is to ensure kids do not access that part of the product easily.

Hero Shot/Packaging

Overall Dimensions (mm)
Main Body : H- 130mm, L- 315mm, W- 235mm
Cup: D 80mm, L- 88mm
Cup Cover:D90mm, L40mm

Manufacturing
Main Body: Injection Moulded ABS
Cup/Cup cover: Injection Moulded ABS

Scenario Shot

Back View/Perspective View Without cups

Controls

Exploded View

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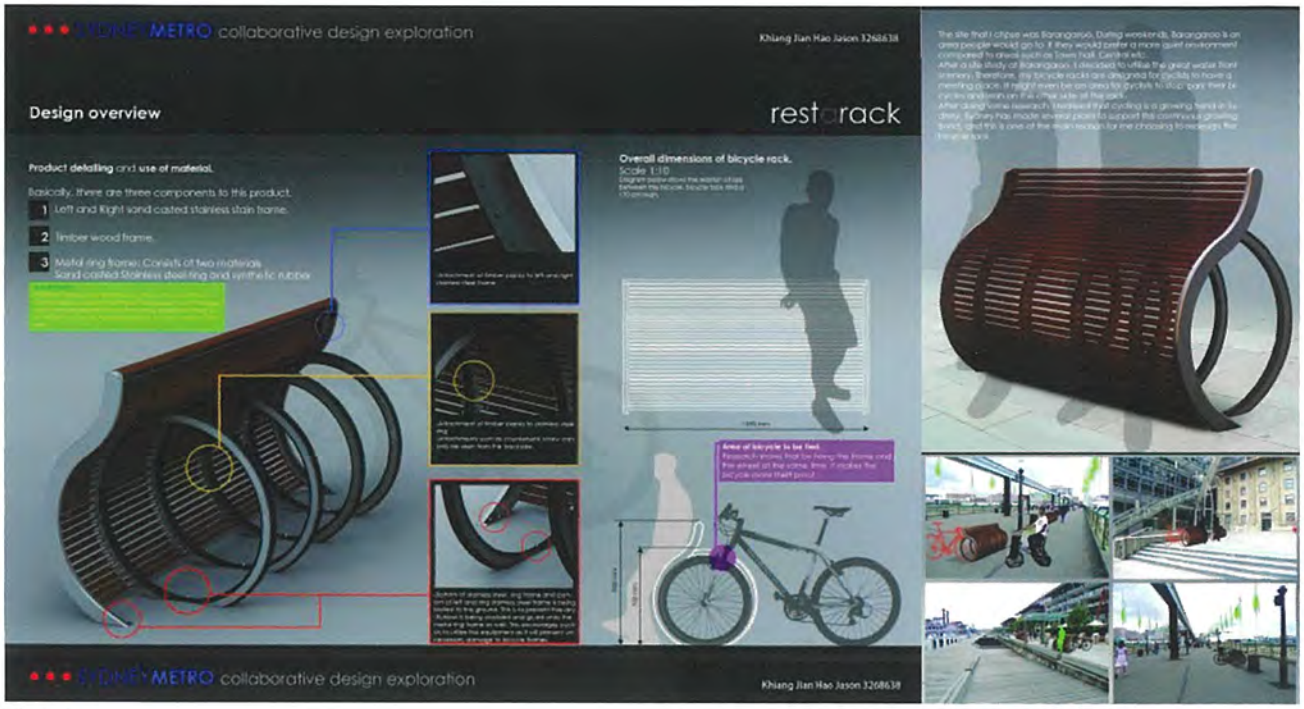
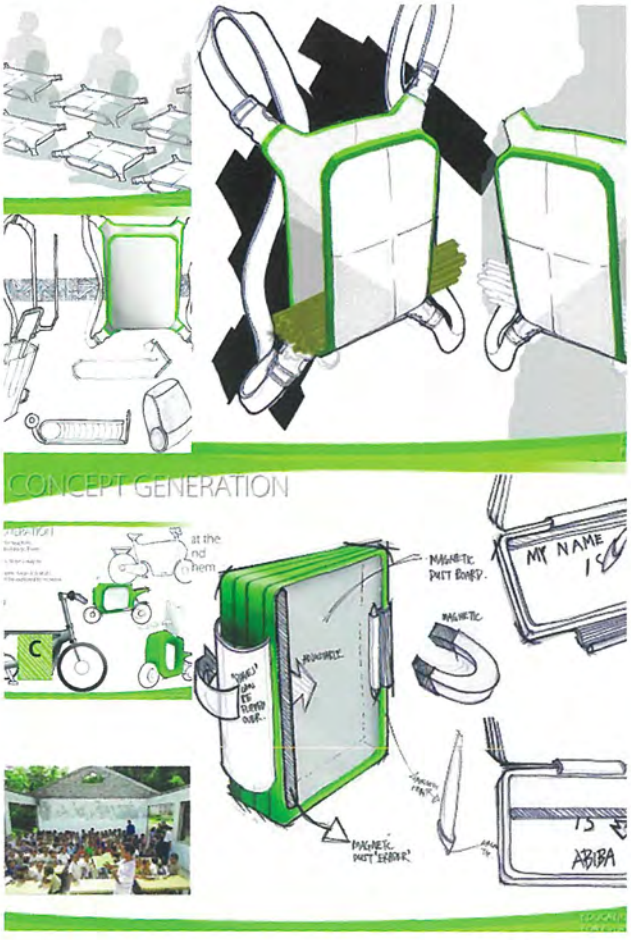
Shower Unit Concept-Seeing Is Believing

Graphical works: Re-Invent/OFAK street wear

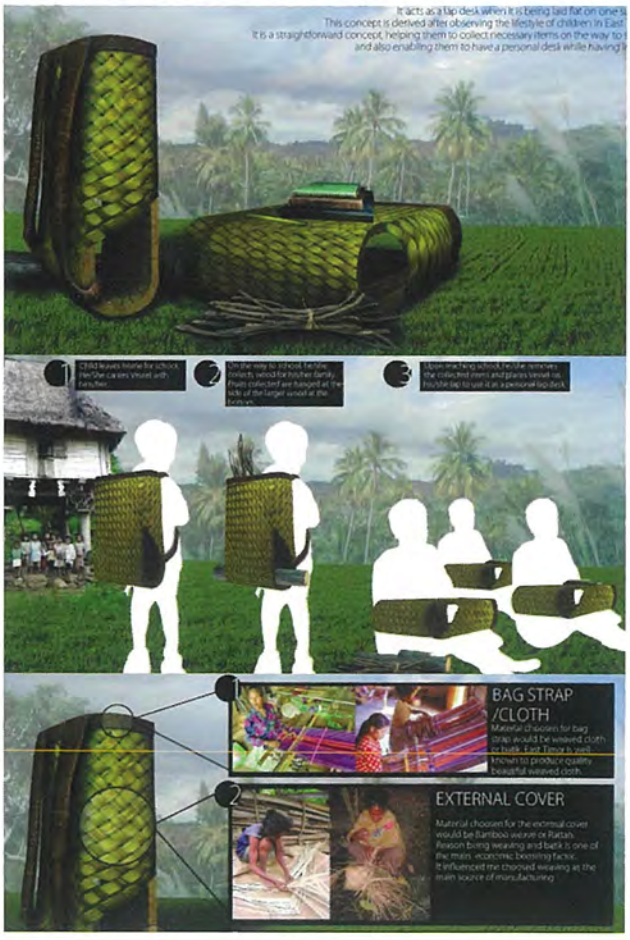
Bicycle Rack: RestaRack



Sketches



Vessel- Designing for Sustainability(East Timor)



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Transformable Rest Aid

Given the choice between sleep and othter activities, sleep is often sacrificed at the expense of wellbeing. Most people are aware of the need for good nutrition and physical fitness, however not many realise sleep's importance. With the 24/7 global community running, shift work in manufacturing and hospitals leaving employees tired and vulnerable and sleep deprivation turning people into states similar to being drunk, there is a growing need to address this issue.

Issues of workplace stress and sleep deprivation found in environments of shift work such as hospitals and assembly line warehouses reduce both physical and mental faculties. Not only that, airports habour the sleep deprived and anxious passengers in the event that delays occur from weather conditions, airplane technicalities or computer malfunctions.

Kip was designed with the insight that space is a critical real estate in any environment and the sleep aid must temporarily transform the environment to become conducive to sleep. Most if not all work places and transit lounges have seats that although may not be ideal for sleeping in, with the aid of Kip, can be transformed into a comfortable rest area.

Kip unfolds and attaches via a velcro strap to any seat with a back, transforming it to have a head rest, lumbar support, and soft cushioning for the body and feet. Two flexible fibreglass rods help support the head yet allow for the dynamic movement of the body. Kip can also be laid upon the ground as a bed.

In Situ

Overall Dimensions (mm)
Vest - 34 x 85
Belt -118 x 16 x 80
Remote - 95 x 70 x 20

Material
Fibreglass, Spring steel, Exterior Open Cell Polyurethane Foam, Polyester Fabric, Tyvek Mesh

Manufacturing
Sewing, Vacuum Forming, Compress Forming

Hero

Ergonomics

Exploded

Colour Options

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Tefal Steam Iron

Foot Grip & Cord Detail

Iron Base & Water Exits

Control Details

Tefal

Ideas you can't live without

Fenix - Silver - Southern Cross Packaging

Dynamo Packaging - Top 13 Presented to Head Office

Meste Stool - Vivid '08 Green Finalist

PVA Glue Bottle - Cormack Packaging Competition

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Embryonics

Hospital and Home infant incubator

Having a child is normally a wonderful and rewarding experience and is at the core of human existence. However, having a premature child is always difficult and stressful, especially for those parents who are confronted with the intimidating and technical environment of the NICU or Neonatal Intensive Care Unit.

The embryonics incubator has been designed to soften the intimidating hospital environment by packaging the necessary support and monitoring equipment into a more baby friendly package.

Preterm infants spend an average 40 days, in the hospital after birth in an incubator. However preterm infants, whose respiratory system is immature and slow to develop, are at a much greater risk of sudden infant death syndrome while sleeping, even after they are ready to go home. With this in mind, embryonics incubator has been designed to be versatile enough to be leased from the hospital and taken home.

Once at home, not only will the parents be able to build the essential elements of early bonding with their infant the incubator is able to provide a constant, clean and nurturing environment for the infant to sleep in. Furthermore parents can rest easy in the knowledge that the incubator is monitoring their infants' blood oxygen level and will sound an alarm if it drops below a critical level. In order to better understand the causes and symptoms of sudden infant death syndrome, data collected each night by the incubator is remotely sent to a database for further analysis.

Incubator in Hospital Context

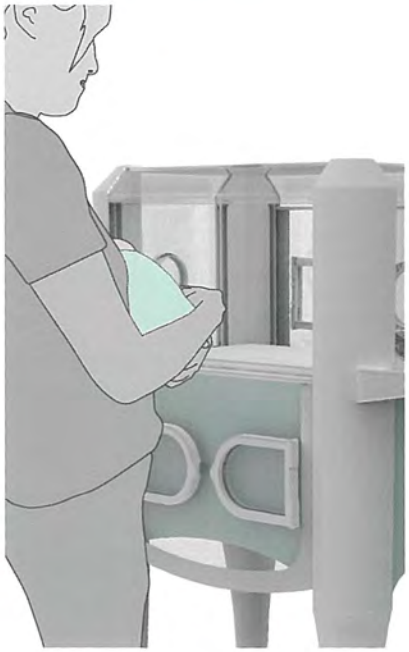
Overall Dimensions (mm)
700x500x1280

Material
Aluminium, Acrylic, Abs Plastic, Mild Steel

Manufacturing
Extrusion, Sand Casting, Machining, Injection Molding, Mig Welding

Incubator in Home Context

1:1 Appearance Model
at Primer Level Finish



Exploded View

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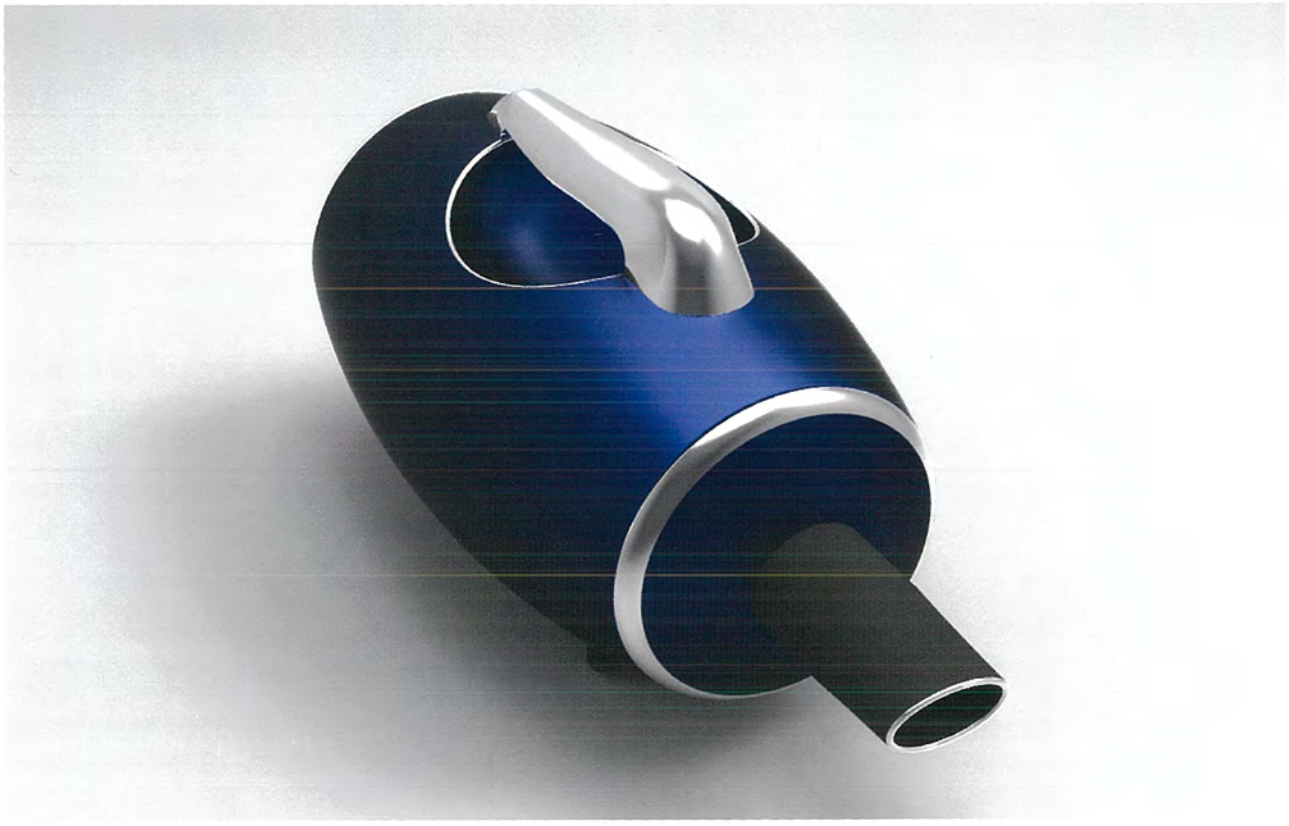
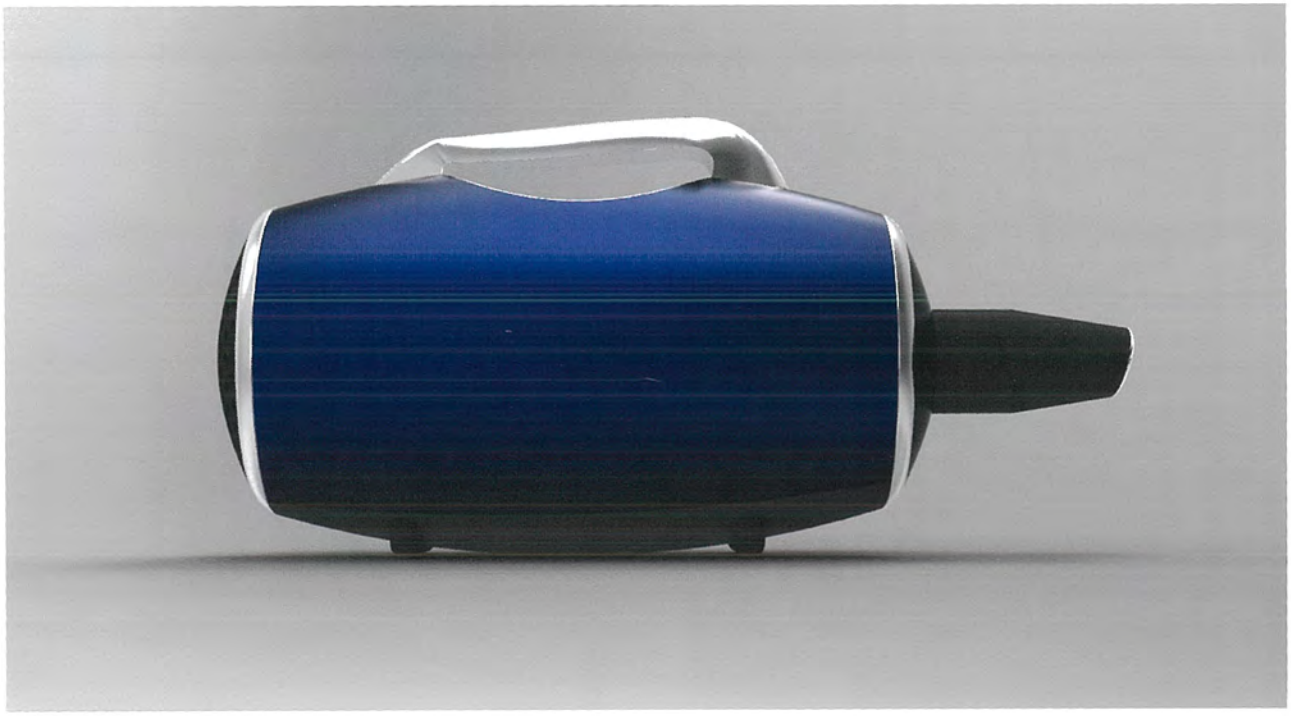
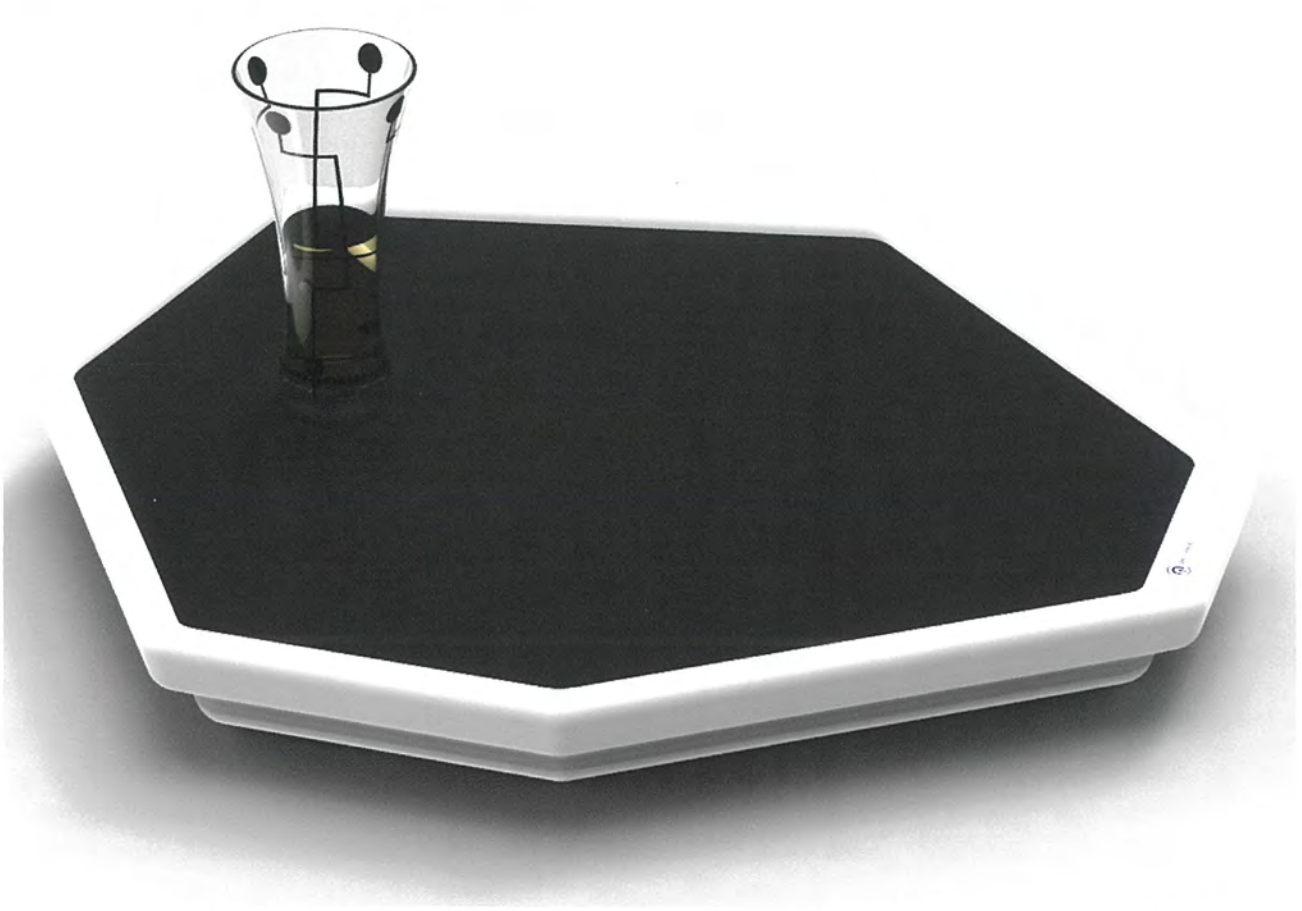
Retro Portable Car Vacuum

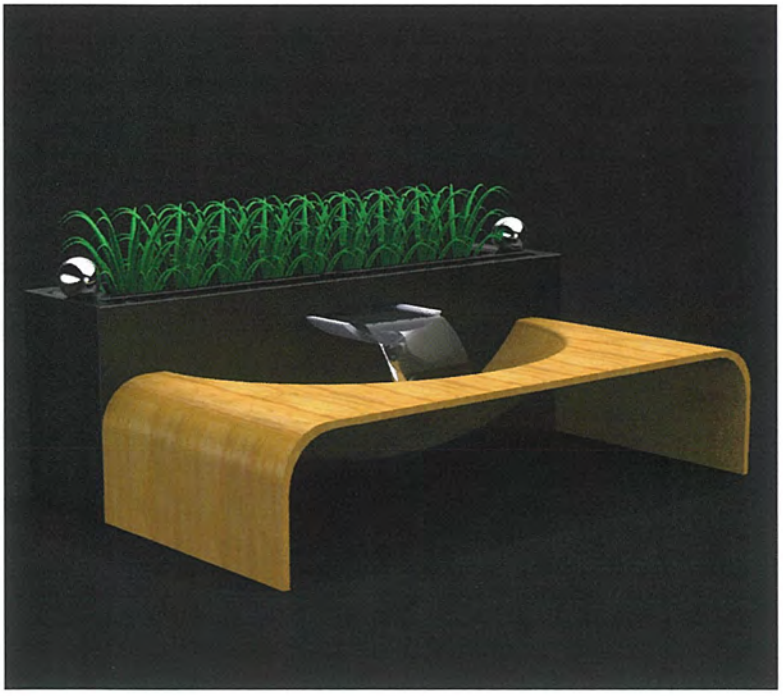




Vices Intelligent Drinks Tray for Electrolux 2050 Design Competition



Sink design for Reece Bathroom Innovation Award



Feminine Figure Inspired Ultra Concentrate laundry liquid bottle for dynamo

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Orwell

Orwell is a stereolithography system for creating regenerative tooth implants

Tissue engineering, as defined by the National Science Foundation "is an interdisciplinary field that applies the principles of engineering and the life sciences, towards the development of biological substitutes that restore, maintain or improve tissue function".

In 2005 researchers at the University of Michigan, successfully regenerated the jawbone of a pig using a degradable scaffold. The biologically active implant which incorporated PCL (polycaprolactone) and BMP7 (bone morphogenic protein) into a porous "spongelike" replacement, encouraged a regrowth of natural bone cells as it deteriorated. The implant was produced using a rapid manufacturing process known as SLS (selective laser sintering) and was created through the use of CAD (computer aided design).

Orwell is a stereolithography system for creating regenerative tooth implants. The project has integrated the developments of hard tissue engineering with the growing range of CAD/CAM products within the dental industry. The specific use of SLS is not only key in producing an accurate and predictable implant, but the entire system provides a simplified workflow for the dentist.

In the past, fabricating a set of dentures, a plate, bridge or implant, would be outsourced by the dentist. With the Orwell system, a patient's treatment can be finalised within a single day.

Information of a patients bite, is captured using a 3D scanner and provides the basis for designing an implant. It is then fabricated within a unique single use cartridge, prefilled with a BMP7 doped PCL powder. After 20 minutes the scaffold is cooled and ready to be implanted.

Sinter Chamber

Exploded cartridge set

Dimensions (mm)
Cart Top Shell - 80 x 80 x 5
Cart Wiper - 75 x 20 x 3
Cart Core - 80 x 80 x 25
Piston - 20 x 20 x 5
Cart Btm Shell - 80 x 80 x 28

Material
PP, Nylon

Manufacturing
injection molding

Removable Tablet Interface

Product Evolution

3D Impression Scanning

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UM804 Shower Concept

BATHROOM INNOVATION AWARD 2010

Boogy Time
Dual showers are an emeging trend in domestic and hotel bathroom fitouts, as well as becoming an inclusion with many new display home packages. The UM804 has been designed to suit being used as a pair. Its internal mixing chamber also simplifies initial plumbing work, making it more efficient to install two at once.

Chrome Plated
To satisfy the standard materials and finish palette of bathroom fittings, a Chrome plated, or Stainless Steel version would be produced .

Mounting Collar
Providing a contrast to the white powder coat of the main plumbing sections, the concealing collars are stainless steel.

Mixing Chamber
The mixing chamber of this shower has been expressed as one of the key design features.

reece

Orbital Sander concept

BOSCH IXO
ORBITAL SANDER

Unchair concept colour range

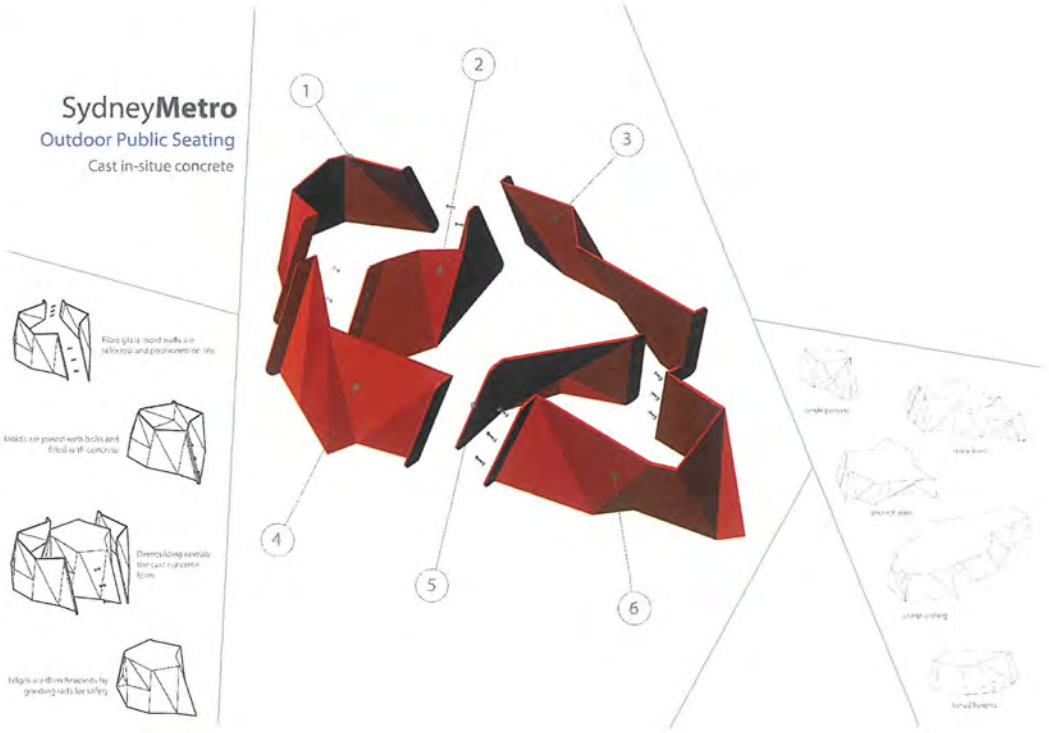
Alimento Concept for Electrolux DesignLab

Growing food in 2050.

The ALIMENTO delivers the deeper meanings and experiences of home grown produce to the high rise mega city context of 2050.

Through creating a form that demands the physical exertion of its user to harvest and interract with its contents the experience of growing your own produce doesnt become (dumbed down), but instead creates a social, and meaningful context within a household akin to the way that a conventional vegetable garden might today.

SydneyMetro outdoor triangular concrete seating



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Aquarian

A water vending machine that harnesses local water sources, to provide a filtered, chilled beverage in a slimline pouch on the go.

The bottled water industry has grown substantially in recent times, with its popularity taking hold in mainstream culture. From such growth also stems the mounting environmental issues associated with the industry, not only in waste created via manufacturing but also landfill and transportation logistics.

"Aquarian" is a water vending machine that harnesses local water sources, to provide a filtered, chilled beverage in a slimline pouch on the go. The unit in itself is a large departure from the traditonal vending machine, and provides somewhat of a hybrid between street furniture and a functioning machine.

The beverage vended takes the form of a slimline pouch, specifically designed to reduce its profile while in transit and weighing less than half of its bottled water counterpart.

As street furniture, "Aquarian" needs to be hardwearing and robust. It's hardened recycled plastic lid and base are complemented by a sturdy internal frame. Heating and cooling have been considered, with water and pest proof vents throughout the unit. In addition anti vandalism measures include texturing to counter graffiti and back to base monitoring sensors to provide information about compromises in the units integrity. "Aquarian" combines these elements to form and performs all the functions required of it while maintaining a sleek aesthetic associated with bottled water.

CHILLED
PURIFIED
GROUND WATER
AT A FRACTION OF THE
ENVIRONMENTAL COST

Overall Dimensions (mm)
1950 x 850 x 450

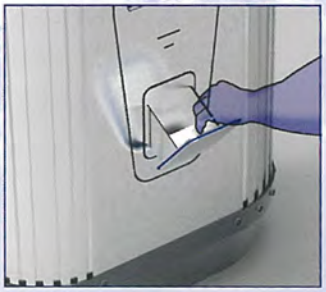
Manufacturing
Aluminium extrusion,
injection blow moulding

User selects either sparkling or still water then is asked whether they would like to recycle a previously purchsed pouch

If a pouch is inserted it is scanned and then accepted

User inserts coins or card

Receptacle opens and user receives project



User retrieves change

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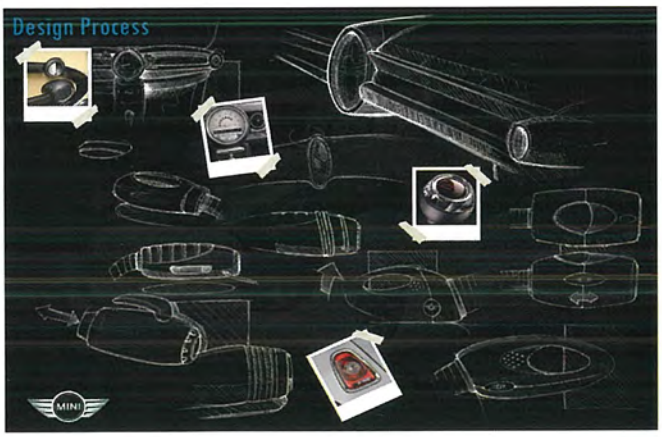
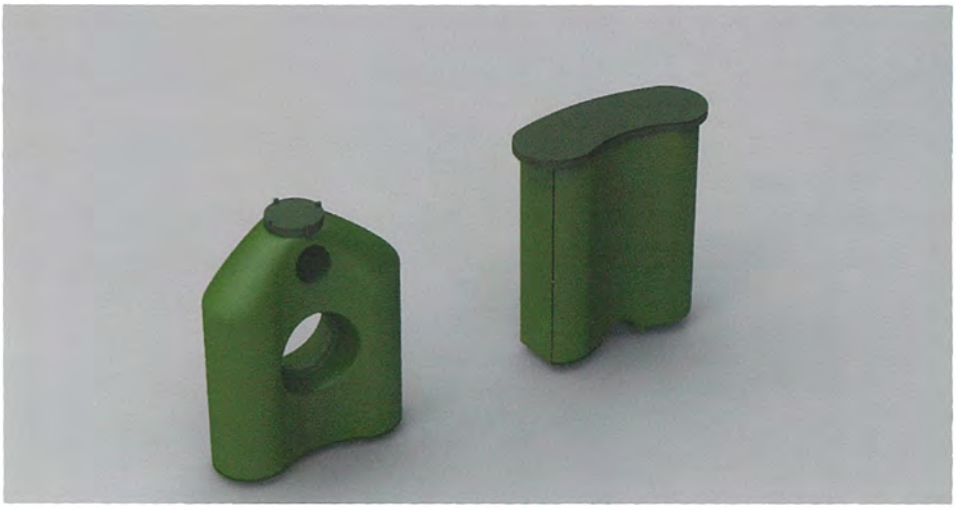


Tulip

A shower concept for women



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FuelUp

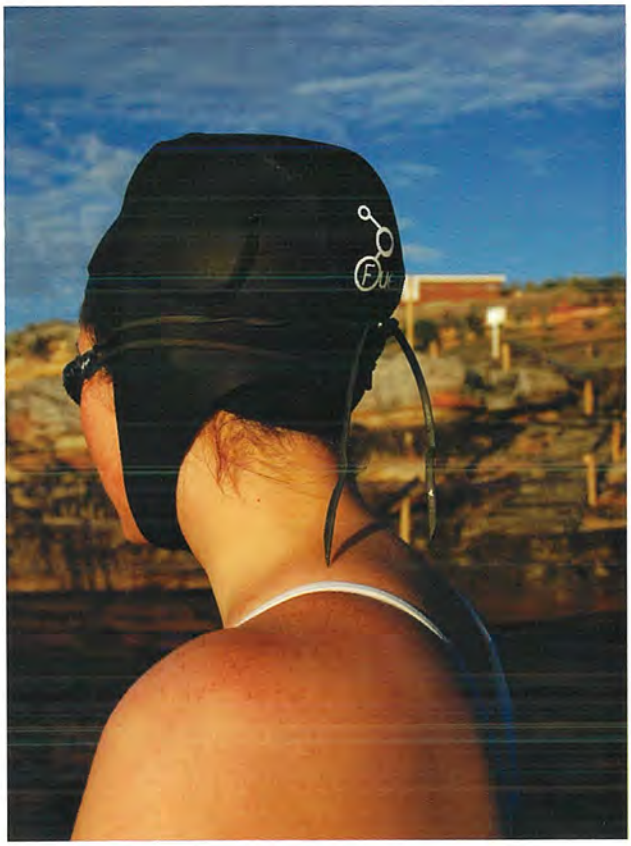
Efficient sustenance delivery system for open water swimming events

Open water swimming is an endurance sport in which swimmers compete in natural or man-made bodies of water such as oceans, lakes, rowing basins and rivers. The distances of open water vary with short distance which ranges from 1.5 to 25 kilometres and marathon swimming which is greater than 25 kilometres. Open water swimming is a sport rapidly gaining in popularity due to its recent advdition in the Beijing 2008 Olympic Games.

Sustenance is essential during prolonged exercise to increase endurance and is the most critical part of the race being an endurance sport. Therefore you would assume the apparatus used in order to deliver the sustenance is a precision instrument. However this is not the case, existing solutions are currently 'do it yourself' jobs and are extremely crude and unreliable.

The solution is FuelUp, a product system designed for effective and efficient sustenance delivery for the swimmers. FuelUp5k is an 'on the go' sustenance cap with gel packs inserted into the cap. The swimmer can access the gel through a straw, allowing the swimmer to continue swimming with little disturbance. This is typically used for short distances.

FuelUpSupport is a belt system designed to make holding the FuelUp10k easier for the handler. The pole is hooked onto the cross bar of the belt adding extra support for the pole. FuelUp10k is a pole supporting two cups of sustenance liquid which is held out to a swimmer in order for them to gain sustenance. This is typically used for long distances.



FuelUp 5k Provides Sustenance for Swimmers on the Go

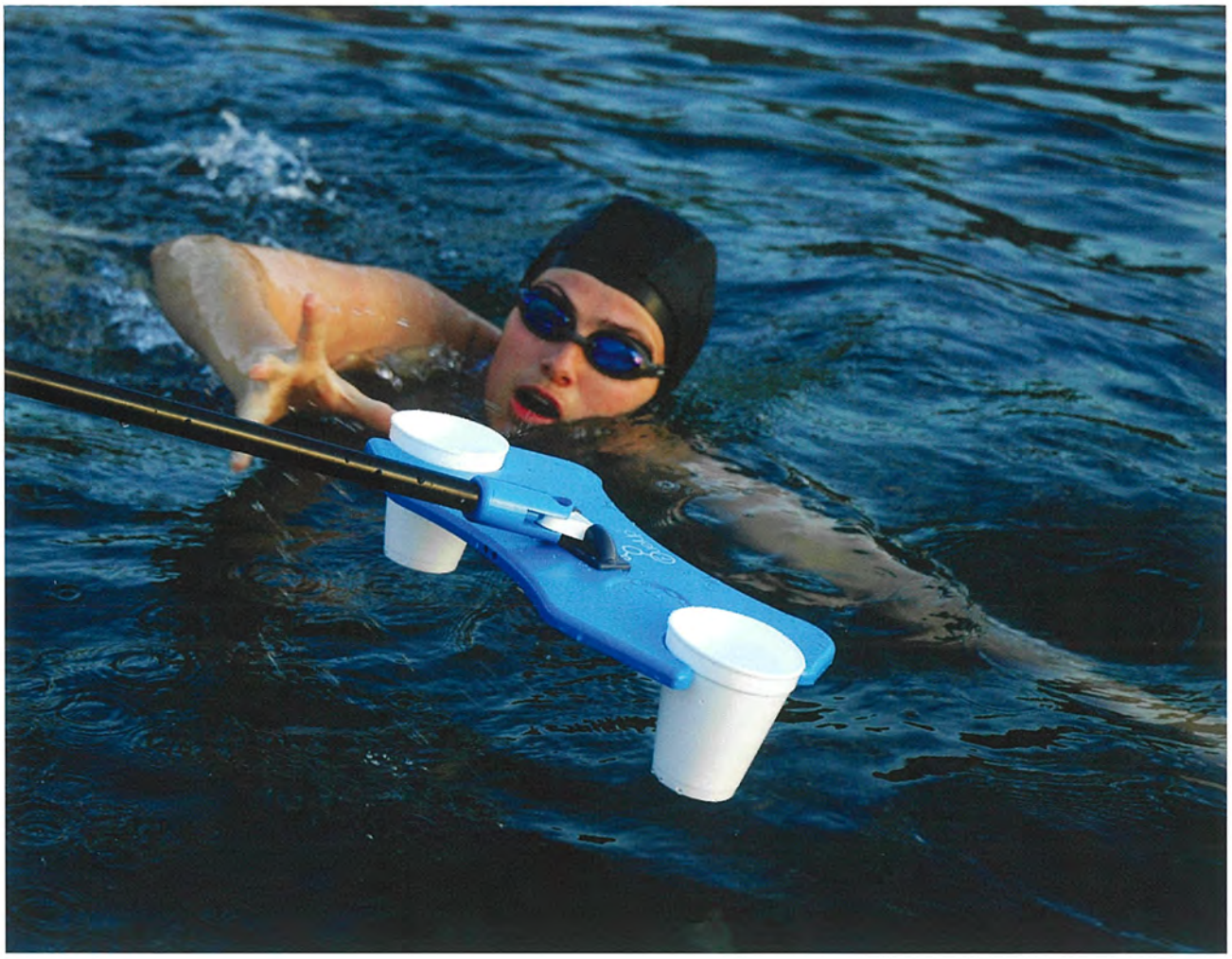
FuelUp 5k Provides Sustenance for Swimmers on the Go

Overall Dimensions (mm)	
Swim Cap:	S, M, L
Sustenance Stick:	905x338x30
(Unextended mode)	
Belt:	205x95x61

Material
Neoprene
Polypropylene Aluminium
Polypropylene

Manufacturing
Glue Blind stitched
Injection Molded Extrusion
Injection Molded

The Swimmer Approaches the FuelUp10k



FuelUp Support is a Belt that Allows Extra Support for the Handler

Cup Holder Plate and Rotation Mechanism

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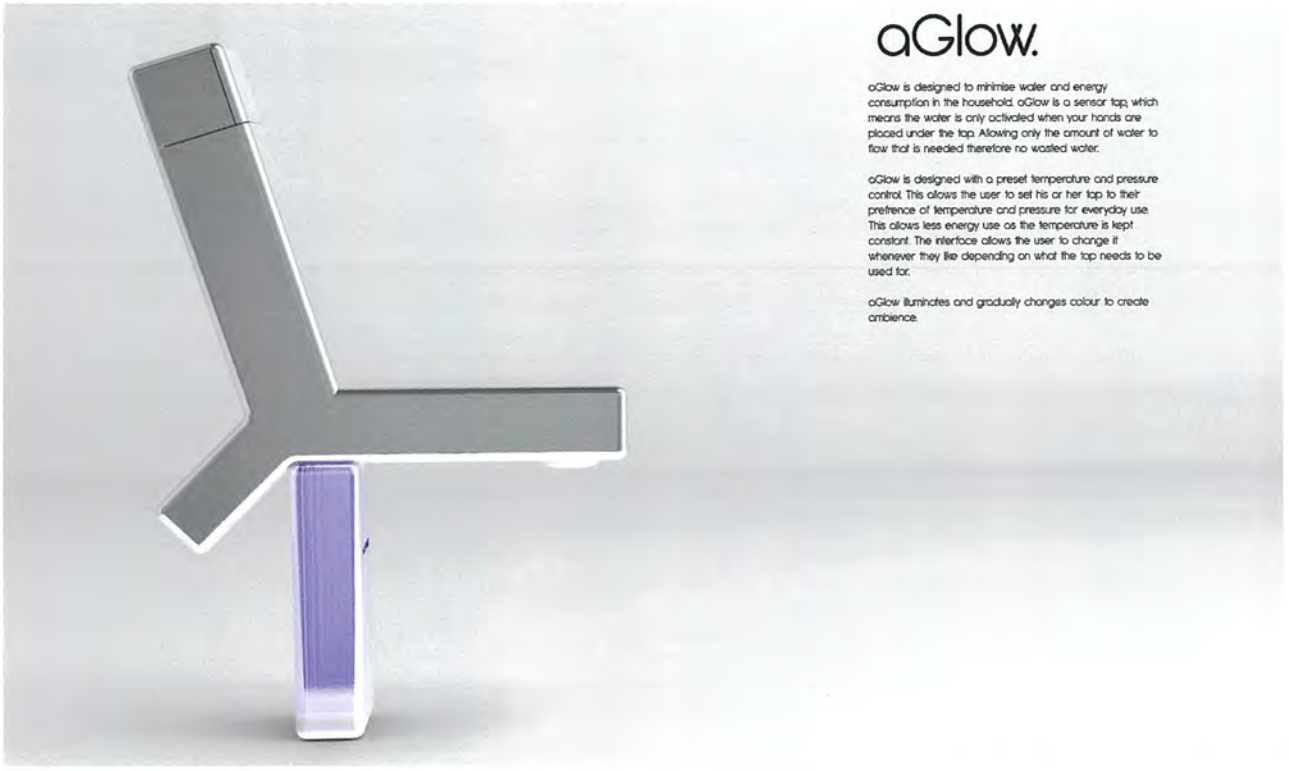
Aglowis a Sensor Tap Designed to Minimise Water and Energy Consumption



aGlow.

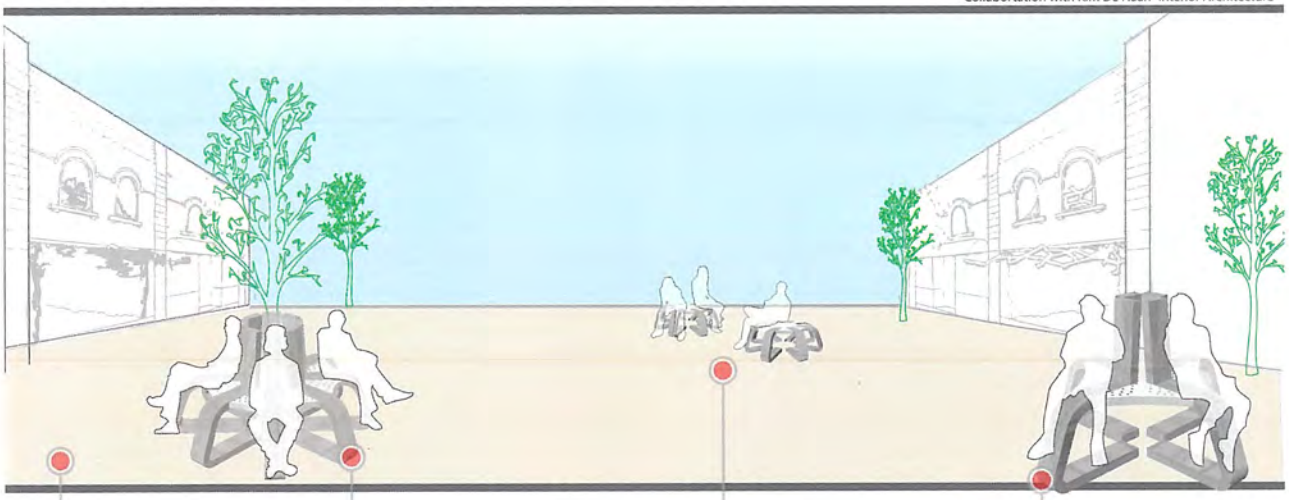
aGlow is designed to minimise water and energy consumption in the household. aGlow is a sensor tap, which means the water is only activated when your hands are placed under the tap. Allowing only the amount of water to flow that is needed therefore no wasted water.

aGlow is designed with a preset temperature and pressure control. This allows the user to set his or her tap to their prefrence of temperature and pressure for everyday use. This allows less energy use as the temperature is kept constant. The interface allows the user to change it whenever they like depending on what the tap needs to be used for.

aGlow illuminates and gradually changes colour to create ambience.

Seating Designed for the Proposed Sydney Metro Pyrmont Station

Collaboration with Kim De Haan- Interior Architecture



Usability

Two forms of public seating have been designed to allow for different uses. The perch public seating is designed for the ideas of what the metro system is all about. fast turnover and high traffic. It is ideall for people waiting for friends to come off the metro line. The public seating stool is designed for people wanting to hang around Union Square to catch up with friends or just want a break outdoors.

Sculptural

The public seating designs have been designed to be more than just seating. They look beyond function and usability of public seating and create a piece of public art. The seating still looks fit for purpose but strays away from 'conventional' public seating. It creates a new visual identity for Union Square.

Connectivity

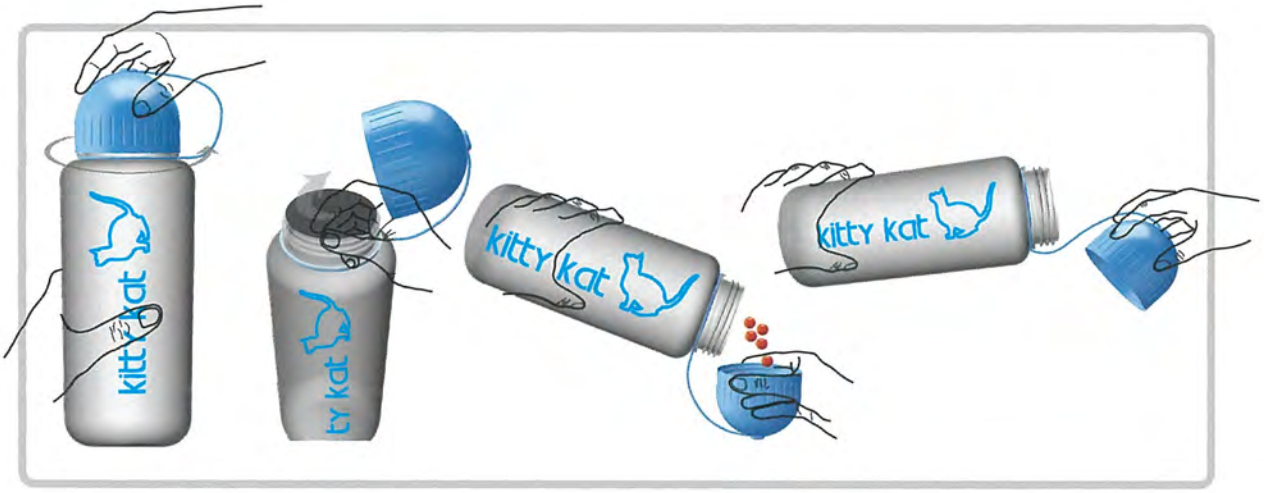
The public seating has been designed with sociality in mind. The seats are designed for the user to interact with other people also using the seating. It may be you are having lunch with a friend in the square or making small chat with the person next to you while you are waiting for a friend to come of the metro line. The seating is designed for public connectivity with the main aim of bringing people together.

Heritage

The public seating reflects the industrial history of Prymont. The use of reinforced concrete and powder coated steel emphasis the industrial nature of Prymont.

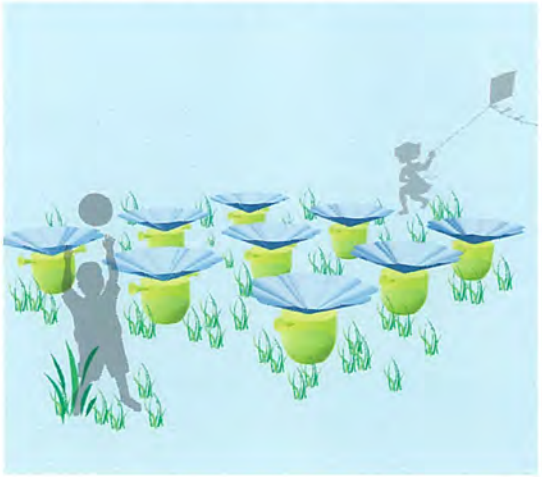
Portion Controlled Dry Cat Food Packaging to Target Obesity in Pets

kitty kat
portion controlled system



1. Unscrew cap
2. Remove foil freshness seal
3. Measure required amount (see back of packaging for portions)
4. Pour portion into cat bowl

Rain Water Catcher Designed for Kids



Auto Vac Designed to Embody the Brand language of a motor vehicle

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PreVue - Wearable Fetal Ultrasound Device

An interactive fetal visualization belt to relieve maternal anxiety by enhancing maternal-fetal relationship

Pregnant women only sense up to a third of fetal activity, albeit it is the only method to monitor fetal health outside clinical setting. Hence they usually fret over seemingly reduced movement, releasing stressful chemicals into the womb, when all they really need is a way of knowing that everything is normal.

PreVueTM is an e-textile based solution to enhancing maternal-fetal relationship via 4D imaging that can be portrayed on any external screen. By combining advances in ultrasound and stretchable technology, PreVueTM also has a display on the abdominal region, which allows other members of the family especially the father to connect with the baby in her context.

Fetal nervous system starts establishing from week 5; by the end of second trimester she will be able to hear and recognize your voice. Apart from being a reassurance 'window', PreVue also senses proximal voices and turns them into flowing waves surrounding the foetus on screen, as an indication of the fact that the baby does and can hear you. This allows an interactive feedback from all the talking, singing, story-telling you are educating.

Adaptive learning starts in utero, and fetal bonding allows her to start rooting the prolongation of maternal relationship post-birth. PreVueTM not only gives you the opportunity to interact and record a continuous growth development throughout gestation, but also an early understanding of her personality as you see it yawning, rolling, smiling etc., bringing you closer till the day it finally rests into your arms.

Bringing the Father into the Scene

Overall Dimensions (mm)
1250 x 356 mm

Material
Cotton Spandex and polyurethane (housing)

Manufacturing
Photolithography, low pressure silicone over-moulding, solution dry spinning

PreVue: Interactive, Intuitive, Intimate. A Vsual Diary of Your Baby's Bio-neuro-behavioural Development.

Intuitive Control Panel Located on Abdomen: to Mimic the Embracing Gesture and to Reiterate the Focus on the womb.

Wearable Electronics without Compromising Comfort and Movement.

Early Fetal Bonding and Education Inside the Womb.

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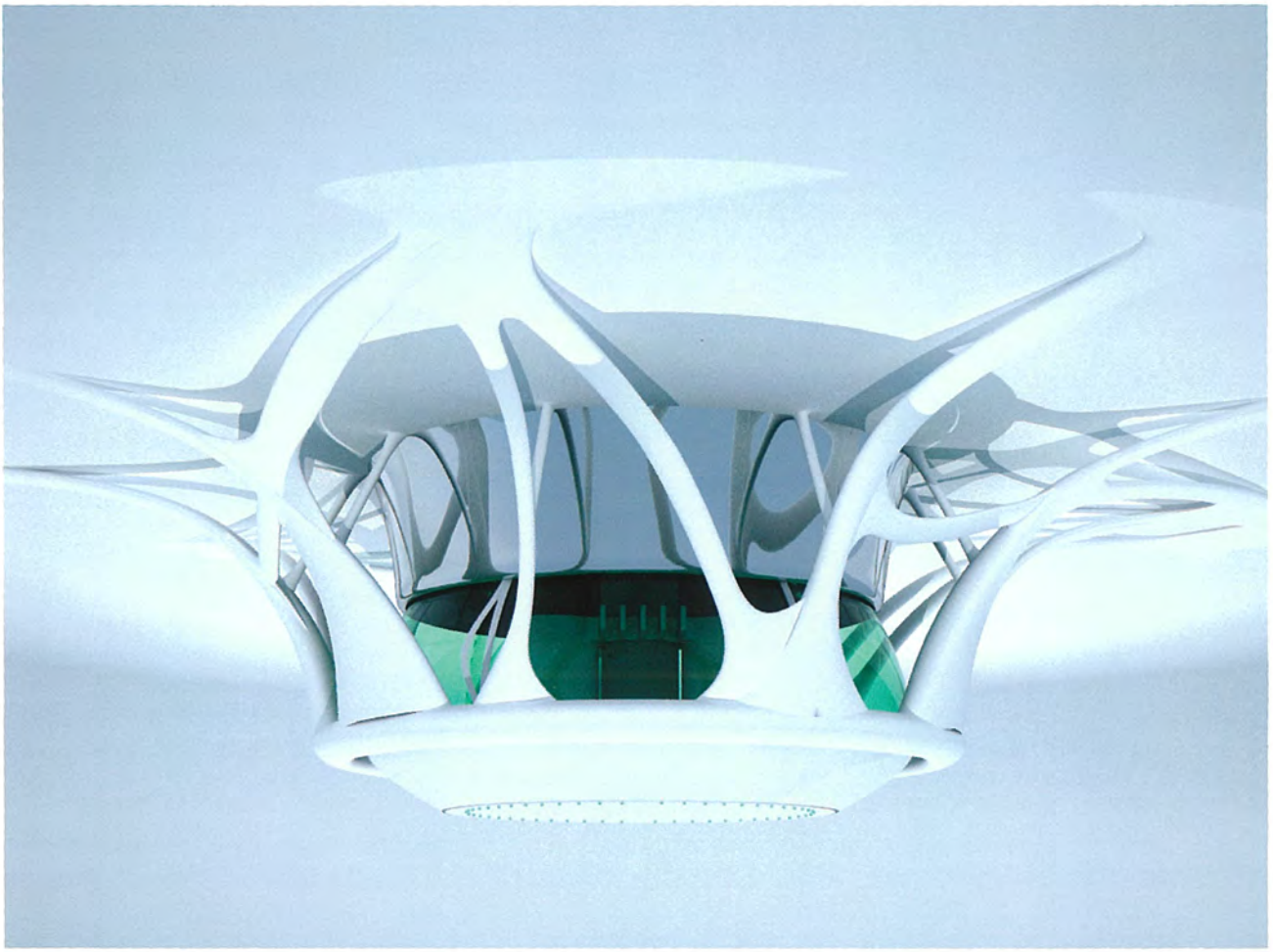
Copic Renderings with Photoshop (Design Visualization Course Taken While on Scholarship Exchange at Technische Universitait Delft, Holland)

Branding Exercise on car Vacuum Cleaners

Eco-Vessel Autoclave (EVA) is a 2050 Concept Dishwasher –Chandelier that Regenerates and Recycles Water from Hydrogen Fuel Cells



An Ottoman Design; Metal-Sintered in Magnesium Alloy

Packaging Design for Colgate Palmolive

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LifeDrive

Ultimate data management, protection & preservation – the keepsake of the future.

The lives of today's youth exist very literally in the digital realm. However the information that has come to represent our experiences, memories and personality its-self is fragmented across a multitude of short lived products, services and formats - known collectively as "the Cloud". As the world continues to embrace ubiquitous connectivity, cloud computing, social networking and only the latest digital technology, we begin to lose control. "Every two days we create as much information as we did from the dawn of civilization up until 2003" - Eric Schmidt (Google CEO).

LifeDrive serves its owner as an antithesis to "the Cloud". Built to withstand the test of time and everything else, emphasis is on data longevity and measures that resist digital obsolescence - issues yet to be addressed in the consumer market. The system centers around a removable memory "core" or "fob" - your life in the palm of your hand. A "dock" provides everything needed for the cores contents to be understood, even a hand cranked generator & pico projector. The stand serves as the interface between contemporary technology and the dock. Vulnerable parts are hermetically sealed, electromagnetically shielded and encased within the docks fireproof ceramic armor plate; only light and rotational kinetic energy enter the device.

A LifeDrive is for recording a 21st birthday message for your grandchild, preserving memories for when you have time to enjoy re-living them or as a way to build something of true value for the next generation to remember you by.

Fob with Lanyards and Visible Internals

Hand Crank Turning the Dynamo's Panetary Transmission

Overall Dimensions (mm)
183.67998885mm x 113.52047616mm

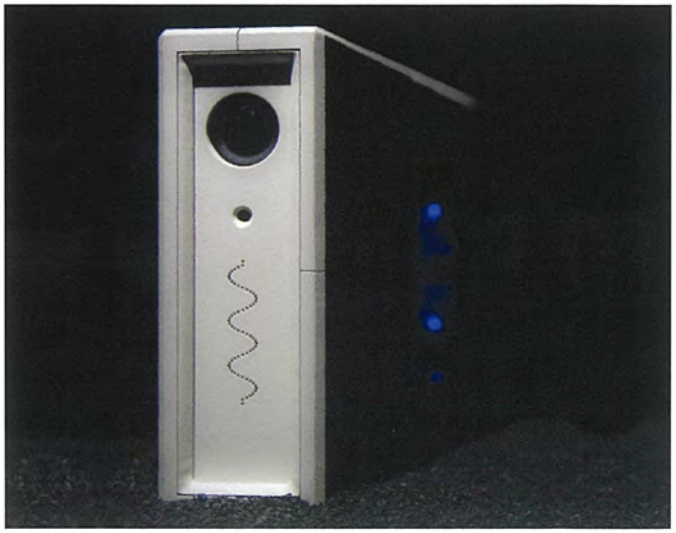
Material
Metal matrix hybrid composite dock casing (boron carbide + titanium + copper) , Synthetic sapphire + fine silver fob housing.

Manufacturing
Aluminium extrusion, injection blow moulding

Stages of Operation

Prototype Model with Personalised Engraving

Input (camera) / Output – (projector) + Vent Detail for Speakers / Cooling



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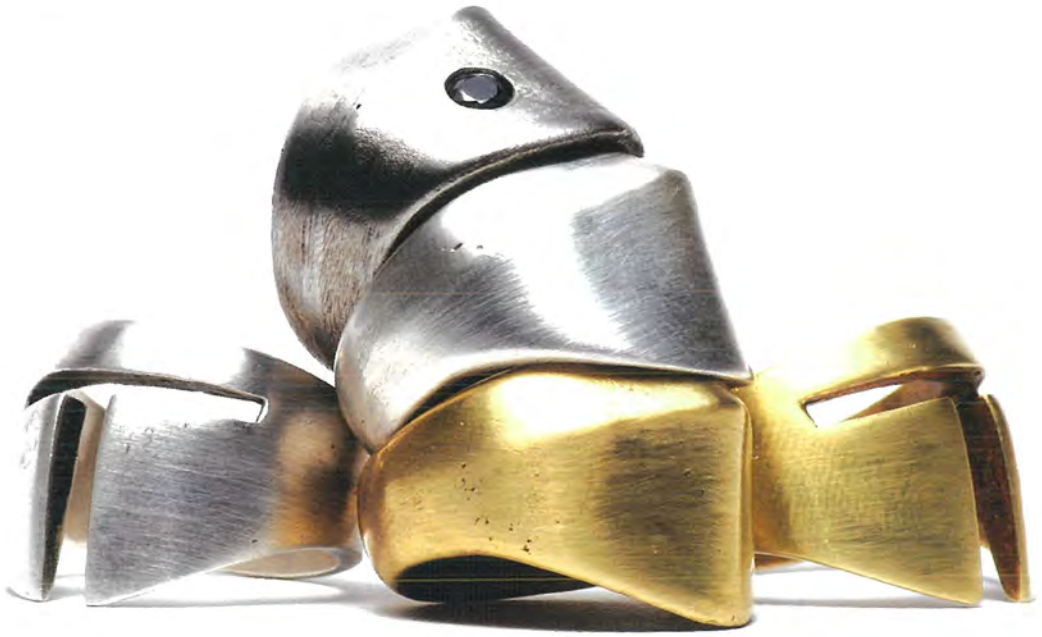
Custom Jewellery + Photography



Visual Language Studio Exercise

Electrolux Design for the Future

Reece Bathroom Innovation Award top 25 finalist

Colgate Palmolive Packaging INnovation Brief

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Nascent: Remote pregnancy car

Improving access to prenatal and emergency delivery services in rural and remote Australia

Many rural and remote Australian communities currently face difficulties in accessing the full range of maternal health services due to geographical isolation, lack of essential health infrastructure and a shortage of health care providers.

In order to address this problem, Nascent is a system that provides support to maternity services for expectant mothers living in these isolated communities. It is a portable medical kit that addresses the two critical phases of prenatal and delivery care.

The prenatal care pack contains a digital first-aid guide, foetal doppler and blood pressure monitor. These equipments allow the parents to perform standard prenatal care procedures in the absence of a physician. The delivery pack also contains disposable supplies that can be used by the couple during an emergency, whether it is at home, in the vehicle or on route to the hospital. Where possible, a midwife can view the delivery via a video camera and give audible instructions through a speaker. All supplies are indexed and colour-coded into logical stages for easier childbirth during stressful times.

Portable Maternal Kit

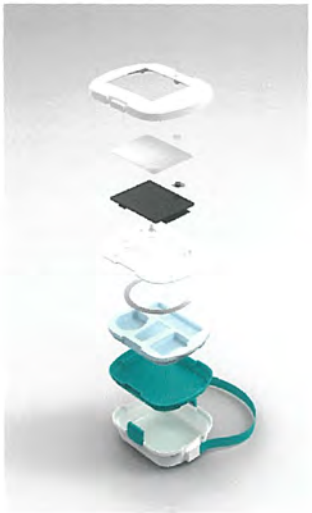
Overall Dimensions (mm)
258 x 290 x 815

Material
Polycarbonate, Steel, Open-cell Polyurethane Foam

Manufacturing
Injection Moulding

Digital First-Aid Guide for Prenatal and Childbirth

Exploded View



Scenario

Emergency Delivery Kit Pack Detail

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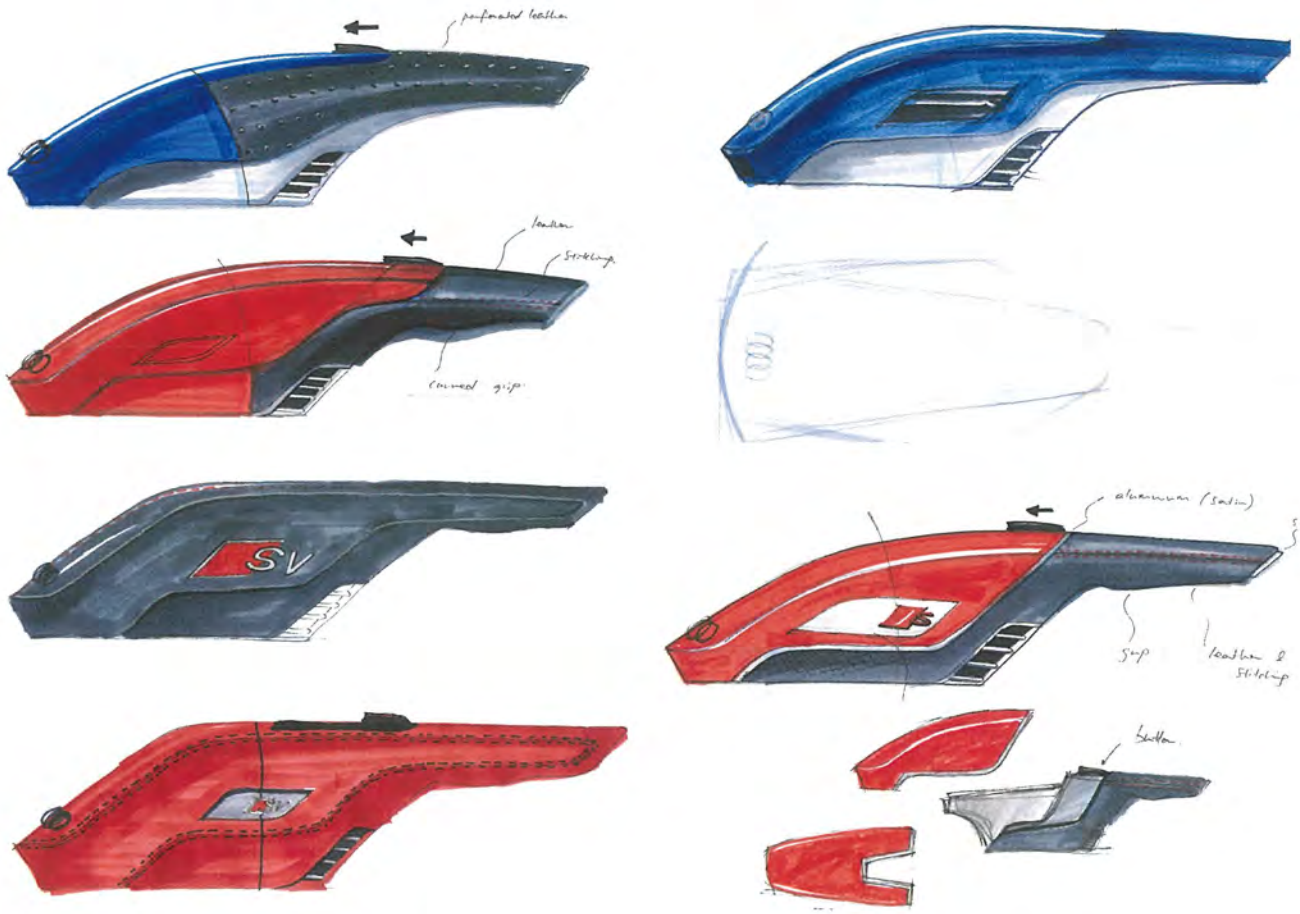
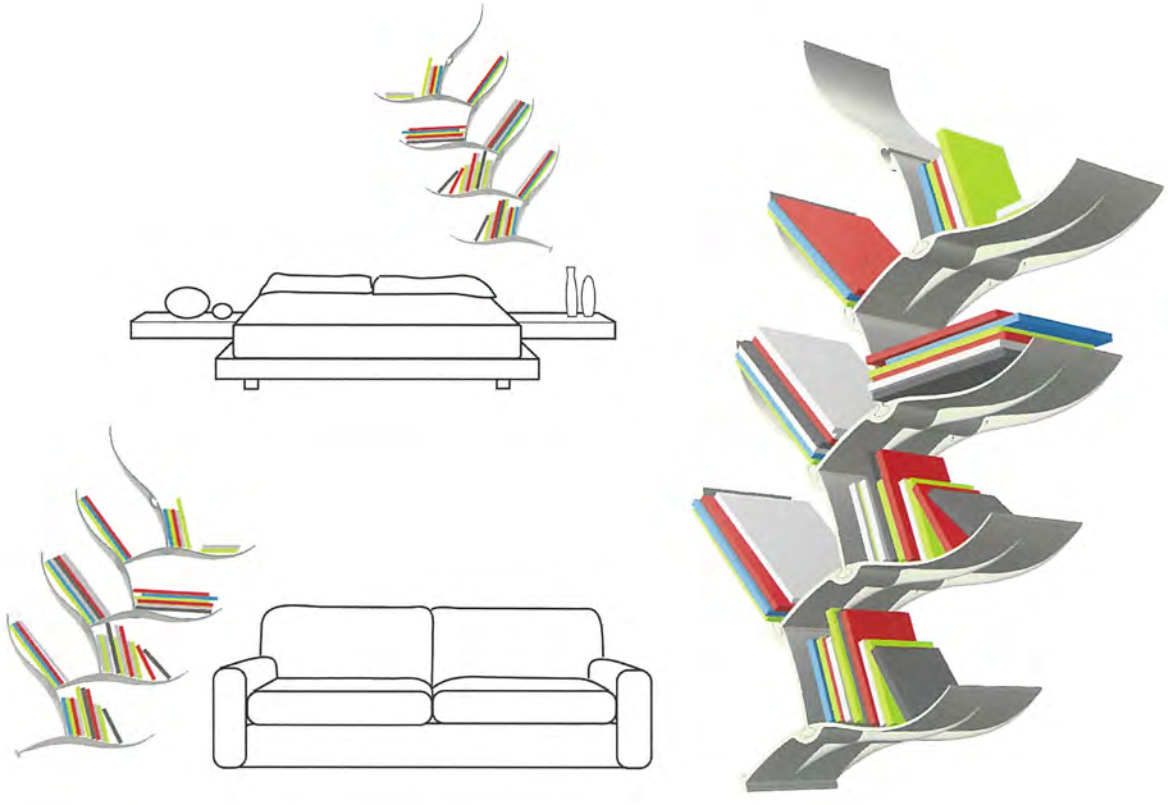
Receive Basin

Dish Sterilizer

Form Exploration



Magnesium Bookshelf



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Domestic Sous Vide appliance

A cooking appliance that perfects cooking of protein based foods in the domestic kitchen environment.

Sous Vide cooking has for a long time been a well kept secret by the commercial kitchen establishment. With its superiority in cooking result and accuracy in mind I designed this Sous Vide appliance so that the domestic kitchen and its cooks can enjoy cooking like Michelin Chefs around the world. The domestication of Sous Vide cooking aims at creating a higher user confidence in their ability to achieve the perfect cooked meat, fish and poultry every time. This will enable and inspire for home cooking to challenge and approach complex recipes previously not suitable for the domestic cook.

This appliance changes the typology of commercial Sous Vide and is instead using a compressing system between two flexible pads filled with heated oil. This ensures an even heat transfer and also eliminates the need to vacuum seal the food product in the bag prior to cooking.

The food is placed in a bag and positioned on the horizontal oil pad; the opening of the bag is placed in a compartment at the front of the appliance and then clamped for efficient seal. Any food juice that escapes from the bag is collected in the compartment that can be removed and placed in a dishwasher for cleaning.

The user sets temperature, compressive pressure and time for cooking and the oil pads have three individual compartments that allows for different food products to be cooked at different levels such as medium-rare and medium at the same time.

Food is Placed Inside the Appliance for Cooking

Overall Dimensions (mm)
470x380x138

Material
Aluminium, ABS, PP, TPE, Stainless steel

Manufacturing
Die casting, Injection moulding, spinning

Sous Vide ApplianceReady for Cooking

Section View

Exploded View

Easy to use Interface with Multifunction button

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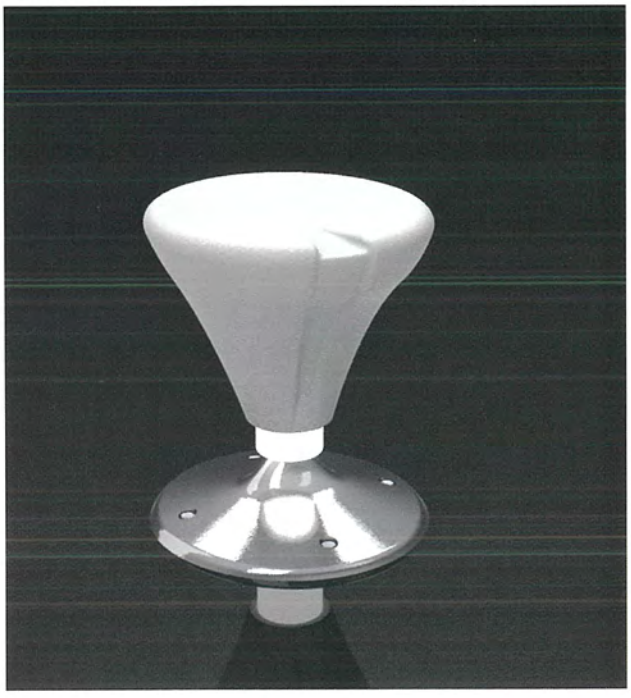
Electrolux Dishwasher of the Future

A Mixer for the New kitchen

POD a Public SeatingSystem with Built in Night Light



Nitro Energy Bottle

Jewellery Tree Made from Recycled Aluminium

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Sonic Scan

A portable noninvasive multiple parameter testing device for diabetics

Cardiovascular disease (CVD) is considered to be one of the major complications associated with diabetes and the leading cause of mortality among diabetic patients. Death due to CVD or stroke affects at least 65% of individuals with diabetes. Furthermore, when compared with non-diabetics, adults with diabetes have two-to fourfold higher rates of CVD, because many individuals with type 2 diabetes have increased rates of hypertension, obesity, and dyslipidemia. Fifty percent of patients have evidence of CVD at the time they are diagnosed with type 2 diabetes. Statistics indicate that 97% of adults with type 2 diabetes have high lipid abnormalities, and 70% of diabetics have some degree of hypertension.

'Sonic Scan' has been designed to provide an answer to diabetics needs as an all in one non-invasive monitoring solution that provides the necessary testing parameters of blood glucose, blood cholesterol, blood pressure and an electrocardiogram (ECG). Current products on the market simply lack the testing comprehensiveness of the 'Sonic Scan'. The blood-testing device uses near infrared (NIR) optical spectroscopy. This allows the product to make fast, accurate non-invasive blood tests compared to current means of testing within 15 –30 seconds dependant on the testing blood parameter. Blood pressure monitoring is done through the use of a vinyl finger cuff, the user simply inserts their index finger into the tunnel and waits for it to inflate while the pressure sensor (transducer) determines the result. Electrocardiogram (ECG) testing is also as simple, the user places their two thumbs on the dry conductive electrodes and a reading of the hearts status will be taken within 30 seconds.

All testing parameters are further enhanced through the intelligent warning system that visually and audibly alerts the user of their current testing results, a trend analysis database, the ability to connect to a computer, blue tooth enabled connectivity to a mobile for constant test reminding and wireless charging.

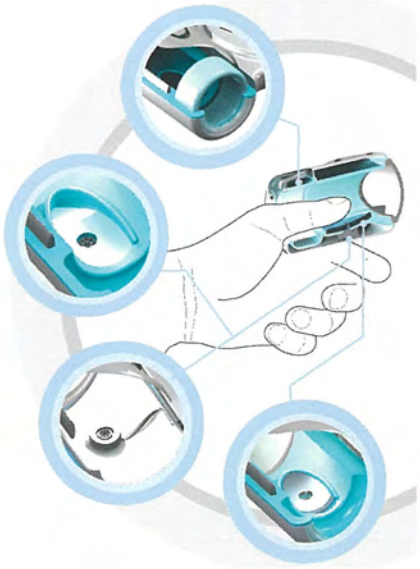
'Sonic Sonic' has the prospective to make testing painless, simple, accurate and fast, potentially preventing complications and saving millions of lives each year.

Overall Dimensions (mm)
175 x 105 x 55

Material
HDPE, Acrylic glass, Aluminum , Ag/agCl

Manufacturing
Injection Moulding

Internal Components of Technology



Exploded View

'Sonic Scan' in Context of a Bedroom Setting

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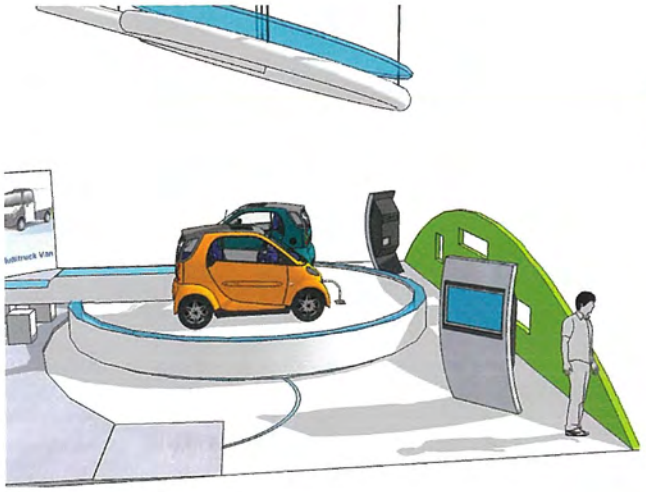
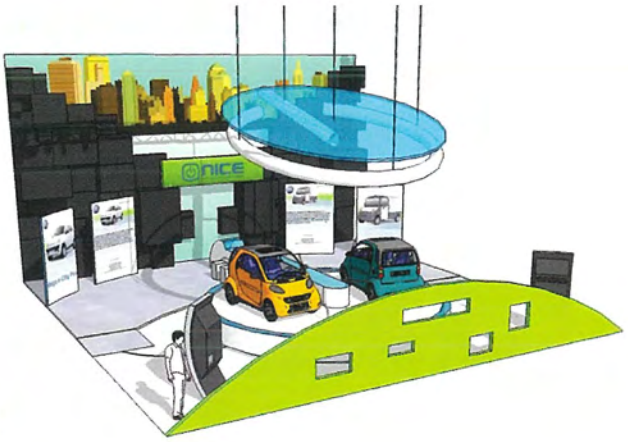
Contemporary Foldable Basin

Electric Car Motor Show Exhibition





Land Rover Styling Hand Vacuum

Philip's Electric Shaver

Extrusion Cooking for the Year 2050

Program Team

Rina Bernabei

Assoc Prof
Oya Demirbilek

Andrew Fowkes

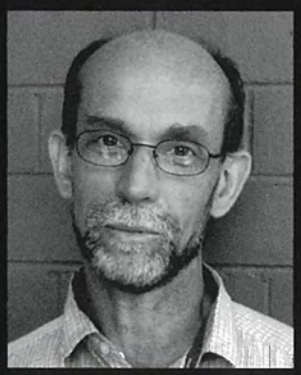
Dr Lance Green

Anthony Jones

Peter Kolasinski

Dr Miles Park

Dr Mariano Ramirez



Steve Ward

Alumni Profile

UNSW Built Environment Alumni Community

Stay connected for benefits, services and access to alumni networks!
www.alumni.unsw.edu.au

Douglas Nash
Bachelor Industrial Design, 2004

I remember looking through the UAC guide and being impressed with the breadth of the Industrial Design course at UNSW, with its multiple dimensions of engineering and marketing with a big emphasis on design. It was important that I chose a university with a reputation for excellence, which all made UNSW Industrial Design an obvious fit. The fact that a respected former student from my school was studying the course only helped endorse my decision!

A big highlight during my time at UNSW was winning the 2004 Electrolux Design Lab (with two of my fellow students). Going to New York for the finals and presenting to a panel of famous designers including the Electrolux Director of Design was exciting to say the least. Though I also remember loving just working on the project, the rush to the finish, tight deadlines and the all nighters! The fact that so many competitions like this are integrated into the course gives students the opportunity to compete at a national and international level, broadening their horizons and encouraging some healthy competition.

The Industrial Design degree taught me a way of thinking and solving problems that has been the foundation of all of my work since. Of course, the mile stone in any designers' life is seeing your first design actually made, which for me was a set of knives designed for ScanPan. Though, developing a single car dealership for Audi, which could be transported on a truck with the car inside, was definitely a career highlight. Another was being involved in the design of the future restaurant project for McDonald's, and actually taking the concept for the next generation play land's into reality with trial playgrounds built last year and a national rollout underway.

I am now enjoying the challenges of my strategic new-product development roles, using design thinking to solve business problems. It's very stimulating trying to balance customer needs with commercial outcomes; whether formulating new products for Coke or financial products for a bank, it's always interesting to learn more about how we all behave in everyday situations and drill down into what the essence of the experience is and how we could make it better.

My advice to school leavers is to remember that it is ok not to be absolutely certain what you want to do with life. Choose a course, throw yourself into it with as much enthusiasm as you can and stick with it for at least 2 years then see if it's really what you thought it was going to be... and get counseling from your lecturers – they are there to help!

“ The fact that so many competitions like this are integrated into the course gives students the opportunity to compete at a national and international level, broadening their horizons and encouraging some healthy competition.

Alumni Professional Practice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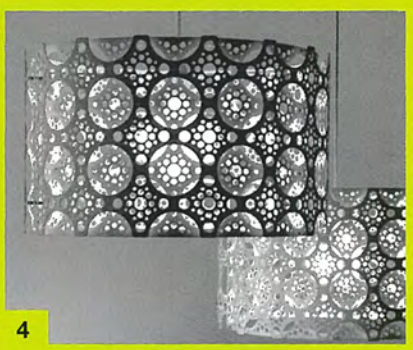
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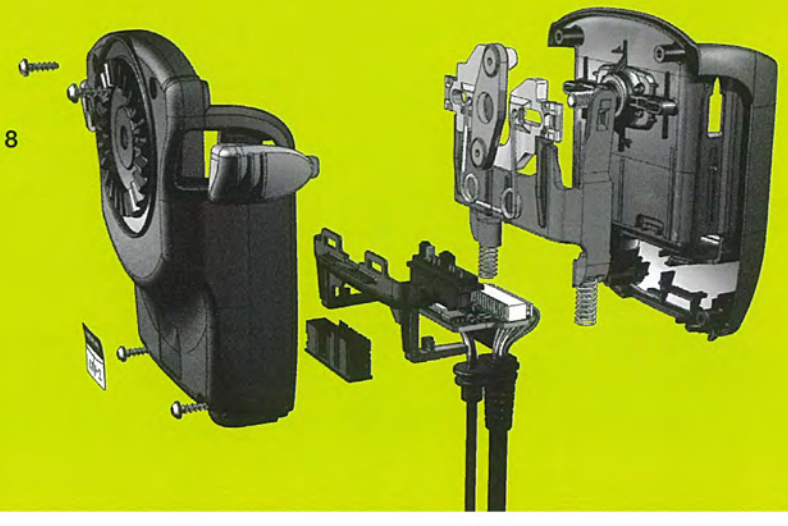
1. Nokia Remade (2007) - Andrew Gartrell, Nokia California
2. SLIGHT Light (2007) - Ben McCarthy
3. FCS H-2 Surfboard fins (2004) - Michael Durante, Surf Hardware International
4. Lace Light (2005) - Kelly Freeman
5. Toyota Sportivo Coupe concept vehicle (2004) - Nicolas Hogios, Toyota Style Australia
6. Telemedcare (2007) - Antony Honeyfield, Design + Industry
7. S9 Series 2010 - Mark Bertinetti, ResMed
8. Car Cradle for Nokia Communicator (1998) - Andrew Gartrell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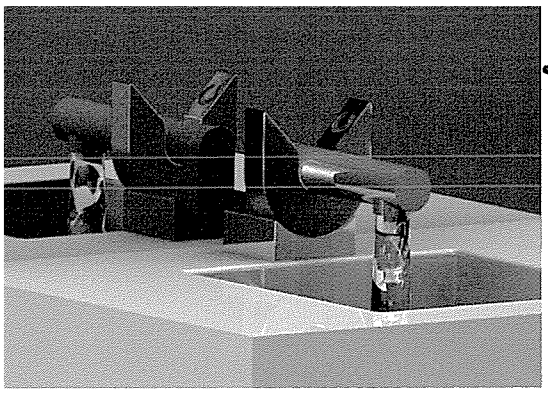
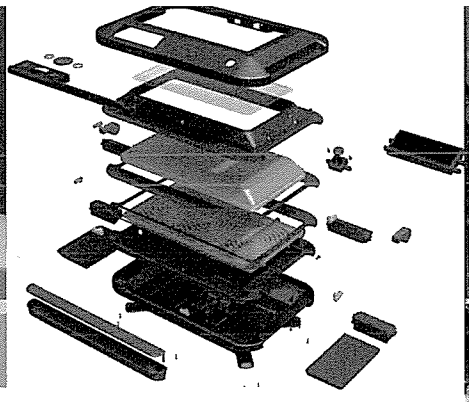
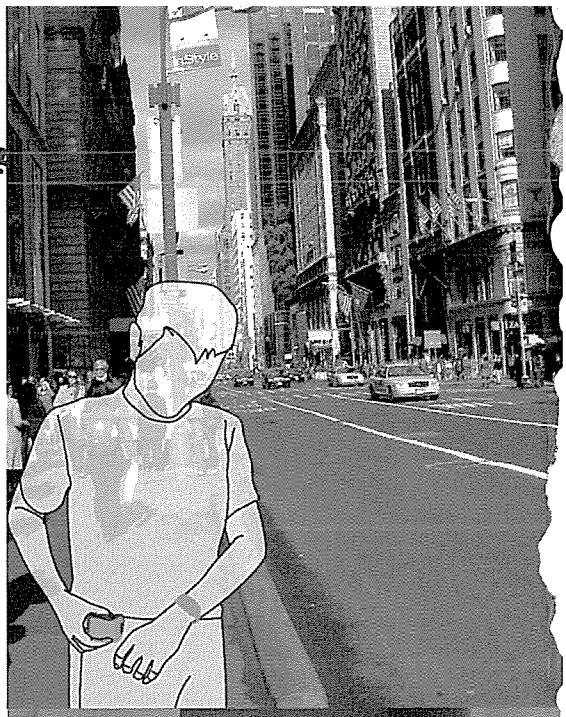
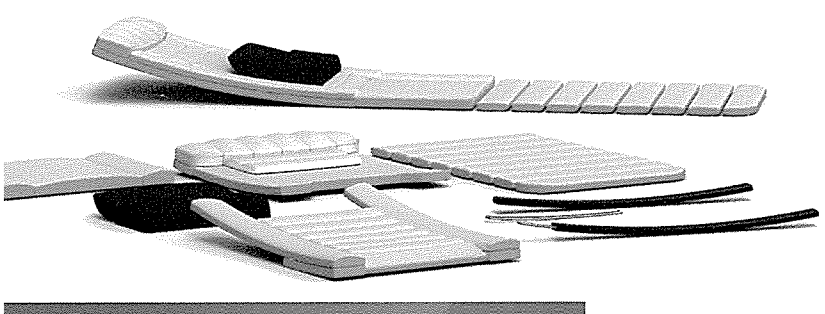
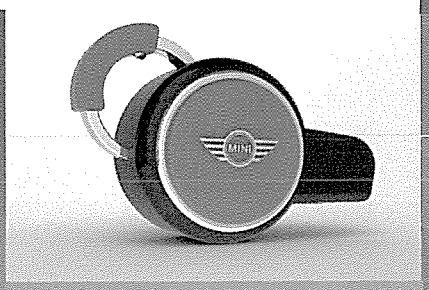
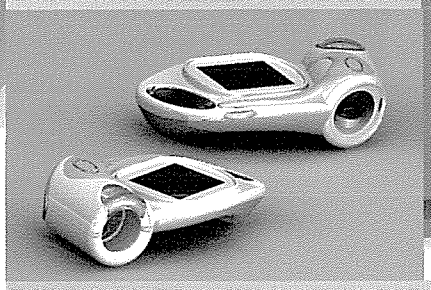


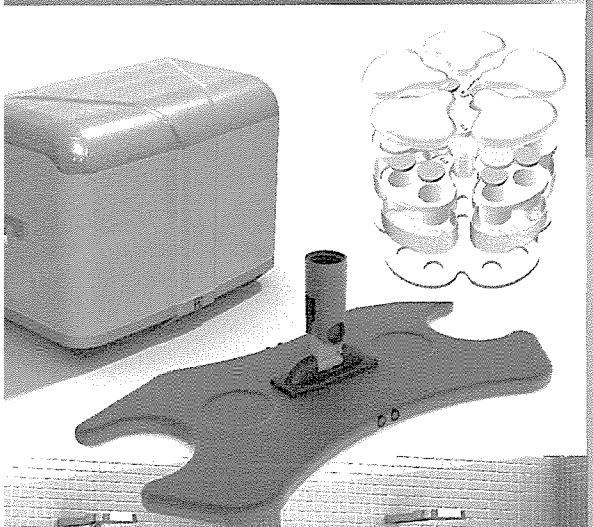


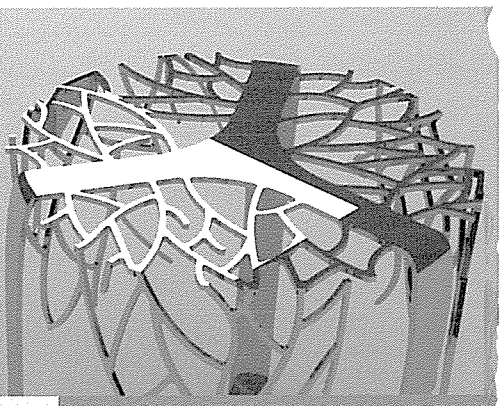


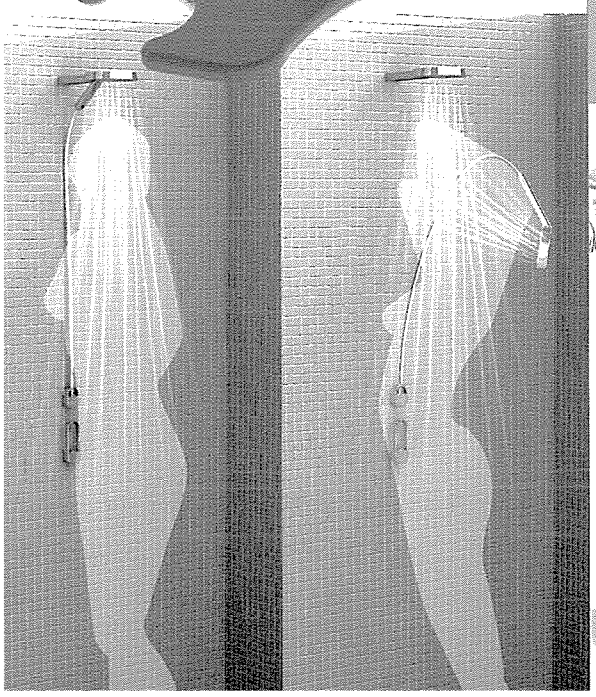

Dynamo

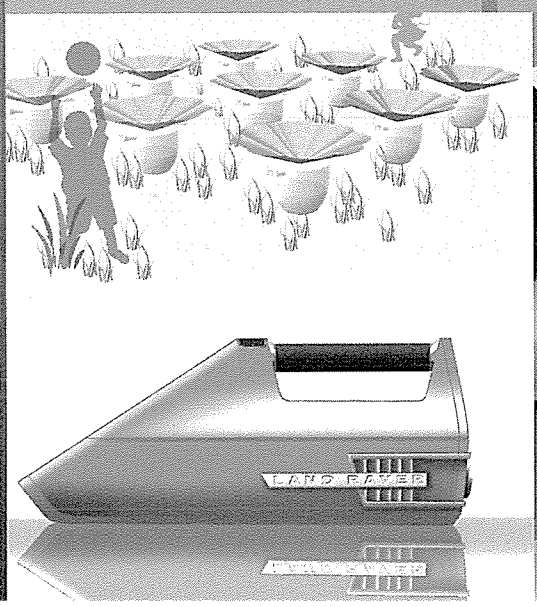

MINI










LAND RAVER