



Industrial Design Final Year Studio 2011

Never Stand Still

Faculty of Built Environment



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Open to the public
29 Nov - 02 Dec | 9am - 5pm
UNSW Red Centre Gallery
Faculty of Build Environment
West Wing, Red Centre Building, UNSW

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MESSAGE FROM THE DEAN

FACULTY OF BUILT ENVIRONMENT

UNSW Built Environment (BE) is focused on research and education relevant to the design, delivery and management of the 21st century city and the elements within it. This catalogue presents selected projects from our final year students in Industrial Design.

The unprecedented level of urban growth and associated urban issues of critical significance provides the global context and distinctive knowledge framework of the UNSW BE curriculum. A distinguishing feature of our student experiences comes from our capability to focus on design, research, teaching and learning from perspectives that place emphasis on the stewardship of the built environment and the interdisciplinary dimensions from which it is formed. The strategic direction of UNSW BE is based on a Faculty commitment to deliver high impact research and graduates equipped with the knowledge and practical skills required to realise sustainable urban environments of enduring cultural value.

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, people and places and emergent digital technologies. Each degree program integrates relevant research methods and outcomes to ensure our students understand and value lifelong learning and possess intellectual skills to enable successful future careers in a global context.

The design studio is central to the curriculum of many of our degree programs. Our academics collaborate with leading design professionals to create learning experiences around issues of local and international relevance. Our students work is often presented or exhibited to the public, enhancing the connection of our teaching and learning programs with real world experiences. These experiences contribute to the highly developed professional skills of our graduates and help to foster future career opportunities.

International relations are of great importance at UNSW BE. We provide opportunity for international engagement in our teaching, learning and research through established collaborative relationships with leading universities around the world. Our students often choose to undertake part of their degree program in another country through our established network of international relationships. Our worldwide alumni play an important role, providing points of contact for our graduates. We continue to foster our relationships with them through regular alumni events both at home and abroad.

Your student experiences, hard work and skills are in many ways reflected in summary form by the quality of work contained within this catalogue. 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 endeavour. 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 education of future generations of built environment graduates.



Professor Alec Tzannes Dean UNSW Built Environment

MESSAGE FROM THE PROGRAM DIRECTOR



This year we have an extraordinary diversity of projects undertaken by our final year Industrial Design students. They have designed solutions that range from products for personal use to the home, to medical diagnostic devices and specialist emergency equipment. Such diversity is a common feature of projects undertaken in professional Industrial Design practice, as well as reflective of the broad range of experiences our students embrace in their pursuit of advancing design solutions. Each project commenced as a topic of their own interest. Upon developing a greater understanding of their topic through a structured research process, they were able to define the design problem, identify opportunities and insights into the way new product solutions in their chosen field could be manufactured, used and ultimately disposed of safely.

These findings inform the development of a design brief that becomes the starting point for the final design studio. What we see in this catalogue are examples of that design process along a continuum towards their optimised design solution. It commences with concept designs and finishes with with a resolved design package that addresses, manufacturing, technology, user needs, ergonomics, costings and business opportunity. Our students are required to balance technical, cultural and economic factors. Their work represents the culmination of their four years of undergraduate study at UNSW and demonstrates their skills and knowledge as Industrial Designers.

I wish to thank my many colleagues, full and part-time academic and professional staff, visiting 'sessional' staff for their contribution over the past year, and above all to the exhibiting students who have shown resolve, maturity and commitment in giving their best 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.

Dr Miles Park Program Director

MESSAGE FROM THE JOINT COURSE CONVENORS

The final year Industrial Design Project (course code IDES4352) is the 'capstone' of the Bachelor of Industrial Design program. It presents students with the opportunity to demonstrate the learning and skills gained already from other courses and studio projects along the four year path and then learn a lot more by defining and completing a substantial design project. The aim of the course is summarised in the course outline as: "...to enable you to gain the experience of managing a complete industrial design project from start to finish, consolidating your skills as an industrial designer. You should aspire to development and presentation of an innovative, appropriate and technically advanced solution to a worthwhile design problem".

The fact that students have defined the rationale and scope of their own projects means the challenges are different for each one and learning outcomes are demonstrated as much in the process as in the resolution the final design. New things are learned along the way, often urgently and in response to problems the design process throws up.

The learning and teaching setting is primarily the weekly studio meeting in which work in progress is reviewed and guidance given. In the latter half of the semester the Built Environment Design Lab at UNSW became the setting of much 'learning by labour' with model making support provided by the Lab staff Tony Jones and Peter Kolasinski. In bringing it all together, students combine a range of traditional design presentation and model making methods with digital tools such as, parametric CAD, presentation software, laser cutting and rapid prototyping. In total, they deliver a self-managed project and design solution of their own choosing and to the best of their abilities as emergent-industrial designers.

**THE FACT THAT
STUDENTS HAVE DEFINED
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CHALLENGES ARE DIFFERENT
FOR EACH ONE AND
LEARNING OUTCOMES
ARE DEMONSTRATED AS
MUCH IN THE PROCESS
AS IN THE RESOLUTION
THE FINAL DESIGN**

Miles Park and Stephen Ward
Joint Course Convenors



LYVIA ALAM

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Overall Dimensions

- 155mm x 240mm x 80mm

Material

- Stainless Steel, ABS (Acrylonitrile Butadiene Styrene), Polycarbonate, Aluminium

Manufacturing

- Metal Punching and Pressing, Injection Moulding, Die Casting
-

- A. *Premium Food Grade Stainless Steel Baby Bottles*
- B. *Placement of Bottles in the Device*
- C. *Expresslove in Context*
- D. *Internal Cooling and Heating Mode*
- E. *Expresslove and Car Dock*

Expresslove

Expresslove is a product designed for mothers who are returning to work after childbirth and choose to continue breastfeeding. It aims to improve the convenience and efficiency of storing and transporting breast milk in a working environment. This compact and portable device will cool the breast milk to the optimum temperature in order to increase the lifespan of the milk. Expresslove also has the dual function of warming up breast milk when needed.

Features include side buttons that allows a lanyard to be attached for ease of transportation. A car dock charger is provided with a magnetic connector to prevent damage when accidentally pulled away. Complementary baby bottles are manufactured from premium food grade stainless steel as it is slower to degrade, BPA free, and more scratch resistant to prevent breeding of bacteria. Expresslove is equipped with vacuumed double wall insulation to increase the efficiency of cooling while a magnetic lid means the product can be operated with one hand for when those demanding moments comes around.

Expresslove is a convenient product with no-mess, quick heating and an easy to use interface.



A



B



C



D



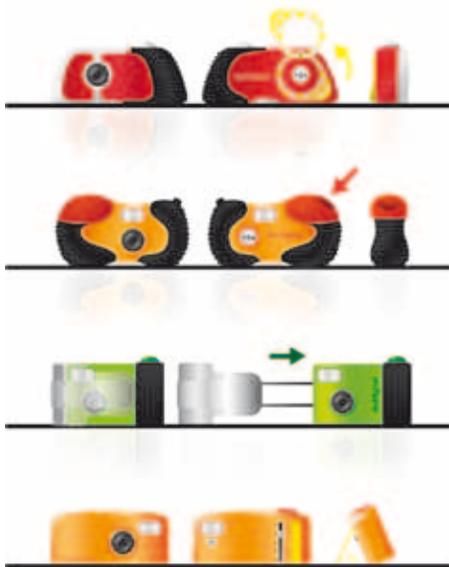
E

LYVIA ALAM

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Phone 0403 813 710

- A. Illustrator Concepts for GoDigital Camera
- B. GoDigital Camera for the Aging Population
- C. New Tamper Evidence Colmate Toothpaste Packaging
- D. Athena DAB Radio for Borne and Veglaire
- E. h2Hood Water Filter Rangehood for Electrolux



A



B



C



HOLLIE BAIGENT

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Phone 041 820 1409

Overall Dimensions (mm)

- 400x600

Material

- Bamboo Composite
- Aluminum

Manufacturing

- DMC + SMC compression moulding
 - Tube bending
-

- A. *Anti-Freeze single dose vial holder*
- B. *Product system design in primary healthcare*
- C. *Mobile/Outreach immunization journey*
- D. *VACCI Pak section view in use*
- E. *Motorcycle/Backpack transformation*

Outreach Vaccine Backpack and Motorcycle Rack

VACCI pak responds to a detailed cultural-context research study about child health in Timor-Leste. This designed product system aims to improve immunization delivery in low-resource rural communities and assist in reducing child mortality, a key UN Millennium Development goal.

Every year UNICEF supplies vaccinations that save over 2.5 million children's lives and protects 100 million. The increased cost, volume and packaging of vaccines at a temperature (2-8 degrees) places pressure on logistics systems in third world countries.

A modular temperature-sensitive, tamperproof vaccine and disposal unit, VACCI pak is easily transported to rural clinics by an integrated motorcycle and backpack system. Designed as a product system platform for low resource countries VACCI Pak is locally manufactured, constructed of a bamboo plastic composite to achieve tensile strength. The vaccine and disposal unit is interchangeable to make the product versatile. An in-built sensor and android minicomputer in the VACCI pak aids monitoring, delivery and administration of temperature sensitive vaccines.

This product is designed for social impact and showcases capabilities in human-centered and design thinking.



A



B

C



D



E



HOLLIE BAIGENT

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Phone 040 5678 214

- A. *Self branding monogram identity*
- B. *LEGO gameplay product development*
- C. *Digital audio broadcast radio with automatic revolving speakers*
- D. *Electrolux design concept - Delikts A smart supersteamer*
- E. *Organic plywood dish rack*



B



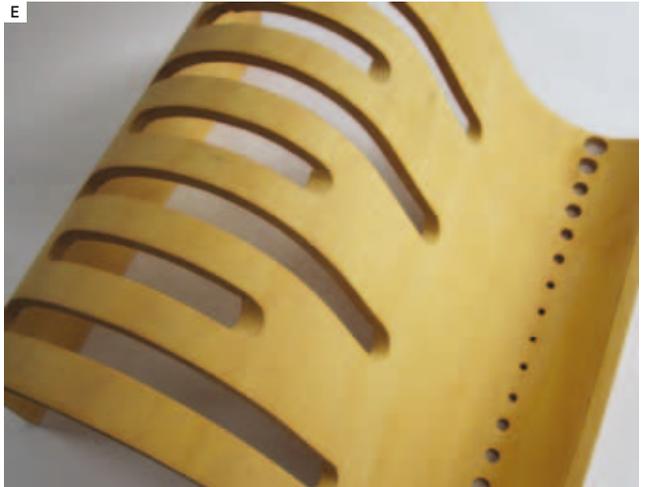
C



D



E



MICHAEL BROCK

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Overall Dimensions

- 564 mm x 372 mm x 262 mm

Material

- Nylon

Manufacturing

- Injection Moulding
-

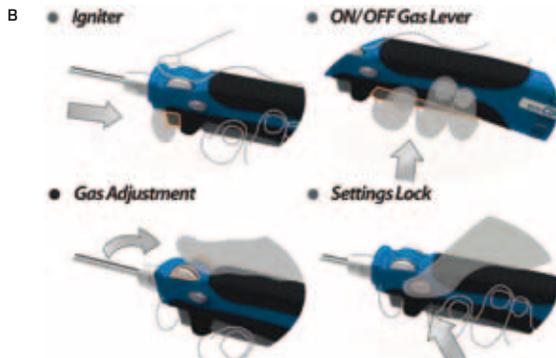
MINI OX

MINI OX. Is a trade quality Oxygen Propane set that aims to reduce on site back injuries, in a convenient, robust package. Oxy Propane sets are used by plumbers and other trades for on-site brazing, welding and oxygen cutting. With heavy loads and awkward positions being the main causes of worksite back injuries, current systems are too heavy, weighing around 40 kg.

MINI OX. has been designed with safety and productivity in mind. Carbon-Fibre materials and smaller size reduces the bottle weight so the overall package weight is now only 15 kg , while still providing sufficient gas amounts. Reduced weight and size enable MINI-OX to be designed as an integrated back pack with a retractable hose, redesigned gas regulators and an unique welding torch.

The MINI OX. torch handle, allows the user to ignite the torch, adjust the gas output and instantly shut the gasses off with one hand, allowing the torch to be used, safely, in risky environments. Overall MINI OX provides a safer and more productive way of working for plumbers and other trades

- A. *Product Contents of Use*
- B. *Torch Handle Functions*
- C. *Product Hero Shot*
- D. *Cut Away Of Gas Cylinders*
- E. *Cut Away Hose Detail*



C



MICHAEL BROCK

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- A. *Volcano Victim Aid 1:1 Modelling*
- B. *Group Collaboration for Exhibition Design*
- C. *High End DBA Radio*
- D. *3rd place Winner – Cormack Packaging Awards 2010*
- E. *Disposable digital camera for the elderly*

CARRAPACE

Sleeping Mat & Travel Bag



A



B

Trophy



C



E



CHRIS BULL

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Overall Dimensions

- 2500mm x 3500mm

Material

- Nylon + Smart Fabrics
-

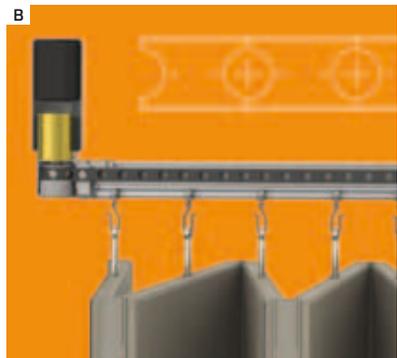
Cilo

Cilo is an intelligent recovery system designed for rehabilitation within the hospital. Offering a level of control never experienced before in healthcare, the patient can adapt their surroundings to suit their privacy needs.

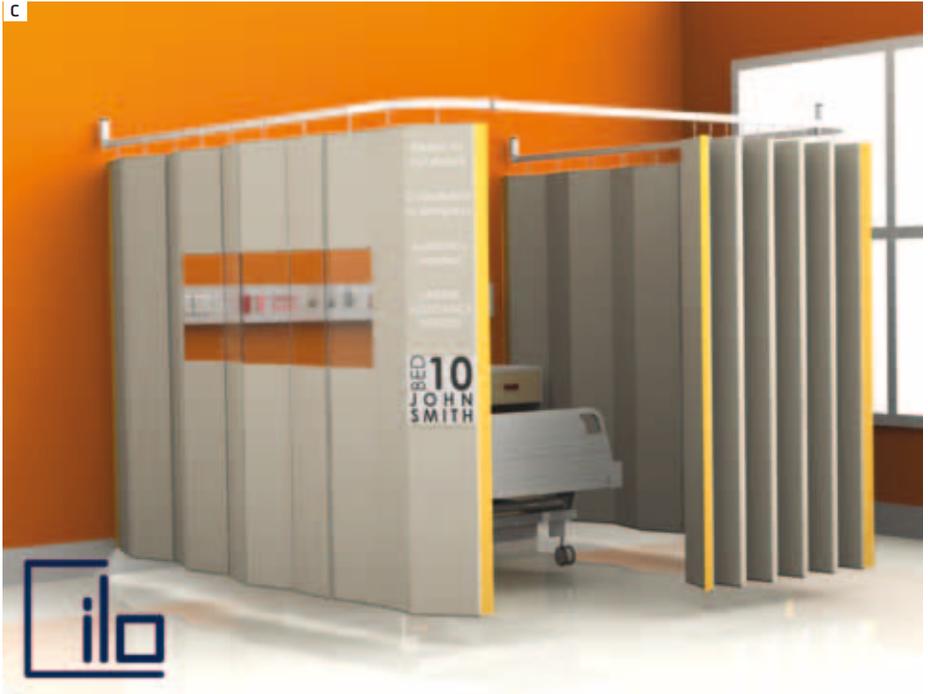
There is a significant and growing body of evidence to suggest that patients who are less anxious and who remain 'connected' to the outside world during their stay in hospital heal faster. However, many existing hospitals are largely designed to meet clinical and procedural requirements rather than addressing the patient experience.

By creating a healing environment the hospital can improve their service levels by going beyond the delivery of clinical care to better organize themselves around the needs of their patients. Satisfying those needs could not only benefit individuals, by reducing patient anxiety and promoting the healing process, it could help to reduce the length of hospitalizations, making better use of hospital resources and reducing healthcare costs.

- A. *Illustration of remote retraction*
- B. *Cross-section of motor & track system*
- C. *Cilo*
- D. *Exploded motor view*
- E. *Patient Scenario*



C



CHRIS BULL

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- A. Disposable Digital Camera
- B. Flat-pack exhibition stand
- C. H1N1 Rapid Swab
- D. Exploded view of Electrolux entry Vita-scan
- E. Flat-pack lamp shade



A



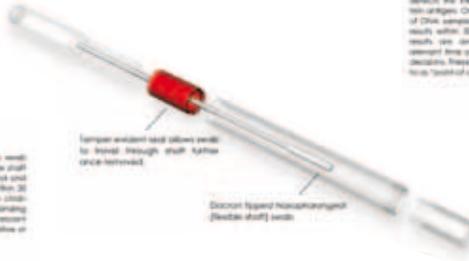
B

H1N1 RAPID SWAB

Model: H1N1-RS (H1N1-RS) (H1N1-RS) (H1N1-RS)



Cap is removed, ready to use. (Arrow shows the cap being pushed down and engaging the fluid within. 30 seconds is progressive disinfection and colour changing. One strip with fluorescent dye that gives a positive or negative result.



Sample swabbed head (dye) ready to insert through shaft (after cap removed).

Disposable (single use) swab (ready to use) ready.

The Rapid H1N1 diagnostic test (RHT) is an antigen detection test that detects the influenza and nucleocapsid (N) antigens. On collection and testing of 2000 samples, the test can provide results within 30 minutes or less. This result is available to a clinically competent team present to inform clinical decisions. These results may be relevant to a "batch of cases" test.



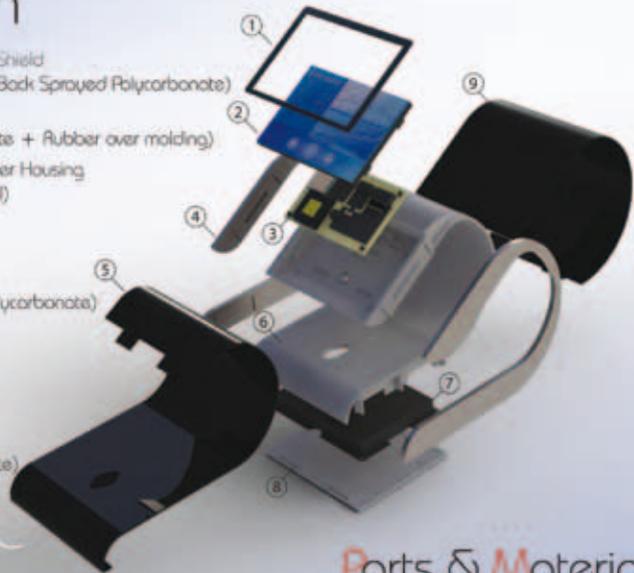
Each swab is individually packaged. The swab is pre-charged with reagent solution X. When a positive sample is added into the probe the dye binds to all double-stranded nucleic acid (PCR) coating fluorescence of the dye.

C

D

VitaScan

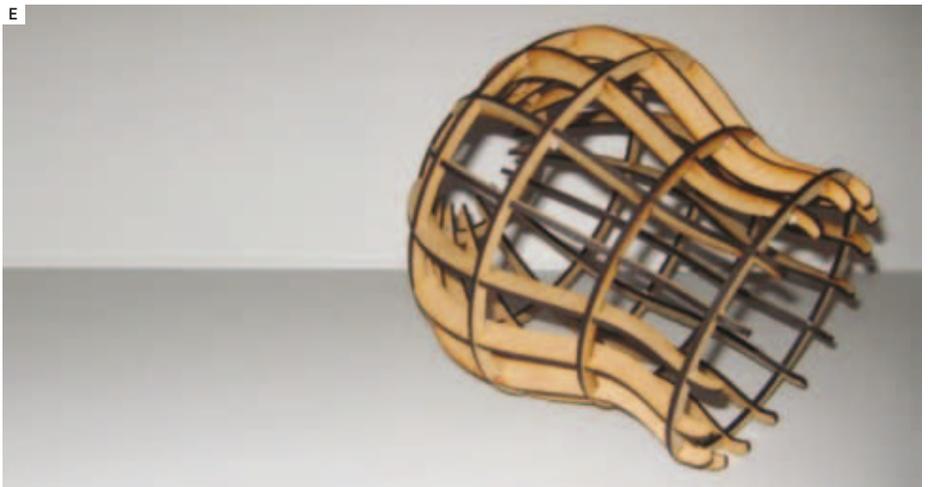
- 9. Screen Shield
(Black Back Sprayed Polycarbonate)
- 8. Base Plate
(Polycarbonate + Rubber over molding)
- 7. BioPhotonic Laser Housing
(Punched Steel)
- 6. Support Structure
(Polycarbonate)
- 5. Palm Shield
(Black Back Sprayed Polycarbonate)
- 4. Support Caps
(Machined Alloy)
- 3. PCB
- 2. LCD Touchscreen
- 1. Screen lock
(Polycarbonate)



Thinking of you
Electrolux

Parts & Materials

E



JEFF CHANDLER

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Specifications

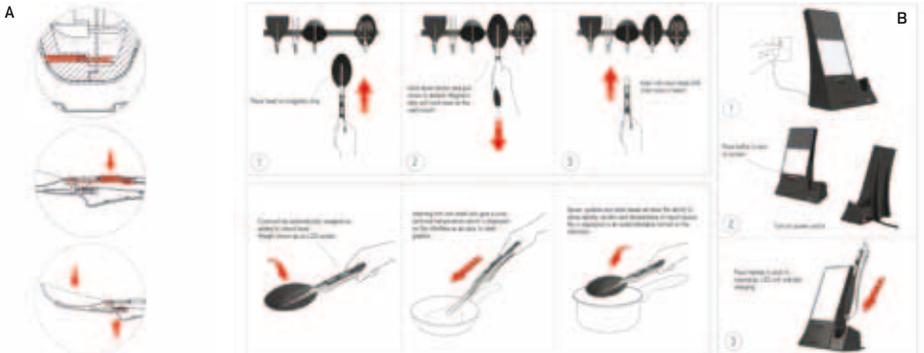
- ABS and PP Injection moulded handle chassis, coupled with die cast magnetic grade stainless steel and silicone rubber composite head connections. An Aluminium Extruded Wall mount and an ABS, PP Injection moulded interface
-

Sensore'

Sensore' is a new market kitchen appliance providing a unique experience like no other. The smart utensil consists of a handle which easily attaches to 5 different heads magnetically bound to an extruded wall mount. All utensil heads are able to sense temperature, weight, acidity and salinity in the food being cooked. This information is then relayed to a touch screen interface via a radio transmitter. It is translated by the recipe being shown to portray live updates to the user on when things are ready, what to do next and alterations to improve the dish.

The handle is wireless, able to show numerical information on its own monochrome LCD. A rechargeable docking port beside the interface charges the handle's battery pack. Sensore' also provides data transfer via USB between itself and a computer. This gives the user the capability of not only downloading new recipes but to record information about their own recipes so that they can get it right every time.

- A. Attachment mechanism detail
- B. Storyboard of use
- C. Sensore' hero
- D. Sensore' arrayed heads
- E. Sensore' exploded view manufacturing details





JEFF CHANDLER

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A. Moroccan tajine

B. Drought relief water purification

C. Disposable digital camera

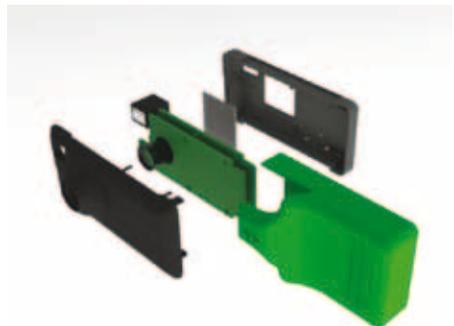
D. Digital Radio

E. Induction cook surface with pocket projector

A



B



C

D



E



ERIC CHAU

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Overall Dimensions (mm)

- 169mm x 100mm x 197mm

Material

- Polypropylene

Manufacturing

- Injection moulded
-

- A. *Eoptix part in moulded position*
- B. *Eoptix in closed position with living hinge*
- C. *Eoptix set in use*
- D. *Eoptix in bag*
- E. *Eoptix exploded view*

Eoptix

Eoptix is a portable smartphone attachment, which allows eye examinations to be carried out in an efficient and affordable way in developing countries. It uses the hardware and screen resolutions of Smart mobile phones allowing the device to make an assessment of a person's eyes in minutes with a simple test. The user only has to look through the eye piece attachment and press simple left and right buttons to align two circular patterns. The device then calculates and records a reading of the eye. Eoptix has been designed to accommodate smartphone's of various sizes making it more easily accessible to a wider market.

Over half a billion people worldwide suffer from a type of preventable eye impairment, with high costs and inadequate access to diagnostic devices being the main barrier. The use of Eoptix and existing mobile phone applications will empower millions of users to create a patient centric ecosystem to measure and estimate their eye readings to further seek care if needed. Eoptix is an affordable package which does not require qualified personnel to operate, allowing NGOs and community leaders around the world to reach out, record and test the vision of mass markets in the early stages of eye care.

A



B



C



D

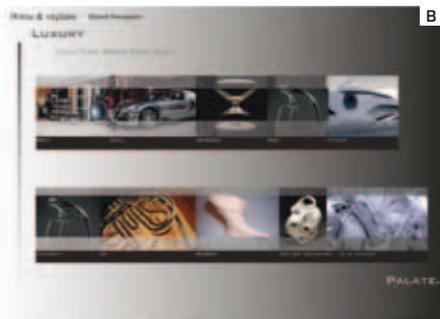


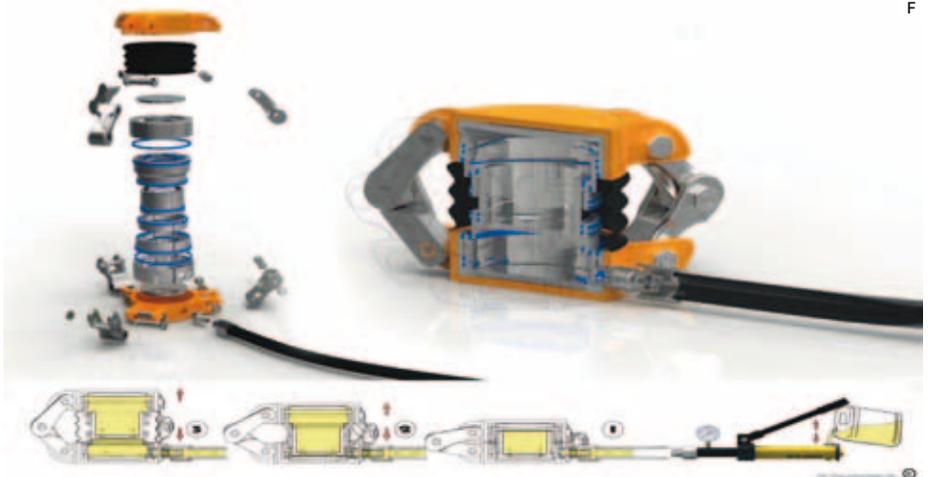
E

ERIC CHAU

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- A. Borne & Vélaire Radio
- B. Borne & Vélaire Radio
- C. Klar smart kitchen
- D. Snap on camera
- E. Hy-Jack in use
- F. Hy-Jack exploded view





ALFRED CHING

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Overall Dimensions

- Collapsed 510mm x 610mm x 640mm
- Expanded 2106mm x 610mm x 640mm

Material

- Bladder - Composite Fibre Braiding
- Bands - Fibreglass Reinforced Plastic

Manufacturing

- Bladder - Plastic Welded and stitched
 - Bands – Spray Lay-up Moulding
-

- A. Collapsibility
- B. Atmosphere in context
- C. Human scale
- D. Appearance model

Atmosphere

Atmosphere is an on-site solution for the treatment of decompression illness (“the bends”) which can occur in scuba divers who remain underwater for prolonged periods or as a result of rapid ascent to the surface. Chances of survival and full recovery are increased by eliminating transit times to on-shore facilities.

A flexible cylinder made from composite fibre braiding along with rigid support bands gives the unit its strength to maintain elevated pressure. Atmosphere is fully collapsible, reducing its footprint for convenient storage on a vessel and can be quickly deployed in an emergency to house a patient. The use of composite materials makes the unit light enough to transport if the patient requires more extensive help.

Electronic equipment simplifies treatment procedures and monitors patient progress. During the procedure, there is constant communication between persons inside and outside the unit by two way audio communications. This is beneficial to provide comfort and assistance to the patient.





B



C



D

ALFRED CHING

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Phone 0416 609 301

- A. *SmartStuff Exhibition Design*
- B. *Marker Renderings*
- C. *Sandwich Packaging (Highly Commended, Southern Cross Package Award)*
- D. *Honeycomb Induction Cooking Tiles (Semifinalist, Electrolux Design Lab)*
- E. *Crescendo Luxury DAB Radio*



D



E



ANDREW COOK

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Phone 0422 156 713

Overall Dimensions

- 158mm x 92mm

Material

- Polycarbonate ABS blend, Titalanal

Manufacturing

- Injection moulded, cast alloy
-

Skout

Skout is a trail bike data logger and emergency beacon for the rider that wants to track their performance whilst having constant peace of mind.

Using GPS and wheel sensors, the unit can track and record speed, distance, altitude and provide maps with waypoints. Riders can set out routes, record new discoveries and always find their way back to base camp, or each other by pairing one Skout with another. Connect to a computer via USB for an even more comprehensive debrief, diagnostic and to customize your next routes and runs.

The device, as well as having manual emergency beacon operation, can automatically sense when a rider has experienced a high risk crash and sends a distress signal to the COSPAS-SARSAT satellite system.

The mounting unit provides Skout with protection and stability in the toughest of terrains. Customisable colours also mean Skout can match your bike or make a statement.

- A. Rear PLB and colour variations
- B. BWheel sensor and magnetic bolt
- C. Context shot with logo
- D. Bike bracket exploded view
- E. Skout unit exploded view





D



E



ANDREW COOK

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- A. 'MyCycle' public transport bike fastener
- B. 'Chlorinease' chlorine bottle cap
- C. 'Smart Stuff' exhibition design
- D. 'Echo' High end Digital Radio and iPod Dock
- E. 'Kol' portable BBQ for Electrolux

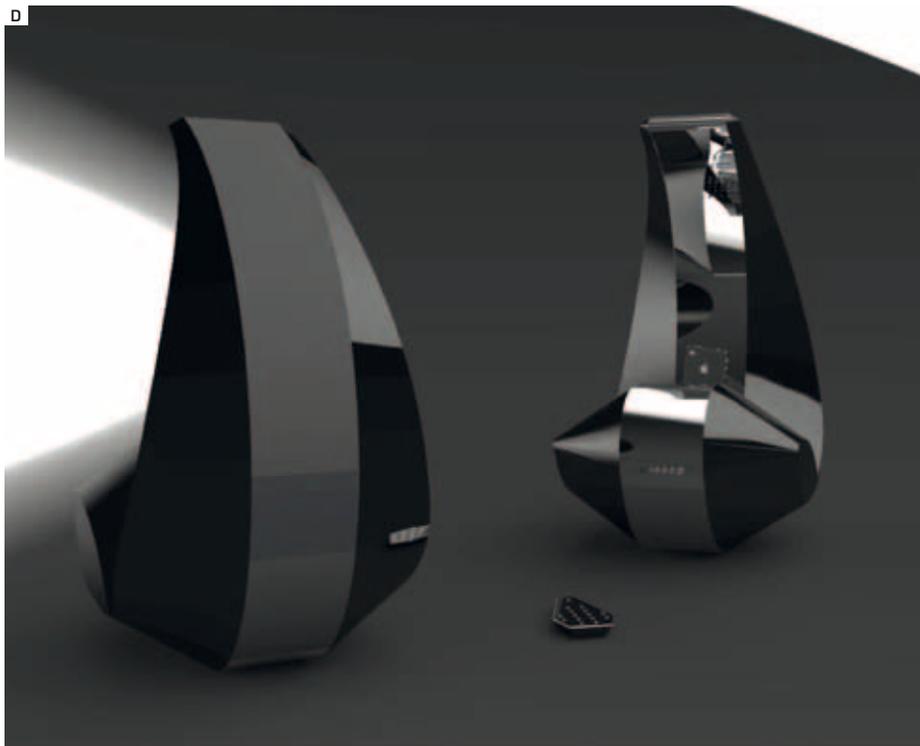


B

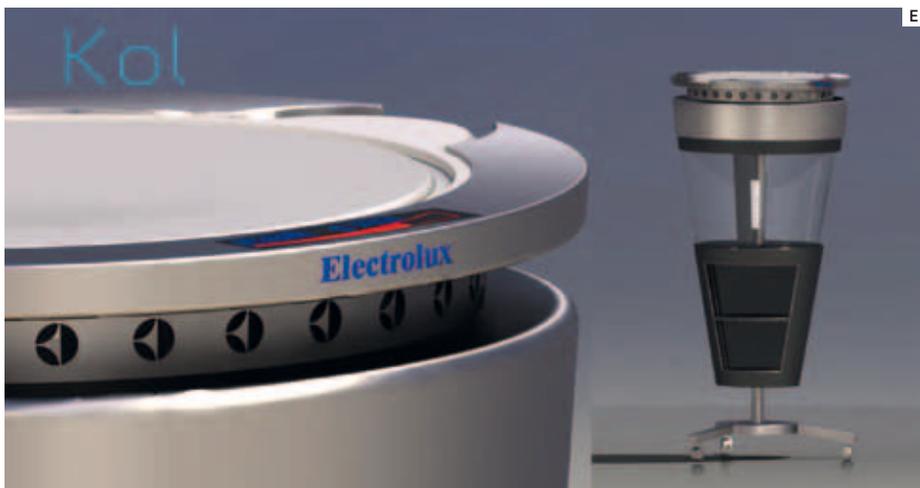


C

D



E



JOSHUA COPE-SUMMERFIELD

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URL www.joshdesign.com.au
Phone 0402 328 588

Overall Dimensions

- 1170mm x 174mm x 132mm

Material

- Carbon fibre, aluminium alloy, bamboo veneer

Manufacturing

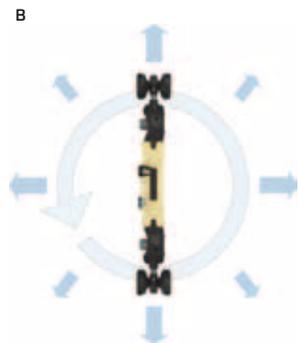
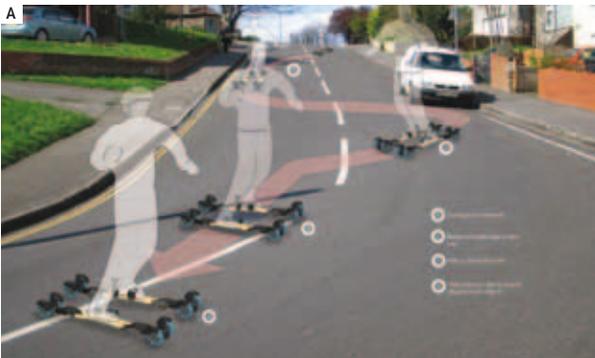
- Lay up moulding, sand casting, laminated veneer
-

Freegliders

Freegliders is a new category in downhill road sports – urban alpine. Inspired by skiing and longboarding, they are the result of research into options for off-snow skiing. Freegliders are targeted at sport enthusiasts with a passion for challenge that requires balance, control and speed. The two 'skis' provide the user with the ability to carve, slide, sideslip, rotate, slow down and stop in control.

During the snow off-season or when access to the snow is difficult, Freegliders offer skiing enthusiasts an all year-round alternative, turning roads into ski hills. Omni-wheels allow multi-directional movement, by rolling both forward and laterally with great ease, creating a similar experience to the near frictionless environment of snow. Raised 'control' wheels on the inside of Freegliders act like a ski edge on snow when tilted via a torsion pivot into contact with the ground. A carbon fibre chassis with aluminium alloy trucks and an integrated bamboo deck keeps Freegliders lightweight, yet provides strength throughout.

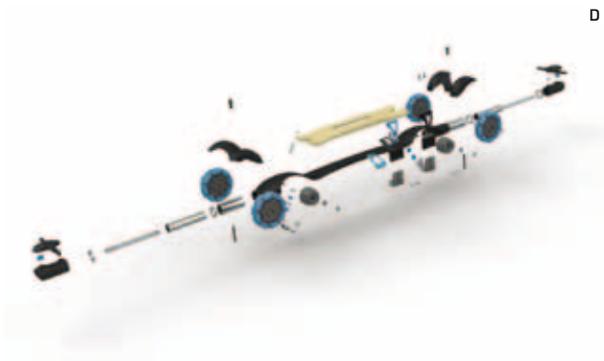
- A. Scenario
- B. Multi-directional
- C. Hero
- D. Exploded view
- E. Prototype testing



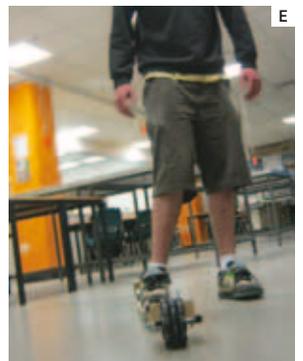
C



D



E



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Phone 0402 328 588

A. *Wordmark book exhibition*

B. *Smart Stuff exhibition*

C. *Hand sketch plus render*

D. *Varbebé Electrolux Design Lab entry*

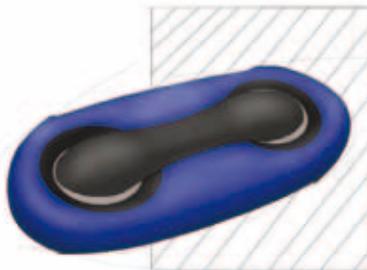
E. *Keijo Digital Audio Broadcast radio*



A



B



C

D



E



TRISTAN DIMITROFF

Email Tristan.dimitroff@gmail.com
Phone 0405 843 842

Overall Dimensions (mm)

- 370mm x 190mm x 70mm

Material

- GRP Rynite®, anodized aluminium

Manufacturing

- Injection moulded, investment cast and post machined
-

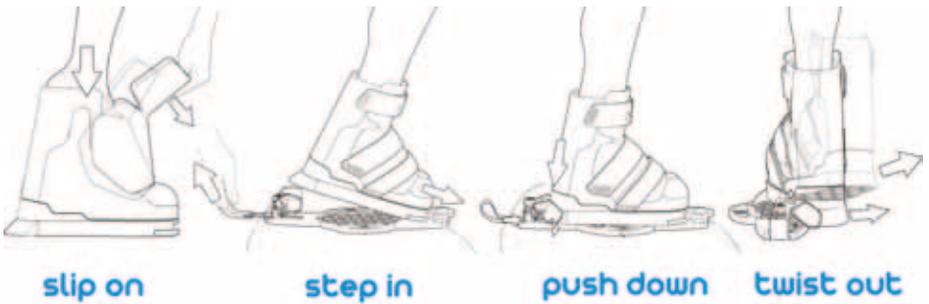
AIR binding

AIR Binding (Automatic Incident Release) is a safety release boot and binding for wakeboarding. Research reveals that wakeboarders suffer predominantly from knee injuries caused by over twisting the joint. A typical wakeboard fall can see the rider hit the water at over 40km/h, rapidly stopping as the board contacts the water. The resulting force, often at awkward angles, causes damage to the knees. In the event of a fall like this, unlike all other bindings on the market, the AIR binding automatically un-clips from the board to prevent injuries.

The design also offers a quick and convenient 'step-in' function to the board. The boot features a wide open tongue for easy access; no more liquid soap lube or cramp inducing struggles to squeeze your wet foot into an overly tight boot. AIR binding allows riders to push the boundaries of the sport in terms of big air jumps and more advanced manoeuvres with the reassurance of automatic board release in the event of a high speed fall.

- A. *Wakeboarder performing a trick*
- B. *AIR binding in its environment*
- C. *Hero shot*
- D. *Instruction sequence*



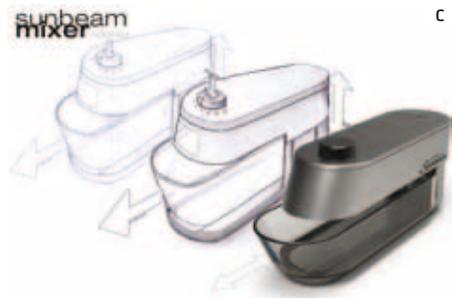


TRISTAN DIMITROFF

Email Tristan.dimitroff@gmail.com

Phone 0405 843 842

- A. Cup wash system for large events
- B. Cup wash system for large events
- C. Sunbeam compatible mixer concept
- D. Ergonomic chlorine container
- E. Modular food storage system for the workplace
- F. High end digital radio concept



perpetual motion





DAVID GEORGE

Email dcgeorge88@yahoo.com.au
Phone 0431 676 466

Overall Dimensions (mm)

- 800mm x 217mm x 52mm

Manufacturing

- LLDPE Injection moulding
-

EMTracker

The EMTracker is a hand held tracking tool that finds people trapped in buildings by detecting mobile phone signals. After a natural disaster the hours and days that follow are crucial to finding people alive in search and rescue missions. The EMTracker counts the number of people found in scanned areas allowing rescue teams to create priorities and to assist with decision making. Trapped people can also be communicated by voice call or sms, and when rescue becomes recovery, the EMTracker can locate bodies. It achieves this with a picocell; packing a cell tower in the size of a laptop, the signal is boosted and passed through the EMT's antenna. GPS and other technologies pinpoint a person's location and altitude. This information is streamed to the rescuer's smartphone presenting it in a 3D map which turns numbers into human information. EMTracker, using modern technology for the best rescue outcome.

- A. Radio Frequency Unit
- B. EMTracker side view
- C. EMTracker worn on belt mount.
- D. EMTracker front view; LED torch and laser
- E. EMTracker Power Panel



C



D



E

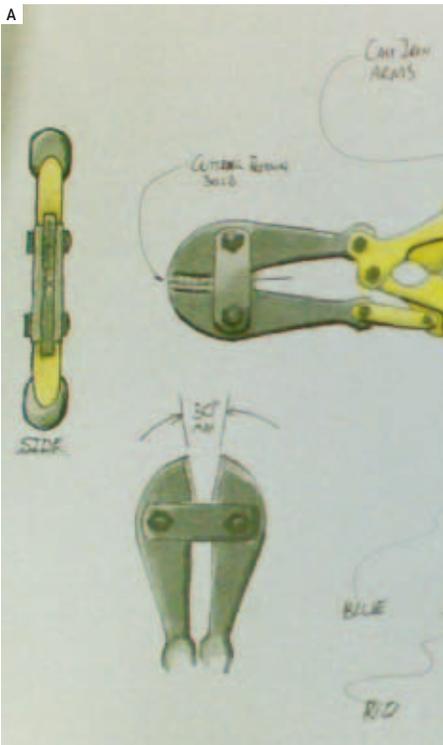


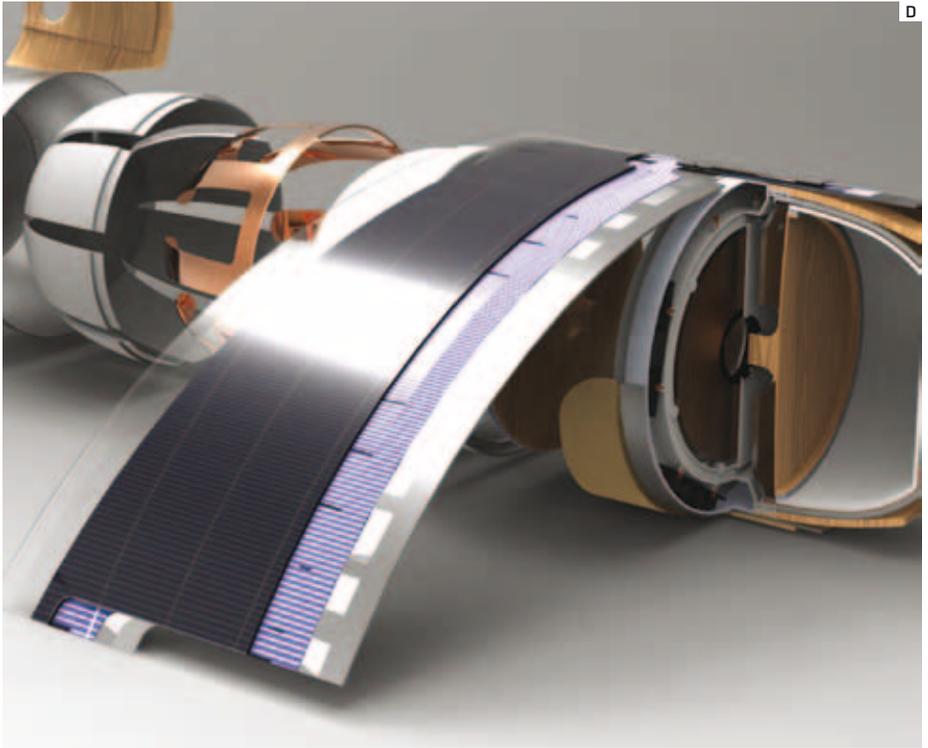
DAVID GEORGE

Email dcgeorge88@yahoo.com.au

Phone 0431 676 466

- A. Freehand sketch and marker rendering of a tool
- B. Fruit Bowl – celebrating the material
- C. Macto Light – USB powered dermatological LED light
- D. Equinox – solar powered slow cooker, exploded view
- E. Touchless DAB Radio





MICHAEL MACDONALD

Email macdonald133@hotmail.com
Phone 0410 081 454

Overall Dimensions (mm)

- 400mm x 350mm x 40

Material

- Carbon Fibre / Aluminium / Polycarbonate

Manufacturing

- Extrusion / Die Casting
-

Calibar

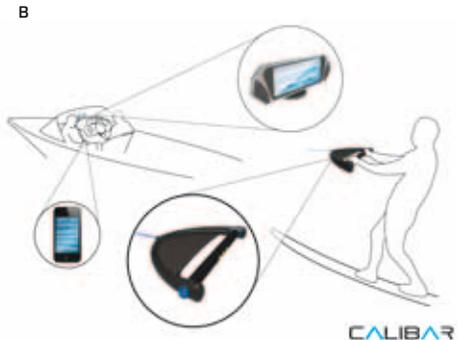
Calibar is an innovative water ski handle that appeals to those who are after the competitive edge in skiing, increasing communication between skier and driver, and keeping a sound interest in safety.

It has a number of different functions: It contains pressures sensors in the handle, which notifies the driver instantaneously, via a dash mounted unit, when someone is holding, and when a skier has let go of the handle minimising the risk of rope related injuries.

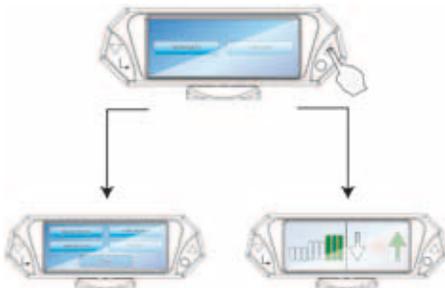
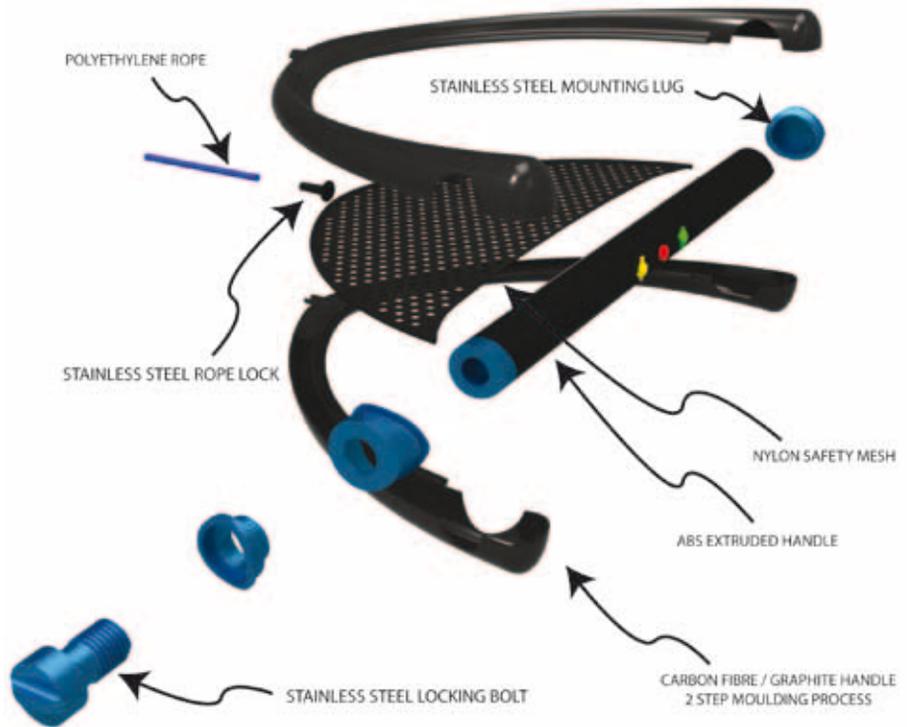
The handle communicates to the driver whether to decrease speed, increase speed, or the skier is ready to finish their run. This helps to increase the confidence in the skier, by having a sense of control in the movement of their ski.

The handle is able to record, and logs each skier's performance and statistics, for comparison and reflection. Skier duration, distance, speeds, and other vital statistics are recorded within the handle.

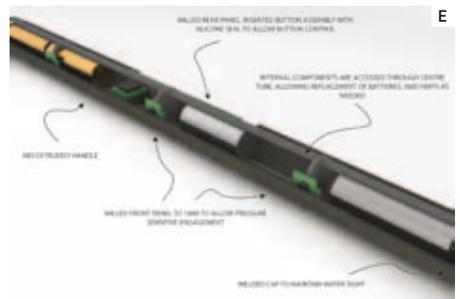
- A. Dash Mount
- B. Context of use
- C. Handle assembly
- D. Dash Mount screen shots
- E. Handle electronics



CALIBAR



D



MICHAEL MACDONALD

Email macdonald133@hotmail.com
Phone 0410 081454

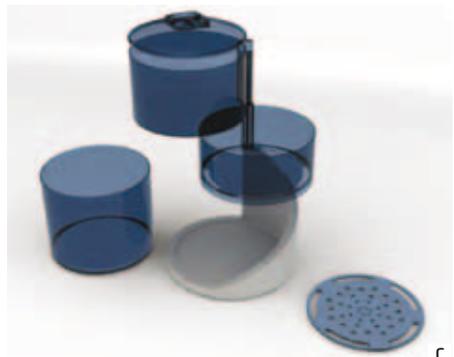
- A. MyCycle, Seoul International Design Award Runner-Up
- B. DAB Radio
- C. Electrolux 2010 Design Competition, Induction Cooker
- D. 2011 Metcash Expo Design Award



A



B



C



KATHERINE MAREE PACE

Email katherine.maree.pace@gmail.com

URL www.katherinemareepace.com

Phone 0434 652 075

Overall Dimensions (mm)

- 115mm x50mm x h:38mm

Material

- ABS white: LYMBO housing
- TPE medical blue: Overmould
- HDPE transparent: Cover, access doo

Manufacturing

- Injection Molding

-
- A. GA engineering drawings
 - B. User testing with appearance model
 - C. CAD Renderings
 - D. Context and features
 - E. Mechanics of floss

LYMBO Electric flosser

Limbo: In a condition of oblivion.

Lymbo: The device that gets stuff un-stuck from the land of oblivion.

The land of Oblivion. Inter-proximal regions. (AKA In between your teeth).

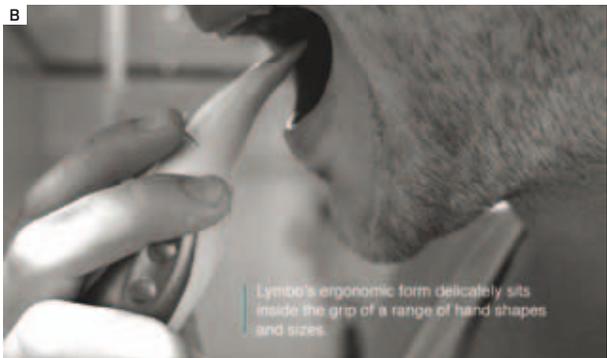
A compact electric flosser with LED light.

An automatic flossing device that pushes and pulls floss at a moderate speed using the internal mechanics of a small motor and gears. At the click of a switch, LYMBO initiates flossing. LYMBO's elongated neck allows for easy access to molar monsters, whilst the inclusion of a small LED light illuminates the inside of your mouth improving vision and ease of positioning.

As most gum disease originates between the teeth and the trusty toothbrush can only reach 60% of your teeths surfaces, Lymbo provides an efficient and hygienic product solution. Today, approximately 10% of Australians floss.

LYMBO answers the call of low dextile individuals, sufferers of multiple sclerosis, even you and I.

Lymbo encourages oral longevity.



C



D



E

KATHERINE MAREE PACE

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Phone 0434 652 075

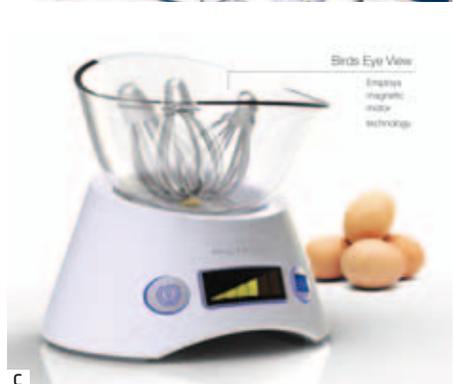
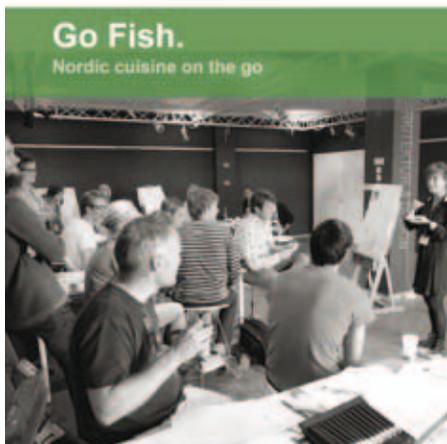
A. *Go Fish Food Packaging. Exchange in Denmark*

B. *Form and concept exploration. Mixed media*

C. *Birds Eye, A bench top food mixer*

D. *Digital Audio Broadcasting Luxury Radio*

E. *Aubergine, a utensil steam cleaner*



D

DAB | Luxury Radio



E



PATRICK PARAAN

Email patrickparaan@gmail.com
Phone 0430 113 155

Overall Dimensions

- 250mm x 350mm x 950mm
-

HONE: Directional speaker system

Hone is a directional speaker system that helps to prevent noise pollution. It utilizes ultrasonic speaker technology where sound can only be heard in a focused beam. This is used to create separate sound zones for users accommodating for cramped living situations and shared spaces.

Angled speaker faces are activated by infrared motion sensors identifying the position of the listener. Hone will adjust to suit multiple listeners and single users. Each unit is wirelessly capable and is compatible with wireless media technology such as smart phones and computers to allow use in multiple listening situations.

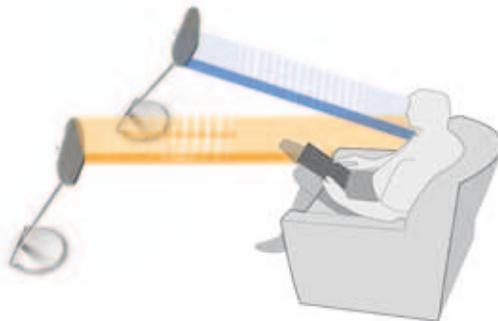
The system consists of a floor mount and table mount option with separate subwoofer for use as a complimentary speaker where a fuller range of sound is required.

Hone was designed to keep sound only where it is needed.

- A. Li-ion battery charge connection
- B. Speaker head fixing detail and cable management
- C. Complete speaker set with optional subwoofer
- D. Infrared sensors activating speaker face
- E. Restrictive hinge detail for correct speaker angle



A



B

C



HONE
PRECISION | PRECISION



D



E



PATRICK **PARAAN**

Email patrickparaan@gmail.com
Phone 0430 113 155

- A. *ULAM: Traditional Filipino*
- B. *Froot: FMCG Packaging Design with built in straining*
- C. *Perpetual Motion: Scale model making
Lens Award Entrant*
- D. *Skins: Vacuum cooking for Electrolux 2011*
- E. *High end speaker design*

A



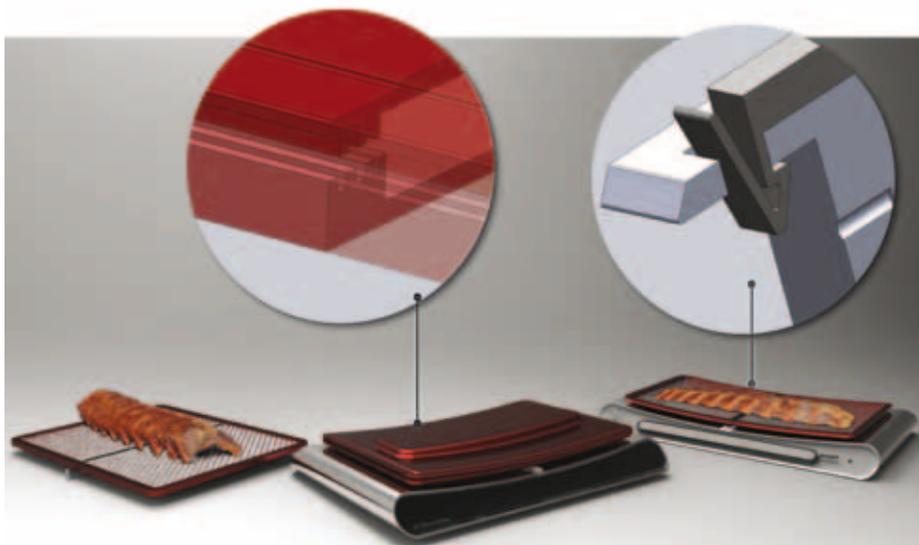
B



D

skins scenario
vacuum cooking

Thinking it over...
Electrolux



E



börne vögaine
sound defined

JENNIFER RONDOLO

Email jennifer.rondolo@gmail.com
Phone 0411 395 157

Overall Dimensions

- 1070mm x 640mm x 845mm

Material

- Aluminium and ABS

Manufacturing

- Extrusion and injection moulding
-

MovE: Personal Shopping Trolley for the Elderly

MovE is a personal shopping trolley that enables elderly individuals to confidently and independently carry out grocery shopping. It features a unique lifting mechanism that enables the user to raise and lower the basket to a desired height suitable for transferring goods from the basket to a table or kitchen bench eliminating strain on the lower back region. The user simply turns the handle in a circular motion to lift or lower the platform which will stay anywhere within its range of movement.

MovE can be used as a walking aid to help the user keep balance while also encouraging the user to be more active in the simple act of walking to the shops. The fact that MovE's primary function is to serve as a shopping trolley also negates any stigma attached with the use of a traditional walking aid.

- A. *MovE used in shopping environment*
- B. *MovE used in suburban environment*
- C. *MovE Hero Shot*
- D. *User instructions to unfold*
- E. *User instructions on lifting mechanism*



C



D



E



JENNIFER RONDOLO

Email jennifer.rondolo@gmail.com
Phone 0411 395 157

- A. *Cormack Innovation Awards 2010 Finalist: Infographics*
- B. *Acrylic Desktop Organiser- Model making*
- C. *Study desk 1:5 Scale Foam core modelling*
- D. *Cormack Innovation Awards 2010 Finalist: Happy Fresh Baby powder*
- E. *Electrolux Design Lab 2011: Wash Duo*



D



E



PHILLIP SERNA

Email hippendrix@hotmail.com

Phone 0421 508 064

Overall Dimensions

- 700mm diameter

Material

- Dye sensitized solar panel

Manufacturing

- Aluminium superformed
- aluminium extrusion
-

SPORE for clean transport energy

Large cities that are facing transport issues are in the constant search to create new ways of commuting. The footprint of one car that only transports one passenger is no longer justified because of the congestion and lack of parking spaces it creates, which is making commuters look for simpler means of transport.

One of these trends is the use of electric bikes. Because of their ability to transport people in simpler and faster ways, E-bikes are becoming ideal Vehicles to reduce congestion, pollution and increase parking space.

Spore is a customized front wheel for electric-bikes, with solar panels that generate clean energy to charge the bike's battery and power the bike's electric motor. Spore is used when the commuters reach their destination. As they park their e-bike they can fold out two solar panels from inside the front wheel fork. Outside of the fork they can be tilted in 180 degree angle so they receive the sun light in an optimal way.





KEVIN TAM

Email kevintam1@yahoo.com

Phone 0415 954 552

Overall Dimensions (mm)

- 490mm x 145mm x 170mm

Material

- ABS (Acrylonitrile Butadiene Styrene)
Body & guard, Tempered Steel Blades

Manufacturing

- Injection molding, Overmolding,
Die Casting
-

- A. Detail of handle
- B. Internal details
- C. Operating posture
- D. Interchangeable arm guard
- E. Hero shot

Cli(p)²

Cli(p)² is a hand held electric tree pruning tool which provides users with a safer method of trimming branches at heights. This provides a solution to the large number of avid gardeners and homeowners from injuring themselves while handling chainsaws on ladders.

Cli(p)² is designed with safety as the primary feature. The tool includes a clip so the user maintains two free hands to brace themselves firmly while ascending a ladder.

The product also has twin blades which move in a sawing motion to prevent any kickback which is a common problem in chainsaws. Another added safety feature is the blade guard which covers the blades at all times except when the blade is pushing through a branch.

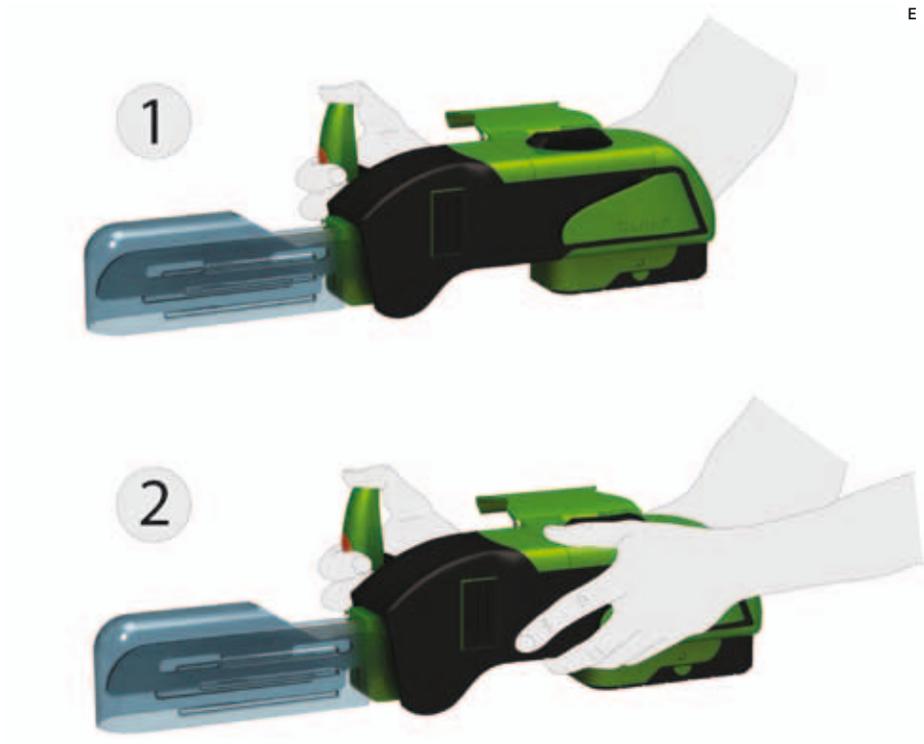
Additional design features include interchangeable handle and arm guard to accommodate both left and right handed users. The double trigger handle is ergonomically designed to conform with the power grip stance. With these properties, Cli(p)² is the ideal tool for light weight gardening jobs such as trimming smaller trees and plants.



A



D



KEVIN TAM

Email kevintam1@yahoo.com

Phone 0415 954 552

- A. Water and air capsule for disaster emergencies
- B. 3D modelling of mouse sander
- C. Soft foam modelling for Korean bowls
- D. Leaf ethylene filtration fruit bowl for Electrolux
- E. Ring 15 DAB Radio

A



B



C



Leaf

D

E

Ring 15



JOSEPH LOUIS TAN

Email josephlouistan@gmail.com

URL www.josephlouistan.com

Phone 0402 293 961

Overall Dimensions

- 395mm x 457mm x 780mm

Material

- Polycarbonate Shell, Polypropylene, Neoprene, Nylon & Aluminum

Manufacturing

- Injection Moulding, Over-moulding, Extrusion, Sewing
-

LYBRE

LYBRE is a travel luggage for independent wheelchair users. It allows independent travel with the luggage pulled hands-free, behind the wheelchair.

Current storage solutions for wheelchair are limited to their small capacities, whereby LYBRE offers a 70 litres durable hard-shell spinner luggage that allows wheelchair users to travel for 1 week and longer.

Using a simple and familiar Velcro strapping system, the user would position and strap LYBRE onto the back of wheelchair like a seat belt, ready to be pulled along. Steering LYBRE around is effortless and accessible thanks to its 4 huge swivel-less multi-directional wheels, which helps overcome physical environmental obstacles easier.

1 in 100 people in the world use a wheelchair and their need for independence motivates them to travel but can't, without a luggage designed specifically for them. LYBRE helps mitigate this dilemma, by allowing wheelchair users to travel accessibly and independently for longer once more.

- Wheelchair user pulling LYBRE onto the bus ramp*
- LYBRE detached from wheelchair when getting onto taxi*
- LYBRE attached and detached from wheelchair and user*
- Velcro strap being wrapped around wheelchair's back rest*
- Ghosted view of LYBRE's multidirectional wheels assembly*



A



B

C



D



E

JOSEPH LOUIS TAN

Email josephlouistan@gmail.com

URL www.josephlouistan.com

Phone 0402 293 961

- A. *Concept Development Sketches for MedicPouch*
- B. *InducTouch - Runner-up Electrolux Design Lab Australia 2011*
- C. *MEW Modular Coffee Table - Finalist VIVID 2011*
- D. *RingLite - Compact Webcam Light - Featured on Trendhunter 2011*
- E. *SlideLid - 1st Place Winner Cormack Innovation Awards 2010*



D



E



JESSICA TONG

Email jessica.m.tong@gmail.com
Phone 0435 080 433

Overall Dimensions (mm)

- 1000mm x 500mm x 255 mm

Material

- LDPE

Manufacturing

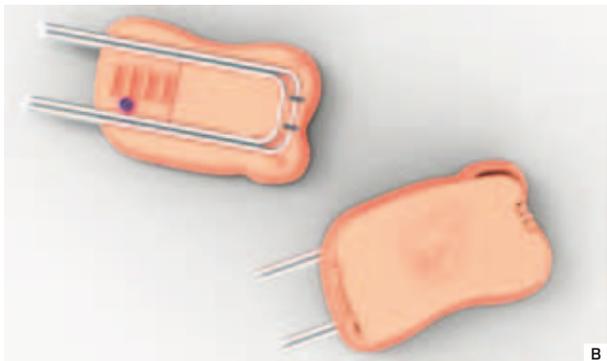
- Rotational Moulding
-

Scrub Bub, a Home Dog Washing Kit

The Scrub Bub is a dog washing kit for use in the home, in an outdoor space, for small to medium sized dogs. It has an adjustable scissor leg mechanism for greater ergonomic design, to suit the different sizes of dogs and users. It aims to make the dog washing process more enjoyable by improving the comfort and convenience for the user.

When completely collapsed, the Scrub Bub is compact and transportable. The legs fold to embed into the base of the tub and the ramp folds into the top. It is designed for use with a hose, which fits onto the edge of the tub when not in use. The user can plug the drain or let the used water run through the hose. The dirt sediments and hair are caught with the strainer. The tub body and ramp is to be rotationally moulded to keep the cost of production low. Other benefits for the Scrub Bub include restricting the dog from going elsewhere, making it substantially easier to use, and less water wastage because the user does not have to walk over to the tap and switch off the water.

- A. Lid Locking Detail
- B. Top and Bottom Views
- C. Heroshot of Entire Dog Washing Set Up
- D. Inside View of Tub
- E. Washing a Dog on the Scrub Bub



C



D



E



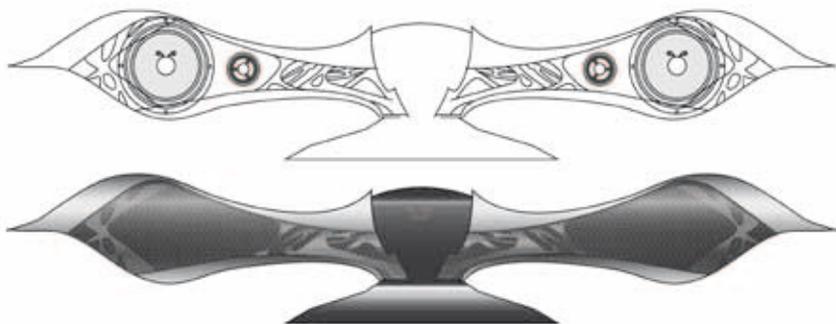
JESSICA TONG

Email jessica.m.tong@gmail.com

Phone 0435 080 433

- A. *The Connoisseur*, portable coffee machine
- B. *The Pulp Gallery*, paper pulp, disposable digital camera
- C. *Abandoned Spaces*, Trade Show Exhibition for Wordmark Publishers
- D. *Concept Generation*, Borne & Veglaire, DAB Radio
- E. *Stealth*, Borne & Veglaire, DAB Radio





D



E

RONALD TURINUDDIN

Email Ronald.Turinuiddin@hotmail.com
Phone 0430 108 482

Overall Dimensions (mm)

- 1400mm x 280mm x 80mm

Material

- Tempered glass, Stainless steel, galvanised steel, abs

Manufacturing

- Glass panel: Glass casting/slumped
 - Main body: sheet metal stamped and sheet metal bending
-

- A. SANQTUM in context
- B. SANQTUM smart shower paving the way for sustainability
- C. Exploded assembly of SANQTUM
- D. SANQTUM Smart touch button interface
- E. Lavish experience from SANQTUM different shower modes.

SANQTUM

SANQTUM offers a smart shower that allows the user to personalise their shower patterns and save water, whilst undertaking a lavish experience in 'sanctuary'.

This product is the result of research into domestic water usage, in particular - the shower. This smart 'eco-shower' is designed to create an uplifting shower experience, offering high aesthetics styling, instant hot water heating, along with a personal 'mystify' heating mode.

Users often perform additional tasks whilst showering– i.e. teeth-brushing, shaving and lathering, often neglecting the running water due to the discomfort of the cold. The unique 'mist-mode' offers heating through heated mist which floats within your shower, creating a heated and comfortable 'sanctum' that encourages the user to turn off water whilst performing these activities.

Not forgetting the time lapse between initial water warming, SANQTUM offers an internal instant water heating feature, providing instant hot water without the delay of normal house heaters.



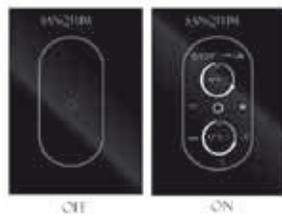
B



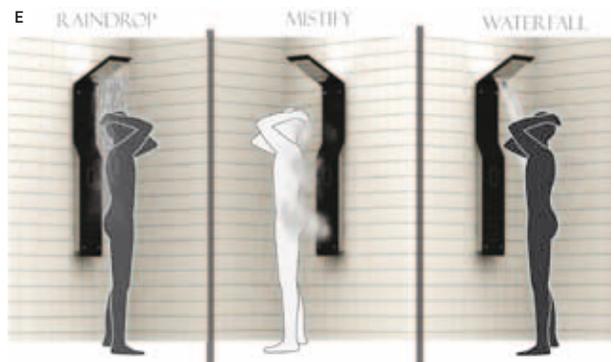
C



D



E



RONALD TURINUDDIN

Email Ronald.Turinuddin@hotmail.com
Phone 0430 108 482

- A. *Workmark Publishers Product Exhibitions*
- B. *Runner up Australia Electrolux Design Competition: Scenario boards*
- C. *3D appearance Model of GoDigital camera*
- D. *B'Orme&Véglaire: MASTERPIECE DAB luxury radio*
- E. *GoDigital Camera: product cycle and manufacturing*



Perspective

Right View



B



C

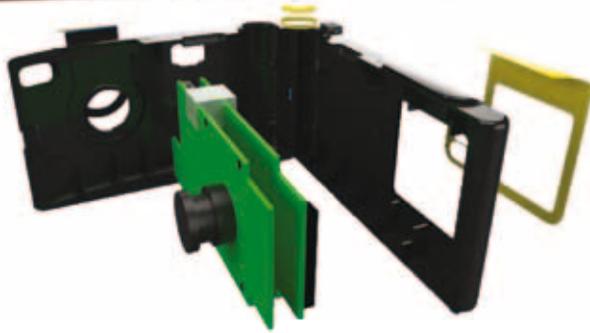
BÖrne&Véglairé
 MASTERPIECE
 Porcelain Body
 New granite Venetian



D

GoDigital
 A concept that surpasses imagination

E



JAMES TURNBULL

Email jamesturnbullinc@gmail.com
Phone 0401 514 516

Overall Dimensions (mm)

- 850mm x 450mm x 602mm
-

- A. *Kepl+ notifies users when perishables are spoiling*
- B. *Kepl+ extends the lifespan of organic produce*
- C. *Simple yet innovative cooling mechanics*
- D. *Exploded view of the components*
- E. *Design for smaller, modern living space*

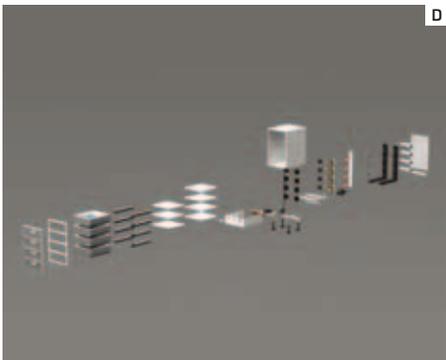
Kepl+

The slow food trend that encapsulates sustainability, healthy living, gastronomy and the romanticised lifestyle of reconnecting with our food is enabled by kepl+. Using a low energy two-stage evaporative cooling system to chill perishables, kepl+ offers ideal humidity and temperature control and extends the otherwise vulnerable lifespan of fruit and vegetables, bread, cheese and meat.

Conventional refrigerator storage of perishables is less than ideal with longevity decreased by the too cold and too dry environment. The air flow of the kepl+ cooling system extracts the spoiling stimulant ethylene gas from the air around fruit and vegetables and hinders the conditions for microbes, while notifying the user of perishing food.

Other features of kepl+ include allowing users to specify localised conditions based on the contents stored. The first stage of the cooling mechanism is a peltier dehumidifier meaning kepl+ captures some of its own water for cooling and the exhausted air is not dense and muggy. The under bench format is attentive to reduced living spaces with no plumbing or exhaust integration required for installation.





JAMES TURNBULL

Email jamesturnbullinc@gmail.com

Phone 0401 514 516

- A. *D-Buoy GPS Maritime Disaster Rescue Device*
- B. *USB Power LED Task Light*
- C. *Luxury audiophile DAB Radio*
- D. *Benchtop Mixer Concept Design*
- E. *Cormack Milo Packaging Design Competition Entry*



D



E



SABA ZARE

Email zaresaba@gmail.com

URL www.sabazare.com

Phone 0421 182 996

Overall Dimensions (mm)

- 450mm x 450mm x 200mm

Material

- Aluminium, Polycarbonate, ABS

Manufacturing

- Injection Moulding, Diecast, CNC Machined
-

Spark

Sparc is a digital collaboration system allowing for teams of individuals to meet and work over the internet. Sparc aims to increase intimacy and efficiency within the workplace and creates a platform for individuals to create, edit and review minutes and action points in real-time. Sparc can be used as both a distance collaboration tool and also for individuals attending local meetings, any user can connect to the Sparc system with their laptop or tablet.

The system has a retractable stalk with a 360 degree webcam and multi-directional microphones that transmit vivid pictures and sound with minimal visual disturbance to the local meeting. The stalk retracts into the light housing ensure the security of private meetings. The light element illuminates the users' faces to reduce the effects of badly lit office spaces. The virtual whiteboard component allows teams of individuals to draw diagrams, mind maps and annotate images in real-time.

- A. Lighting control unit above ceiling tile
- B. Microphone array
- C. Context Shot
- D. Speaker Grill
- E. Sensor Detail



c



D



E



SABA ZARE

Email zaresaba@gmail.com

URL www.sabazare.com

Phone 0421 182 996

- A. *Seoul Cycle Design Complimentary Prize Winner (cycling infrastructure)*
- B. *Adagio DAB Radio Context*
- C. *Adagio DAB Speaker Grill*
- D. *'mywash' Electrolux Design Lab Semi-Finalist 2011*
- E. *'mywash' Context*



A



B



C

D



E



ACKNOWLEDGEMENTS

The students of the 2011 Final Year Studio in the Industrial Design Program would like to give a special thank you to all our sponsors for their generosity, contribution and support.



RESMED

Ancher/Mortlock/Woolley



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SINEAD DAVIES
CREATIVE DIRECTOR

Key sessional lecturers

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- › Alicia Mintzes
- › Alasdair McKay
- › Anders Alexander
- › Anika Ebner
- › Chris Whelan
- › Christine Garberg
- › Claudia Bonifer
- › Clyde Crawford
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- › James Kwong
- › Ruth McDermott
- › John Levey
- › John Murdoch
- › Joshua Park
- › Kelly Louise Freeman
- › Malcolm Horner
- › Matt Long
- › Matt Spruell
- › Michael Durante
- › Min Kong
- › Phillippa Carnemolla
- › Robert Walsh
- › Scott Norrie
- › Sebastian Adams
- › Sinead Davies

INDUSTRIAL DESIGN

PROGRAM TEAM



Dr Miles Park



Steve Ward



Andrew Fowkes



**Associate Professor
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Dr Mariano Ramirez



**Antony (Tony) Jones
and Peter Kolasinski**
Lab staff

ALUMNI PROFILE

SAMUEL ADELOJU

Graduated 2010
Degree Bachelor of Industrial Design
Awards BID (2010)
AIDA Student Design winner,
2010 Global James Dyson Award

I originally got into design to work in furniture or automotive but studying at UNSW BE broadened my view of design.

The BE Industrial Design exhibition is one of the best in the world. Each year, graduates showcase their best work. BE lecturers curate the exhibition and bring past and current students as well as well known designers and industry experts together to celebrate each year's graduating class.

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