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光寶創新獎  
2016 Lite-On AWARD



創新

誕生



2016  
LITE-ON AWARD

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創新 誕生

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# INTRODUCTION OF 2016 LITE-ON AWARD

## 2016 光寶創新獎前言

全球華人界最盛大的創新設計賽事「光寶創新獎」已邁入第 16 年。全球領導企業默克 (Merck) 及豐園北科大木創中心今年繼續受邀參與設立特別獎，鼓勵兼具創新與市場性之作品，而創新獎更與科技部「創新創業激勵計畫」(FITI) 合作，共同獎勵創新接軌創業。

光寶創新獎鼓勵青年創新者與設計師以市場價值、創業可行性為必要評估要件，發展「光、電、節能」與「智慧科技」為範疇的科技產品或技術。今年超過 1,400 組來自世界各地的作品激烈角逐，決賽作品半數以上聚焦生技醫療與居家安全照護，其次為水資源與環境保護，展現參賽者對該主題豐沛的創新力。「類燭光有機發光二極體」與「SP3 人造晶狀體注射器」分別獲得技術組與設計組金賞，獎金各為新台幣 35 萬元。

2016 年技術組金賞作品由國立清華大學「類燭光有機發光二極體」獲得，為改善生活中藍光對人體的傷害日漸嚴重，研發出無藍害、低色溫的有機發光二極體 (organic light emitting diode, OLED) 技術，期望改變未來照明標準；銀賞作品「自製汗立克」因設計者自身及親友手汗問題嚴重需長期就醫治療，因此發明將傳統離子電泳裝置改良為穿戴式的刺激器及手套，讓患者在居家環境中能自在的進行止汗，大幅降低不便性。銅賞作品為中央大學團隊開發的「雙離子油水分離器 (zMesh)」，可回收 99.9% 的廢油與有機溶劑，處理速度可達 11 公噸 / 小時，無能源消耗、綠色製程且具永續使用特性。

無獨有偶，新加坡國立大學連續 2 年蟬聯設計組金賞，可謂華人世界新勢力。金賞作品「SP3 人造晶狀體注射器」重新設計眼球水晶體注射器材，手術中醫生只需單手操作、以尖端注射頭來調整位置，簡化手術步驟，降低醫療器材感染風險。銀賞作品由寓教於樂的「新聞地球」奪得，使用者觸摸懸浮地球儀上任何角落，能以 APP 與手機連線取得當地新聞，改變人們被動接收新聞的慣性。來自台灣的作品「水 Q」獲得銅賞，透過水流渦計算流水量以及自行發電，於機身上顯示耗水狀況亦可傳送至於雲端，以便進行數據比較

和資料分析，利於水資源管理。本屆光寶創新獎多數作品展現物聯網與光電結合的創意、旨在解決人類健康照護、節能環保及災難救援等健康安全及公共議題。

為推動得獎作品可落實商品化與接軌創業，光寶創新獎今年攜手與科技部「FITI 創新創業激勵計畫」合作，技術組優勝前三名團隊可銜接進入科技部「創新創業激勵計畫」，參與該計畫相關創業課程與輔導活動，協助光寶創新獎優勝隊伍完備其產品或服務之原型驗證及新創商業規劃。如通過該計畫各階段評估，將有機會角逐該計畫之百萬創業基金。

光寶創新獎每年均邀請國際級創新設計大師出任評審以及國際論壇講師，今年邀集 Zumbotel Group 設計與行銷長 Rogier van der Heide、南韓首爾世界設計之都執行長李淳寅與上海如恩設計研究室共同創辦人郭錫恩出席，共同暢談「創一個新：創新的概念與發想」，回歸創新原點分享如何成功地創造新的概念、創意甚至商品。

今日全球創新的來源來自眾多不同的面向，創新可能來自產品外觀、功能的設計，也可能來自不同技術的新運用，或是製程技術、材料技術的重新組合。邁入第 16 年的光寶創新獎，也將秉持一貫鼓勵新一代創意家發揮對科技產品、技術的創新力，並接軌商品化乃至於創業，在全球創新舞台中發光發熱。

The Lite-On Award – the world's largest and most prestigious Ethnic Chinese innovation and design competition – celebrate their 16<sup>th</sup> anniversary this year. Leading global corporation Merck and the Center of Woodwork Technology and Innovation have this year continued to support the Award, with both Merck and the Centre providing Special Award to encourage entries that combine innovation with strong market potential. In addition, this year the Lite-On Award is collaborating with the Ministry of Science and Technology's From Invention to Innovation (FITI) project, working together to promote business start-up oriented innovation.

The Lite-On Award encourage young inventors and designers to develop new technologies and technology-based products within the fields of "optoelectronic, eco-friendly and intelligent technologies," while making potential market value and the potential for new business start-up key criteria for entry evaluation. This year, the Lite-On Award received more than 1,400 entries from all over the world, making for intense competition. More than half of the entries that made it through to the finals were inventions or designs in the fields of bio-tech and home security; the next largest group comprised entries relating to water resource conservation or other aspects of environmental protection; overall, the entries addressing these themes displayed a high degree of creativity and innovation. The winning entries in the Technology Division and the Design Division were the "Candlelight Organic Light-Emitting Diode" and "SP3-Intraocular Lens Injector" respectively, each of the first prize winning teams received NT\$350,000 in prize of cash.

First prize in the Technology Division in the 2016 Lite-On Award went to the "Candle-type Organic Light-Emitting Diode (OLED)" developed by a team from Taiwan's National Tsing Hua University. In an attempt to combat the steadily increasing harm that blue light is causing to the human body, the National Tsing Hua University team developed a new type of organic light-emitting diode (OLED) technology that features a low color temperature and eliminates the harm caused by blue light. It is anticipated that this invention can contribute towards an improvement in lighting standards in the future. The silver medal in the Technology Division went to a "Anti-Sweaty." Both the designer and their family members had been plagued by sweaty hands for years, requiring long periods of medical treatment; the designer came up with an invention which transforms traditional iontophoresis devices by transforming them into a wearable stimulator and glove combination. With this new invention, hyperhidrosis sufferers can bring their sweating under control in the home environment, making life substantially more convenient for them. The bronze medal went to the "zMesh" dual-ion water/oil separator developed by a team from Taiwan's National Central University. zMesh is capable of recovering 99.9% of waste oil and organic solvents, with a processing speed of up to 11 tons per hour. With no waste of energy, zMesh has an important role to play in sustainable "green" production processes.

Teams from National University of Singapore (NUS) have won the gold medal in the Design Division of the Lite-On Award for two years in a row now, confirming that NUS represents a major new force in the Ethnic Chinese design world. The design for which the NUS team won this year's first prize was the "SP3 Intraocular Lens Injector." This represents a comprehensive redesign of the intraocular lens injector concept. When performing a

cataract operation, the surgeon can operate the SP3 device with just one hand; an ultra-fine tip allows precise positioning, and the reduction in the number of discrete steps needed reduces the risk of infection. The silver medal in the Design Division went to "Touching Earth," an invention that makes learning fun. When the user touches a location on the floating globe, they can access local news from that location using an app on their mobile phone; the aim is to challenge the tendency for people to become passive recipients of news. The bronze medal went to a Taiwanese entry: "Water Q." Water Q uses a water turbine to calculate water flow while at the same time generating electricity; water consumption data is displayed on the device, and can also be transmitted to the cloud to facilitate data comparison and analysis, which in turn can lead to improved water resource management. Many of the entries in this year's Lite-On Award demonstrated impressive creativity in integrating the Internet of Things (IoT) with optoelectronics, with the goal of helping to solve health and safety issues and other issues of public concern, including healthcare, energy conservation and disaster relief, etc.

To promote the commercialization of the prize-winning entries and foster new business start-up, this year the Lite-On Award partnered with the Ministry of Science and Technology's From Invention to Innovation (FITI) project. The three prize-winning teams in the Technology Section had the opportunity to participate in the FITI project, benefiting from the entrepreneurship classes and guidance activities provided through the project. This collaboration with the FITI project can help the prize-winning teams from the Lite-On Award to complete prototype verification and formulate start-up plans with respect to the new products and services that they have developed. Those start-up teams that pass FITI evaluation will have the opportunity to compete for the NT\$1 million in seed capital available under the FITI program.

Every year, leading international designers are invited to serve on the Lite-On Award jury and to give lectures at the international forum accompanying the Award. The invitees for this year's Award included: Rogier van der Heide, Chief Designer and Head of Marketing at the Zumbotel Group; Soon-In Lee, President of the Seoul Design Center; and Lyndon Neri, joint founder of the Neri & Hu Design and Research Office in Shanghai. During the international forum, they discussed the topic of "Creating Something New: Innovative Concepts and Ideas," going back to the roots of innovation to share ideas on how to innovate successfully and transform creative ideas into new products.

Today, the sources of global innovation are multi-faceted. Innovation may relate to products' external appearance, function or design; it may derive from new ways of using technologies, or it may involve combining production process technologies and materials in new ways. The Lite-On Award has now been held for 16 years. Looking ahead to the future, the Award will maintain their commitment to encouraging new generations of inventors and designers to demonstrate their creative imagination in relation to the development of new products and technologies, and to supporting the process of commercialization and business start-up; in this way, the Lite-On Award will continue to stand out as a beacon of excellence among global innovation platforms.





光寶集團董事長  
宋恭源

宋恭源

光寶創新獎 16 年來持續做的就是站在企業的角度和格局，提供新一輩年輕人未來發展的方向。藉由創新獎這個平台，一方面鼓勵青年創新家、設計師展現他們的努力和才華，一方面邀請業界頂尖的專家擔任評審、當面指導他們作品，也透過舉辦國際論壇把專家們在國外最新的經驗，帶給在座的青年創新家。今年我們很榮幸和科技部創新創業計劃 (FITI) 合作，提供技術組的優勝隊伍能夠參與創新創業的培訓，打開青年科技創新之路。

我認為這是企業為下一代應該要做的事，只要是對社會有貢獻的事情，光寶就會持續做，並且期望做到最好。非常感謝教育部、工業局一直給予光寶創新獎指導，也特別感謝今年的合作夥伴默克光電、豐園北科大木創中心再一次參與協辦今年的賽事。

光寶集團這幾年來積極從傳統的 PC 製造產業轉型升級，發展各項新事業包括雲端、LED 照明、汽車電子、生醫以及工業自動化等，甚至經營自有品牌，都有很好的成果。這過程中，大量的創新與研發、跨領域的資源整合是重要的關鍵。

我很高興看到今年許多作品與全球時事結合，像是針對地震、高樓火災、居家醫療以及嬰幼照護等，這些關切生活議題的作品也獲得評審高度的肯定。同時，我也期待每一位參賽者，不只是來參與競賽，而是透過整個參賽過程，能夠與來自各界多位的評審、其他地區或是不同組別的參賽者多交流、互動，建立自己多方面的資源；進而在今天獲獎的基礎之上，慢慢學習成就更大的夢想與事業。

# WORDS FROM THE CHAIRMAN OF LITE-ON GROUP

## 光寶集團董事長期許

For 16 years now, Lite-On Technology Corporation has been using its perspective as a business enterprise to provide young people with opportunities for developing their own future. Through the Lite-On Award, we encourage young inventors and designers to demonstrate their talent and dedication, while at the same time inviting leading experts to serve on the Award jury, where they can provide entrants with direct guidance and suggestions, and combining the Award with an international forum at which experts share their international experience with the participating young innovators. This year, we are honored to have been invited by the Ministry of Science and Technology to collaborate with the Ministry's From Invention to Innovation (FITI) project; the winning teams in the Technology section of the Award will have the opportunity to participate in new business start-up incubation, opening up new technology innovation possibilities.

I believe that this kind of activity is the most important thing that business enterprises can do for the next generation. As long as something makes a positive contribution to society, Lite-On will continue doing it, and will try to do it to the best of our ability. I am very grateful for the support that the Ministry of Education and the Industrial Development Bureau have given to the Lite-On Award over the years, and I would also like to express my sincere thanks to Merck Taiwan and to the Center of Woodwork Technology and Innovation, for once again assisting as co-sponsors of the Award.

Over the last few years, the Lite-On Group has been working to transform and upgrade itself; whereas in the past Lite-On was mainly oriented towards the PC manufacturing industry, it has since expanded into several new business areas, including cloud computing, LED lighting, automotive electronics, medical & biotech and industrial automation, and has developed and grown its own brand; the results achieved in these areas have been impressive. Innovation, R&D and cross-industry resource integration have played a key role in all of this.

I am very pleased to see that many of the entries in this year's Lite-On Award are closely related to important issues currently affecting the world, seeking to help address the challenges of protecting against earthquakes and fires in multi-storey buildings, and improving home care provision and care provision for young children, etc. It is significant that these entries won particularly high praise from the Award jury. I also hope that every participant in the Award will feel that the experience has been more than just taking part in a competition – that it has provided valuable opportunities for interaction and exchanging ideas with judges from different sectors, and with fellow entrants in different disciplines and from different regions, thereby helping each participant to add to their own personal stock of "resources." I hope that you will be able to build on what you have achieved in the Lite-On Award to continue learning and to move on steadily towards even bigger dreams and greater achievements in the future.

# JURY'S PROFILE: TECHNOLOGY CATEGORY

## 技術組評審介紹



### 何明彥 Kevin Ho

台灣創意工場投資長暨合夥人 / Chief Investment Officer and Partner of TMI (Taiwan Mobile Innovations)

何明彥先生現任台灣創意工場 (TMI) 投資長 / 合夥人，台灣創意工場為企業化早期新創投資加速平台，主要進行網際網路早期新創事業投資與育成。2015 年前擔任華陽創投集團 (華陽中小企業開發股份有限公司) 總經理，管理多檔基金並搭配國家發展基金進行中早期創業投資。2013 年前任職創新工業技術移轉股份有限公司 (工研院旗下創投) 副總經理，積極聚焦於矽谷與台灣光電、電子與資通訊相關領域個案投資與育成。

Kevin Ho serves as Chief Investment Officer and Partner of TMI (Taiwan Mobile Innovations). TMI focused on facilitating early stage start-ups to tackle global market and build strategic partnerships.

Before 2015, Kevin served as President of Sunsino Venture Group, responsible for managing six venture funds with the matching funding from National Development Fund. Before joined Sunsino, he served as Vice President of ITIC (Investing Arm of ITRI), responsible for investment evaluation, due diligence, and other venture operational activities. He was stationed in US to manage portfolios and develop new investment.



### 胡竹生 Jwu-Sheng Hu

工研院機械與系統研究所 / Vice President and General Director of Mechanical and Systems Research Laboratories, ITRI

胡竹生畢業於台灣大學機械工程系，並取得美國加州大學柏克萊分校機械工程研究所碩士及博士學位。目前擔任工研院機械與系統研究所所長，同時也是交通大學電機系教授，並曾任國家實驗研究院晶片系統設計中心顧問研究員。專長為自動控制、機器人、機電整合、嵌入式系統與電力電子等，獲得國內外專利 70 件，期刊與會議論文發表超過 250 篇。

Jwu-Sheng Hu is Vice President and General Director of Mechanical and Systems Research Laboratories at the Industrial Technology Research Institute (ITRI). He received Ph.D. degree from Mechanical Engineering of University of California, Berkeley. He was an Advisor Board Member at the National Chip Implementation Center. He specializes in automatic control, robots, mechatronics, embedded system, and power electronics. He published over 250 journal articles and conference papers and has 70 patents.



### 莊裕澤 Yuh-Jzer Joung

財團法人國家實驗研究院科技政策研究與資訊中心 / Director, Science and Technology Policy Research and Information Center

莊裕澤主任，任教於台灣大學管理學院資訊管理學系。先後擔任台灣大學資訊管理學系系主任兼所長、管理學院副院長，並兼任管院計算機中心主任，負責規劃管院雲端運算整合服務。2013 年 8 月接任「財團法人國家實驗研究院科技政策研究與資訊中心」主任，協助國家科技政策之建議與規劃，並負責推動執行國家多項重要創新創業及人才培育計畫，包括「創新創業激勵計畫」、「研發成果萌芽計畫」、「Stanford-Taiwan Biomedical Fellowship Program (STB)」、「SPARK 計畫 (台灣生醫與醫材轉譯加值人才培訓計畫)」等項目。

Yun-Jzer Joung has served as professor at the Department of Information Management, NTU since 1998. He was the Chair of the Department before appointed the Associate Dean of the School of Management since 2012. He is the Director of Science and Technology Policy Research and Information Center since 2013. He was responsible for an immense amount of projects that strive to encourage young entrepreneurs, innovations and startups, including SPARK Taiwan, FITI, Stanford-Taiwan Biomedical Fellowship Program.



### 郭斯彥 Sy-Yen Kuo

台灣大學電機系教授 / Distinguished Professor, Department of Electrical Engineering, National Taiwan University

郭斯彥 1987 年獲得 University of Illinois at Urbana-Champaign 博士。隨後在 University of Arizona 擔任助理教授三年，於 1991 年回國任教台大電機系，並於 2012-2015 年擔任台大電機資訊學院院長。2001 年當選 IEEE Fellow。研究領域以 Dependable Computing 為核心，鑽研如何讓電腦與網路更為可靠。發表四百篇以上的期刊與國際會議論文，擁有 12 項台灣與 18 項美國專利，獲國科會傑出獎與傑出特約研究獎等多次獎項。

Sy-Yen Kuo is Distinguished Professor at the Department of Electrical Engineering, and was the Dean of College of Electrical Engineering and Computer Science from 2012 to 2015 at NTU. After receiving Master degree from University of Illinois at Urbana-Champaign, he served as Assistant Professor at the University of Arizona until 1991.

Sy-Yen Kuo's study centers on Dependable Computing, in hope to improve the reliability of computer and internet. He has been an IEEE Fellow since 2001. He has published more than 400 papers in journals and conference papers, and also holds 18 US patents and 12 Taiwan patents.



### 瞿志豪 Michel Chu

Acorn Campus Taiwan 合夥人 / General Partner, Acorn Campus Taiwan · 永加利醫學科技股份有限公司董事長 / Chairman, VSENSE Limited

瞿志豪於 2015 年開始加入矽谷創投 Acorn Campus Taiwan 擔任合夥人。1997 年創立臺灣唯一 NASDAQ 上市網路公司和信超媒體，擔任首席技術長。同時擔任執行副總裁，負責公司之策略規劃與購併。在 2008 年由和信超媒體退休後，擔任資深天使投資人。

自 2003 起擔任 YEF、TiC100 等創業活動之業師 / 講師 / 評審，具有協助校園技術商業化之豐富經驗。現於臺大開設組織運作導論、平台策略、生醫器材商業化等課程。

Michel Chu is a serial entrepreneur and currently a General Partner at Acorn Campus Taiwan. Michel co-founded GigaMedia (NASDAQ: GIGM), the only NASDAQ-listed Taiwan Internet company in 1997. From 2004, Michel also served as the Executive Vice President and Chief Technology Officer of GigaMedia, took charge of strategic planning, business development, M&A and general corporate management. He has been an active angel investor after retiring from GigaMedia since 2008. Michel is a respected authority on entrepreneurship and is a sought-after judge and mentor at reputable entrepreneurial activities including Young Entrepreneur of the Future, TiC100. Michel is currently an adjunct faculty of National Taiwan University, providing courses on Multi-sided Platforms, Biodesign for Medical Devices, Entrepreneurship, Group Dynamics and Leadership.



# JURY'S PROFILE: DESIGN CATEGORY PRELIMINARY SELECTION

## 設計組初選評審簡歷



### Marcus Solomon

執行總監 / Executive Director, XD Automotive and Industrial Design

Marcus Solomon 現任 XD Design 汽車及工業設計公司執行總監並擁有超過十年任職於知名設計公司的經歷。曾創立設計諮詢公司 StudioZen，後來合併於宏碁集團設計部門。Marcus Solomon 也是 ENIGMAcoustics 共同創始人，專精於製作高端音響設備。同時他也是 IN2UIT 和 Goodz<sup>2</sup> 的首席執行長，致力於為年輕世代提供專業耳機及音響設備。

Marcus Solomon is Executive Director of XD Design with over 10 years of experience of working for well-established design firms, including Ting Design and Conser Design. He founded his own design consultancy, StudioZen, which eventually merged with Acer. He then founded XD Automotive and Industrial Design Inc. Following this success, he also founded the ENIGMAcoustics, devoted to the production of high-end audio equipment. He is also the co-founder and CEO at IN2UIT, a high-end audio systems brand and Goodz<sup>2</sup>, a vibrant audio equipment brand for younger generation.



### Nikoi Sanniez

奎艾特台灣分公司資深設計經理 / Senior Design Manager at CRE8 DESIGN

Nikoi 畢業於 Brunel University 創意及策略設計研究所，於 2004 年自英國倫敦來到奎艾特，在 15 年的設計生涯中屢獲設計獎項，專長包含工業設計、設計策略、產品分析以及量產製造。Nikoi 曾於倫敦 Dixons Group、Tesco 及 Sainsbury's 工作，具備七年的零售經驗，對於零售業與消費行為有著深刻的體認；藉此工作經驗，他曾參與兩年的設計研究，擔任倫敦 Kingston 大學 Recycle by Design 研究助理。在 Nikoi 服務過的客戶群中包含：Nokia、Plantronics、DELL、宏碁、GBC、Kyocera 以及海盜船等；設計作品更曾刊登於 Engadget 等雜誌媒體。

Nikoi Sanniez is an award-winning industrial designer with over 15 years of experience focused on consumer electronics. Hailing from the United Kingdom, Nikoi joined CRE8 in 2004 after earning a Master's degree in Design Innovation and Strategy and a BSc. degree in Industrial Design and Engineering from Brunel University, London. Nikoi acquired deep knowledge of retail and consumer behavior during his 7 years of experience working for such companies as the Dixons Group London, Tesco, and Sainsbury's - experience that shaped his understanding of design and his unique point of view. Nikoi also served for 2 years as a research assistant for Recycle by Design at Kingston University, London. Nikoi Sanniez has been fortunate to have designed for renowned clients such as Nokia, Plantronics, DELL, Acer, GBC, Kyocera, and Corsair, among others. His works have also been featured in magazines and online product websites such as Engadget. Nikoi's expertise spans the areas of Industrial Design, Design Strategy, Product Analysis, and Design for Manufacturing.



### 孫崇實 Chung-Shih Sun

器研所研發總監 · 東海大學工業設計系兼任講師 / R&D Director of Gearlab · Adjunct Lecturer of Tunghai University

畢業於東海大學工業設計系，隨後赴義大利 Domus Academy 攻讀工業設計，曾任職橙果設計、華碩電腦。2008 年張博翔與孫崇實共同成立器研所 Gearlab，不斷開發創新與創意兼具的人力驅動物件，作品屢獲 iF、Red Dot、IDA、Good Design 等國際大獎，2010 年受邀為 JIA Inc.( 品家家居) 及 Wallpaper 雙品牌設計野餐組，2011 年為美國自行車品牌 Decide2Ride 設計 Urban Bike - Boogie，並取得台灣獨家代理，陸續與 nordic living 北歐櫥窗、服裝設計師賽騰張李玉菁等品牌進行單車與設計時尚的跨界合作。

Chung-Shih Sun is the R&D Director of Gearlab and the adjunct lecturer of Tunghai University. After earning degree in Industrial Design from Tunghai University, he further extended his study in Domus Academy in Italy. Mr. Sun co-founded the Gearlab in 2008 and spared no effort in the innovation of human powered devices ever since. Their works received awards from iF, Red Dot and IDA, Good Design. Moreover, they have cooperated with JIA Inc., Wallpaper, Decide2Ride and nordic living in designing a wide variety of products. The Gearlab also develops collaboration with apparel designer to create the fusion of cycling and fashion design. Prior to Gearlab, Mr. Sun was the design manager of DEM and industrial designer of ASUS.



### 蔣文瀚 Wilhelm Chiang

和碩聯合科技創意總監 / Creative Director, Pega Design & Engineering

於英國羅浮堡大學取得工業設計碩士後，進入華碩擔任工業設計師一職，後於 2008 年轉至和碩聯合科技。目前擔任創意總監一職。曾以筆記本電腦、單車風衣、車用智能系統等專案獲得德國 iF 產品類、溝通類設計獎。擁有十餘年豐富的產品設計經驗。目前專注於智能裝置的設計開發案，在新創領域高度重視並親力實踐，努力以創業思維來創新，期許將好概念更快速帶給消費者。

Mr. Chiang is the creative director of Pegatron. He entered Asus after graduating from the University of Loughborough with a master degree in industrial design.

With more than 10 years of experience in product design, he had received several awards from iF with his innovation on notebook, cycling trench coat and automotive intelligent system. He is now devoted to the development scheme on the design of smart devices and strives to achieve innovation with a mind of a start-up entrepreneur.



### 易瑋勝 Alan Yi

天晴設計事務所 創辦人暨設計總監 / Founder and Design Director, Afterrain Design Studio

易瑋勝現任天晴設計事務所創辦人暨設計總監。畢業於台灣科技大學工商設計研究所，隨後進入科技公司擔任設計顧問及產品設計師。作品廣受知名獎項肯定，包括德國 iF 獎、紅點設計大獎及美國 CES 創新設計獎。2008 到 2011 年，擔任台灣設計師週主題策展人。2006 到 2012 年，擔任台灣科技大學工業設計學系兼任講師及華梵大學工業設計學系兼任講師。在他的作品裡總是可以發現一些簡單巧妙的設計，不論是功能性或是心理層面的設計語意，讓設計是一種欣賞藝術的質感，並非判定產品的市場價值或是消費上的定義。

Alan Yi founded the Afterrain Design Studio and served as the Design Director since 2008. After graduating with a Master's degree in Industrial and Commercial Design from National Taiwan University of Science and Technology (NTUST), he worked for technology companies as designing consultant and product designer. His works are being recognized by reputable awards including Red Dot, iF and CES Innovation Awards. He was responsible for the Taiwan Designer's Week from 2008 to 2011 and took part in planning an immense amount of design exhibitions. From 2008 to 2012, he was the adjunct lecturer of NTUST and Huafan University. Users can always find simpleness and fun in Yi's design works whether in functional and psychological aspects. His design is not simply evaluated by market value but it is a piece of art itself.



**郭錫恩 Lyndon Neri**

如恩設計研究室共同創辦人 / Founding Partner, Neri&Hu

郭錫恩先生和胡如珊女士共同創立了如恩設計研究室 (NERI&HU)，一家立足於中國上海，在英國倫敦設有分辦公室的多元化建築設計公司。二位還共同創立了設計共和 (Design Republic)。2015 年，郭錫恩先生和胡如珊女士被巴黎家居裝飾博覽會評選為亞洲年度設計師，2014 年，被英國牆紙雜誌 (Wallpaper\*) 評選為年度設計師。2013 年入選美國《室內設計》名人堂。如恩設計研究室榮獲 2011 年 INSIDE 設計節大獎，2010 年度英國建築評論雜誌 AR 新銳建築獎及美國建築實錄雜誌 2009 年度世界十大設計先鋒之一。

Lyndon Neri is a Founding Partner of Neri&Hu Design and Research Office, an inter-disciplinary international architectural design practice based in Shanghai, China with an additional office in London, UK. Mr. Neri and his partner Ms. Rossana Hu are named Maison&Objet Asia Designers of The Year 2015 and Wallpaper\* Designers of The Year 2014. In 2013, Mr. Neri was inducted into the U.S. Interior Design Hall of Fame with partner Ms. Rossana Hu. The practice was selected as the 2011 INSIDE Festival Overall Winner, won AR Awards for Emerging Architecture 2010 by Architectural Review (UK) and was one of the Design Vanguards in 2009 by Architectural Record (US).



**Rogier van der Heide**

奧德堡集團設計與行銷長 / Chief Design and Marketing Officer, Zumtobel Group

羅希爾·范德海 (Rogier van der Heide) 現任奧德堡集團設計暨行銷長，在此之前擔任飛利浦照明公司設計長。范德海先生為國際公認的建築照明設計專家之一，作品融合了光、影像投射、建築和產品設計。設計作品範疇廣泛且遍布全球，燈光設計作品包括冰島歌劇院、阿布達比地標謝赫扎耶德大橋、北京奧運主場鳥巢體育館、廣州塔及倫敦科學博物館等知名建築。2010 前羅希爾·范德海為 Arup 燈光設計公司總監及全球燈光設計總監並經手多項遍布全球創新的燈光設計。Rogier 也致力於散播他對光、設計及美學的觀點，曾多次接受各大國際機構的演講邀請如 TED、聯合國等。

Rogier van der Heide is Chief Design & Marketing Officer of Zumtobel Group in Austria. Until August 2014 Rogier was Vice President and Chief Design Officer of Philips Lighting. Rogier van der Heide was the Director with Arup and the Global Leader of Arup Lighting until 2010 and accomplished creative and well-executed projects all over the world. He has 20 years of experience in three-dimensional design that fuses light, image projection, architecture and product design to create authentic experiences around the world. Rogier delivered many speaks about light, aesthetics and design at many international conferences such as United Nations and TED.



**李淳寅 Soon-In Lee**

韓國弘益大學國際設計進修校長兼首爾中心主席 / Professor of Hongik Contents Design Graduate School, Smart Design Lab in Seoul

李淳寅 (Soon-In Lee) 現任韓國弘益大學內容設計及智慧設計實驗室研究所教授，並曾任該校國際設計進修學校校長。他目前同時擔任國際 3D 列印論壇主席以及世界設計組織的理事。李教授曾任 LG 集團首爾設計中心總監及 LG 都柏林歐洲設計中心總裁。於 2011 年至 2013 年擔任國際工業設計協會 (Icsid) 主席，2011 年任韓國品牌設計經營學會會長，1997 年至 2004 年任韓國設計振興院 (KIDP) 本部長。Soon-In Lee 教授曾任韓國光州設計雙年展總監 (2006 至 2007 年)，曾負責 2010 年在韓國首爾舉行的世界設計之都活動的系列項目，並主導上海世博會首爾宣傳館展覽的總研究。

Soon-In Lee is the Chair of Asia Design Network and Korea 3D Printing Culture Forum and the senate of the World Design Organization. Besides, he is a professor of Hongik Contents Design Graduate School, Smart Design Lab in Seoul. In 1990, Soon-In Lee became the president of the LG Europe Design Center in Dublin, and in 1995 Director of the LG Electronics Corporate Design Center in Seoul. During the same year, he worked as the Executive Managing Director of the Korea Institute of Design Promotion (KIDP). From 2011 to 2013, Soon-In Lee served as the President of the International Council of Societies of Industrial Design (ICSID). Soon-In Lee was responsible for a large amount of design projects in Korea and Asia. He was the General Director for Gwangju Design Biennale in 2007. He participated in the design of the promotional exhibition arenas of the World Design Capital in Seoul and led the research of Seoul promotional arena of World Expo Shanghai from 2008 to 2010.



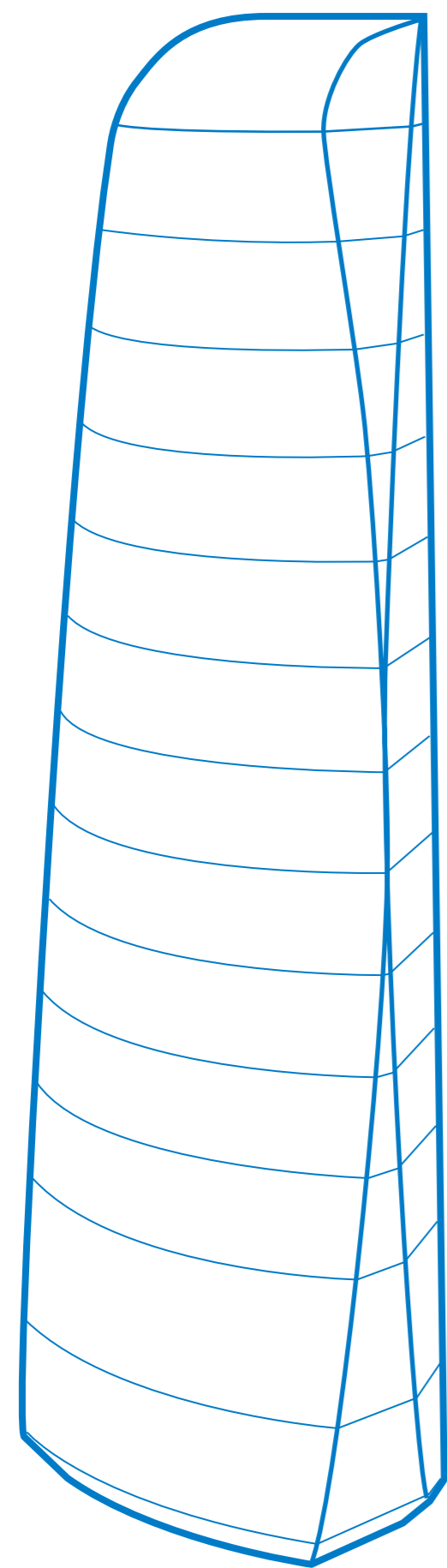
**梁又照 Yu-Chao Liang**

華胄設計企業創辦人 / Founder, Union Design & Development

梁又照先生現任中華民國工業設計協會首席顧問和華胄設計公司創辦人。梁又照先生致力於在教育界培養設計新秀，擔任國立台北科技大學創新設計研究所教授及北京科技大學工業設計系客座教授。他發起世界華人設計論壇，20 年來成功的促進了海峽兩岸各大學府的學術交流。此外，在產官研單位擔任諮詢顧問有 30 年經歷，多年來參與九項官學合作及研究計畫。曾多次榮獲經濟部、工業設計社團協會、德國漢諾威電腦展等知名獎項肯定。

Yu-Chao Liang is Principle Consultant of Chinese Industrial Design Association. He is also the founder of the Union Design & Development Corporation. Devoted to the field of education, he serves as the professor of the Design and Innovation Graduate School at National Taipei University of Technology and visiting professor at the University of Science and Technology Beijing. He initiated the Global Chinese Design Forum, an inspiring event that has encouraged the exchange of design ideas across the Taiwan Strait for 20 years. He is the leading authority in the industry of consultancy with over 30 years of experience. He was responsible for various academic-government collaboration schemes and research projects. He also received 17 reputable awards from the government, ICSID, and CeBit.





# ENTRY COLLECTIONS OF 2016 LITE-ON AWARD

得獎作品介紹



## 2016 LITE-ON AWARD GOLD AWARD

創新獎技術組 · 金獎

設計者： 關大興 Da-Hsing Kuan  
蘇郁婷 Yu-Ting Su  
宋偉齊 Wei-Chi Song

指導老師：周卓輝 Jwo-Huei Jou

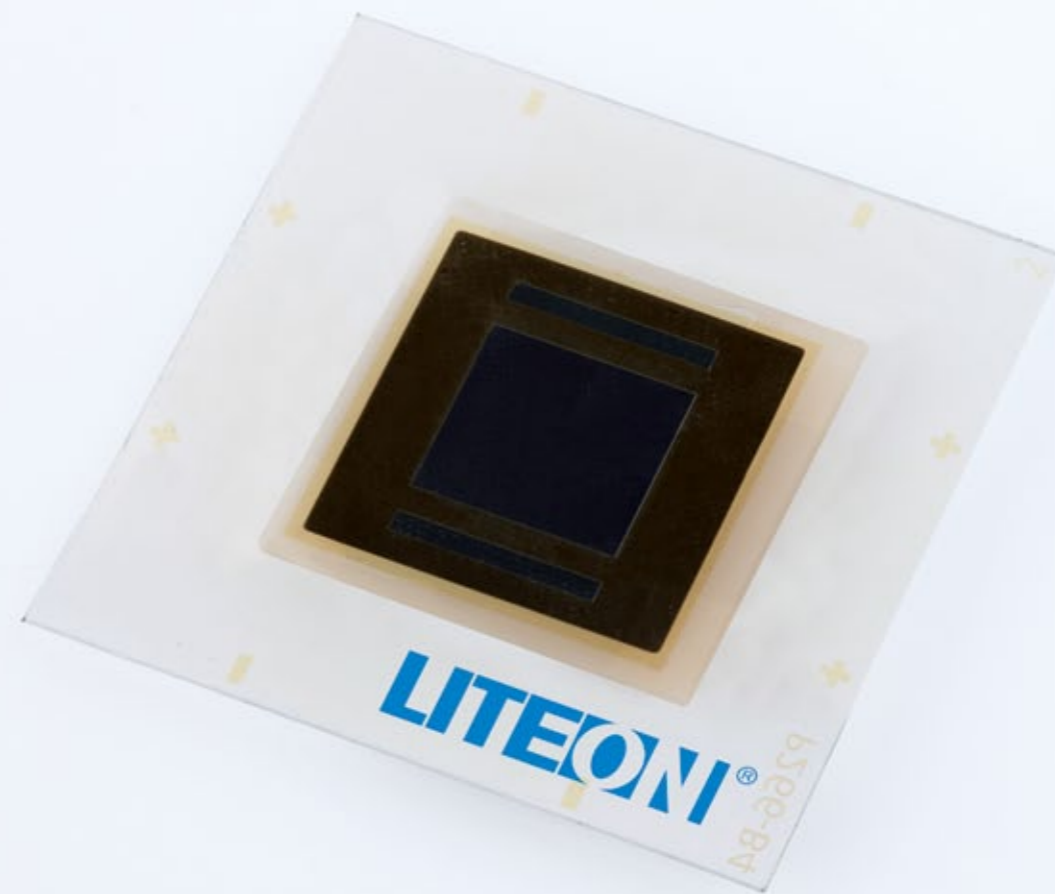
學校： 國立清華大學  
National Tsing Hua University

地區： 台灣  
Taiwan

### 類燭光有機發光二極體 Candlelight Organic Light-Emitting Diode

藍光對人體的傷害日漸嚴重。在眾多光源中，燭光能大幅降低藍光傷害但卻會產生黑煙、耗氧與火災風險。為解決此問題，團隊運用有機發光二極體 (organic light-emitting diode, OLED) 技術，設計與製作出一個無藍害、低色溫的燭光 OLED，希望能取代市面上含大量藍光的光源，進而成為未來夜間照明的趨勢。

Concerns has been raised on blue light and it is clear that we need a blue hazard free lighting source for health reasons. Among all lighting luminaries, candles emit low blue light, which could minimize possible blue hazards. However, candles may cause unbearable smoke, oxygen deficit, conflagration and other risks. The team utilizes OLED technology to create "Candlelight Organic Light-Emitting Diode," which can serve as a low color temperature and blue-light-hazard-free lighting source and in hope to become mainstream lighting in the future.





## 2016 LITE-ON AWARD SILVER AWARD

創新獎技術組 · 銀獎

設計者： 呂聖華 Sheng-Hua Lu  
陳孟專 Meng-Zhuan Chen  
張家綺 Chia-Chi Chang  
余文鈞 Wen-Jun Yu

指導老師：蔡鴻文 Hong-Wen Tsai

學校： 台灣科技大學  
National Taiwan University of Science  
and Technology

地區： 台灣  
Taiwan

### 自製汗立克 Anti-Sweaty

「自製汗立克」將傳統離子電泳裝置改良為穿戴式的刺激器及手套，讓患者在居家環境中能自在的進行止汗。

This design modifies the conventional ion electrophoresis apparatus as a wearable stimulator and gloves, allowing the patients to have treatment at home with privacy. Traditional method takes more than half an hour for each treatment, while "Anti-Sweaty" saves time and grants mobility to users.







## 2016 LITE-ON AWARD BRONZE AWARD

創新獎技術組·銅獎

設計者： 黃康庭 Kang-Ting Huang  
方雲龍 Yun-Lung Fang  
葉修邦 Shiou-Bang Yeh  
王裕昕 Yu-Sin Wang  
黃俊仁 Chun-Jen Huang

指導老師：黃俊仁 Chun-Jen Huang

學校： 國立中央大學  
National Central University

地區： 台灣  
Taiwan

### 雙離子油水分離器 zMesh

團隊運用超親水塗佈技術，開發出「雙離子油水分離器 (zMesh)」。此技術具有高效能、低危害、易量產等優點。「zMesh 油水分離器」使用重力驅動，可回收 99.9% 的廢油與有機溶劑，處理速度可達 11 公噸 / 小時，且其核心分離濾網可回收使用。「zMesh 油水分離器」具有無能源消耗、綠色製程、永續使用的精神，是下一代油水分離技術指標性產品。

Traditional technologies that deal with oily wastewater have problems such as separation efficiency, cost effectiveness and secondary pollutants. Inspired by hydrophilic cell membrane, "zMesh" is a fast, easy, and power effective oil-water separator. The advanced super hydrophilic surface modification applied in the separator allow "zMesh" realize excellent gravity-driven separation processes for oil-water mixtures with high flux and oil recovery efficiency. "zMesh" is also environmental friendly in the production process and highly sustainable. With reusable core component and simple operating process, "zMesh" intend to be the next generation product for oil-water separation.





# 2016 LITE-ON AWARD GOLD AWARD

創新獎設計組 · 金獎

設計者： 韓瑞民  
Raymond, Sui Ming Hon  
洪愷欣  
Sylvia, Kai Xin Ang

指導老師：顏慶全  
Ching-Chiuan Yen

學校： 新加坡國立大學  
National University of Singapore

地區： 新加坡  
Singapore



## SP3 - 人造晶狀體注射器 SP3 – Intraocular Lens Injector

SP3 為人造晶狀體注射器，專用於白內障手術時使用。現今植入器材需醫師雙手操作，植入後又需另一工具來調整晶體，增加眼睛受感染的風險。此設計醫師只需單手操作，另一手可穩定眼球。尖端柱塞頭設計則可用來調整晶體位置，降低醫療器材感染的風險。SP3 設計融入鎖定機制，確保一次性的使用。SP3 是新加坡國立大學於新加坡全國眼科中心合作的設計成果。

SP3 is a disposable intraocular lens injector for cataract that can be operated with a single hand, allowing the surgeon to stabilize the eye with another tool. By incorporating a specialized tip in its plunger, SP3 eliminates the need of requiring an additional tool to reposition the lens after injecting, which effectively lower the risk of infection. Moreover, by integrating a locking mechanism within the device, it can prevent any attempt to re-sterilize and reuse of the injector.





## 2016 LITE-ON AWARD SILVER AWARD

創新獎設計組 · 銀獎

設計者：張劍 Jian Zhang  
程碧亮 Biliang Cheng  
洪思展 Sizhan Hong  
劉北方 Beifang Liu

指導老師：張劍 Jian Zhang

學校：廣州美術學院  
The Guangzhou Academy of Fine Arts

地區：中國  
China

### 新聞地球 Touching Earth

「新聞地球」讓使用者能觸摸地球上任何角落並取得當地新聞，改變人被動的接收新聞的角色。當有突發新聞時，地球儀會隨著置於底座中的磁鐵左右震動進行提示，同時相應的地區會亮燈。手機 app 的介面將推播提示，並顯示新聞內容。此一裝置由底座與可發光的充氣地球組成，底座以 WiFi 接收訊息並傳送至手機。充氣地球藉由磁鐵與底座保持懸浮狀態，充氣地球內部亦有感應器與底座連接。

"Touching Earth" enables users to take on an active role instead of receiving the news passively. By touching places on the globe, users can receive news from that particular region. The earth will buzz when global breaking news released and users can get access to the news on their mobile phone. The design is composed of a base with an inflatable and luminous ball and the earth stays floating supported by the magnets set below.







## 2016 LITE-ON AWARD BRONZE AWARD

創新獎設計組·銅獎

設計者：陳冠宏

Kuan-Hung Chen

公司：FLUX Technology

地區：台灣

Taiwan

### 水 Q WaterQ

「水 Q」能透過水流渦計算流水量以及自行發電，於機身上顯示出使用之水量可讓使用者理解耗水狀況，並察覺漏水狀況做即時通報。用水資訊亦可傳送至於雲端，以便進行數據比較和資料分析，瞭解整體區域用水狀況及推送相關訊息。

"Water Q" uses water turbine to calculate the amount of water used and generate energy for functioning. The statistic will show on devices to inform users about water consumption. It will also alert users if there is any abnormal leakage. Data will upload to cloud server for collection and analysis to understand regional water usage and climate change.





# 2016 LITE-ON AWARD MERIT AWARD

創新獎技術組·佳作



設計者： 陳致賢  
Chih-Shien Chen

指導老師：李嘉甄 教授  
Prof. Chia-Chen Li

學校： 國立台北科技大學  
National Taipei  
University of Technology

地區： 台灣  
Taiwan

## 可再生仿細胞智慧型微粒子載體 Reusable Cell Imitation Smart MicroCarrier

「可再生仿細胞智慧型微粒子載體」為一結合可形變包膜、結構支撐體、功能性載物等複合材料的藥物載體裝置。其透過外在環境酸鹼值或溶液濃度的改變，使外圍的智慧型半透膜膨脹及收縮，作為藥物施放的機制。此特性可大幅提升載體的施藥效率，且核心半球含有功能性粉末，可藉由外力控制載體，令載體具可回收再利用性。

This piece of work is an intelligent micro-carrier comprising three major parts: the outer polymeric shell, an inner semi-spherical solid support, and functional powder embedded in the support. Changes in pH or ionic concentration will cause part of the intelligent micro-carrier to pulsate. The vibrating movement can release the delivered material at desired location and time. The functional powder embedded in the semi-spherical solid supporter allows the micro-carrier to be manipulated and recycled if needed. Micro-carrier has highly potential to be applied in various fields, such as medical, biochemical, quality agricultural and ecological industry.

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## 耦合光合作用和呼吸作用 以轉化有機廢水為可再生能源 Coupling of Photosynthesis and Respiration to Convert Organic Wastewater to Renewable Energy

此設計利用雙胞反應器耦合了植物光合作用和呼吸作用，並將此應用於有機廢水轉化成可再生能源之反應。在設計中運用了 Z-scheme 機制和雙觸媒系統，於反應器中以有機廢水為氧化端進料；還原端則以二氧化碳作為進料，透過太陽光能為反應驅動力。此設計提供了有機廢水氧化與二氧化碳還原成可再生能源之能力，並在未來可應用於有機廢水處理及製造再生能源，實現廢物再利用及能源化。

The design combines photosynthesis and respiration to tackle the problem of organic waste water and generate energy at the same time. It utilizes Z-scheme and bicatalyst system. The organic waste water serves as the oxidizing feedstock, while carbon dioxide as the reducing feedstock. Solar power is the driving force of the reaction process. This project provides potential solution to generate green and renewable energy from organic waste water and carbon dioxide, fulfilling the goal to reuse the waste and to produce energy.

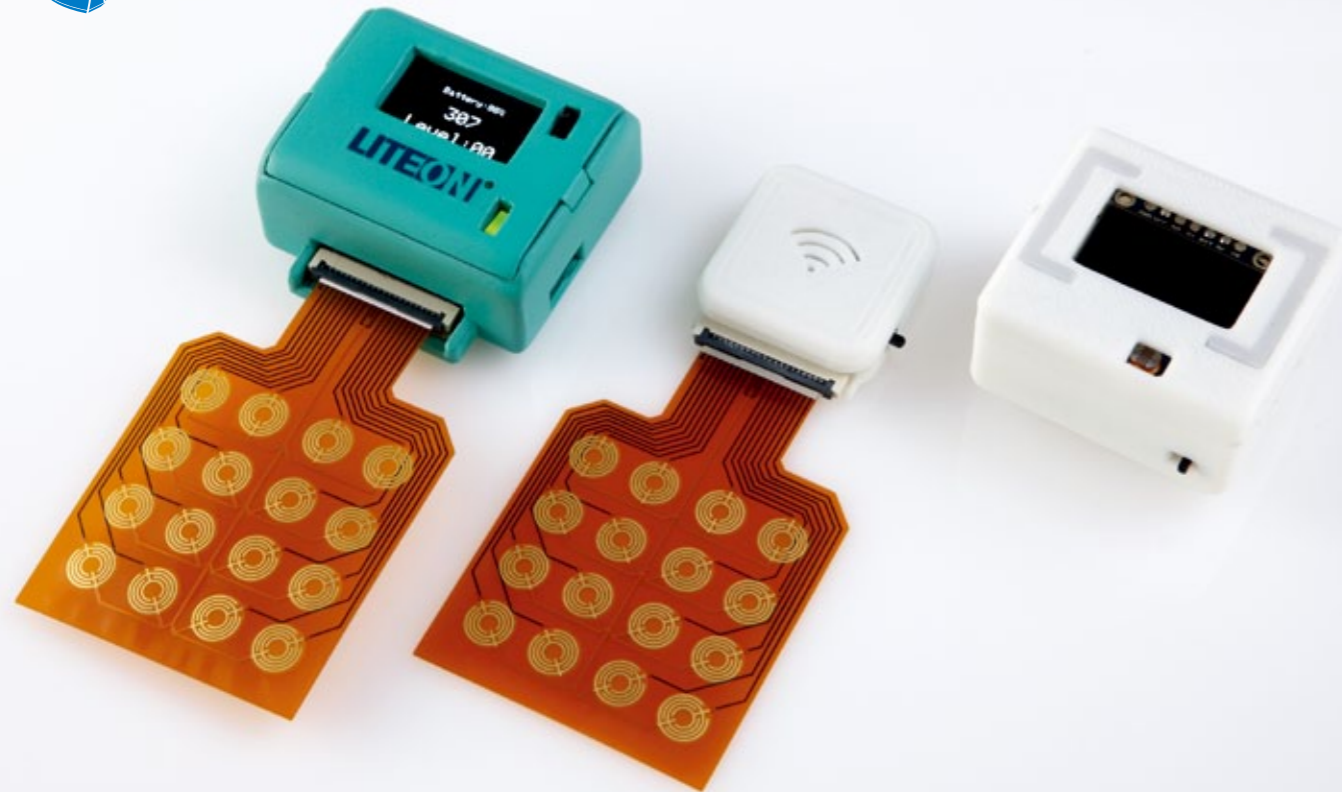






## 2016 LITE-ON AWARD MERIT AWARD

創新獎技術組·佳作



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### IoT 智慧紗布 IoT Smart Gauze

隨著全球人口高齡化及慢性病逐年上升，慢性傷口發生的機率越來越高，耗費大量的醫護成本。「IoT 智慧紗布」為一款監控慢性傷口變化之穿戴式監測系統。團隊所研發的陣列式溫度、濕度感測貼片與臨床用紗布整合，搭配穿戴式平台的開發與系統整合，提供慢性傷口的智慧監測。同時，建構多床監控與開發個人手機程式，將相關資料與雲端伺服器連結，提供完整的 IoT 醫療照護平台。

Ageing global population and the increase in chronic diseases give a sharp rise in chronic wounds and health care costs. "IoT Smart Gauze" integrates with a wearable monitoring system to detect transformations in chronic wounds. It provides a smart monitoring system for chronic wounds combining an array of temperature, humidity sensors and wearable platform. The sensors are integrated with clinical gauze to eliminate conflict on treatment procedure. For future development, it can build a complete IoT healthcare platform including multi-bed monitoring system and mobile phone App to transmit the data to cloud server.

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### 嬰兒床預防趴睡窒息之 安全裝置系統

### Suffocation-Prevention Safety Device for Sleeping on Baby's Stomach

「嬰兒床預防趴睡窒息之安全裝置系統」為一個簡單易安裝、可搭配市售生理監控設備、且能夠第一時間挽救生命的裝置。目前市面上的生理監測系統，當嬰兒趴睡呼吸狀況異常時，並無法積極地在第一時間對嬰兒進行初步的搶救。「嬰兒床預防趴睡窒息之安全裝置系統」給予嬰幼兒更主動更安全更及時的防護。

"Suffocation-Prevention Safety Device" is a cost-efficient and simple device which integrates with physiological monitoring appliances. Researchers discovered infants under 1 year of age who sleep on stomach is a major fatal reason for SIDS. Current physiological monitoring devices cannot provide any first aid treatment during urgent conditions. "Suffocation-Prevention Safety Device (SPSD)" is a crib which is able to provide babies with much more active and safer protection. This piece of work can be further developed for "Sleep Apnea" patients, protecting them from temporary breathing pauses during their sleep in the future.







## 2016 LITE-ON AWARD MERIT AWARD

創新獎技術組·佳作



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### 眼球動作辨識 與漸凍人輔助控制系統 Eye Movements Identification and ALS Assistance Control System

「眼球動作辨識與漸凍人輔助控制系統」為一個具成本效益的穿戴式嵌入式裝置，希望透過此設計能滿足漸凍人生活娛樂與瀏覽資訊之需求。藉由量測眼電訊號作為眼球動作的判斷依據，採用嵌入式系統來實現即時量測與辨識。使用者可以利用眼球的動作即可控制自走車，以及操作搭載於使用自走車平台上的電腦。

In order to enrich the life of ALS patients, the team designs a high cost-efficient wearable embedded device which enables patients to accomplish actions by themselves independently. The system has an embedded system that measures EOG in order to detect eye movements, which generates real-time measurement and identification. Users can directly steer vehicle and operate the computer on the vehicle platform with eye movements through this device.

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### 仿骨質之椎體融合器 The Biomimetic Interbody Fusion Device

本設計作品利用 3D 雷射列印技術 (SLM) 開發仿生結構之椎體融合器。透過高度生物相容之鈦基有序無序金屬粉粒材料，兼具客製化孔洞漸層設計，使該椎體融合器之生物及力學特性，與被植活體骨組織強度相互匹配 (Young's modulus matching)，以達到植入骨融合之目的，以減少傳統高強度實心植入物所造成應力集中或應力遮蔽效應 (stress shielding effect) 之骨折及植體崩塌之問題。

This work is the interbody fusion device of biomimetic structures developed based on 3D printing technology. We use the powder of Ti-based amorphous metallic glass with laser laminated manufacturing technology to produce the biomimetic interbody fusion device. It is manufactured with highly biocompatible metal glass, customization and pores gradient to match the Young's modulus of the implant bone tissue. This device aims to achieve the integration of implant bone tissue and reduce problems of fracture or collapse due to the stress concentration and stress shielding of traditional high Young's modulus solid implant.





## 2016 LITE-ON AWARD MERIT AWARD

創新獎技術組·佳作



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### 無機聚合技術 - 綠色水泥 Geopolymer Technology — Green Cement

本研究核心為無機聚合技術，以此為基礎延伸相關之技術應用，包括綠色水泥、混凝土、結構修補材、冷結型骨材及輕質防火建材。使用之材料以工業副產物及廢棄物為主，並在常溫即可製成，期望達到將廢棄物資源化及節省能源消耗之目的。

The project aims to apply geopolymer technology on different applications including green cement, concrete, structural repair material, cold-junction aggregate and lightweight fireproof building materials. The majority of the component is industrial byproducts and waste which can be manufactured at room temperature. It aims to recycle waste and reduce energy consumption from manufacturing industry.



## 2016 LITE-ON AWARD MERIT AWARD

創新獎設計組·佳作



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### 震安心 HouseBox

「震安心」為智慧室內定位裝置，配合相關應用程式，可作為震後快速救災系統，迅速定位受困者位置。內建紅外線感溫裝置，能在地震發生後，即時定位房間內受災者的位置與資訊。重力感測系統更能自動通報救災單位建築毀損程度，達成智慧救援。

"HouseBox" is a smart indoor positioning device with a post-earthquake response system that aims to lower the difficulty of locating people after an earthquake. HouseBox has a built-in infrared temperature sensing device that can locate victims trapped in collapsed buildings. Moreover, it also has a gravity sensing system which sends the data of collapsed buildings to the rescue command center, helping rescue team to locate people in a fast and smarter way.





# 2016 LITE-ON AWARD MERIT AWARD

創新獎設計組·佳作



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## 瓦德 WArTT

WArTT 為一互動式螢幕，將家用耗電狀況視覺化，以色塊大小及顏色的轉換用來提醒遞增之用电量，讓使用者能及時且輕易的瞭解能源消耗狀況。當螢幕檢測到有使用者接近時會出現格局圖，顯示出耗電量大之區域。點擊該區域則會顯示更詳細的用電分析。不使用時，WArTT 會以一件擺設品的形態融入居家環境，兼具實用及美觀價值。

WArTT is an interactive display that allows users to visualize their power consumption in a form of an art piece. Graphic would change in size and color as to inform the user of the situation when power consumption is abnormally high in a specific area. A floor plan of the house would appear when users come into close proximity with WArTT, indicating what each graphic represents. This allows users to identify the areas with abnormal power usage. When the user taps on the area, it will stand out and present more details. WArTT serves as a decorative display when users are not detected.

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## 智能捲簾儲物櫃 Scroll Locker

現今公用儲物櫃由於尺寸大小固定，造成空間的運用無法達到最佳化。「智能捲簾儲物櫃」能依物品大小調整置物櫃，善用閒置空間，容納更多物品，避免空間浪費。

The fixed capacity of public locker results in a waste of space when storing small items, while demands for storage with large items cannot be fulfilled. "Scroll-Locker" can adjust their own capacity according to the sizes of different items by using the reel structure. Therefore, it can not only save space but also accommodate more items.







# 2016 LITE-ON AWARD MERIT AWARD

創新獎設計組·佳作



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## 觸摸·感知 Touch Around

「觸摸·感知」透過超聲波測距技術探測盲人兩側及上前方的障礙物，由單片機控制收集訊息，並將訊息時時轉化為手把上各種不同程度伸縮的突起，讓盲人實現用手感知周圍環境。

This crutch is designed for visual challenged people. It can detect obstacles on either side of the crutch by the ultrasonic ranging technology. Microcontroller can gather data and turn information simultaneously into varying degrees of protuberance on the handle, allowing users to sense their surroundings by hand at all times.

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## 生命滑梯 Life Slide

「生命滑梯」為一款高層滑動消防車。此設計取自滑梯、起重機械、救援雲梯的靈感進行創新。消防車之上為摺疊滑梯，通過折疊伸縮調節高度和角度。三段式滑梯可有效減緩下滑的速度，並於連接處設定緩沖區域，消防員可在上方引導和給予協助。滑梯斜面最陡能伸展至安全度數 30°。表面的航太隔熱塗料可有效抵禦火災的高溫。頂部的抽風裝置則可以阻擋濃煙的傷害。現今雲梯存在乘載人數有限及行動緩慢的問題，「生命滑梯」致力於解決高樓層居民救援速度緩慢的問題，希望在分秒必爭的火災現場更迅速的及時救援。

This high-level rescue vehicle is inspired by slides, crane and rescue ladder. The telescopic rescue slider folded of the vehicle adjusts height when needed. The buffering area between two sections effectively slow the sliding speed down and is able to accommodate firefighters to assist people. The maximum angle of the slide is 30°. Insulation coatings on the surface of the slide can resist high temperature and the ventilation device on the top will protect people from heavy smoke. Current rescue ladder is relatively slow and can only carry limited amount of people at one time. The "Life Slide" hopes to increase rescuing speed and saves more life in a fire incident.





# 2016 LITE-ON AWARD MERIT AWARD

創新獎設計組·佳作

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## 貨車避讓警告線 Warning Ray

「貨車避讓警告線」為一款安裝在卡車兩側的警示雷射燈，可以透過發射紅色並閃光的方式來提示人們遠離貨車。一天當中不分時段皆可使用，有效提升行人安全，並期許喚醒對交通安全的重視。

"Warning Ray" is warning laser lights which equipped on two sides of large vehicles. Its flashing red light will alert pedestrians to keep a safe distance from the vehicle. It can be used at any time of the day, intending to enhance the safety of pedestrians.



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## Hi Breath- 兒童哮喘的家庭監測訓練系統設計 Hi Breath- The System Design of Family Monitor and Daily Training for Childhood Asthma

本設計利用兒童對光與顏色的好奇心消除對醫療產品的不適感，藉由監測呼氣峰流速值、定期檢測肺功能等進行哮喘病情管理，並進行一定的呼吸訓練。幫助患兒達到哮喘控制的最優化，減少發病次數。

The design aims to eliminate negative feelings of children towards medical equipment through their curiosity about light and color. It is designed to assist young asthma patients and help their parents to control the illness. It allows patients to manage medical condition effectively through recording peak expiration flow, regular lungs examinations and breathing training.



光寶今年再度邀集合作夥伴默克 (Merck) 及豐園北科大木創中心設立九項特別獎獎項，於全球參賽作品中評選出創新兼具市場性之作品。今年獲獎作品針對日益嚴重的空汙、能源及醫療議題結合創新科技與人文思維提出解決方案。「戈翼空氣監測無人機」及「會呼吸的窗」兩件作品分別從空氣品質監測到淨化空氣找到新契機。把脈神器「脈光」運用創新光學原理改善難以量化的脈象，解決傳統中醫診斷無法建立統一標準的問題。

默克特別獎今年以「智慧建築 Intelligent Buildings」為主題，三件得獎作品皆針對當今建築提出相關的智慧設計。殊榮獎作品「酒店智能逃生門鎖」融合 Wi-Fi 及投影技術，解決火災現場逃生出口定位困難的隱憂。特別獎作品「高效率抗眩光平板燈」開發的抗眩光的室內照明燈具，降低眩光和疊影所帶來的負面效應。另一件特別獎作品「會呼吸的窗」運用太陽能進行室內空氣淨化，更綠能環保且節省空間。

At Lite-On's invitation, this year our collaborative partners Merck and the Centre of Woodwork Technology and Innovation (COWTAI) have once again sponsored nine special awards as part of the 2016 Lite-On Awards; out of the large number of entries from all over the world, the judges have selected those that they feel demonstrate a particularly high level of innovation and which have significant commercialization potential. This year's prize-winning entries represent solutions, based on the combination of innovative technology with humanistic thinking, to some

豐園北科大木創中心今年則強調「大心」，意指貼心或愉悅人心的設計。今年的得獎作品將對人類精神層面獨到的觀察，體現於設計理念中，可說是舒壓療癒系設計，強化了人與傢俱的互動。「年輪輪回」為今年殊榮獎得獎作品，以月亮陰晴圓缺體現於每次平凡的開燈動作，讓各年齡層的使用者對時間流動有不同的體會。特別獎作品「衡」創新結合互動式開關，使開燈動作富饒趣味，舒緩現代人排山倒海的生活壓力。「獨釣壁燈」則將古詩詞的漁人意象呈現融入設計中，重現中華傳統文化優美的意境。

光寶特別獎則獎勵以創新科技落實於生活的創新作品。獲獎作品「濕路有關係」利用鏡頭監測地面積水加以調整 LED 路燈亮度，有效降低反射眩光，提升駕駛行車安全。第二件獲獎作品「脈光」為一款光學脈診儀，運用光學原理將脈象量化，讓未來中醫檢測能更加客觀及快速。另一件得獎作品「戈翼空氣監測無人機」則運用無人機結合 PM2.5 監測儀器，提供更準確的大數據資料改善城市居住品質。

of the increasingly serious issues relating to air pollution, energy and healthcare. The "Halberd Wing Air Monitoring UAV" and "Breathing Window" entries open up new possibilities for monitoring air quality and for air purification, while the "ScanPulse, Optical Traditional Chinese Medical Pulse Analyzer" pulse-checking device makes use of innovative optical principles to make it easier to quantify pulse characteristics, helping to overcome the problem of a lack of standardized diagnostic criteria that has affected traditional Chinese herbal medicine in the past.

This year, the theme of Merck's Special Awards was "Intelligent Buildings." All three of the prize-winning entries presented innovative new "smart designs" for contemporary buildings. The Merck Award of Honor went to the "Escape Guidelines," which integrates Wi-Fi and projection technology to help to overcome the difficulty that people may experience in identifying emergency exits in the event of a fire. One of the winners of the Merck Special Award was the "High efficiency and Low UGR LED luminaire," an indoor lighting solution that reduces the negative impact of glare and superimposed images ("ghost images"); the other Merck Special Award went to the "Breathing Window," which utilizes solar energy for indoor air purifying, providing an environmentally-friendly, space-saving air purification solution.

The theme chosen this year by the Centre of Woodwork Technology and Innovation (COWTAI), which is based in Fengyuan, Taichung City, for its Special Awards was "Great Heart," symbolizing design that demonstrates consideration for others or helps bring joy to people. The design concepts behind this year's prize-winning entries reflect keen observation of human psychology, embodying "stress relief" design that can help to enhance the way people interact with furniture etc. "Rings And Rebirth" was this year's winner of the Centre of Woodwork Technology and Innovation (COWTAI) Award of Honor. By displaying different phases of the moon each time the light is switched on, this product can help users of all age groups develop a different perspective on the passing of time. Of the COWTAI

Special Award winners, "Heng" incorporates an innovative interactive switch device to make turning on the light a fun experience, as a way of helping relieve the constant stress to which people in the modern world are exposed; "Fisherman Wall Lamp" incorporates the image of a lone fisherman from ancient Chinese poetry into its design, bringing alive the beauty of traditional Chinese culture.

The Lite-On Special Award is presented to new works that integrate innovative technology into daily life. One of the winners of this year's Lite-On Special Award, "Safety Illumination" uses a special lens to monitor the accumulation of water on the road and adjusts the brightness of LED street-lamps accordingly, thereby reducing reflected glare and making for improved driving safety. The second Lite-On Special Award went to "ScanPulse, Optical Traditional Chinese Medical Pulse Analyzer," an optical diagnostic device that uses optical principles to permit easier quantification of pulse characteristics, so that in the future doctors of traditional Chinese herbal medicine will be able to make diagnoses based on feeling the patient's pulse more objectively and more rapidly. The third winner of the Lite-On Special Award was "Halberd Wing Air Monitoring UAV," which integrates drone technology with a fine particular matter (PM2.5) monitoring instrument, making it possible to compile accurate "big data" that can help to improve the quality of life in urban areas.





MERCK

## Merck encourages young designers to be the change agents of energy conservation and to create intelligent buildings facilities and products through Lite-On Award

### 默克鼓勵年輕設計師將特用材料應用在智慧建築成為推動環保節能的一員

台灣區默克集團 董事長  
謝志宏

Managing Director, Merck in Taiwan  
Dick Hsieh

成功經營將近 350 個年頭，默克能成為全球歷史最悠久的製藥與化學公司，關鍵在投入能提升人類生活品質的創新研發。透過三大領域，我們致力於發展提升人類福祉的技術。在醫藥健康方面，我們發展新型治療方法，讓癌症、不孕症、多發性硬化症等病患獲得治療並改善生活品質。在生命科學方面，我們提供實驗室耗材、儀器設備、生物科技及製程相關產品，幫助生技和製藥領域的發展。在特用材料方面，默克為全球液晶材料的領導廠商，所提供的先進液晶材料廣泛應用在電視、電腦、手機等各類液晶面板。近年來默克也投入在新顯示器與照明科技如 OLED、LED、3D、可撓式面板等材料，以及幫助 IC 產品微型化的半導體材料技術，使人類更貼近科技生活。默克持續深耕與投資台灣已超過 27 年，不僅成立「液晶生產暨研發中心」，更加碼設立亞洲第一座「新技術研發暨應用中心」。身為台灣面板大廠的重要研發夥伴，默克一直與客戶們站在同一陣線，共同合作來突破技術瓶頸，即時提供亞洲市場關鍵材料開發服務，目標將臺灣在國際顯示器研發與生產地位推向高峰。

因應氣候變遷、人口結構（高齡化社會）與人類生活型態的改變，未來的居住環境勢必要朝環保、節能與智慧生活邁進。在歐美國家已有許多城市與建築開發計畫，歐美政府

也開始制定相關法規來落實智慧建築的推動。默克身為全球領先的科技企業，也率先做出示範，將旗下特用材料應用在智慧生活與智慧建築等領域，希望能夠成為推動環保節能的一員。我們利用液晶導光的特性，開發出液晶智慧窗戶（Smart Window）來控制光線明暗，目前有少量生產，並引發各界熱烈迴響。我們也在 2015 年米蘭世界博覽會德國館中，與其他材料廠商合作展出以 OPV 材料搭建而成的「太陽能樹 Solar Tree」，讓遊客體驗這樣高效能的新式材料也可以美觀的造型呈現，且製造成本較過去太陽能電池更符合經濟效益、使用壽命也較長。

默克期待這樣的拋磚引玉，能鼓勵參賽者以液晶、有機太陽能電池 OPV(Organic Photovoltaic)、LED/OLED 等創新材料，設計出窗戶、照明與再生能源等做創意應用，以符合今年的默克特別獎的主題「智慧建築 Intelligent Buildings」。默克深信，創新是台灣的致勝關鍵，而推動人才教育是默克企業社會責任之一。如同將台灣面板產業推向世界領導地位一樣的心情，默克攜手與光寶科技合作，期待培育更多具創新思維的年輕設計師與人才，讓台灣在世界舞台發光發熱，同時也發展出能幫助社會、提升人類福祉的創新科技產品。

Merck is the world's oldest pharmaceutical and chemical and company, operating for nearly 350 years. The key to this success is the vision of investing in innovative technology that brings value and benefit to mankind. In pharmaceutical business, we have developed new treatments for cancer, infertility, multiple sclerosis and many other diseases, in order to improve the patient outcome and life quality. In life science business, we provide innovative tools and laboratory supplies for the life science industry that make research and biotech production easier, faster and more successful. In performance materials business, Merck is the world's leading liquid crystal material provider, and our products are applied in LCD TV, computers, and smartphones. In the recent years, Merck has developed many new display and lighting materials for OLED, LED, 3D and flexibility technologies, and has enabled the trend of miniaturization in the IC industry. Merck is contributing greatly to the realization of technology life. For over 25 years, Merck has been deeply rooted in the country and has continuously invested to support the local business operation. Merck not only inaugurated the "Liquid Crystal Center in Taiwan (LCCT)" but also opened the "New Technology R&D and Application Lab" in Taiwan. Being a loyal partner of the key players in Taiwan display industry, Merck always stands beside the customers and cooperate with them to break technical bottlenecks and provide real-time key materials and development services, which is to support Taiwan to reach the top position in the global display R&D and production sector.

Exponential growth in technology advancement and the increasing awareness of environment protection have resulted the formation of two major global trends - eco-friendly and intelligent technologies. Nowadays, intelligent technology is taking a big part of our lives and is expanding the applications to the home products and the household facilities to meet future human needs. There are many green projects of city development in Europe, and the governments of European countries had set up the laws and regulations to promote intelligent building. As a pioneer in new technology materials that enables energy saving and intelligent technologies, Merck created many products such as Smart Window and Solar Tree in 2015 Milan EXPO.

We are much honored to take part in the Lite-On Award again and invite young designers to create greener, more intelligent and more convenient home products and household facilities with innovative materials such as Liquid Crystals, OLED, LED, OPV (Organic photovoltaics) and those works can be applied in the Intelligent Buildings. Merck believes the innovation is the key of winning for Taiwan and we put education and talent cultivation is the first priority of Merck's social responsibility strategy. As well as Merck helps Taiwan become the leading position in display industry, we are happy to partner with Lite-On to encourage more young designers to develop new technology products that can make life better for the society and people in general.

# MERCK

## 2016 LITE-ON AWARD AWARD OF HONOR

光寶創新獎 · 默克殊榮獎



設計者： 廖伯麟 Bolin Liao

指導老師：張崑 Yin Zhang

學校： 廣東輕工職業技術學院  
Guangdong Industry  
Technical College

地區： 中國  
China

### 酒店智能逃生門鎖 Escape Guidelines

火災發生時，「酒店智能逃生門鎖」能發出提醒光線，並運用投影及WiFi技術使逃生手柄將逃生地圖投射至牆上，指引旅客順利逃離火災事故現場。此設計解決了房客因火災現場過為混亂而無法快速找到逃生出口的隱憂。

This device is designed to project warning light when in fire incidents. It combines the projection technology and WiFi to project the hotel floor map for the users and successfully guide them to evacuation exits. This aims to solve the problem that the guests in hotel cannot immediately locate the nearest exits when in a chaotic fire incident.

## SPECIAL AWARD

默克特別獎



設計者： 許昱凱 Yu-Kai Hsu  
王秀丞 Xiu-Cheng Wang  
陳璿安 Hsuan-An Chen

指導老師：潘瑞文 Jui-Wen Pan  
楊斯博 Zu-Po Yang

學校： 國立交通大學  
National Chiao Tung University

地區： 台灣 Taiwan

### 高效率抗眩光平板燈 High Efficiency and Low UGR LED Luminaire

此設計為一個具有高效率直下式LED的抗眩燈具，並製作出成品驗證。此抗眩燈具的設計主要用來降低LED所造成的強烈眩光以及疊影的效應。它具有高照度均勻、高光效率和能源效率。在模擬驗證過程，與傳統相比，照度均勻度從64.9%提升到80.0%，UGR控制在18.8，並擁有79.5%的高光學效率。在實際成品量測下，照度均勻度可達77.0%，UGR控制在19.0，光學效率在76.0%，且擁有81.4(lm/w)的高能源效率。

Reducing the glare effect is necessary for the improvement of LED products. An anti-glare luminaire design is proposed to reduce the effect of glare and the multi-shadow while preserving high optical efficiency, high illumination uniformity and low unified glare rating (UGR), allowing it to be utilized in indoor lighting. The finished product had an illumination uniformity of 77.0%, optical efficiency of 76.0%, UGR value of 19.0, and efficacy of 81.4 lm/w.

設計者： 林琳 Lin Lin  
徐煒昕 Weixin Xu  
莫潔瑩 Jieying Mo  
王漢聰 Hancong Wang

學校： 廣東工業大學  
Guangdong University  
of Technology

地區： 中國  
China

### 會呼吸的窗 Breathing Window

「Breathing Window」是一款利用太陽能資源來進行空氣淨化的新概念窗戶。它透過薄膜太陽能電池，利用太陽光生電量供空氣淨化系統運行。此作品旨在解決城市空氣汙染嚴重的問題，且比同類空氣淨化品更節省空間。

"Breathing Window" is a window based on a new concept of using solar energy for air purification. It generates electricity by utilizing the sunlight in order to circulate and purify air. This work is designed to solve the problem of air pollution in urban area by providing a product that require minimum space and energy.







## Innovative Lifestyle Culture: Providing a Design Platform for Technology and Woodcraft to Encourage and Discover Cross-Disciplinary Cultural Creative Design Products

### 提供科技與木藝結合的設計舞台鼓勵 並發掘跨領域的文創設計產品

近年來，年輕人的概念設計在國際舞台上發光發亮，多元文化與創意優勢已成台灣未來國際競爭的重要軟實力。2014年臺北科技大學在永豐餘集團無償提供土地廠房的豐原紙廠成立「豐園北科大木創中心」，緊密結合豐原木材加工、木工機械、漆藝三項產業特色，再度肩負起臺北科技大學百年木工教育的歷史使命，期許木藝產業傳承手工技藝、扎根工業技術、發展先進科技，讓豐原具有百年木藝歷史所建構的木藝產業鏈活絡再起，重現臺灣木藝產業榮景。

豐園北科大木創中心與光寶創新獎再次合作，本次以〈大心〉為主題，尋找現有之光電技術等科技與應用，並融入由百年木藝文化所積累創造的創新設計。藉由新材料於智慧建築上之創意應用。生活文化的方向主題，讓新一代設計師聚焦於日常生活文化價值，並透過跨領域材質應用與科技結合，發揮於現代生活科技產品之中。作品評選過程中，發現設計師勇於嘗試運用異材質，更勇於挑戰跨領域材料結合，也因此激發設計師無限的生活創意，同時更增加產品創新性。

豐園北科大木創中心是年輕人的發展舞台，期待北科大百年木工教育與豐原百年木藝產業鏈能實現年輕人的夢想，更期許新一代木藝創新作品能透過木藝文創產業的形成，延續木藝文化價值並落實你我生活之中。

In recent years, the conceptual designs of the younger generation have received much acclaim on the international stage. The advantages of diversified cultures and creativity have already become a key source of soft power for Taiwan's future international competitiveness. In 2014, National Taipei University of Technology founded the "Center of Woodwork Technology and Innovation" at the premises of the Fengyuan paper factory donated by the Yuen Foong Yu Group. It is a place where the three industrial features of Fengyuan wood processing, woodworking machinery and paint craft are closely integrated once again to shoulder the historical mission of passing down over a century of woodwork education taught at the National Taipei University of Technology. The woodwork industry shoulders the responsibility of passing down traditional hand craft skills, entrenching industrial techniques, and developing advanced technologies. This will engender the rejuvenation of the woodcraft industry established over the centuries imbued with Fengyuan woodcraft tradition and allow Taiwan's woodwork industry to flourish once again.

The Center of Woodwork Technology and Innovation has again collaborated with Lite-On Award to discover innova-

tive designs which combine current electronic technology and traditional woodcraft. "Great Heart" used as a guiding theme to direct the focus of new generation designers on the value of lifestyle culture. Furthermore, application of interdisciplinary materials is integrated with technology to be showcased in modern lifestyle technology products. It was discovered during the selection process that designers were very eager to use different materials and were willing to challenge cross-disciplinary material integration. The designers were inspired with seemingly endless lifestyle creativity which also enhanced the innovation of the products.

The Center of Woodwork Technology and Innovation is the new development platform for the younger generation. We hope that the century-old woodwork education at National Taipei University of Technology and Fengyuan's woodcraft industry can fulfill the dreams of young people. Furthermore, we hope that the new generation of woodcraft products will be able to extend the value of woodcraft culture into the lives of everyone through the creation of a woodcraft cultural industry.

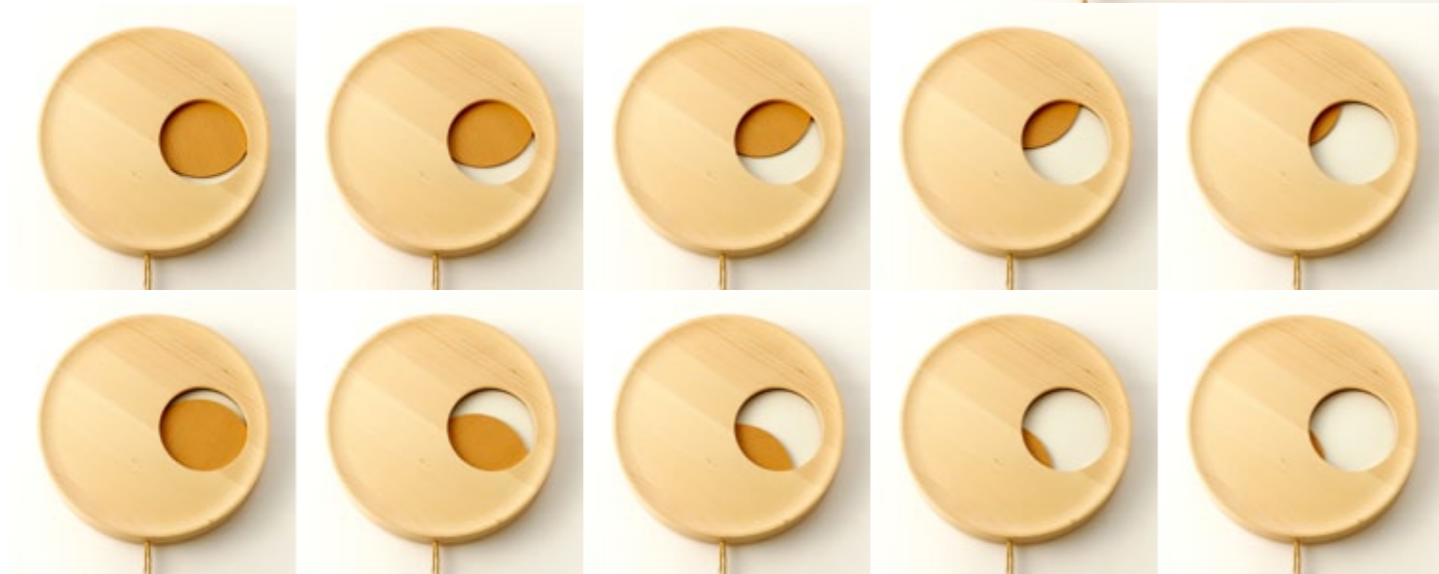
國立臺北科技大學  
校長

President, National Taipei University of  
Technology  
Leehter Yao



## 2016 LITE-ON AWARD AWARD OF HONOR

光寶創新獎 · 木創殊榮獎



設計者： 蔡年順  
Nianshun Cai

指導老師：陳振益  
Zhenyi Chen

學校： 五邑大學  
Wuyi University

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### 年輪輪回 Rings And Rebirth

這款木質燈具設計靈感出自於一年中月相的變化，每一次的拉動都會發生「月相的變化」。

從現代人的情感出發，通過與此燈的互動，使各年齡層的使用者能夠在心理層面上感受著時間的流動。燈會隨著擋光板的轉動而熄滅一部分的燈光，節能又環保。

This decorative lighting inspired by the transformation of the moon in a year. Pulling the switch on can drive the transformation of different phases of the moon. This product is designed based on the emotional circumstances of modern population. It allows users across different age group to mentally feel the flowing of time.

## SPECIAL AWARD

木創特別獎



設計者：党心宇  
Xinyu Dang

公司： 自由設計師  
Independent designer

地區： 中國  
China

### 獨釣壁燈 Fisherman Wall Lamp

「獨釣壁燈」從古詩詞中找到漁人的意象，將其形象融入壁燈的設計。用 LED 燈散發的燈光作為湖，把彎曲的純銅片作為一輪彎月，並以拉繩作為開關，呼應漁人的形象並表達中華傳統文化的氛圍營造力。

The most distinguished characteristic of the "Fisherman Wall Lamp" is that it fuses the poetic image of an ancient fisherman into the design of the lamp. The act of turning on the light can represent the scene from the poem once more and deliver the esthetics of Chinese culture.

設計者： 李讚文 Zanwen Li

指導老師：張劍 Jian Zhang

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Guangzhou Academy of  
Fine Arts

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### 衡 Heng

「衡」系列檯燈打破傳統檯燈的開啟方式，有別於傳統開燈方式，木框裏的小球為檯燈的開關。兩個小球相互吸引懸浮在空中而達到平衡狀態時，燈光將慢慢變亮。創新的對話模式給乏味的生活帶來一絲樂趣。

"Heng" is a series of lamps that aim to inject joyfulness into everyday mundane life. Abandoning the traditional way of switching on light, the two balls in the wooden frames serve as switches of the lamp. The light will be turned on as the two balls drawn together magnetically and reach a balance.





設計者：卓嘉駿 Chia Jun Toh  
林詩豪 Shi-hao Lin  
南平 Ping Nan  
胡博竣 Po-Chun Hu  
張焜傑 Kun-Chieh Chang  
張榮森 Rong-Seng Chang  
陳盈運 Ying-Yun Chen  
黃立維 Li-Wei Huang  
黃信川 Hsin-Chuan Huang  
謝宜君 Yi-Chun Hsieh

指導老師：張榮森 教授  
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### 脈·光，光學脈診儀 ScanPulse, Optical Traditional Chinese Medical Pulse Analyzer

「脈光」是一款光學脈診儀，藉由光學原理「看見」脈象，進而進行分析。以數字來定量脈象不僅解決脈象難以溝通及診斷無統一標準的問題，更可以深入探討各種脈象細微的分別。本設計能用於遠端診斷及初步切診分析，亦可作為中醫的輔助醫療器材進而提高看診速度與正確率。

"ScanPulse" is an optical Traditional Chinese Medical pulse analyzer which can show the pattern of pulses by applying optical moiré technology. Diagnosis of TCM is difficult to convey by words and may vary depending on different therapist. By creating a set of measurement can not only solve the problem but also increase the quality of future research on TCM. Allowing the doctor to "see" the pulses can increase the accuracy rate, reduce the therapy time and can also be utilized in the industry of teletherapy.



設計者：黃柏倫 Po-Lun Huang  
彭耀祈 Yao-Chi Peng  
吳明俊 Ming-Chun Wu  
黃式明 Shih-Ming Huang  
卓光瑾 Kuang-Chin Cho

公司：自由設計師  
Independent designer

地區：台灣  
Taiwan

### 濕路有關係 Safety Illumination

在夜間雨天路燈照射下，路面上的積水所帶來的反射眩光容易影響駕駛人的視線，進而提高事故發生率。此設計利用內建在燈具上的攝影鏡頭偵測路面積水狀況，再經由晶片控制每單一 LED 模組內的照度，藉由改變光型以降低路面積水的眩光程度，以達到安全與節能的目的。

The reflected glare on the water caused by street lights will lead to poor vision and create discomfort for the driver, which may result in lower degree of driving safety. This design uses built-in camera lens to detect water area, and then adjust the illumination modules of every independent LED light accordingly to reduce the glare reflection.

設計者：王鵬 Peng Wang  
餘慧娟 Huijuan Yu  
邱麒 Qi Qiu

指導老師：張春明 Chunming Zhang

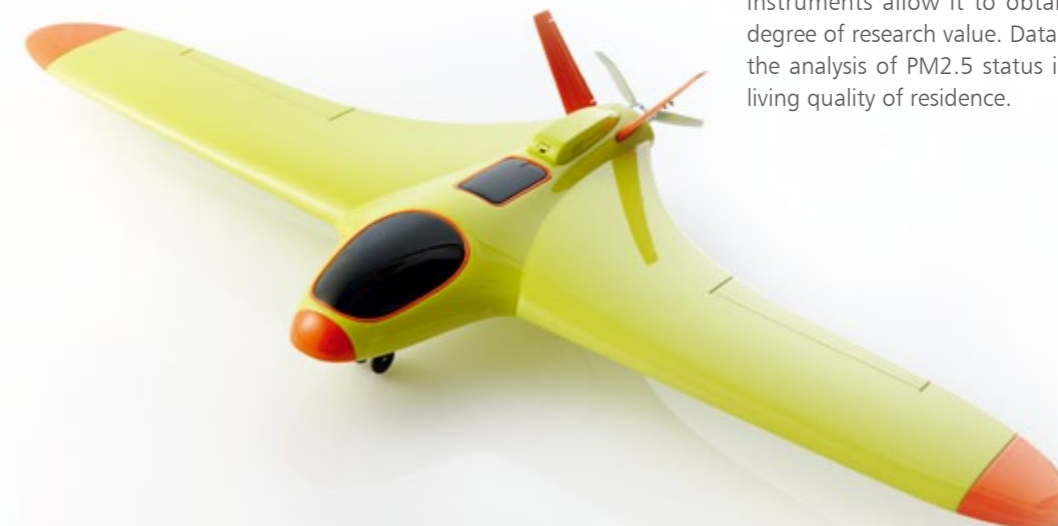
學校：常州大學  
Changzhou University

地區：中國 China

### 戈翼空氣監測無人機 Halberd Wing Air Monitoring UAV

此設計將無人機結合 PM2.5 監測儀器，無人機所偵測之數據可傳送至雲端，分析整個城市 PM2.5 狀況，提供更準確的大數據資料以改善城市居住品質。

The combination of UAV and PM2.5 monitoring instruments allow it to obtain real-time data with high degree of research value. Data transmission is able to assist the analysis of PM2.5 status in the whole city to improve living quality of residence.



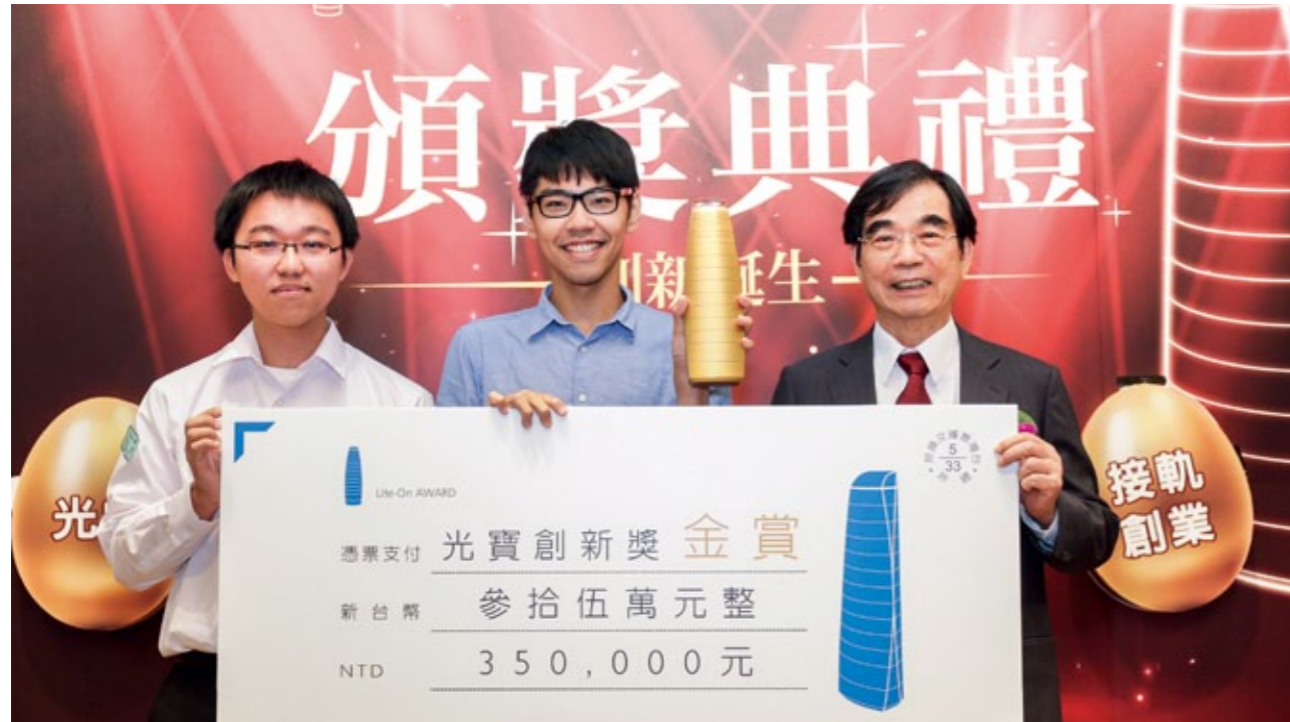




2016  
LITE-ON AWARD

# WORDS FROM THE WINNERS

技術組得獎感言



創新獎技術組 · 金獎

類燭光有機發光二極體

Candlelight Organic Light-Emitting Diode

設計者：關大興、蘇郁婷、宋偉齊  
指導老師：周卓輝  
學校：國立清華大學  
地區：台灣

Designer: Da-Hsing Kuan, Yu-Ting Su, Wei-Chi Song  
Instructor: Jwo-Huei Jou  
School: National Tsing Hua University  
Area: Taiwan

蠟燭光是我們熟悉的光源，因此結合低藍害的燭光與現代照明技術發展出健康友善的類燭光 OLED，很開心能夠將它介紹給更多人認識。在初選時，就很興奮能在眾多作品中獲得青睞，並且在決賽時得到評審的肯定，在此感謝光寶科技舉辦這場競賽，及各位專業評審們的賞識，最後，感謝指導老師周卓輝教授，給我們一個學習與成長的機會。

Candlelight is one of familiar lighting sources in our daily life. We are very happy for having the opportunity to introduce our work, "Candlelight Organic Light-Emitting Diode," which combines modern lighting technology with low-blue-hazard candlelight to more people. We felt very excited when we knew that we were one of the finalists and even won the Gold Award in the end. We would like to thank Lite-On Technology for holding this competition and professional judges' recognitions. We would also like to show our gratitude to our instructor, Prof. Jwo-Huei Jou, for his support and giving us a great opportunity to learn and advance ourselves.

創新獎技術組 · 銀獎

自製汗立克  
Anti-Sweaty

設計者：呂聖華、陳孟專、張家綺、余文鈞  
指導老師：蔡鴻文  
學校：台灣科技大學  
地區：台灣

Designer: Sheng-Hua Lu, Meng-Zhuan Chen, Chia-Chi Chang, Wen-Jun Yu  
Instructor: Hong-Wen Tsai  
School: National Taiwan University of Science and Technology  
Area: Taiwan



很榮幸入圍 2016 光寶創新獎，我們團隊自製汗立克剛開始的發想，起因隊員有手汗症的困擾，現今常用的離子電泳療法，市面上的醫療產品，使用上不便導致患者常半途而廢，自製汗立克結合穿戴式設計、可以治療不同部位的適應症，且在治療同時可以行動自如，突破以往的治療模式，願能為手汗症患者帶來更好的生活品質。謝謝團隊所有人的付出與努力，更感謝光寶科技以及光寶創新獎評審團隊的肯定，希望未來光寶創新獎能持續發光發熱，利用科技打造未來智慧生活。

We feel much honored to win this title. Our idea comes from team member's suffering from hyperhidrosis and current medical treatment is not that friendly to users which results in patients giving it up halfway. "Anti-Sweaty" combines the technology with wearable design which is able to treat different body parts of hyperhidrosis with mobility in order to bring better quality of life for the patients. This honor attributes to each team member's hard effort. We would like to give our gratitude to Lite-On Technology and the jury committee. We wish Lite-On Award keep flourishing and encouraging innovative ideas with advanced technology in the future.

創新獎技術組 · 銅獎

雙離子油水分離器  
zMesh

設計者：黃康庭、方雲龍、葉修邦、王裕昕、黃俊仁  
指導老師：黃俊仁  
學校：國立中央大學  
地區：台灣

Designer: Kang-Ting Huang, Yun-Lung Fang, Shiou-Bang Yeh, Yu-Sin Wang, Chun-Jen Huang  
Instructor: Chun-Jen Huang  
School: National Central University  
Area: Taiwan



創新，是源自於人類想解決現有問題的無限創意，科技的進步也來自源源不絕的創新。好的創新需要被大家所看到，光寶創新獎給了我們這個機會，使油水分離裝置 zMesh 可以被更多人所認識，更有機會藉由創業，讓創新成為產品，實際解決人們的需求。謝謝光寶創新獎對於我們的肯定，希望能有更多的創新藉由這麼好的平台，被大家所認識。

Innovation originates from human's urge for solving problems. Advancement of technology also results in constant innovation. Importantly, good innovative ideas need a platform to be showcased and recognized by the public. Lite-On Award gives us the opportunity to demonstrate our work, "zMesh," to the public and enables us to have the possibility to further get forward to commercialize it by starting up our business to solve human needs. Thanks Lite-On Award's recognition. We hope that there will be more and more great ideas can be shown and known by the public through this platform.





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# WORDS FROM THE WINNERS

設計組得獎感言



創新獎設計組 · 金獎

SP3 - 人造晶狀體注射器

SP3 – Intraocular Lens Injector

設計者：韓瑞民、洪愷欣  
指導老師：顏慶全  
學校：新加坡國立大學  
地區：新加坡

Designer: Raymond, Sui Ming Hon, Sylvia, Kai Xin Ang  
Instructor: Ching-Chiuan Yen  
School: National University of Singapore  
Area: Singapore

感謝光寶科技舉辦這項競賽，能獲得光寶創新獎金賞，我們感到無比光榮。同時，也要感謝我們的導師 - 新加坡國立大學的顏慶全博士以及新加坡國立眼科中心的醫生夥伴們。透過這次競賽，我們有機會可以和許多才華洋溢的設計師們共同交流，也更認識我們自己。獲得此份殊榮將促使我們更努力在設計領域去達到更高的標準。我們也希望這個作

品將來不只是一項作品，希望未來有一天 SP3 能商品化，造福醫生及病患。

We are very honored to receive the Lite-On Gold Award and we would like to thank Lite-On for organizing this competition. We would also like to thank Dr Yen, our mentor from National University of Singapore, as well as the doctors we worked with from Singapore National Eye Centre. Through this competition, we got the opportunity to acquaint ourselves with the many talented designers and to see their work. Receiving this award had given us the motivation to work harder to achieve a higher standard in our designs. We hope that our project will not only be a project, but instead one day be commercialized to benefit both doctors and patients.

創新獎設計組 · 銀獎  
新聞地球  
Touching earth



設計者：張劍、程碧亮、洪思展、劉北方  
指導老師：張劍  
學校：廣州美術學院  
地區：中國

Designer: Jian Zhang, Biliang Cheng, Sizhan Hong, Beifang Liu  
Instructor: Jian Zhang  
School: The Guangzhou Academy of Fine Arts  
Area: China

非常感謝光寶舉辦了這樣一個國際比賽，為我們提供了一個與國際各地的選手和評委交流的平台。很榮幸獲得了銀賞，這是對我們很大的一次鼓勵，同時也激勵著我們設計更好的作品。光寶的答辯之旅讓我們認識了熱愛設計和創新的朋友，還有多位評委為我們作品繼續深入提供了很多寶貴意見，此次比賽的創新精神將永遠陪伴我們。

We feel grateful for Lite-On's holding this international competition, which provides a platform for participants to interact with contestants and judges from all over the world. Wining the Silver Award is a great honor to us and it also encourages us to better our design. The trip to Lite-On Award enables us to know many friends who also have same passions for design and innovation. Furthermore, the judges give us many valuable advices of our works for further improvement. This wonderful experience and the spirit of innovation will always accompany with us.

創新獎設計組 · 銅獎  
水Q  
WaterQ



設計者：陳冠宏  
學校：FLUX Technology  
地區：台灣

Designer: Kuan-Hung Chen  
School: FLUX Technology  
Area: Taiwan

感謝光寶科技每年舉辦光寶創新獎，能讓我們青年設計師有一個展現想法的機會。也非常感謝評審委員的肯定，讓我的作品能獲得此殊榮，對我個人而言也是在設計學習的道路上意義非凡的里程碑。同時也感謝所有在這次競賽過程中給予協助和指導的朋友，你們的意見讓此作品能以更完整圓融的姿態，展現在所有人的眼前。

I am thankful for that Lite-On Technology holds Lite-On Award every year. This competition gives young designers opportunities to showcase their innovative ideas. I am much appreciated juries' recognition to my work. This honor also sets a remarkable milestone in my learning journey of design. Meanwhile, I would like to give my appreciation to friends who supported me during the competition. Your valuable advices enable this work to be unrolled to public at its best.



# REMEMBERING THE EVENT

活動記錄





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2016  
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光寶創立於 1975 年，以「光電節能、智慧科技最佳夥伴」為願景，聚焦核心光電元件及電子關鍵零組件之發展，致力以資源整合與管理最佳化建立量產優勢。光寶提供產品廣泛應用於電腦、通訊、消費性電子、汽車電子、LED 照明、雲端運算及生技醫療等領域，其中旗下產品包括光電產品、資訊科技、儲存裝置、手持式機構件等皆居全球領先地位。

光寶 40 年來專注於建立量產競爭優勢，將多元化產品組合進行效益最佳化的資源整合與管理，實現優質的營收成長與獲利能力。2014 年光寶順利完成「One Lite-On」九大子公司整併，主要營運策略聚焦於提升資產使用率、運用自動化生產優化產能與效率、推動精實生產改造整體生產流程與效能；長期則著重於實現獲利、穩健營運體質，提升股東權益報酬，期為百年企業的永續經營扎根。

光寶近年來積極由資通訊產業朝向雲端、LED 照明、汽車電子、生醫與工業自動化等五大物聯網 (IoT) 應用領域拓展，積極打造光寶新一波營運成長動能，其豐碩成果涵蓋了 LED 室內外與車用照明等新光源產品、應用於雲端運算中心之電源管理系統及固態硬碟儲存裝置，以及汽車電子的節能產品；電動車充電設備與無線充電、快速充電電池模組等儲能產品。時值全球科技產業正迎來新一波變革，光寶期許在此極具變動與挑戰的時代中，發揮世界級卓越企業的既有優勢，成為全球客戶在發展光電節能與智慧科技之創新及應用時，首選的最佳事業夥伴。

Founded in 1975, Lite-On embraces being “Best Partner in Opto-Electronic, Eco-Friendly and Intelligent Technologies” as its vision to focus on the development of optoelectronics and key electronic components, and strives to build up competitive edge through resource integration and optimized management. Lite-On produces products that are used in a broad range of applications, such as computers, communications, consumer electronics, automotive electronics, LED lighting, cloud computing as well as biotech and healthcare. Lite-On is a worldwide leading provider of optoelectronics, information technology, storage devices, and mobile devices components.

For more than 40 years, Lite-On has concentrated on establishing a competitive advantage in mass production. Through resource integration and management, we maximize the returns from a diverse product portfolio to realize excellent revenue growth and profits. In 2014, Lite-On successfully completed its "One Lite-On" program by integrating nine of its main subsidiaries under one management, while the main business strategy remains focusing on improving resource utilization, automation, production optimization, and streamlined processes for better productivity and efficiency. In the long-term, the focus is on profitability, sound governance and improving shareholder returns to lay down the foundation for a sustainable century enterprise.

# ABOUT LITE-ON TECHNOLOGY

關於光寶科技

In recent years, Lite-On has been shifting its production focus from IT and communication towards IoT (Internet of Things) applications such as cloud computing, LED lighting, automotive, biotech, and industrial automation. Its current business focuses are aligned with the world's most prominent trends in energy saving products such as new LED lighting sources (indoor, outdoor, and automobile), cloud computing power supply systems, solid-state drives, and automotive electronics. Meanwhile, power storage products such as electric car charging, wireless charging, and fast charging modules are also presenting immense potential.

The global technology industry is now set to welcome a new wave of changes, Lite-On hopes to leverage its existing advantage as a world-class enterprise in this age of changes and challenges to become the partner of choice for global customers developing innovations and applications for photonics, energy-saving and smart technologies.

