

香港工商業獎

2016

HONG KONG
AWARDS FOR
INDUSTRIES

HONG
KONG

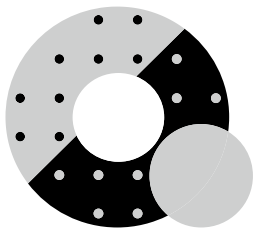


設備及機器設計

EQUIPMENT AND MACHINERY DESIGN



香港中華廠商聯合會
The Chinese Manufacturers'
Association of Hong Kong



2016香港工商業獎： 設備及機器設計 得獎產品名單

2016 Hong Kong Awards for Industries: Equipment and Machinery Design
List of Winning Products



設備及機器設計大獎

Equipment and Machinery Design Grand Award

得獎公司 Winning Company

香港紡織及成衣研發中心
The Hong Kong Research Institute of Textiles and Apparel

得獎產品 Winning Product

織物觸感測試儀
Fabric Touch Tester



設備及機器設計獎

Equipment and Machinery Design Award

得獎公司 Winning Company

愛佩儀光電技術有限公司
AP Photonics Limited

迪普集團有限公司
Digpro Group Ltd

香港應用科技研究院有限公司、信利光電有限公司
Hong Kong Applied Science and Technology Research
Institute Co Ltd, Truly Opto-Electronics Ltd

影立方有限公司
Image3 Co Ltd

創發連有限公司、Fossil (East) Ltd
Innovation Team Co Ltd, Fossil (East) Ltd

建業(惠州)電路板有限公司
Kin Yip (Huizhou) P. C. Board Co Ltd

萬維數碼有限公司
Marvel Digital Limited

仁興機器廠有限公司
Yan Hing Engineering Works Ltd

得獎產品 Winning Product

光學防震微型相機模組自動調試系統
An Auto-tuning System for Optical Image Stabilization
(OIS) Compact Camera Modules (CCMs)

360° 產品攝影系統
360° Product Photography System

蓋板玻璃及觸控面板玻璃自動缺陷檢測系統
Cover Glass and Touch Panel Glass Automatic Defects
Inspection System

應用於3D智能電話的光學光柵3D液晶螢幕
Lenticular Optic 3D LCD for 3D Smart Phone

自動高速水晶裝貼機
Automatic High Speed Crystal Pick & Place Machine

可兼鍍銅、錫的創新型線路板電鍍生產線
An Innovation Production Line in Both of the Copper
Plating and the Tin Plating

4K3DPro超級工作站(2K/4K畫質增強和2D/3D轉換完整方案及工作流程)
Marvel 4K3DPro Super Workstation - Complete Solution
and Workflow for 2K to 4K Upscaling and 2D to 3D
Conversion

PWC1850兩板冷室壓鑄機
PWC1850 Two-Platen Direct Clamping Cold Chamber
Die-casting Machine



設備及機器設計優異證書

Equipment and Machinery Design Certificate of Merit

得獎公司 Winning Company

雅迪勤(亞太)有限公司
Adekom (Asia Pacific) Limited

億利達精密機器廠有限公司
Elite Precision Machinery Company Limited

格蘭柏生化科技有限公司
GreenPak Biotech Limited

香港電動能源有限公司
Hong Kong EV Power Ltd

香港生產力促進局 - 環境管理部
Hong Kong Productivity Council -
Environmental Management Division

鴻福食品貿易有限公司
Hung Fook Food Trading Limited

智控系統有限公司
ITE Smartcard Solutions Limited

華泰裡朴絲綢有限公司
Wah Tai Piece Goods Ltd

得獎產品 Winning Product

變頻沼氣螺桿壓縮機
VSD Biogas Screw Compressor

四工位汽車LED透鏡製造系統
Four-car LED Lens Manufacturing System

絮狀物去除儀
Flocculent Remover

吊式電動車智能充電器
Smart Ceiling Electric Vehicle Charger

廚餘全面轉化系統
FTR Food Waste Total Recycling System

腐皮自動生產機
An Automatic Beancurd Sheet Making Machine

智能城市電子付費咪錶(型號: HOMAC SPM-10A)
Smart ePayment Meter for Smart City
(Model No: HOMAC SPM-10A)

應用於紡織材料的無水多功能處理系統
A Waterless Multi-functional Processing System for Textile
Materials

香港中華廠商聯合會會長李秀恒博士 BBS 太平紳士獻詞
Message by Dr Eddy S H Li BBS JP
President, The Chinese Manufacturers' Association of Hong Kong



由香港特區政府全力支持的「香港工商業獎」獎勵計劃，是一年一度工商界的盛事，廠商會十分高興繼續成為「香港工商業獎：設備及機器設計」組別的主辦機構，藉此表揚本港在設備及機器的設計水準，提高產品競爭力，並對傑出的產品予以獎勵。

香港設備及機器製造商為提升自己競爭力，在產品設計方面不斷求進，精益求精，以面對市場劇烈的競爭及瞬息萬變的營商環境。縱觀今年的參賽產品，不少產品在創新、應用新技術、市場銷售性，以及環保方面皆表現卓越。這些產品繼續印證本港的機器設備除了以價格取勝外，其品質亦能達到國際水平，我們十分相信本港設備及機器製造商將繼續發揮創意，創造新機，為本地工業創造更美好的前景。

在此，本人謹向評審委員會各委員致以衷心感謝，並特別感謝評審委員會主席沈祖堯校長領導委員會完成重要的評審工作，同時感謝所有參賽企業和贊助機構，希望您們繼續支持這項意義非凡的比賽。

最後，本人謹向所有得獎公司致以熱烈祝賀。

香港中華廠商聯合會會長
李秀恒博士 BBS 太平紳士

"The Hong Kong Awards for Industries" scheme is fully supported by the HKSAR Government and is an annual eminent event in Hong Kong's trade and industrial sector. The Chinese Manufacturers' Association of Hong Kong is honoured to be the organiser of the "Equipment and Machinery Design Competition" again this year. The objective of the competition is to encourage the upgrading of the design of equipment and machinery in Hong Kong so as to enhance competitiveness, and to give recognition to outstanding products.

Hong Kong equipment and machinery manufacturers have strived to improve their product design and enhance their competitiveness in order to cope with the fierce market competition and the ever-changing business environment. We are pleased to note that many participants of this year's competition have demonstrated their outstanding achievements in terms of innovation, application of new technology, marketability and environmental protection. This demonstrates that, besides cost competitiveness, the quality of our equipment and machinery has also reached international standards. We firmly believe that Hong Kong equipment and machinery manufacturers will continue to generate innovative ideas, create new opportunities and continue to prosper.

Taking this opportunity, I wish to pay special tribute to members of the Judging Panel, especially to Panel Chairman Prof Joseph J Y SUNG, for the most important task of selecting the winners. I would also like to thank all participating companies and sponsors and wish you will continue to support this meaningful event in future.

Last but not least, I would like to warmly congratulate all winners on their outstanding achievements.

Dr Eddy S H Li BBS JP

President

The Chinese Manufacturers'
Association of Hong Kong

2016 香港工商業獎：設備及機器設計組別最終評審委員會
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Final Judging Panel



前排左起：

雷致行先生（技術小組成員）、麥啟寧教授、蔡健鴻工程師、沈祖堯教授（最終評審委員會主席）、楊志雄先生、陸貴文教授

後排左起：

曾漢奇教授、陳鏡昌教授、任揚教授、郭始剛教授

From left, front row:

Mr Derek LOUIE (Technical Team Member); Prof K L MAK; Ir Joseph CHOI Kin Hung;

Prof Joseph J Y SUNG (Chairman of the Final Judging Panel); Mr YEUNG Chi Hung, Johnny; Prof LUK Kwai Man

From left, back row:

Prof TSANG Hon Ki; Prof Keith K C CHAN; Prof Yeung YAM; Prof Paul C K KWOK

2016 香港工商業獎：設備及機器設計組別最終評審委員會
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Final Judging Panel

沈祖堯教授（最終評審委員會主席）
Prof Joseph J Y SUNG
(Chairman of the Final Judging Panel)

香港中文大學校長
President
The Chinese University of Hong Kong

陳鏡昌教授
Prof Keith K C CHAN

香港理工大學工業及系統工程學系教授及系主任
Professor and Head
Department of Industrial and Systems Engineering
The Hong Kong Polytechnic University

陳雲青博士
Ir Dr Lawrence W CHAN

職業訓練局副執行幹事
Deputy Executive Director
Vocational Training Council

蔡健鴻工程師
Ir Joseph CHOI Kin Hung

香港工程師學會會長
President
The Hong Kong Institution of Engineers

郭始剛教授
Prof Paul C K KWOK

香港公開大學校董會秘書
Secretary to Council
The Open University of Hong Kong

劉堅能教授
Prof Vincent K N LAU

香港科技大學電子及計算機工程學系講座教授
Chair Professor
Department of Electronic and Computer Engineering
The Hong Kong University of Science and Technology

陸貴文教授
Prof LUK Kwai Man

香港城市大學電子工程學系講座教授
Professor (Chair)
Department of Electronic Engineering
City University of Hong Kong

麥鄧碧儀女士
Mrs Agnes MAK

香港生產力促進局總裁
Executive Director
Hong Kong Productivity Council

麥啟寧教授
Prof K L MAK

香港大學工業及製造系統工程系榮譽教授
Honorary Professor
Department of Industrial and Manufacturing
System Engineering
The University of Hong Kong

薛永恒先生
Mr SIT Wing Hang, Alfred

機電工程署副署長 / 規管服務
Deputy Director / Regulatory Services
Electrical and Mechanical Services Department

曾漢奇教授
Prof TSANG Hon Ki

香港中文大學電子工程學系教授
Professor
Department of Electronic Engineering
The Chinese University of Hong Kong

任揚教授
Prof Yeung YAM

香港中文大學機械與自動化工程學系教授
Professor
Department of Mechanical and Automation Engineering
The Chinese University of Hong Kong

楊志雄先生
Mr YEUNG Chi Hung, Johnny

香港中華廠商聯合會副會長
Vice President
The Chinese Manufacturers' Association of Hong Kong

2016 香港工商業獎：設備及機器設計大獎 2016 Hong Kong Awards for Industries: Equipment and Machinery Design Grand Award

產品名稱： 織物觸感測試儀
Product Name: Fabric Touch Tester

公司名稱： 香港紡織及成衣研發中心
Company Name: The Hong Kong Research Institute of Textiles and Apparel

設計者： 李翼教授、胡軍岩博士、廖驍博士、李全海先生、吳新星先生、鄭化龍先生、簡志光先生、李福民先生

Designer Name: Prof Li Yi, Dr Hu Junyan, Dr Liao Xiao, Mr Li Quanhai, Mr Wu Xinxing, Mr Fred Cheng, Mr Kenji Kang, Mr Alvin Li

網址 /Website: www.hkrita.com



評審委員會意見：

要測試布料的手感，市場上已有由日本、澳洲及美國開發的織物測量系統。

此織物觸感測試儀能夠於三分鐘內進行快速測試，比市場現有同類技術能夠測量出更多織物於手感方面的特性。儀器設有不同傳感器，可以測量織物表面磨擦特性、粗糙特性、熱傳遞性能、壓縮特性以及彎曲特性。

目前已有 17 部儀器銷售予不同用家，包括紡織品生產商、大學及研發機構，反映市場對有關技術的需求。由 2013 年開始到現在，此產品已發展至第三代，無論外觀還是功能上都得到提升。

General Comments on the product:

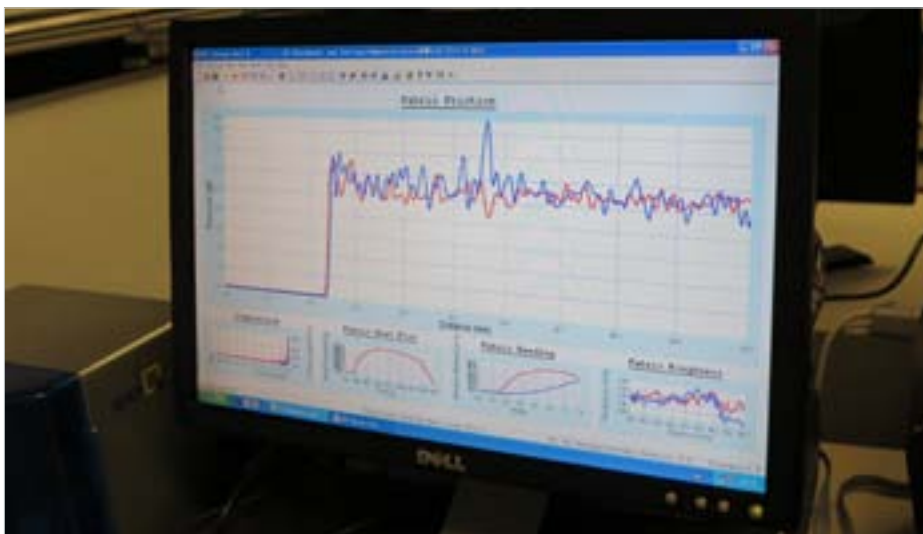
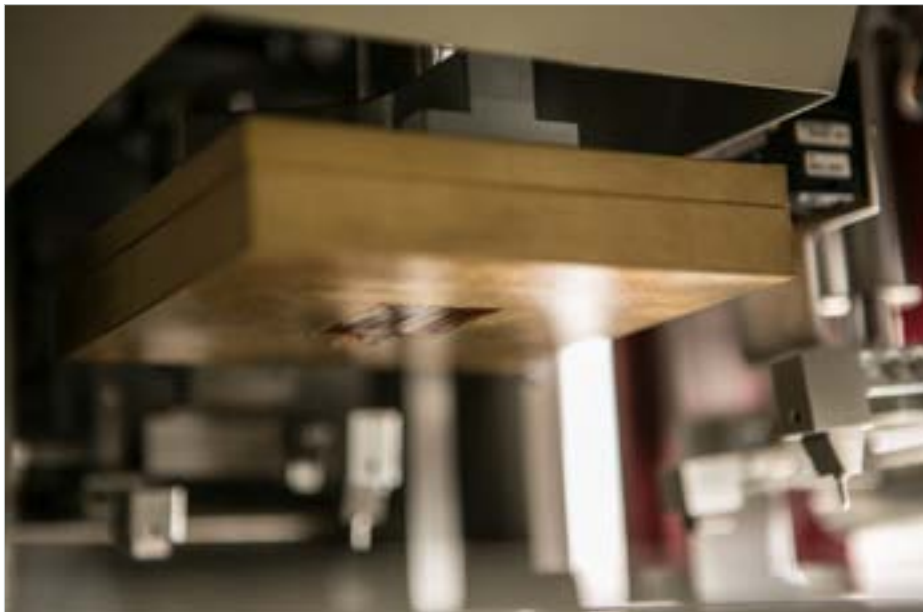
Several commercial systems from Japan, Australia and USA are available in the market place for evaluating textiles.

The Fabric Touch Tester offers the advantage of rapid testing, within 3 minutes, and characterization of more fabric characteristics than other similar evaluation systems in the market place. It offers the additional capability to measure thermal properties which is not addressed by the existing competitors. It incorporates several different types of sensors

including a sensor to measure fabric compression, friction and roughness, and mechanical transducers to apply pressure and warping to measure fabric stiffness and bending properties.

The product has demonstrated its marketability by selling 17 systems to different users including textiles manufacturers, universities and research institutions. Furthermore, it has had 3 iterations of improvements since 2013.

2016 香港工商業獎：設備及機器設計大獎
2016 Hong Kong Awards for Industries: Equipment and Machinery Design Grand Award



2016 香港工商業獎：設備及機器設計獎
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Award

產品名稱： 光學防震微型相機模組自動調試系統
Product Name: **An Auto-tuning System for Optical Image Stabilization (OIS) Compact Camera Modules (CCMs)**

公司名稱： 愛佩儀光電技術有限公司
Company Name: **AP Photonics Limited**

設計者： 麥練智博士、肖順利博士、馮奇利先生、呂淵平先生、顧宏廣先生、沈青山先生
Designer Name: **Dr Mak Lin Chi, Dr Xiao Shun Li, Mr Fung Kei Lei, Mr Lui Yuen Ping, Mr Ku Wang Kwong, Mr Shen Qing Shan**

網址 /Website: **www.app-hk.com**



評審委員會意見：

該系統設計用於調試微型相機模組 (CCM)，通過整合多個傳統的光學防抖模組的製造流程合併為一站式調試，實現最佳的自動對焦和光學防抖動性能 (OIS)。

系統以 APP 公司開發的專利技術結合多種圖像處理識別算法，進行自動調試和測試。

系統界面友好、操作簡便，操作員只需要單擊按鈕便可自動執行檢測動作及由智能程序完成所有的計算和判斷。

General Comments on the product:

This system is developed for tuning compact camera modules (CCMs) for optimal auto-focus and optical image stabilization (OIS) performance. It can streamline conventional OIS manufacturing processes by integrating multiple processes into a single platform.

The system has used a patented technology developed by the company and other image processing and object recognition algorithms for the auto-tuning and testing processes.

The system can automatically finish tuning and testing without operator guidance. What the operator need to do is to load/unload a VCM, click a button and read the results from a user friendly GUI. Since the program performs all the calculations and judgment, the operators do not required advanced engineering knowledge to operate the system.



2016 香港工商業獎：設備及機器設計獎 2016 Hong Kong Awards for Industries: Equipment and Machinery Design Award

產品名稱： 360° 產品攝影系統
Product Name: 360° Product Photography System

公司名稱： 迪普集團有限公司
Company Name: Digpro Group Ltd

設計者： 黃建英先生
Designer Name: Mr Wong Kin Ying

網址 /Website: www.digpro-studio.com

評審委員會意見：

此產品為商家提供獨一無二的產品攝影工具，以製作高品質的 360° 產品照片。其用戶包括零售商、產品目錄生產商、營銷公司和網絡零售商。

此系統含一個便攜式迷你攝影棚和一個由電腦控制的轉盤，轉盤可透過 Wi-Fi 與相機同步連接，轉盤有兩種尺寸，承重量分別可達 20 公斤和 160 公斤。另產品採用紅外線定位技術，令每幀照片達到最精確的位置。它可在 5 分鐘內製作一個無陰影的 360° 影像，無需經後期製作去除背景和 Photoshop。



General Comments on the product:

The '360° Product Photography System' is unique and provides marketers with a tool for product photography. The users can be from retailers, product catalogue producers, marketing companies, and the online retailers. These users look for a simple platform to enable them to generate 360 degree product photographs at a high quality.

This system is a portable smart film studio and a turntable controlled by a computer that synchronizes through WiFi with a camera, eg smartphones, DSLR & video cam. It can produce a 360° photo in 5 minutes without shadow and does not require post-editing (de-background) and Photoshop. The turntable comes in 2 sizes with loading up to 20kgs and 160kgs. In order to have the most accurate position of each shooting frames, Infra-red Positioning Technology is used.



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產品名稱： 蓋板玻璃及觸控面板玻璃自動缺陷檢測系統
Product Name: Cover Glass and Touch Panel Glass Automatic Defects Inspection System

公司名稱： 香港應用科技研究院有限公司、信利光電有限公司
Company Name: Hong Kong Applied Science and Technology Research Institute Co Ltd, Truly Opto-Electronics Ltd

設計者： 蔡振榮先生、劉穎小姐、鄒衛文先生、吳昌力先生、
楊小程先生、肖信後先生
Designer Name: Mr Chen Jung Tsai, Ms Anna Y Liu, Mr Wilman W W Zou, Mr Changli Wu, Mr X C Yang, Mr Xinhou Xiao

網址 /Website: www.astri.org; www.trulyopto.com

評審委員會意見：

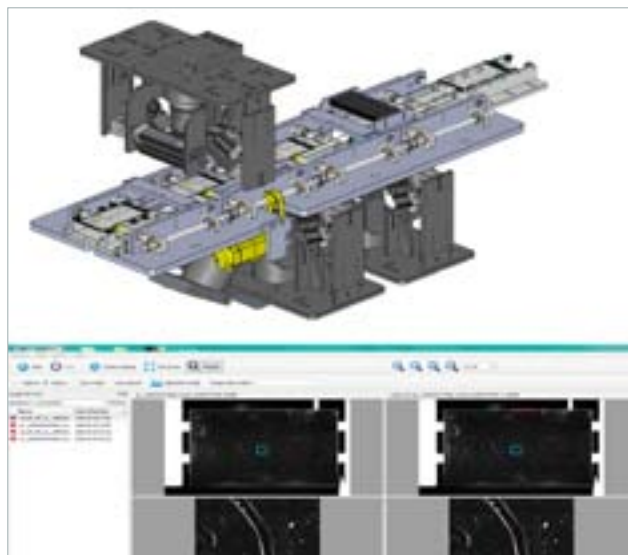
此智能檢測系統運用了機器視覺技術，可應用於檢測手機產品的蓋板玻璃和觸控面板、以及其他玻璃面板產品。系統其中兩項技術：仿人眼照明技術及快速缺陷密度估計技術已獲取專利。

該系統能有效地減低部件表面質量控制和成品外觀檢測的工作量和成本。相比在市場上的其他類型機器，這個系統能檢測更多在玻璃表面上各類型瑕疵，如劃痕、壓碎、崩邊、原材料及掉漆等。

General Comments on the product:

This system is a machine vision-based inspection system for cover glass and touch panel glass in mobile phone industry and other glass panel product industries. Two of the technologies (Human eye bionic illumination technology and Fast defect density estimation technology) used in the systems were patented by the company.

This system can reduce the workload and the cost for component surface quality control and end product appearance inspection. Compared to other similar machines in the market, this system is shown to be able to detect more types of defects such as scratch, crush defects, edge crash, raw material defects, ink defects, etc on glass surface.



2016 香港工商業獎：設備及機器設計獎 2016 Hong Kong Awards for Industries: Equipment and Machinery Design Award

產品名稱： 應用於 3D 智能電話的光學光柵 3D 液晶螢幕
Product Name: Lenticular Optic 3D LCD for 3D Smart Phone

公司名稱： 影立方有限公司
Company Name: Image3 Co Ltd

設計者： 勞國華先生
Designer Name: Mr Allen Lo Kwok Wah

評審委員會意見：

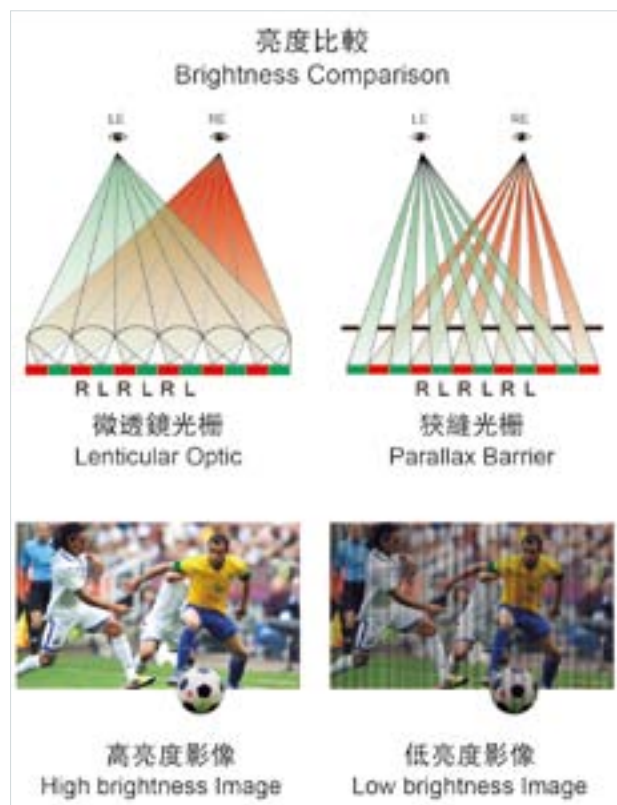
此智能電話 3D 顯示屏幕，採用透鏡光柵技術顯示全光譜高清裸眼式 3D 照片與 3D 短片。顯示屏幕明亮度超高於現時的狹縫光柵屏幕。

此創新產品由香港公司研發。相信 3D 顯示屏幕將有一個龐大的潛在市場，日後為智能電話工業帶來重大的影響。

General Comments on the product:

A 3D Display for smart phones using Lenticular LCD technology which displays glasses-free Full Spectrum HD 3D photo and 3D video. The display is much brighter than the current 3D parallax barrier display.

It is impressive to see this innovative product designed by a Hong Kong manufacturer and believed this 3D display will have a good market potential and will bring an impact on the smart phone industry in future.



2016 香港工商業獎：設備及機器設計獎
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Award

產品名稱： 自動高速水晶裝貼機
Product Name: Automatic High Speed Crystal Pick & Place Machine

公司名稱： 創發連有限公司、Fossil (East) Ltd
Company Name: Innovation Team Co Ltd, Fossil (East) Ltd

設計者： 顏昭域先生、顏昭能先生、陳偉雄先生
Designer Name: Mr Ngan Chiu Wik, Mr Charles Ngan Chiu Nang,
Mr Anthony Chan Wai Hung

網址 /Website: www.innovationteam.hk; www.fossilgroup.com



評審委員會意見：

此產品為高檔手錶及手飾的水晶石裝嵌提供一個有效平台，它配備了數控式三軸系統及四個 SMT 0.4mm 直徑吸咀，以吸取及裝配 1.0-1.1mm 直徑的 PP3 水晶石。水晶石通過視覺辨別系統進行篩選，包括特別設計的光源及兩組方型排列小孔震動平台，當平台震動時，水晶石便會移動及安放在特定的小孔位置。

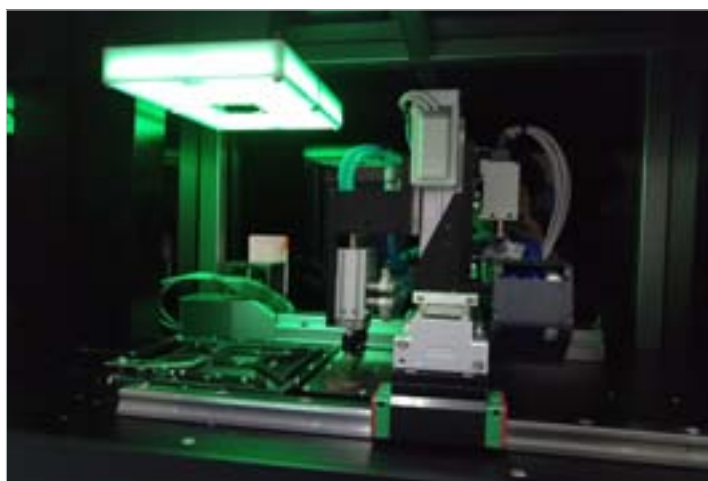
此外，智能運算系統就水晶石的反光度，外型及水平度作分析及篩選，以確保水晶石能正確地吸取及裝配。

General Comments on the product:

The product is an effective platform for automated assembly of crystal patterns appearing in high end watches and jewelries.

The machine is comprised of a numeric controlled 3-axes system with four SMT suction cups (0.4mm diameter) for picking up PP3 crystals (1.0-1.1 mm diameter). The crystals are selected via a vision-based identification system, which includes a special light source and a holding tray with small holes arranged in a rectangular grid. The tray is vibrated briefly at the beginning to enhance the likelihood of the crystals settling in the holes.

Moreover, an AI algorithm analyzes the reflected lights to ascertain the grid locations at which the crystals are of highest quality and most likely in upright orientations.



2016 香港工商業獎：設備及機器設計獎 2016 Hong Kong Awards for Industries: Equipment and Machinery Design Award

產品名稱： 可兼鍍銅、錫的創新型線路板電鍍生產線
Product Name: **An Innovation Production Line in Both of the Copper Plating and the Tin Plating**

公司名稱： 建業（惠州）電路版有限公司
Company Name: **Kin Yip (Huizhou) P. C. Board Co Ltd**

設計者： 黃錫金先生
Designer Name: **Mr Wong Shek Kam, Herman**

網址 /Website: **www.kinyip.com.hk**

評審委員會意見：

傳統龍門式電鍍生產線的化學品存放於開放式的槽內，其刺激性氣味危害工作環境。

此產品能自動從縱軸方向上載生產板至輸送線，使生產板不斷地移動，並順序地浸在盛放各種化學品的槽裏，直至工序完成。

有別於傳統結構，整個生產線變得更加連貫及密封，使員工不會吸入有毒化學氣體。此外，鍍銅槽配備了噴嘴，增強了銅沉積到鍍孔表面的均勻性。



General Comments on the product:

The electroplating chemicals of traditional gantry-type electroplating machines are kept in open storage tanks, its pungent smells are damaging to the work environment.

This electroplating machine automatically loads workpieces in the longitudinal direction onto a conveyor line, which travel continuously with the conveyor and are dipped into various chemical baths in a sequential order until they reach the end of the process. Without the need for a gantry-type configuration, the entire production line is more compact and self-enclosed such that operators near the machine are not exposed to toxic chemical fumes. In addition, the copper plating baths are equipped with nozzle jets, which enhance the uniformity of copper deposition onto the surface of the plating holes.



2016 香港工商業獎：設備及機器設計獎
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Award

- 產品名稱：** 4K3DPro 超級工作站 (2K/4K 畫質增強和 2D/3D 轉換完整方案及工作流程)
- Product Name:** **Marvel 4K3DPro Super Workstation – Complete Solution and Workflow for 2K to 4K Upscaling and 2D to 3D Conversion**
- 公司名稱：** 萬維數碼有限公司
- Company Name:** **Marvel Digital Limited**
- 設計者：** 李應樵博士
- Designer Name:** **Dr Herbert Lee**
- 網址 /Website:** **www.marveldigital.com**



評審委員會意見：

為了達到較好的 3D 效果，傳統的 2D 轉換 3D 屬高勞動密集型工作，牽涉許多程序並需要高精度的技術。此產品將 Xeon 處理器主板和高端圖形處理器卡構建的服務器與定制軟件相結合，實現了從 2D 到 3D 的半自動高效專業化轉換流程。

此產品配備了專用的 2D 轉 3D，2K 轉 4K 視頻轉換硬件加速卡。這項自主開發的 FPGA 擁有高精度算法並已獲得專利。FPGA 配備專用軟件，可實現同步圖像分辨率和質量增強，改進視頻預覽和視頻轉換過程。

General Comments on the product:

Traditional 2D to 3D conversion workflow involves many steps which are extremely labor intensive and requires high precision techniques to achieve decent 3D effects. Marvel 4K3DPro Super Workstation combines a server built using purchased Xeon based motherboards and high end graphics processors cards with customized software to implement an efficient specialized process for semi-automatic conversion of video from 2D to 3D.

Marvel 4K3DPro Super Workstation is equipped with a dedicated 2D-3D, 2K-4K video conversion hardware acceleration card. This self-developed proprietary field programmable gate array (FPGA) is packed with patented high precision algorithms. FPGA along with dedicated software enables synchronous image resolution and quality enhancement, improves video preview and video conversion processes.



2016 香港工商業獎：設備及機器設計獎 2016 Hong Kong Awards for Industries: Equipment and Machinery Design Award

產品名稱： PWC1850 兩板冷室壓鑄機
Product Name: PWC1850 Two-Platen Direct Clamping Cold Chamber Die-casting Machine

公司名稱： 仁興機器廠有限公司
Company Name: Yan Hing Engineering Works Ltd

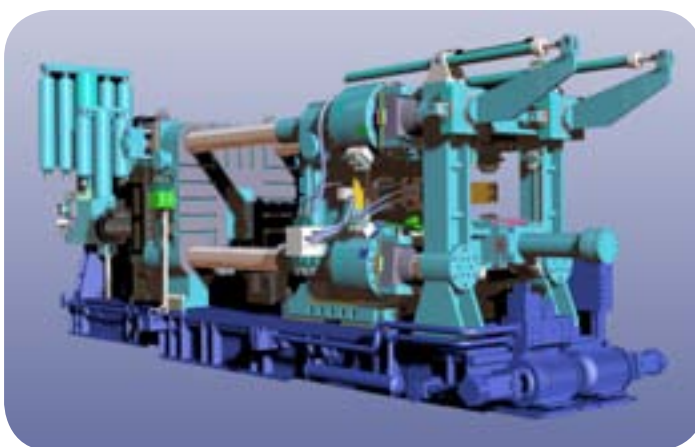
設計者： 徐明東先生、孫全先生
Designer Name: Mr Tony Tsui, Mr Sun Quan

網址 /Website: www.yanhing.com

評審委員會意見：

此壓鑄機是一個創新發展的冷室壓鑄機，能生產精準尺寸、精確及具有光滑或紋理表面的金屬件，可適用於不同行業如汽車、電子及禮品等。

有別於傳統的壓鑄機，此產品免除尾板及機鉸設計。移動模板的快速移動是由一個油壓缸驅動。鎖緊動作由位於移動模板四角的油壓鎖緊結構配合導柱上的螺紋，補償因模具不平行引致的影響，從而提供更穩固的鎖模力。此壓鑄機是一台安全，兼顧人體工學及環保的機械。



General Comments on the product:

The die-casting machine is an innovative development of modern cold chamber machine for producing accurately dimensioned, sharply defined, smooth or textured surface metal parts for various industries: automobiles, electronics and gift articles, etc.

Unlike conventional cold chamber die-casting machines, its design has eliminated the tailstock platen and the toggle links system. A hydraulic cylinder is used for fast movement of the moving platen. Clamping is done by using the hydraulic clamping lock located at the four corners of the moving platen and the thread profiles of the four tie bars, which can compensate the effect of the uneven mould thickness thus providing better clamping rigidity. The machine is safe, ergonomically sound and environmental-friendly.



2016 香港工商業獎：設備及機器設計優異證書
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Certificate of Merit

產品名稱： 變頻沼氣螺桿壓縮機
Product Name: VSD Biogas Screw Compressor

公司名稱： 雅迪勤（亞太）有限公司
Company Name: Adekom (Asia Pacific) Limited

設計者： 練浩強先生、謝建華先生、曹正宇先生
Designer Name: Mr Lian Haoqiang, Mr Xie Jianhua, Mr Cao Zhengyu

網址 /Website: www.adekom.com.hk

評審委員會意見：

此產品可支援由沼氣轉化為清潔能源最常見的兩種用途：沼氣發電和通過壓縮淨化升級為 CNG（壓縮天然氣），以上過程均涉及沼氣的壓縮。

此產品採用螺桿壓縮技術，以減少運作部件，從而減低維護，並能提高可靠性，使操作能更安靜地進行。採用變頻控制技術進一步達到節能降耗的目的。

General Comments on the product:

The product is a versatile machine capable of supporting the two most common usages of biogas: biogas power generation and upgrading to CNG (compressed natural gas) via purification, both of which involve compression as a key process.

The unit uses screw compression technology which has the advantages of fewer moving parts and hence less maintenance, higher reliability and quieter operation. It also adopts the technology of variable frequency control to adjust the motor rotational speed for energy saving.



2016 香港工商業獎：設備及機器設計優異證書
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Certificate of Merit

產品名稱： 四工位汽車 LED 透鏡製造系統
Product Name: Four-car LED Lens Manufacturing System

公司名稱： 億利達精密機器廠有限公司
Company Name: Elite Precision Machinery Company Limited

設計者： 劉紀明先生、戴培軍小姐
Designer Name: Mr Jimmy Liu, Ms Grace Tai

網址 /Website: www.elitecorp.com

評審委員會意見：

此產品採用多種成型技術來配置成型機器，除成型品質良好外，亦大幅減少成型週期達 80%。這些技術包括

- 1) 雙螺桿炮筒（共注成型），
- 2) 多層過度成型及
- 3) 4 腔轉盤和三明治核心護理流形。

此系統可控制多項成型工藝參數，以達最佳成型效果。

General Comments on the product:

The product adopts various molding technologies to configure the molding machine to significantly reduce the molding cycle by 80% with good molding quality. These molding technologies include 1) twin screw and barrel (co-injection molding), 2) multi-layer over-molding and 3) 4-cavity turntable and sandwiches core care manifold.

In addition, the system is designed to control the molding parameters; such as molding pressure, cooling cycle, flow rate, of each cavity independently in order to achieve the maximum molding performance.



2016 香港工商業獎：設備及機器設計優異證書
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Certificate of Merit

產品名稱： 絮狀物去除儀
Product Name: Flocculent Remover

公司名稱： 格蘭柏生化科技有限公司
Company Name: GreenPak Biotech Limited

設計者： 衛星輝先生、周子龍先生、陳俊邦先生、黃嘉麒先生
Designer Name: Mr Wai Sing Fai, Mr Chow Tsz Lung, Mr Chan Chun Pong,
Mr Wong Ka Ki

網址 /Website: www.greenpakbiotech.com

評審委員會意見：

此產品特別為大幅提升絮狀物的過濾效果而設計，配合該公司研發的生產平台，有效促進質粒基因疫苗的工業化批量生產。

它具備了兩項技術：動態螺旋滾動過濾和在位清洗系統。前者實現產品的主要過濾功能，後者提供安全便捷的自動清洗程序。此外，更可對運轉速度、過濾作出微調。

General Comments on the product:

The product is specially designed to support downstream DNA biomaterial purification in full-manufacture scale production of DNA vaccines via their production platform.

It makes use of Dynamic Rotary Filtration in fulfilling its purpose and a Cleaning-In-Place system is also installed to allow for the quick and safe cleaning and sanitization of the equipment after use. It incorporates the functions of adjustable operation speed, fine tuning of lysate extraction and simple cleaning procedures.



2016 香港工商業獎：設備及機器設計優異證書 2016 Hong Kong Awards for Industries: Equipment and Machinery Design Certificate of Merit

產品名稱： 吊式電動車智能充電器
Product Name: Smart Ceiling Electric Vehicle Charger

公司名稱： 香港電動能源有限公司
Company Name: Hong Kong EV Power Ltd

設計者： 陳振雄先生
Designer Name: Mr Chan Chun Hung

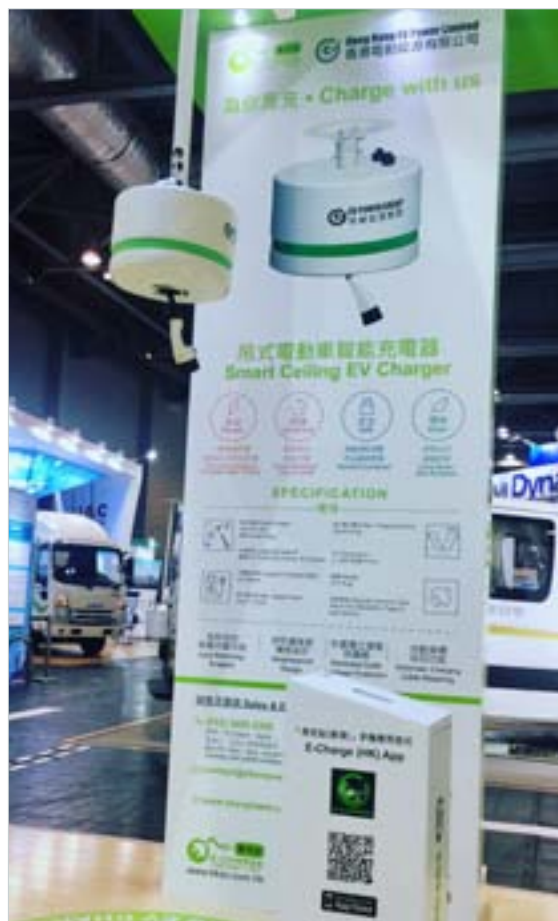
網址 /Website: www.hkevpower.com

評審委員會意見：

此產品為非靠近牆壁或樁柱的室內停車泊位提供低成本及易安裝的電動汽車充電解決方案。充電線能透過手機應用程式來控制升降再進行充電，並於充電後自動收回。用戶更可用手機進行預約服務及使用實時遠程監控和支付費用。

General Comments on the product:

The product provides the low-cost and easy-to-install solution for the charging demands at the parking spaces without adjacent walls or columns in indoor car parks. It mainly includes a cable container suspended from the ceiling and a cable with a charging connector that can be unwound and lowered for EV charging by using mobile App while retracted into the cable container automatically after charging. Reservation for charging is available on Apps for users by setting. In addition, real-time monitoring, remote control and payment of services can be enabled with internet connectivity to the E-Charge online platform.



2016 香港工商業獎：設備及機器設計優異證書
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Certificate of Merit

產品名稱： 廚餘全面轉化系統
Product Name: FTR Food Waste Total Recycling System

公司名稱： 香港生產力促進局 - 環境管理部
Company Name: Hong Kong Productivity Council - Environmental Management Division

設計者： 馬耀華博士
Designer Name: Ir Dr Anthony Yiu Wa Ma

網址 /Website: www.hkpc.org

評審委員會意見：

此系統以兩套獨立的生物反應器達致兩段式厭氧消化，將廚餘分解及生產沼氣。其創新的前處理能分隔無用物質，如骨頭、纖維和牙籤，並將可降解的有機物研磨成幼細有機顆粒的漿液，用於後續處理。

第一段系統約需 2-5 天將廚餘分解成 3 種回收產品，而第二段系統再用 7-10 天來產沼氣。

General Comments on the product:

The product employs 2-stage anaerobic digestion process using two separate bioreactors for the decomposition of food waste and production of biogas. An innovative pretreatment is used to separate inert substances, such as animal bones, fibers and toothpicks, and ground the digestible organic substances into slurry of fine organic particles for subsequent treatment.

The first-stage system takes around 2-5 days to break down food waste into 3 types of recyclable products, and the second-stage system for another 7-10 days to produce biogas.



2016 香港工商業獎：設備及機器設計優異證書
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Certificate of Merit

產品名稱： 腐皮自動生產機
Product Name: **An Automatic Beancurd Sheet Making Machine**

公司名稱： 鴻福食品貿易有限公司
Company Name: **Hung Fook Food Trading Limited**

設計者： 劉少輝先生
Designer Name: **Mr Lau Siu Fai**

網址 /Website: **www.hungfook.com**

評審委員會意見：

此設備包括一個促使腐皮形成的冷凍管道、加熱豆漿的煮漿槽、添加和循環豆漿用的泵組件，以及把腐皮通過燥乾室運送到製品收集桶的兩條輸送帶。此設備安全、功效優良、環保，並因腐皮普遍用於中式菜中，使其具有相當高的商業潛力。

General Comments on the product:

This equipment consists of a cooling channel for bean curd sheet formation, a hot water tank for soybean milk heating, a pumping unit for milk circulation and addition, as well as two conveyer belts that carry the bean curd sheet through the drying chamber to the finished product collection drum.

The equipment is safe, ergonomically sound, environmental-friendly and has high commercialization potential given the popularity of bean curd sheets in Chinese dishes.



2016 香港工商業獎：設備及機器設計優異證書
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Certificate of Merit

產品名稱： 智能城市電子付費咪錶 (型號：HOMAC SPM-10A)
Product Name: Smart ePayment Meter for Smart City
(Model No: HOMAC SPM-10A)

公司名稱： 智控系統有限公司
Company Name: ITE Smartcard Solutions Limited

設計者： 劉漢光先生、楊易晶小姐、鄭國雄先生、畢匯輝先生
Designer Name: Mr Vincent H K Lau, Ms Posy Y C Yeung,
Mr Alfred K H Cheng, Mr Cyrus W F But

網址 /Website: www.hkite.com

評審委員會意見：

此產品是配合智能城市發展的需求而開發。它支援最新的付款技術和提供全面的付款、清算及結算功能，並結合了最新的「FinTech」（金融科技）、「IoT」（物聯網）和「RFID」（射頻識別）等技術。

此產品的整體表現較市場上同類型產品優秀，並可由現時覆蓋雙泊車位換成覆蓋一整行四泊車位。

General Comments on the product:

The product is designed and developed to meet the requirements and needs of Smart City development. It supports the latest financial payment technologies and provides full functionalities for payment, clearing and settlement. Moreover, it incorporates the latest technologies such as 'FinTech', 'IoT', 'RFID' etc.

This design performance is better than the existing units in user friendliness, serviceability and performance. Current settings only to cover 2 parking spaces could be converted to cover a whole bank of 4 car parking spaces.



2016 香港工商業獎：設備及機器設計優異證書
2016 Hong Kong Awards for Industries:
Equipment and Machinery Design Certificate of Merit

產品名稱： 應用於紡織材料的無水多功能處理系統
Product Name: **A Waterless Multi-functional Processing System for Textile Materials**

公司名稱： 華泰裡朴絲綢有限公司
Company Name: **Wah Tai Piece Goods Ltd**

設計者： 李國強工程師、莫崧鷹博士、高耀祖先生、
李世豪博士、陳永敏小姐
(香港生產力促進局)

Designer Name: **Ir Thomas K K Lee, Dr Sam Mo, Mr Yiu Cho Ko,
Dr Jimmy Lee, Ms Minnie Chan
(Hong Kong Productivity Council)**

網址 /Website: **www.wah-tai.com**

評審委員會意見：

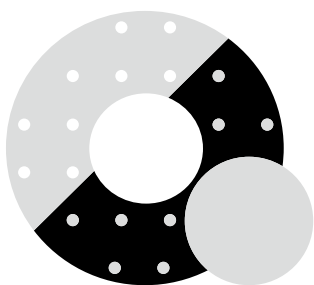
傳統紡織品染整用水量大，並需要以高昂的成本處理過程中所產生的廢水。此系統使用超臨界二氧化碳作溶劑，對紡織品進行預處理、染色、後整理的工序。此一體化流程零用水，無需廢水處理。此外，整個染整過程於密封環境下進行，使二氧化碳能循環再用。

General Comments on the product:

Traditional textile dyeing and finishing use an enormous amount of fresh water and it is also costly to treat the resulting waste water upon completion of the processes.

The product utilizes supercritical carbon dioxide as the solvent to conduct pre-treatment, dyeing, and post-treatment of textile materials. The integrated processes do not need the use of water and consequently have no waste water to treat. They are done in an enclosed environment thereby allowing carbon dioxide to be recycled for further use.





2016 香港工商業獎：設備及機器設計
**2016 Hong Kong Awards for Industries:
Equipment and Machinery Design**

宗旨 Objectives

是項比賽旨在鼓勵和提高本港設備及機器的設計及生產水準，提高產品競爭力，及對傑出的產品加以獎勵。

The objective of the competition is to encourage the upgrading of the design of equipment and machinery in Hong Kong so as to enhance competitiveness and to give recognition to outstanding products.

參賽類別 CATEGORIES

生產機器及設備

Production Machinery / Equipment

供作生產用途而產品為完整的機器或設備。

Machinery/Equipment which in itself is a complete unit and is used for production purposes.

機器設備的工具、配件及零件

**Machine Tools, Device and Add-on Accessory for
Production Machinery / Equipment**

附於機器或設備上的工具、配件及零件，用以輔助生產、提高生產效率及控制產品質素等。

Machine Tools, Device and Add-on Accessory which are designed as part of the machinery or add-on gadget to facilitate production processes and to improve / upgrade productivity, efficiency and quality control.

科學儀器、計量儀器、控制及測試設備及其配件或零件

**Scientific, Measuring, Controlling and Testing
Equipment and its Parts and Accessories thereof**

辦公室文儀用具（包括電腦）及通訊器材

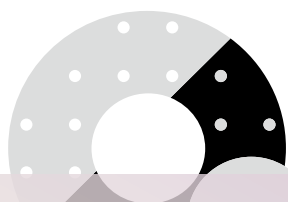
**Office Machine / Equipment (including Computers) and
Communication Equipment**

工業用的電腦軟件

Computer Software for Industrial Application

雜項類

Miscellaneous



查詢表格 Enquiry Form

2017 年香港工商業獎：設備及機器設計

主辦機構：香港中華廠商聯合會

2017 Hong Kong Awards for Industries: Equipment and Machinery Design

Organizer : The Chinese Manufacturers' Association of Hong Kong

Tel 電話：2542 8621 / 2542 8624

Fax 傳真：2541 8154

我想獲得更多有關 2017 香港工商業獎：設備及機器設計的資料

I would like to have more information about the 2017 Hong Kong Awards for Industries:
Equipment and Machinery Design

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Name of Company

業務性質

Nature of Business

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主辦機構
Organizer



香港中華廠商聯合會
The Chinese Manufacturers'
Association of Hong Kong

簡介

香港中華廠商聯合會成立於 1934 年，至今已超過 80 年歷史，現有會員企業 3000 多家，是香港最大及最具代表性的非牟利工業團體之一，致力服務社會，維護公眾利益。

宗旨

本會主要宗旨為：

- 促進香港工業與貿易的發展；
- 就政府政策的訂定與執行代表工業界發表意見；
- 參與社會發展工作；以及
- 促進國際間的了解與合作。

Introduction

Established in 1934, The Chinese Manufacturers' Association of Hong Kong (CMA) is a not-for-profit chamber of commerce and one of the most representative industrial associations in Hong Kong. With over 3,000 member companies from various sectors of industry and trade, the CMA is committed to serving the community and safeguarding public interest.

OBJECTIVES

The CMA's primary objectives are:

- to promote Hong Kong's trade and industrial development;
- to represent industry in the formulation and implementation of Government policies;
- to participate in community development work; and
- to foster international understanding and co-operation



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