

**INDUSTRIAL**DESIGN

**NOVA**  
DESIGN



**INDUSTRIAL**  
DESIGN



**TRANSPORTATION** DESIGN



**AUTO** DESIGN



**MOTOR** DESIGN

# CASE STUDIES OF INDUSTRIAL DESIGN

INDUSTRIAL DESIGN



AULUXE Dew Mini Hi-Fi AM2021  
樂豐華 Dew迷你音響系統 AM2021



reddot design award



## 音質與造型的臻美結合

Auluxe的DEW為2.1聲道之Mini HiFi系列產品，木質的箱體讓小型化音箱展現最佳共振性，輸出HiFi等級之聲音質感。六度仰角的外觀設計融合了美學與聲音相位準確性，重低音以無指向性朝正下方發散的設計，使聲音低頻更厚實更延伸。Dew將金屬與木箱工藝完美結合，金屬R型腳架以噴砂鍍鉻處理，單體透過金屬網板呈現多層次視覺效果，更顯精緻時尚感。單體係由安哥拉羊毛，棉，麻等多種木漿天然材質製成，與木質箱體共同呈現最原始純淨的聲音，傳達聽覺與視覺的最佳體驗。

低音箱的傾斜角和全方位的設計能增強低音訊的穿透力和延伸性。

利用自然材料木材作為音箱能傳出清脆，溫暖而有力的聲音。

根據歐盟和中國環保政策要求，音箱均由可降解材料和環保材料製成。

## PREMIUM COMBINATION

This AM2010 2.1 Ch. Mini HiFi Speaker Systems combines the art of craftsmanship and advanced acoustic technology. Aiming at Chinese market and was launched across distribution channels in major Chinese cities. Committed to its brand promise, pure audio luxury, Auluxe uses only wooden boxes to present the warm and powerful resonance effect. Also, different from conventional speaker design, the AM2021 combines aesthetics and acoustic phase accuracy. In addition to the streamlined design and the veiled vision of the drivers behind the metal mesh, the R-shaped stand in sand-blasted chrome-plated surface treatment gives the product a modern feel. The tilted angle at the bottom of the box and directivity-free design of bass enables powerful and extendable low frequency.

1 At the bottom of the box, the tilted angle and directivity free design of bass enables powerful and extendable low frequency.

2 The grain of wood resonate the waves of sound. The use of natural materials enables crispy, warm, and powerful sound.

3 To follow EU and China environment protection directive, it was made by decomposable or by recycled raw materials.

# CASE STUDIES OF INDUSTRIAL DESIGN



“Vanilla Baby” flower expo robot  
“香草寶貝”花博機器人

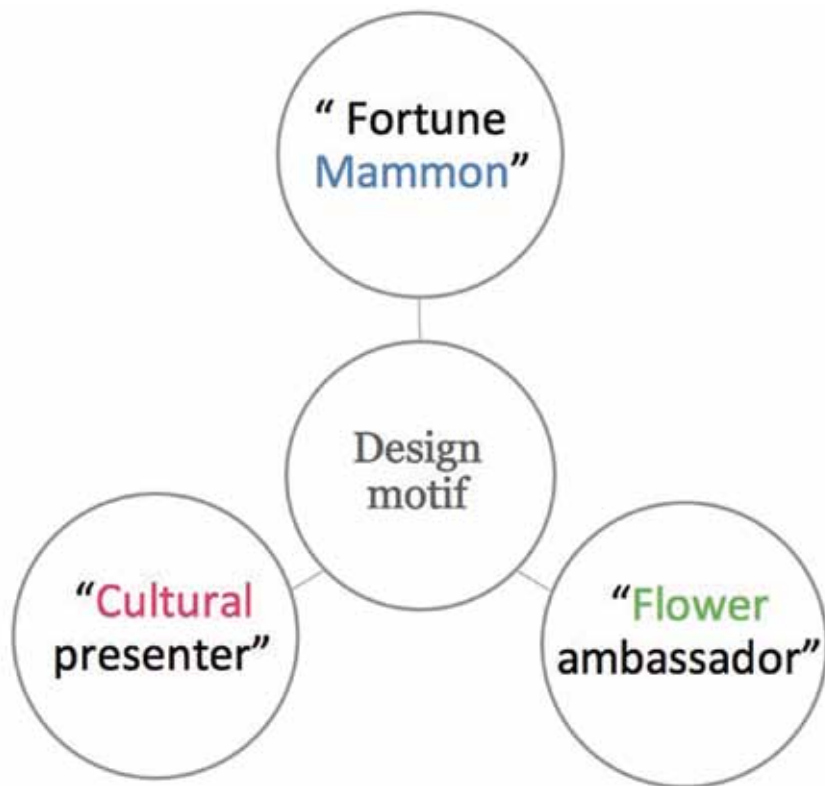
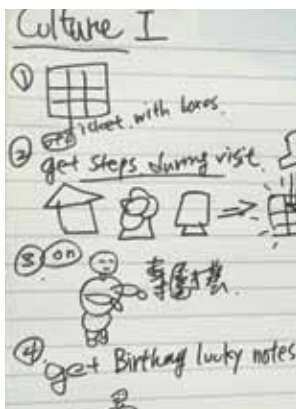
## 「香草寶貝」

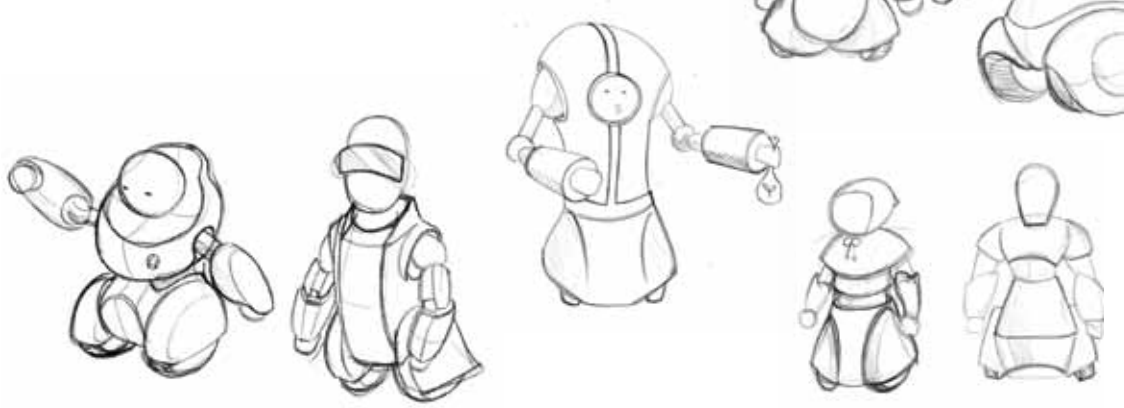
迎接「2010台北國際花卉博覽會」，台北市政府特以花博會專屬機器人「香草寶貝」，引領花博會邁向環保科技的新境界。「香草寶貝」係由入選全球百大創意人士的周杰倫所命名，並與周杰倫共同演出花博推廣曲「好久不見」MV。

## “VANILLA BABY”

Meet the “2010 Taipei International Flora Exposition”, the Taipei City Government revealed Fair exclusive special robot “Vanilla Baby“, leading flower expo into the new realm of environmental science and technology.”Vanilla Baby “was named by world famous creative people Jay Chou and performed with him in the MV “Long time no see” promoted by flower expo.







## 自然設計

「香草寶貝」是由台北浩漢產品設計與台灣財團法人精密機械研究發展中心共同研發完成，外觀完全由浩漢設計操刀設計。浩漢設計針對台北花卉博覽會展覽特性，發展出親切圓潤的造型，以豆子的意向表達可愛逗趣的感覺，靈活的頭，眼動作，好像新生的太空寵物一般，頭頂的幼苗形象為主體，傳達出純潔與自然，呵護的感覺。帶給人療癒的情感連結。將大自然對人身心靈的呵護，啟發，做最佳的詮釋。靈活的手指關節，可以透過程式設定握手，比手勢，是善於與人互動的人性化設計。

## NATURE IN DESIGN

“Vanilla Baby” is a product designed and finish by Nova in collaboration with Taiwan Precision Machinery Research Development Center, the appearance and styling entirely designed by the Nova design. Inspired by the Floral Expo logo, mascot and the theme title, Nova Design featured rounded shape styling in order to express the funny and loveliness of fresh bean sprouts. The flexible head and eye movements just like a neozoic pet from space. Robot head designed as seedlings represents the main image to convey pure and natural and the feeling of care bring emotional healing to people. This is a best interpretation for personal soul care inspired from nature. Flexible finger joints, shake hands or gestures through the program settings, interaction with others is a good human design.





## 跨界設計

浩漢設計從商品研究到概念發想，草圖繪製，其中更善用其交通工具的嚴謹流程，以油土定義「香草寶貝」的每一個線條。期望靈活的動作可以強化與民眾的溝通，圓潤可愛的造型不會讓民眾卻步，塑造「香草寶貝」成為民眾與小朋友靈活可愛的外太空寵物。

## DESIGN CROSSOVER

Nova Design start from product research to concept development and sketching through the rigorous process of transportation design and using the clay model definite every line of “Vanilla Baby “. Expect flexible movements can improve the communication with the public, the lovely rounded shape will make “Vanilla Baby” became public and kid’s popular lovely space age pets.



# CASE STUDIES OF INDUSTRIAL DESIGN



TATUNG Electric Pressure Cooker TCPC-50EC  
大同 電壓力鍋 TCPC-50EC

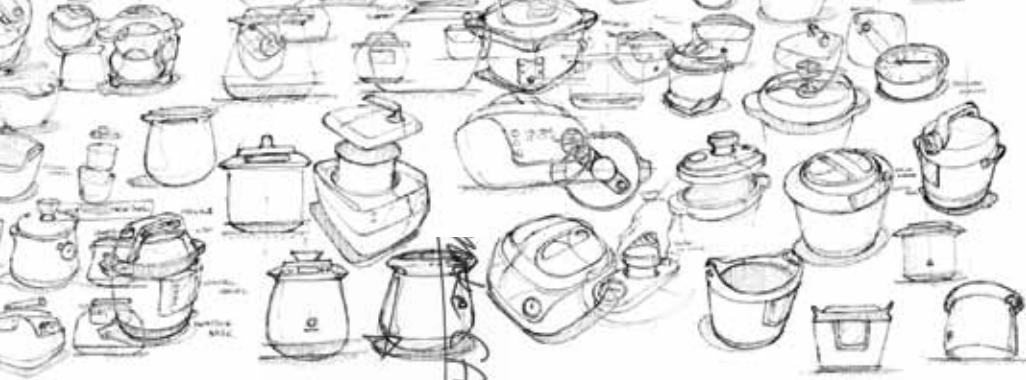
INDUSTRIAL DESIGN





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Finalize  
CAD



INDUSTRIAL DESIGN



## 时尚简便

電壓力鍋TCPC-50EC以時尚溫暖簡潔的掀蓋造型，溫暖的白色鍋身搭配橘色提示，大大提升這款電壓力鍋的親和力，更符合現代廚房設計。大同多重安全機制的設計，三色系洩壓提示，提升使用過程中的安全感，降低使用者對高溫與洩壓的恐懼感；直覺使用的操作介面讓每個人都可以成為料理大師；料理完成提示音功能讓快煮更加輕鬆簡單。大同電壓力鍋不但是現代廚房中時尚快煮，安全烹飪的好工具，也是信賴專業烹調的好伙伴。

## SIMPLE LIVING WITH STYLE

Tatung TCPC-50EC Electric pressure cooker saves time by reducing cooking time by 70 percent. Its design strategy focuses on presenting itself as a friendly and trustworthy companion in the kitchen. White body accented by orange color to highlight the hot zone provides easy indication. Only by rotating the handle on top for a secured lock will the unit be activated. A pressure gauge on top provides pressure indication from green, yellow to red for users to identify its cooking status avoid improper operation. A simple intuitive UI is programmed with different cooking modes and is easy to adjust. For special occasions, pressure can be released through pressing the release button in control panel, or manually in case of electric shortage. A beeping sound will remind user upon completion and excess water will be collected to a slot for easy cleaning. Protected by multiple safety features, with warm and clean styles, it conveys images of friendliness, reliability, quality, and taste.



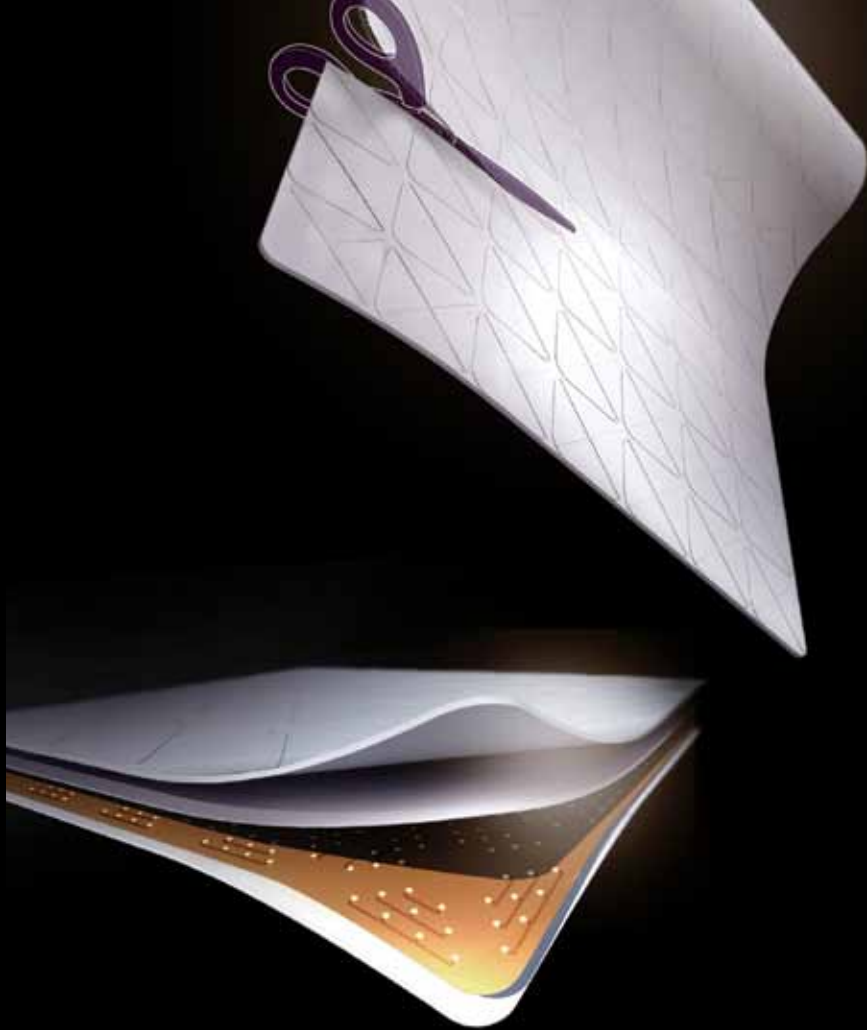
# CASE STUDIES OF INDUSTRIAL DESIGN



INDUSTRIAL DESIGN

ITRI FlexLite  
工業技術研究院 FlexLite





## 照明與環境的「柔美」融合

FlexLite可撓曲DC LED照明光源，以軟板埋嵌LED晶粒的封裝技術(chip embedded in flex substrate)，搭配可軟性的矽膠導光擴散膜片(light-guide diffusion film)，再以薄膜貼覆技術(Film to film bonding)達到整體厚度<3mm，彎曲半徑<5cm的DC LED照明光源。這款可任意彎曲之軟性DC LED照明光源，係針對下一世代的LED照明，開發軟質薄片狀LED光片，超薄，柔軟，可隨意彎曲，且無變壓器裝置之LED照明光源，能與現代化創意燈飾，家飾，造型裝潢作隨意彎曲貼合，使照明與生活環境融為一體，滿足智慧型居家光源需求。

## LIGHTING AND ENVIRONMENT INTEGRATION

The DC LED illumination was based on a chip embedded in flex substrate, optical silicon light-guide film, and film to film bonding technique. It is thinner, lighter, cooler, and more bendable than conventional DC LED light. LiteMat generates soft light through translucent silicon mat and saves energy by 30% than DC LED. It's soft and flexible nature allows user to flip, roll, or cut out any shape you want to fit any room. A well-designed clip is all it takes to connect to electricity. It is not only an illuminant material, but can be used in any contextual format, creates new market usages for LED. Its DIY nature adds fun for users as well.

# CASE STUDIES OF INDUSTRIAL DESIGN





AIRMATE Heliums Series Heater  
艾美特 赫力奧系列電暖器



reddot design award

## 電暖器的家族化設計

艾美特HELIUMS精品系列電暖器是浩漢為艾美特的需求而全力設計開發，其中包含了6種不同技術和形態的電暖器。由於不同的發熱技術而導致各種產品造型形態風格迥異，這是歷來電暖器在視覺上難以形成系列性的主要原因之一，而今艾美特針對此難題與浩漢一同展開設計研究，試圖找出一個元素可以應用在不同的電暖器上形成系列感而又不影響其功能，圍繞其品牌形象，塑造內外兼修的設計品質且能體現高端精品之感，成為能夠代表艾美特全新形象的旗艦產品。艾美特HELIUMS產品系列則是雙方合作尋找出的答案之一，使6個不同品相的產品以系列化的語意陳列在同一個展台上。其市場表現不凡也對電暖器設計結果得到了認可。

## HELIUMS PRODUCT FAMILIAL DESIGN

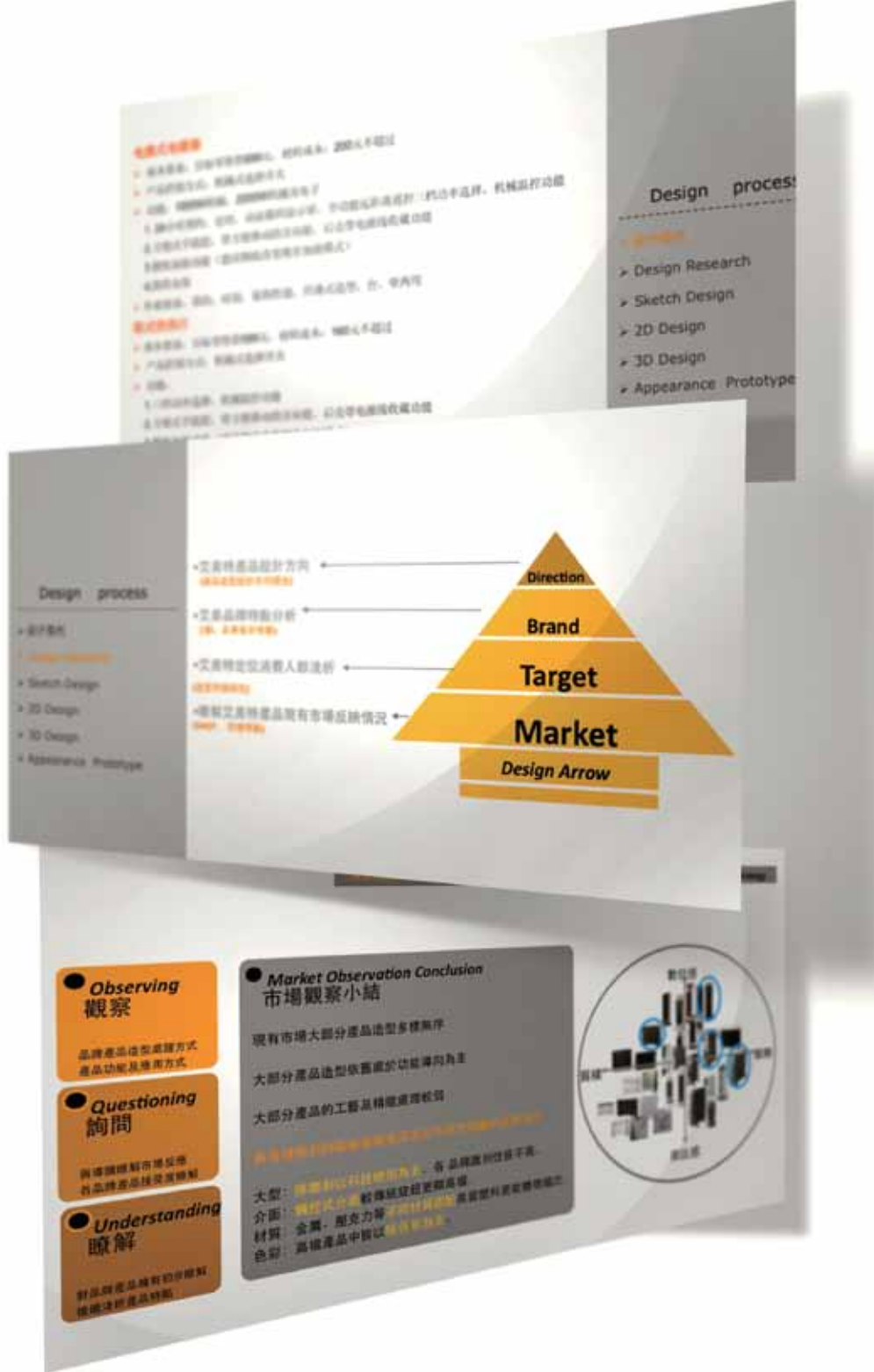
Airmate HELIUMS Collection heater which contains 6 different techniques and forms was designed according to the requirement of Airmate. It is always a difficult problem to design a series style on the different heater form .Nova start with the design research to find out an element that can be used in different series of electric heaters and build its brand image identity to create high-end sense style, try to make it become main product line capable to represent Airmate brand. Airmate HELIUMS product line is one of the design solution for 6 different products by using a same semantic image to build a series style. The design results is successful and has been testified by the extraordinary market performance.

## 由尋找造型符號開始

在艾美特電暖器設計項目前期研究定義中，初期針對艾美特品牌特徵BI，品牌理念進行了解並將其符號視覺化，並且到市場實地瞭解艾美特現有產品狀況反饋，利用SWOT工具進行市場特點的分析歸類同時也根據艾美特目標消費人羣的淺析，從中找出相關消費人羣的造型符號及從而根據以上幾個不同層面的考慮提出艾美特新電暖器產品設計方向和關鍵詞。

## STARTING FROM SYMBOLS

Airmate heater design project research and definition, initially to understand and visualize the Airmate brand image and the concept , learn more about present Airmate's product feedback from the market, the use of SWOT Analysis tools to classified market characteristics and also find out the Airmate target consumer groups characteristic and icon , based on the above research to create Airmate new heater products design direction.

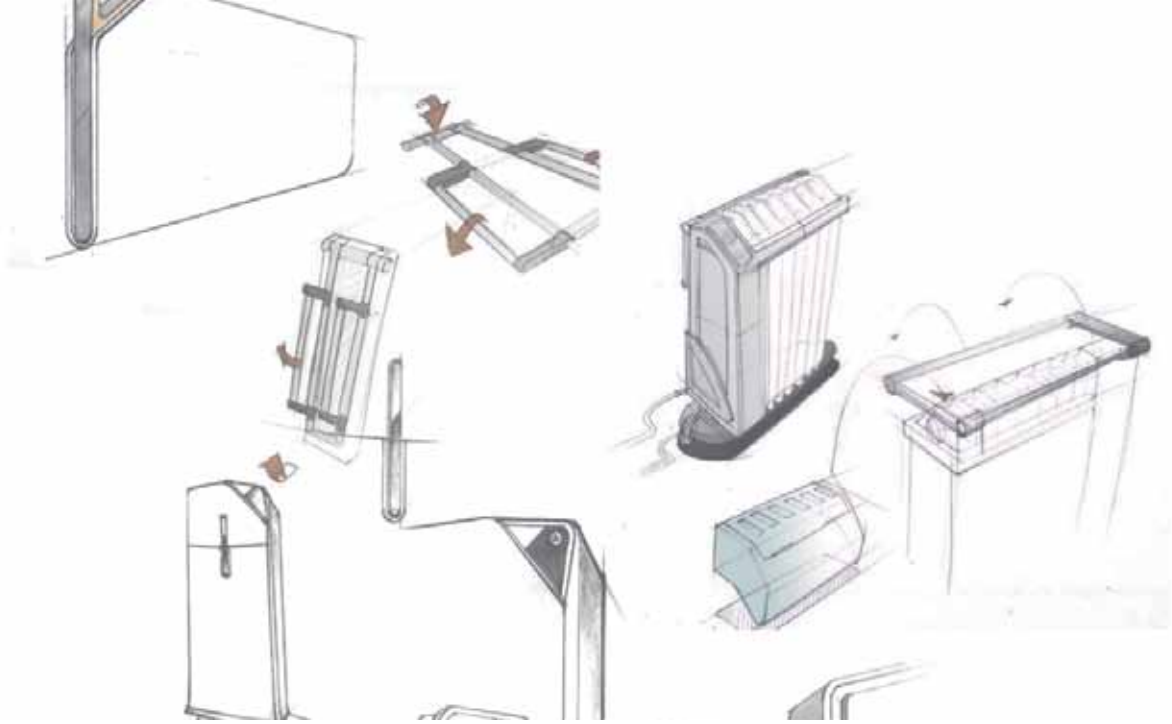


## 造型風格視覺化

前期的設計方向定義，找尋關鍵詞進行發散，與衍生辭進行繁殖，在設計方向的框架下進行方向的衍生，並且將艾美特品牌進行擬人化描述以及目標消費者自身風格的產品使用進行分類比較，從中找出不同的歸類區域，對其進行描述和視覺化，從而找出造型語義風格，並從中尋找適合艾美特品牌特徵的造型風格，從而達到品牌特徵與造型風格的統一性。

## VISUALIZE THE STYLE

Definition of design direction, looking for keywords to divergent, and reproduce derivative words, and the Airmate brand anthropomorphic characteristics and target consumers style classification of different regions, its description and visualization, in order to identify the semantic style, so as to achieve brand consistency characteristics and styling.

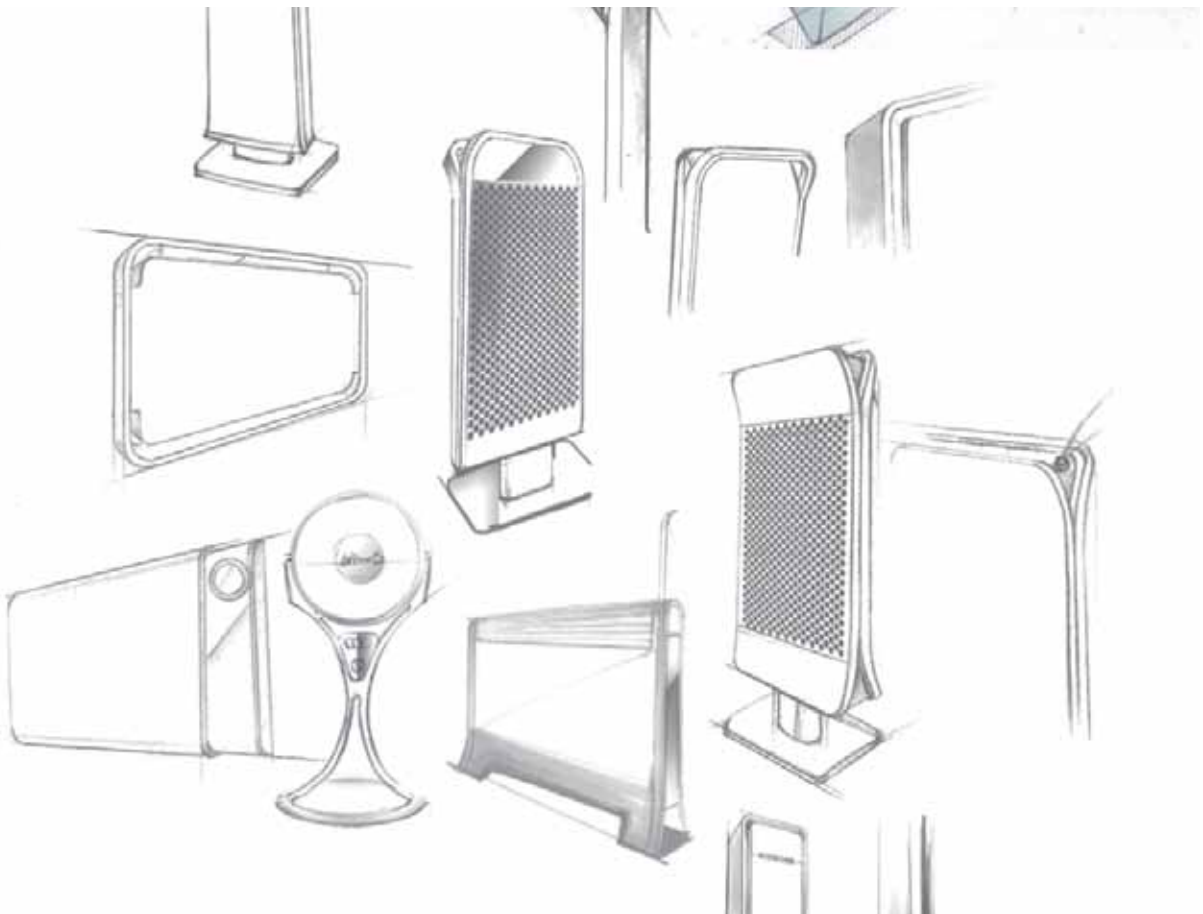


## 「頭腦風暴」設計發想

根據研究報告所得出來的設計方向，設計師以此為依據進行頭腦風暴，從造型圖片中找出相關的造型特徵，再以此特徵發展出幾種不同的造型方向，根據此設計概念進行發展草圖，同並與客戶溝通一同從眾多的設計概念中找出符合此次設計方向的造型概念，並進一步細化和完善。

## “BRAINSTORMING”

The designers will have several times brainstorming to find out design concept direction base on the design research direction. Designer will visualize design concept and communicate with client together to find the suitable image of the final design direction for improvement and detail modify.





## 關鍵字： 低調奢華

艾美特HELIUMS精品系列電暖器圍繞“低調奢華”的設計主題，通過流暢的大型搭配局部的香檳金點綴打破傳統。側面線條流暢，自然的雙曲線相互呼應，中間香檳金的運用，豐富產品的造型層次，帶來含蓄的低調奢華感。設計師根據草圖造型放入三維軟件進行建模動作，將平面進行立體化效果轉換，同時加入場景來模擬成品後的效果讓客戶進行預覽用於最後方案的選擇決策。

## KEYWORD： SIMPLE-LUXURY

The design concept of Airmate Heliums series heater was “Simple Luxury”, it presented differentiate with typical heater by using the smooth surface combine with golden part decoration, The styling blend surface with golden color parts in the center to present sculpture style and simple luxury . the designer build a 3D model by put the sketch into the 3D software to transform the 2D object into 3D , and simulate the final effect of the proposal to the client for decision reference.





## 設計概念實體化

在經過幾回的討論和設計修改，開始進入原型機的製作，將電腦三維數據轉化成爲現實模型，作爲量產之前最後的設計實物效果展現，整體形態，色彩細節的呈現，讓客戶有一個對設計方案更加直觀的了解。

## CONCEPT INSTANTIATION

After several times of discussion and design changes, began to make the prototype model, 3-D data in the computer will transform to a reality model, as the final presentation of the design before get into the production, the overall shape and form, color the details was shown, so that customers have a chance to understand the design through the prototype directly.



# CASE STUDIES OF INDUSTRIAL DESIGN



KONKA Air Purifier KAC-J30B  
康佳 空氣清新機 KAC-J30B



## 簡素灑脫的淨化享受

現今室內污染已成為人類健康的嚴重威脅,空氣淨化器能有效改善室內空氣質量,保護人們健康。針對現代人對健康重視與使用行為所設計的空氣淨化器,更加考慮到了使用者操作的人性化及使用中的行為習慣。纖薄的機身造型與直覺性的把手設計,更利於使用者隨意移動隨身擺放。科技人性的操作界面,更適合人機操作,觸控式智能操作界面隨空氣質量改變色彩,帶來更簡單趣味的交互體驗。

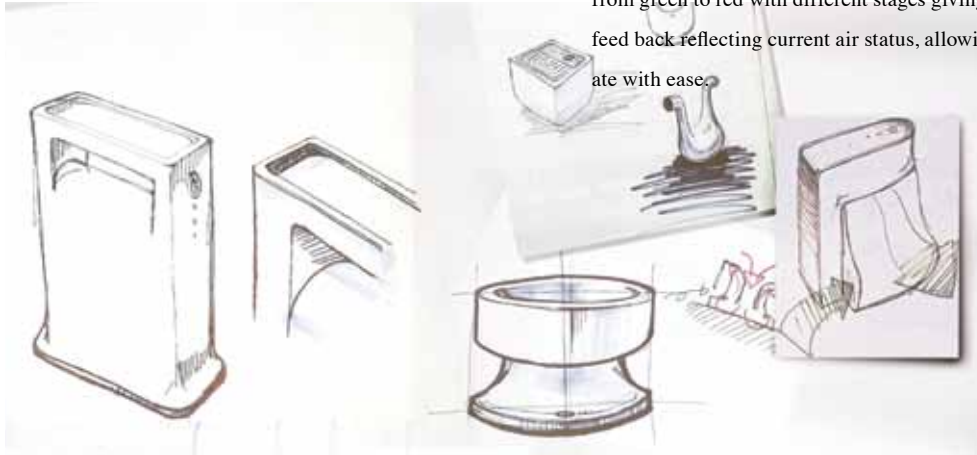
## ENJOY SIMPLY PURIFICATION

As people's awareness on how pollution can have an effect on health and environment grows, what they do not realize is that air pollution indoors has already become a threat to a healthy life. Konka values this issue and design this air purifier base on the idea of protecting people. The slim and high-tech design language with intuitional interface shows a great balance between human and technology; providing a simple and fun solution to a better, healthier life.



## 操控源自直覺

此款Air Purifier外觀造型簡潔科技，能夠很好的融合於家庭或商務辦公等空間環境。注重用戶的使用習慣與需求，全自動檢測調節功能，直覺操作，讓用戶全心體驗潔淨的空氣所帶來清新感受。



## INTUITIVE CONTROL

This air purifier has a unique yet minimal style which can easily blend into most home or office environment. Considering user operational experiences, it has automatic air quality examination and adjustment capability; one-button-to-one-function interface; and the multi color led panel changes from green to red with different stages giving immediate feedback reflecting current air status, allowing users to operate with ease.

## 人本關懷一目了然

Konka Air Purifier整體造型簡潔輕薄，貼心的四邊圓角設計有效防止兒童碰撞刮傷。後側把手運用直覺性的提攜語意方便用戶移動。創新斜角操作界面更易於查看與操作。界面下方的光帶能發出不同色彩的光暈指示空氣質量，空氣質量一目了然。設計透過整體簡單的造型，創新人機操作界面與直覺性的把手語意傳達“人本”的設計理念。設計中投入了大量的心力在用戶使用習慣研究與產品細部的直覺性設計實驗，包括操作界面與使用習慣等，跳脫產品的操作與功能的複雜化趨勢，回歸到改變生活的功能面，讓功能與外型得到實質性的統一。

## HUMAN CARE

Konka's air purifier take a slim and minimal approach to its exterior shape; however, the soft and rounded edges prevents children from injuring themselves. The interface was placed at the top giving the product a unique character, at the same time helps focus all the attention on what is most important when using this product. The informing light effect along with the angle of the control panel also makes it easy to read and operate. Carrier handle was purposely designed to stand out so that users would have no second thoughts on where to look; not only it doubles as a stand itself but also became a highlight of the product.



# CASE STUDIES OF INDUSTRIAL DESIGN



MIDEA Vandelo Series Refrigerator  
美的 凡帝羅系列冰箱

## 目標：旗艦級產品線

Interbrand和福布斯在2010年發表的一份報告中舉出美的位列中國知名品牌第31名，成功擊敗海爾成爲家電行業中的最大品牌。爲了進一步推動市場份額和覆蓋市場範圍內的所有定位的冰箱，Nova設計與美的設計團隊一同啓動Vandelo設計項目。

美的在低端冰箱市場中已享有很大的成功。然而，在面對如LG，西門子，博世等國外品牌的競爭，美的需要根據用戶的需求以及對未來的生活方式建立一個旗艦產品線。

## OBJECTIVE: PREMIUM

In a report issued by Interbrand and Forbes in 2010, the report cited Midea as the 31st Chinese Brand, defeating Haier to become the largest brand in household appliance. To further advance itself in the market share and market penetration of refrigeration from all ranges, project Vandelo was initiated by Nova Design and Midea Design Team. Midea has enjoyed a significant success in low to mid range segments of refrigerator. However, facing competition from foreign brands such as LG, Siemens, and Bosch, Midea is in need of a flagship product line that envisions the future lifestyle to its users.



## 歐風中國化的冰箱設計

Nova從它的各個據點如米蘭，中國，台北設計團隊中抽調設計成員成立了一個專責小組負責項目接下來的設計過程。凡帝羅項目首先對產品形象進行分析，回顧總結過去的發展，並描述了未來的發展方向。結果表明，美的在享受它在中低段市場的成功時需要一個旗艦產品來展示滿足未來生活方式的需求。設計團隊旨在傳達一種歐洲的生活方式來區別主流產品。為了能夠準確地描繪及了解中國用戶所感知的“歐式生活”，第二輪的研究對整個中國進行了調查。根據研究結果，為後來的設計策略決定將開發定位在高端的冰箱，高端簡單，功能齊全，清爽，簡潔，本質的設計方向風格，而研發小組則利用創新的生產工藝使其更符合成本效益。最後，新的設計小組提出的旗艦產品，引導到一個更簡單，個性化，標誌性的風格。

## CHINESE PERCEPTION OF EUROPEAN STYLE

Nova Design formed a task force from its Milano for its know creative concept, then Chinese and Taipei Design Teams would follow through the rest of the design process. Project Vandelo started out with product identity analysis that examined the past development and outlined future direction. The result showed that Midea, while enjoying its success in low to mid range segments, is in need of a flagship product line that envisions the future lifestyle. To differentiate itself from mainstream products, a second phase of design research was conducted throughout China in order to accurately depict the perceived “European Lifestyle” among Chinese users. Based on the research results, the design strategy was positioned at designing high-end refrigerator for simple, functional, clean, pure, genuine style and the RD teams improve the production technique to become more effective. Finally, Nova Design Team proposed a simple, individualistic and iconic style on the new product.

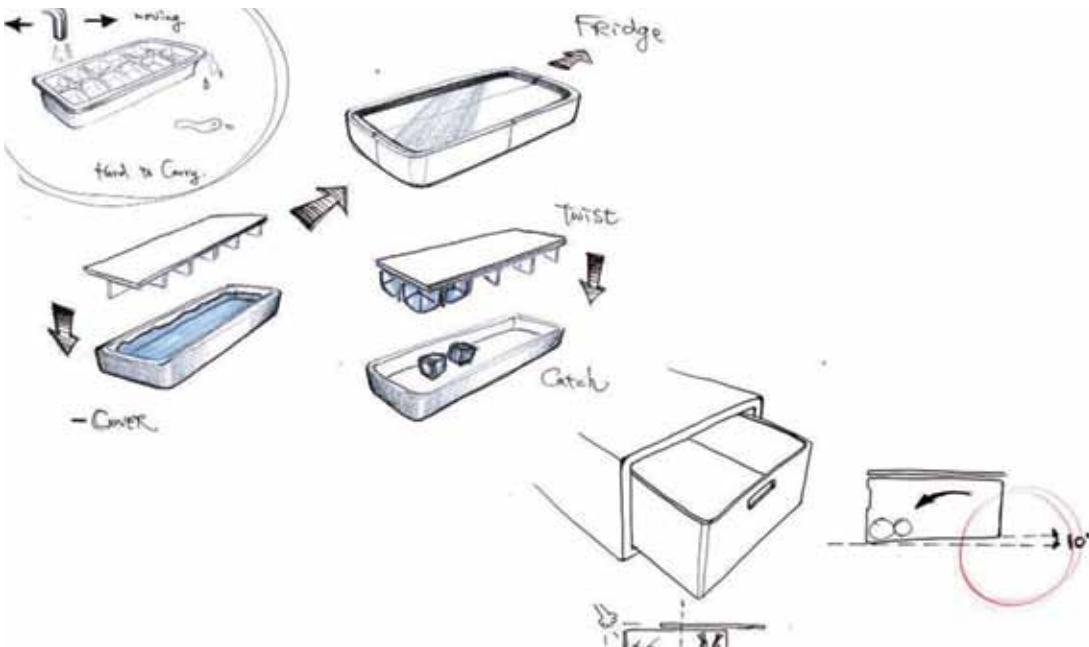


## 設計策略提升品牌發展速度

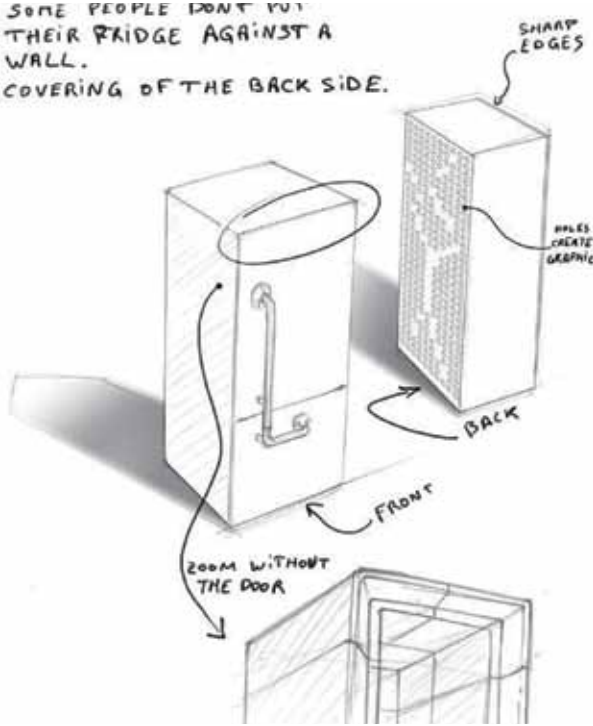
最終的結果是美的高端產品線，凡帝羅，即在為用戶提供了歐洲生活風格產品的選擇但仍然兼顧實用和合理的價格。這一戰略的成功已經通過破紀錄的銷售來證明。凡帝羅僅在5月增加的銷售紀錄已經突破了150%而成為在高端冰箱銷售中最好的品牌。據美的2010年第一季度報告，總體銷售收入比上年增長76.12%。淨利潤的增幅也在2010年達到驚人的249.29%。美的已真正成為中國發展最快的品牌。

## DESIGN STRATEGY TO STRENGTHEN THE BI

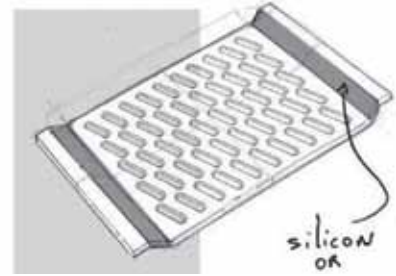
The end result is Midea's high-end product line, Vandelo, that aims at providing users a vision of European lifestyle but still adaptable to usage scenario and accessible in price. This strategy has proven itself with a record breaking selling record. Vandelo has topped it's sales record for a 150% increase in May alone and was also awarded the best brand in high-end refrigerator. According to Midea's 1st quarter report in 2010, overall sales revenue increased 76.12% than previous year. Net profit also marked a staggering 249.29% increase in 2010. Midea has truly become the fastest growing brand in China.



SOME PEOPLE DON'T PUT  
THEIR FRIDGE AGAINST A  
WALL.  
COVERING OF THE BACK SIDE.



THE USER IS MORE  
FREE TO ORDER  
HIS STUFF.



## 由「L」帶來的舒適操作

美的凡帝羅冰箱最大的亮點是具有非常經典的“L”形的把手設計。結合造型與功能，其標誌性的“L”形處理允許為消費者提供更好的人機工程上舒適的操作性。在其簡約的設計和質量，通過高品位美學使它成為最能適應現代家居環境。

### 功能定義

標誌性的「L」形手柄設計，免除了打開冰箱門要跪在地上或操作在一個較低位置的尷尬。這是一個結合產品形象和功能巧妙設計的最好例子之一。凹型設計的“按鈕”觸摸屏上為消費者提供了一個準確的操作方位和回饋，進一步降低了「不確定感」，這種不良感覺往往出現在傳統的觸摸面板控制中。在中門設計的抽屜目的是更好的空間利用，以及方便的取放物品，避免浪費空間。所有的一切，凡帝羅冰箱提供了一個更巧妙，更容易被消費者操作使用。

## THE COMFORT OF “L”

Midea Vandelo Refrigerator pops its character with an very iconic “L” shape handle design. Combining image and function, its signature “L” shape handle allows better ergonomics for the consumer. At the same time with its minimal design and quality, it puts forth a professional aesthetics which best fit the modern home environment.

### Functional Features

The signature “L” shape handle design eliminates kneeling down or operating at a awkward when opening the lower refrigerator door. It is the best example of a smart design, combining product image and function. The recess “buttons” on the touch panel provides an accurate feedback for the consumers, further reduces the “feelings of uncertainty” which often seen on touch panel controls. Interior of the drawers in middle door was design for better usage of spaces, making it more convenient to access items which were placed in the fridge and avoiding large wasted space. All in all, the Vandelo refrigerator provides a smarter and easier operational experience for the consumers.



## 表面細節體現產品優雅感

冰箱的設計在整體是維持簡練的設計但是在對細節的設計處理花費大量的時間努力提高產品的精緻美感。對“L”形手柄設計創造美麗的亮點，營造出雕塑感進一步加強了其形象。薄且突出的控制面板，不僅充當了對輸入和信息分區，也增加了細節的可看性和吸引眼球。注重表面細節體現了優雅感並更容易清洗。也是受汽車設計潮流的啟發，浩漢設計起草了一系列針對不同的用戶的一系列的創新色彩計劃。雖然大多數外資品牌使用移動貨架和托盤，凡帝羅設計了可折疊擱架，可根據用戶需求單手調整。此外其他調整，還包括：大雞蛋托盤，旋轉冰盤，水果盤以適應本土的需求。

## ELEGANT DESIGNED DETAILS

Design of the refrigerator was kept very minimal, spending most of the effort on detail treatments to enhance the aesthetics of the product. The angular design on the “L” shape handle creates beautiful high lights, creating a sculptural form which further strengthens its image. The thin highlight on the control panel not only act as the partition for input and information, but it also adds detail to the centre focus making it more complete. Attention to surface details delivers a sense of elegance and is much easier to clean. Also inspired by auto design trend, a series of innovative color plan was drafted for different users by Nova Design. While most foreign brands use movable shelves and trays, Vandelo is designed with foldable shelves for user to adjust layout space with just one hand. Other adjustment to fit local needs also include: larger egg tray, rotating ice tray, and fruit tray.





## 蜂巢戰略創造新設計文化

美的設立了一流的健康家電研究院“中央研究所”和各種先進的科研院所。在生產過程中，美的應用了綠色環保概念在各個生產環節中。目前，美的是一個綠色供應鏈（符合RoHS）的中國認證認可的管理認證試點企業。

浩漢設計的蜂巢設計成員已成功地制定了準確的文化元素。爲了表達用戶所感知的歐洲生活方式而不閉門造車，不同文化背景的設計師篩選出關鍵的設計元素和充分利用現代技術和新的跨文化團隊，其結果便是美的成功的新產品系列，凡帝羅。

## “HIVE” DESIGN CULTURE

Midea has set up the first-class healthy home appliance research institute “Central Research Institute” and advanced scientific research Institutes of various kinds. In the production process, Midea applies the green and environment-friendly concept to procurement activities. Currently, Midea is a pilot enterprise of green supply chain (RoHS) certification of the Certification and Accreditation Administration of China.

The Design Hive task force of Nova Design has successfully formulated the right cultural element. In order to speak to user’s perceived European lifestyle without alienating users, different designers from different cultural backgrounds screened out the key design elements Fully utilize modern technology and Nova’s cross cultural team, the result is a success story for Midea’s new product series, Vandelo.



# CASE STUDIES OF INDUSTRIAL DESIGN



MIDEA pressure cooker  
美的 電壓力鍋

## PRODUCT COMPETITIVENESS THROUGH DESIGN

Existing pressure cooker for Midea were very conventional, monotonous and without much characteristic. A joint project was proposed by Nova Design for this product to be re-designed and developed to improve product competitiveness. Nova Design customize the design process of this projects with the special focuses starting on studies of the development of similar products on the market and in-depth observation of target users which result in finding market opportunities and user advantages as the reference of base philosophy of our design.

## 設計的使命，提升產品競爭力

美的現有壓力鍋產品造型過於保守，色彩單一且沒有吸引人的亮點，導致產品的競爭力較競品弱，而一貫強調設計系統競爭力的浩漢設計公司應美的的要求對此產品進行重新設計開發，提升產品競爭力，趕超市場同類競品。浩漢設計針對此次設計項目的展開量身定做設計流程，著重研究市場同類產品發展趨勢及對用戶使用的深入觀察，從而在當中尋找出機會點並將其轉化應用在設計上。

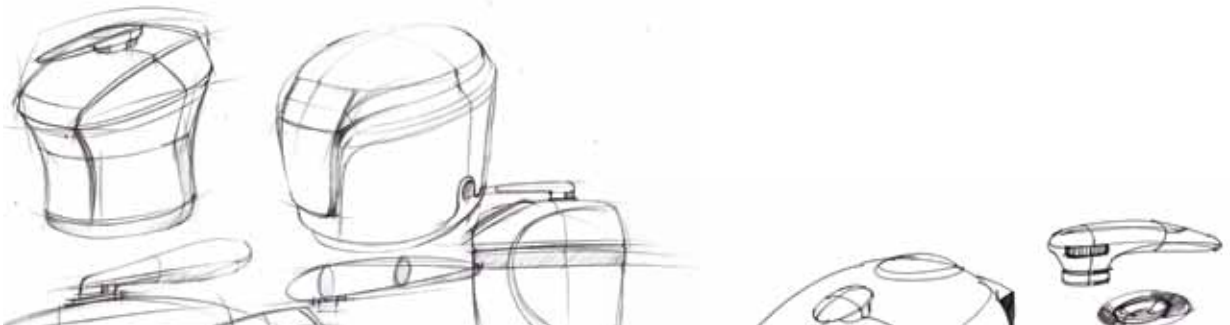


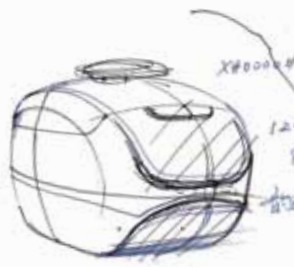
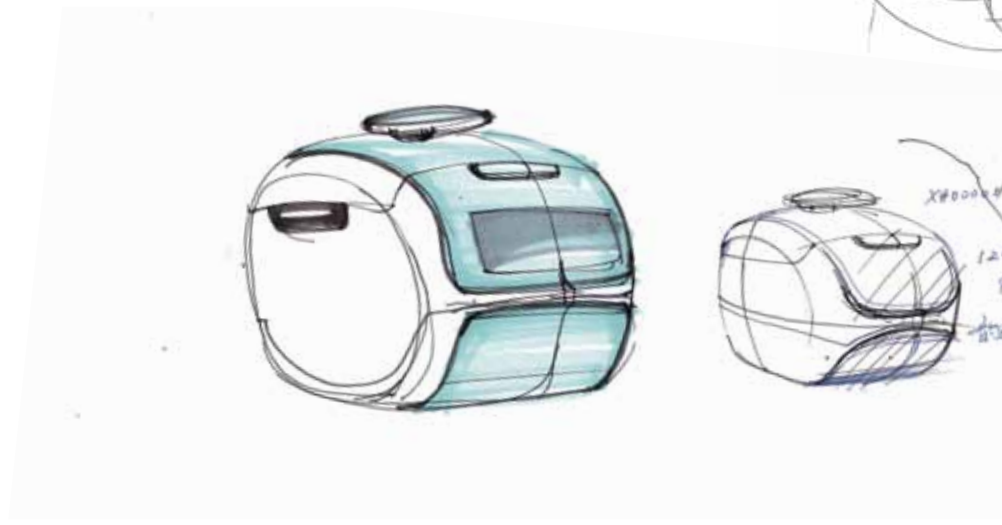
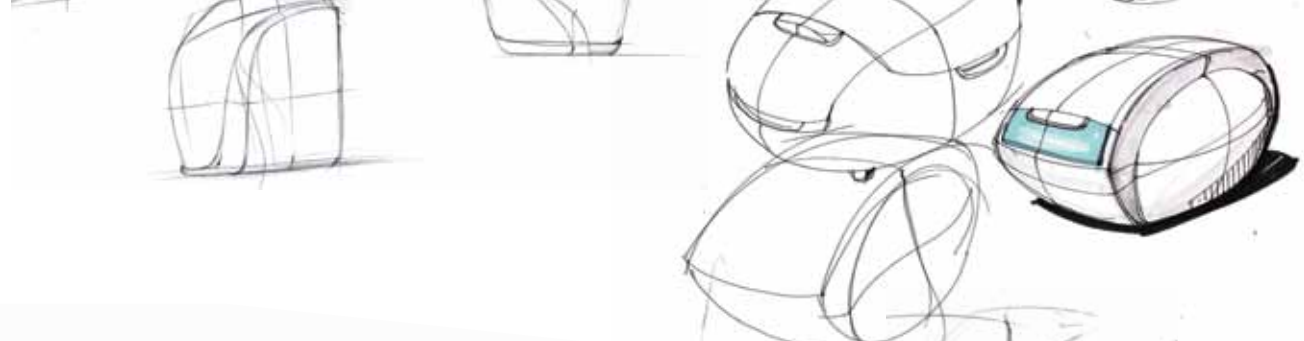
## 設計師走進生活用「心」觀察

市場同類產品的發展趨勢研究，對每個產品在功能上、造型上、CMF的優劣勢進行了分析歸類，從中尋找出既能符合美的品牌特徵及未來幾年的市場需求和發展趨勢的特徵，透過設計師轉化在美的新品上。而作為家裡常用的電器之一的電壓力鍋，對用戶使用及界面設計要求尤為重要，因此設計師進入目標使用人群的家裡，對用戶使用電壓力鍋進行觀察記錄，了解用戶對操作上的需求以及習慣，對操作界面的佈局設計，部件體量的大小及舒適度的設計提供參考依據。

## IN-DEPTH OBSERVATION

The development trend of the market research consist of studying similar products. Analyzing the advantages and disadvantages regarding to function, modeling, CMF of each product. Not only finding elements which are consistent with Midea's Brand Image but also meeting the market expectation then convert them into a new product through design. Pressure cooker being one of the most commonly used electric appliances at home, interface design is particularly important. Designers observed and recorded issues with pressure cookers usage through in-home target user interviews to understand consumer needs and habits for references of user interface design and human factor design.





CONCEPT

造型简洁利落，黑色的锅盖材质与银色搭配，彰显科技感，锅盖两侧采用隐藏式把手



黑色锅盖材质



锅盖采用单手  
掀开开盖方式



把手细节展示



3D Design Proposal

CONCEPT



锅盖采用  
隐藏式把手



黑色锅盖材质

将整体设计融入生活，让科技与艺术完美结合。



金黄色的塑料件包裹整个锅身，打破了传统锅具的形态，而且颜色亮丽，不会显得那么的沉闷，更受女性的喜欢，让你在煮饭的时候有一个愉快的心情。





## 一邊體驗一邊設計

設計執行階段，設計師有了前期對產品的親身體驗感受，從而轉化為設計語言，並在每次討論階段邀請不同專業人員對設計方案進行造型上，CMF，使用，工藝結構上進行點評和提出修改建議，從而使設計方案的發展收斂更加成熟和強化設計方案的亮點優勢。在與客戶進行設計方案討論和選擇後，進行1:1比例模型的製作，為客戶展現實體狀態下的設計方案效果。

## EXPERIENCE DESIGN

During design implementation phase, designers often experience the product first hand and transform the experience into design language. Having discussions during in each phase of the design process with experts conduct modeling, CMF, usability, structural design and modification helps the development to become more successful and advantageous. In discussions with customers and the selection of design proposal, 1:1 scale model were build to show the real effect of the product and for verification purpose.





**Nova Worldwide**

TAIPEI  
+886-2 2696-3378

NOVA HIVE  
+86-21 5308-8025

SAN JOSE  
+1-408 995-3273

SHANGHAI  
+86-21 6957-6246

HO CHI MINH CITY  
+84-61 381-2080

SONDRIO  
+39-03 4251-1335



Identity  
Strategic  
Product & services  
Visual Communication

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Nova Design Co., Ltd.

<http://www.e-novadesign.com/>



