



2021 臺灣國際學生創意設計大賽 (TISDC) 工設系吳郁心榮獲年度大獎（獲獎率 0.3%）

工業產品設計學系校友 吳郁心

2021 年個人有幸獲得 TISDC 年度大獎，感謝老師的指導與評審的肯定。在這次作品的完成過程中，最大收穫是悟出「相信現在努力的自己」的個中含意，也因此使我在畢業後至求職期間，心情平靜，充滿自信，減緩了社會新鮮人可能出現的待業焦慮與迷茫。

很開心藉由此文，與在學的學弟妹或是即將踏出校門的畢業生分享：「不用太在意能不能得獎，而是要先知道自己在哪裡；再努力為使用者找出解決問題的各種可能性，這是設計師的特質。」當目標與眼光放得更遠時，獲獎就是設計過程中，隨之而來的小小勉勵。

提及我的設計方法，其實和大家一樣，都是受惠於學校老師的教導，只是每個人在結合自己的經驗後，設計出來的作品各有不同。在設計過程中，我發現自己專業的不足，於是多方充實並內化為個人獨特的經驗，累積信心，確實實踐後，慢慢摸索出一套設計模式，日後也能游刃有餘地運用在不同的情境中。

上面所述，相信大家都知道，但人在茫然於該做什麼，或在學習產品設計產生困惑時，還是會希望有人能指引大方向。我的看法是，這沒有正確答案，得靠你當下想知道什麼，然後勇於嘗試。

想當年還是菜鳥設計師的我也非常害怕，為求及早了解更全面的設計專業知識與業界要求，我參加校外實習直到畢業。實習期間，學到最多的不是設計，而是設計以外的實務經驗，如客戶的預算限制設計方向、市場需求、商業模式、工廠量產方式與限制、品牌、行銷、各領域產品的知識等，讓我在思考如何解決使用者問題時，能以更完善的思維使作品更貼近真實，進而發掘出下一個問題。



每位設計師的經驗與思維，都是獨一無二、不可取代且有魅力的。在設計領域中，發現問題與解決問題是永無盡頭的旅程，持續「為人設計」，比獲獎更艱難、更複雜。

祝福明日的大設計師們，繼續保持初衷，習慣探索，學習與不確定的因素和平共處，它也是未來工作上的日常。在設計這條路上，遇到徬徨焦灼時，請先把自己設計好，再為他人設計。

附上本次獲獎作品與說明：

Inflatable Stretcher

急救充氣擔架是整合緊急救護流程所需之各項醫療器材的急救擔架包，提供充足的器材給施救者處理傷患傷害部位，讓施救過程更直覺、系統性操作，防止驚慌誤判造成二次傷害。

此外，充氣式擔架小巧輕便，可應用在緊急救護、水域救援等各種場所災害傷員的搶救，以及於居家、體育場地、救護車運送傷員。

設計初期是以老人在家中發生意外後的處理狀況做發想題目。觀察意外發生時，傷患及照顧者應變的行為及情緒在前、中、後期都有可設計的問題點，發現他們其實有一些連貫性，且並不只有居家才會發生這種情境，所以打算以一個可以整合這些問題的產品發想，結合現有醫療器材與專業的救護流程知識，慢慢發展成現在的急救充氣擔架，並期望除了居家使用外，也能與公共 AED 共同放置，並適用各種戶外情境。

Rescue process

1. Assess the risk of injury.
2. Determine whether to move.
3. Perform bandaging fixation.
4. Expand the inflatable stretcher.
5. Relocate and wait for an ambulance.



Design

急救充氣擔架是依照專業的急救流程步驟，並融入以下分析結果設計而成：

1. 考量傷患嚴重程度：因在不同情境下造成不同受傷程度，急救充氣擔架未展開的狀態下，貼心的根據創傷種類、嚴重程度，對應需要的緊急急救器材做分層及是否需再展開設計。以包包前面、背面、展開後的功能依序為：急救包處理傷口、護木固定變形四肢、展開擔架搬移。
2. 善用共同功能：以一個電動充氣機即可完成充氣護木與充氣擔架的固定需求。並利用擔架本體的側邊把手及固定扣帶，同時作為收納後的手提及開關部位，減少多餘的細節設計。
3. 小巧輕便、操作簡單：折疊後體積約在 $40 \times 30 \times 10\text{cm}$ ，便於手提攜帶及保管，環保 PU 材質使用安全易消毒。60 秒內即充氣完成，充氣後體積約在 $190 \times 60 \times 15\text{cm}$ ，適合救護車擔架尺寸，並在上方清楚印刷收折方式說明，以利再次使用。充氣方式減輕衝擊，在搬運中面對崎嶇山路、牆壁、樓梯等障礙物的撞擊時，避免對人員的頸椎及腰椎損傷，同時於水上救護也可當救生浮力擔架。
4. 易上手好閱讀：除了提供評估意識的流程與法律責任告知，也在不同醫療器材上印刷操作說明，如急救包依傷口種類做處理步驟、充氣機如何充氣護木與擔架之使用說明，以增加施救者在處理傷患時的流暢與正確性。

如果有任何問題或需交流討論，歡迎透過我的Behance(https://www.behance.net/ginawu_design)與我聯絡。



2021 Taiwan International Student Design Competition (TISDC) Wu Yu-Hsin from the Department of Industrial Design Won the TISDC Grand Prix (with 0.3 Percent of Winning the Award)

Alumna of the Department of Industrial Design Wu Yu-Hsin (吳郁心)

I am grateful for winning the TISDC Grand Prix in 2021 and would like to express my gratitude to my instructor and the judges. During the process of creating this design, what I've learned is to trust myself, which helped me stay calm and confident. When I was looking for a job after graduation, I was spared the anxiety and confusion most people would experience fresh out of college.

That's why, when I was invited to share my experience of winning the award, I wanted to share with students, especially those about to graduate: Instead of focusing on winning prizes, first go figure out where you are and strive to find the possibilities of solving the problems for your users. This is the essential trait of a designer. When you aim high, winning a prize will come as a very satisfying bonus during the process.

The same as everyone else, my design method comes from what I've learned in university. Combining a design method with each individual's experience, every designer produces different results. During this journey, you will learn about what you still need to improve and turn it into your own unique experience. When you become more confident about your design and put your ideas into practice, you'll slowly discover your unique design method and easily apply it to different scenarios.

I believe that most of you already know this. However, when people are at a loss or become confused in the process of product design, they would still like to follow some guidance. My advice remains the same: there is no right answer. You need to discover and experiment.

I remember I was so scared when I first started designing. To more quickly develop expertise and learn about industry requirement, I started an internship while at university. During those years, instead of just honing my design skills, I learned more about other aspects of the industry: how client budgets can limit design, market demand, business models, types of mass production and their limitations, branding, marketing, product knowledge in different fields, etc. These experiences helped me gain a more comprehensive view when I design, so I work to ensure my design is practical to the real needs of users. This also enables me to become aware of the problems I need to tackle in the next step.

Each designer's experience and mindset are unique, irreplaceable and full of charm. In the field of design, finding and solving problems is an ongoing task. How to continue to "design for people" is a more challenging and complex issue than winning an award.

I wish you, all potential star designers, to always remember how you started, continue to explore and live at peace with uncertainties, which is a norm in your future work life. I also encourage you, when you feel anxious and confused, to design for yourself before you design for others.

My work:

Inflatable Stretcher

“Inflatable Stretcher” is an emergency stretcher bag that integrates the various medical equipment required for an emergency rescue process. It provides everything the rescuer needs to handle wounds, making the rescue process more intuitive and systematic, and, as a result, preventing any injury caused by panic or misjudgment.

In addition, the compact and lightweight inflatable stretcher can be used in various emergency rescue scenarios and disasters, including water rescue, and can be used for carrying the wounded in homes, sports venues, or in ambulances.

The design started from a scenario of an old person having an accident at home. Further observation of how the injured and caretakers respond to different stages of accidents showed various design points to be dealt with. I realized there is a commonality among these problems, which are not only limited to the home environment. Therefore, I decided to develop a product that solves all these problems. Employing existing medical equipment and a professional rescue process, the product was developed into its final version, which can be used in the home environment, placed along side public Automated External Defibrillators (AED) or outdoors.



Rescue process

1. Assess the risk of injury.
2. Determine whether to move.
3. Perform bandaging fixation.
4. Expand the inflatable stretcher.
5. Relocate and wait for an ambulance.

Design

The Inflatable Stretcher was designed according to a professional rescue process incorporating the results of the following analyses.

1. Assess the severity of the injury: According to the severity of the injury in different scenarios, the stretcher can be unfolded depending on the type and severity of the injury. The front, back and unfolded bag serves the following functions: first-aid bag, fracture fix guard, stretcher.
2. Maximize common functions: A single electric air pump can inflate both the fix guard and the stretcher. The side handle and buckle of the stretcher can double as the handle and closure system of the bag, reducing unnecessary details.
3. Compact, lightweight, and easy to use: The product measures 40x30x10cm when folded. This size is easy to carry around and store away. The product, made of polyurethane, is safe and easy to disinfect. The entire stretcher can be inflated in 60 seconds. The inflated size is around 190x60x15cm, a standard size to be carried onto an ambulance. The folding instructions are also printed on the product. The inflated stretcher can reduce the impact on the neck and lumbar vertebra for those who carry it on a mountain road or in environments with other obstacles. It can also be used as a water floatation stretcher.
4. Instructions are easy to read: In addition to providing ways to assess consciousness and informing of legal responsibilities, the product also has information on how to use the equipment, such as steps to deal with different injuries, ways to use the air pump, and other information to make the rescue process smooth and correct.



For more information or discussion, feel free to leave a comment on my Behance profile:
https://www.behance.net/ginawu_design.