

2021

# 環境關懷設計競賽

| Caring for the Environment Design Competition



入圍  
Shortlisted

人氣獎第一名  
1st place

## REGENERATE 重生-移動式醫院

### REGENERATE - The mobile hospital

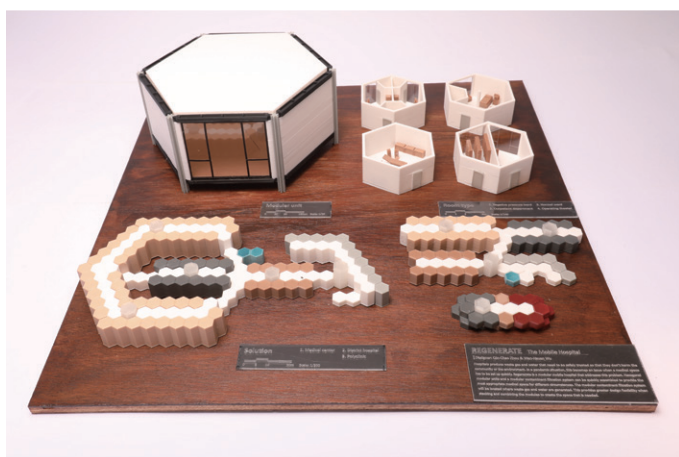
作者 Creator

周勤超/Zhou,Qin-Chao

吳宛璇/Wu,Wan-Hsuan

醫院產生廢氣和汙水需要被安全的處理，避免損害社區與環境。在傳染病大流行的情況下，必須快速設置醫療空間時，這將成為一個問題。Regenerate是為了解決此問題的模塊化移動醫院。六角形模塊化裝置和模塊化污染物過濾系統可以快速組裝，為不同情況提供最合適的醫療空間。模塊化污染物過濾系統將設置於產生廢氣和汙水的地方。在堆疊和組合模塊以創建所需空間時，這提供了更大的設計靈活性。模塊化單元使包裝和運輸的過程被大大簡化。無論位於偏遠的鄉村，沙漠地區還是受災地區，Regenerate都能為最極端的情況提供完整的設備和可定制的醫療服務。綠能發電系統將設置於屋頂層，將陽光與風力轉換為電力，為醫院提供基礎電力供給。

In order to avoid damaging the residential environment, the contaminated air and water expelled from the hospital should be processed safely. It will probably become a major issue when we have to build a medical station shortly under the circumstance of pandemic spreading out. Regenerate, a modular mobile hospital, is a solution to this problem. Since the hexagon modular unit provides more flexibilities when compiling and arranging, the modular unit designed in hexagon will increase the efficiency of the construction of the medical service station, allowing the mobile hospital to adapt to different situations. The contamination filter system, which is also modularized, will be built next to the place where the contaminated air and water are expelled. The modular units would greatly simplify the procedure of packing and transporting medical equipment. Therefore, Regenerate is able to provide the complete medical equipment as well as customized medical service in extreme conditions such as in remote suburbs, desert areas or even disaster areas. In addition, there's a green power generate system on the top of the unit, which can supply the hospital with basic electricity transformed from sunlight and wind force.



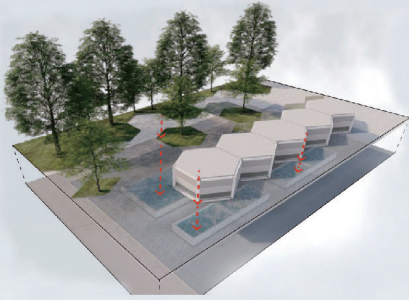
六角形模塊化裝置和模塊化污染物過濾系統可以快速組裝，為不同情況提供最合適的醫療空間。  
The modular unit designed in hexagon will increase the efficiency of the construction of the medical service station,





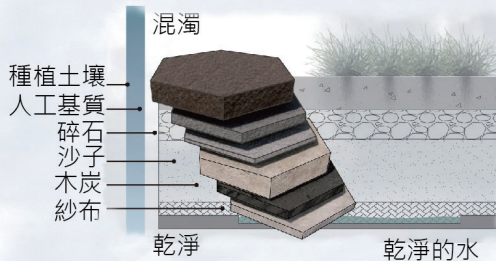
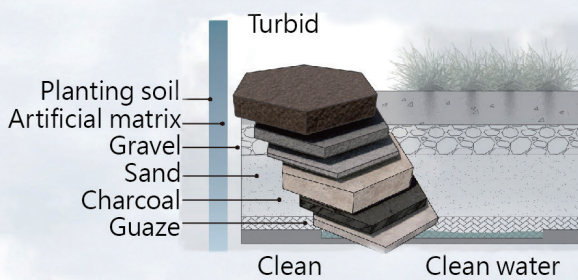
雨水蒐集系統

DETAIL DESIGN-WATER



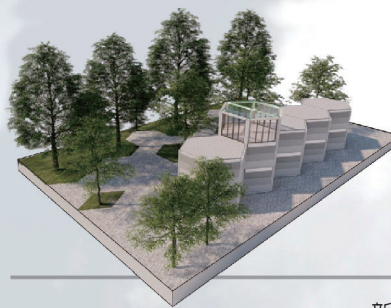
樓板下方有多層過濾結構，雨水經過過濾後儲存道集水箱，提供乾淨環保可循環利用的水資源。

There are multiple layers of filtering structures under the floor, which can be used to filter medical wastewater and the collected rain, providing clean recyclable water.



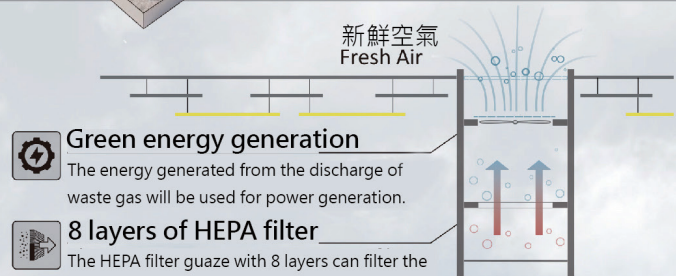
廢氣過濾系統

DETAIL DESIGN-AIR



醫院內部廢氣通過風管統一匯集至中央排氣塔，經過HEPA濾網過濾後排出，避免細菌、微生物造成外部空氣汙染。

Plants can provide external fresh air, while the internal exhaust gas from the hospitals can be expelled through the filtration of ventilation towers to avoid air pollution due to bacteria and microbes.



Green energy generation

The energy generated from the discharge of waste gas will be used for power generation.

8 layers of HEPA filter

The HEPA filter guaze with 8 layers can filter the virus and bacteria in the air.

綠色能源發電

排放廢氣產生的能量將用於發電。

八層HEPA醫療級濾網

八層HEPA濾網過濾空氣中的病毒和細菌。



自動澆水系統

Automatic watering system

Waste water is filtered and used in irrigation systems to achieve recycling of water resources.

醫療廢水經過過濾後用於灌溉系統，實現水資源的循環利用。