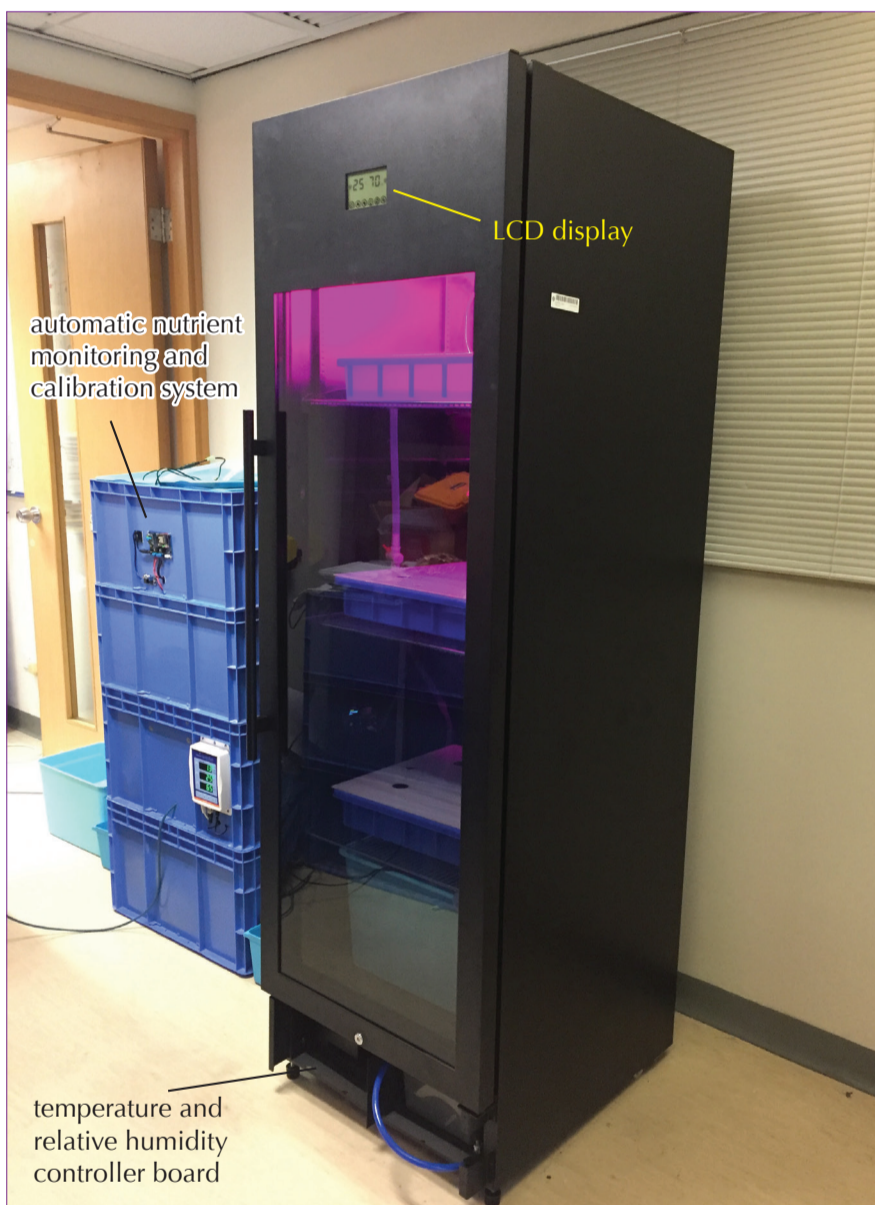


智能室內植物種植系統 Smart Indoor Cultivation Platform

適用於市區的全天候室內種植系統
24-7 system for efficient indoor farming in urban buildings

此高性能室內植物種植系統採用了多項新科技，當中包括嶄新的高效光合活性輻射照明系統、水培和氣培灌溉系統、網絡傳感網絡，以及配合種植生長優化檔案的新穎環境控制等。該系統可安裝於城市建築物內，有助善用室內空間種植蔬菜，從而維持可持續和穩定的食物供應。適合以此系統種植的植物種類繁多，例如沙律菜、馬鈴薯、紅菜頭和香草等。



智能調溫控濕種植箱
Intelligent Environmental Growth Chamber

This high performance plant cultivation platform integrates several novel technologies, including innovative effective photosynthetic-active-radiation lighting system, hydroponic and aeroponic irrigation systems, network sensing, and novel environmental control that corresponds to optimized growth profiles. It can be set up in urban buildings for sustainable and stable supply of plant vegetables. Plants suitable for this cultivation platform include salad greens, potatoes, beets, herbs, etc.

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特色與優點

- 自動化的種植過程提高食物安全
- 可控制的光照系統能加快植物生長
- 自動化的環境感測和控制系統為不同植物提供最佳的生長環境
- 為建立各植物的生長檔案提供數據收集和平台
- 電腦系統控制施肥程序
- 可調節規模和多變的模組設計可靈活地配合都市環境
- 比傳統種植方式減少百分之95用水

應用

- 室內農場
- 建立各植物生長檔案的研究平台

獎項

加拿大國際發明創新比賽2016 - 銀獎 (2016年8月)



具備自動養份監測及校驗功能的室內種植架
Growth rack with automatic nutrient monitoring and calibration system



大型室內農場
Large-scale indoor farm

Special Features and Advantages

- Improvement of food safety by a fully automatic process
- Programmable photoperiod and light intensity with specific wavelengths to promote growth
- Optimal growth environment for different plant species using sensors and an automatic control system
- Provision of research platform for developing optimal growth profiles with automatic data collection and analysis
- Plant nutrient control using a computer controlled nutrient feeding technique
- Flexible installation for urban environment with modular and scalable design
- Reduction of water consumption by 95%

Applications

- Indoor farms
- Research platform for building up plants' optimal growth profiles

Award

Silver Medal, iCAN 2016 International Invention Innovation Competition in Canada, Canada (Aug 2016)



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