

Sherpa Farm

Complex indoor smart and container farm environment with automated precision controls

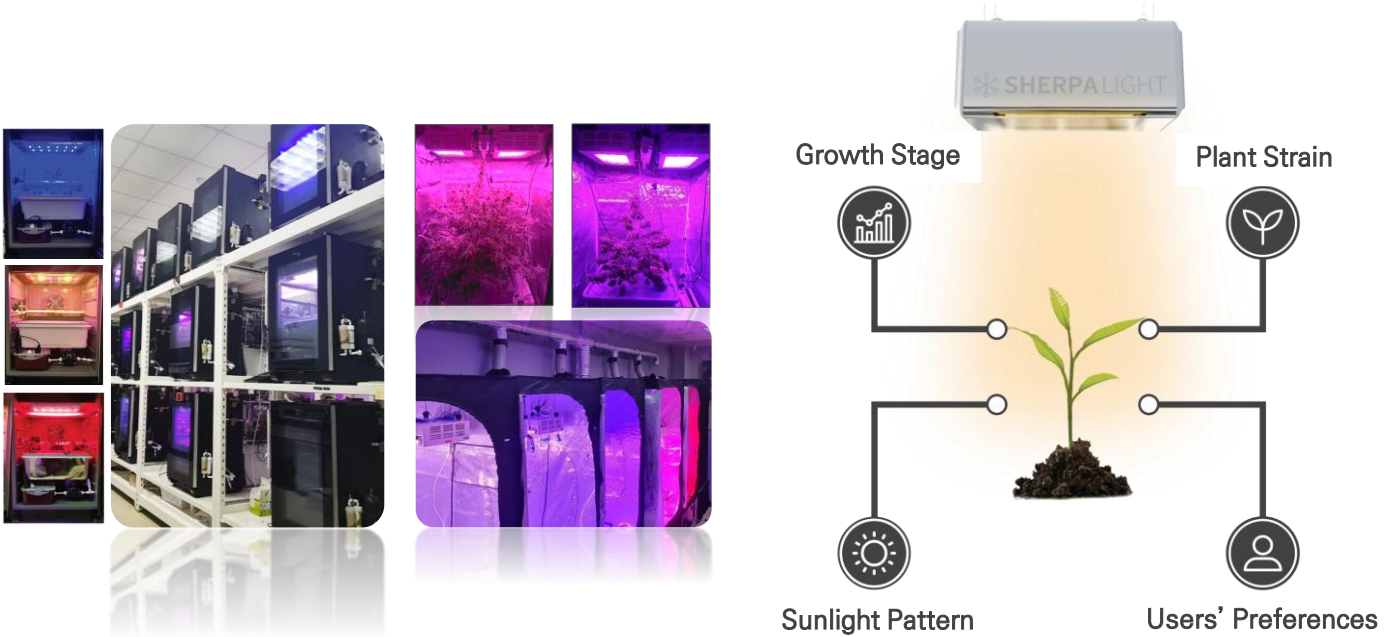


Sherpa Space

Sherpa Farm is a complex indoor smart farm environment designed to improve crop quality and optimize cultivation/harvesting with precision controls

Light Recipe Database

Through Sherpa Space data mining infrastructure, we can identify plant requirements for each crop and growth stage to develop new and improved light source recipes. In addition, we secure growth data and provide cloud-based database services.

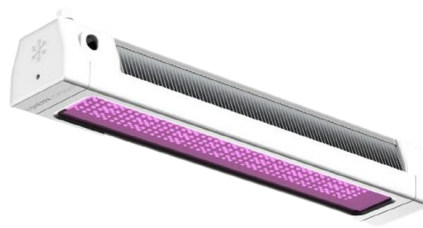


Sherpa Space Lighting Technology

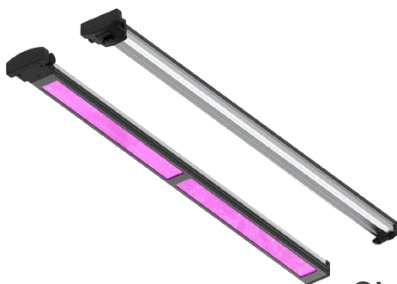
Sherpa Space integrated lighting products can provide customized and full spectrum tunable lighting technology based on the needs of the crop at each stage of grow. Sherpa Space's patented light tuning technology, reduces energy consumption, while maximizing crop quality and yields.



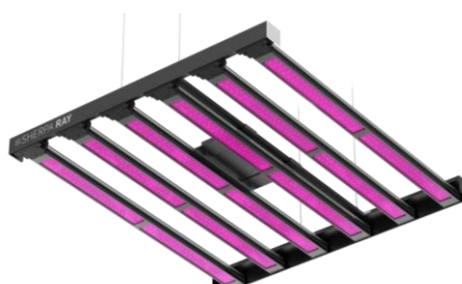
Sherpa Light
(SL-650)



Sherpa TopLight
(SL-600)



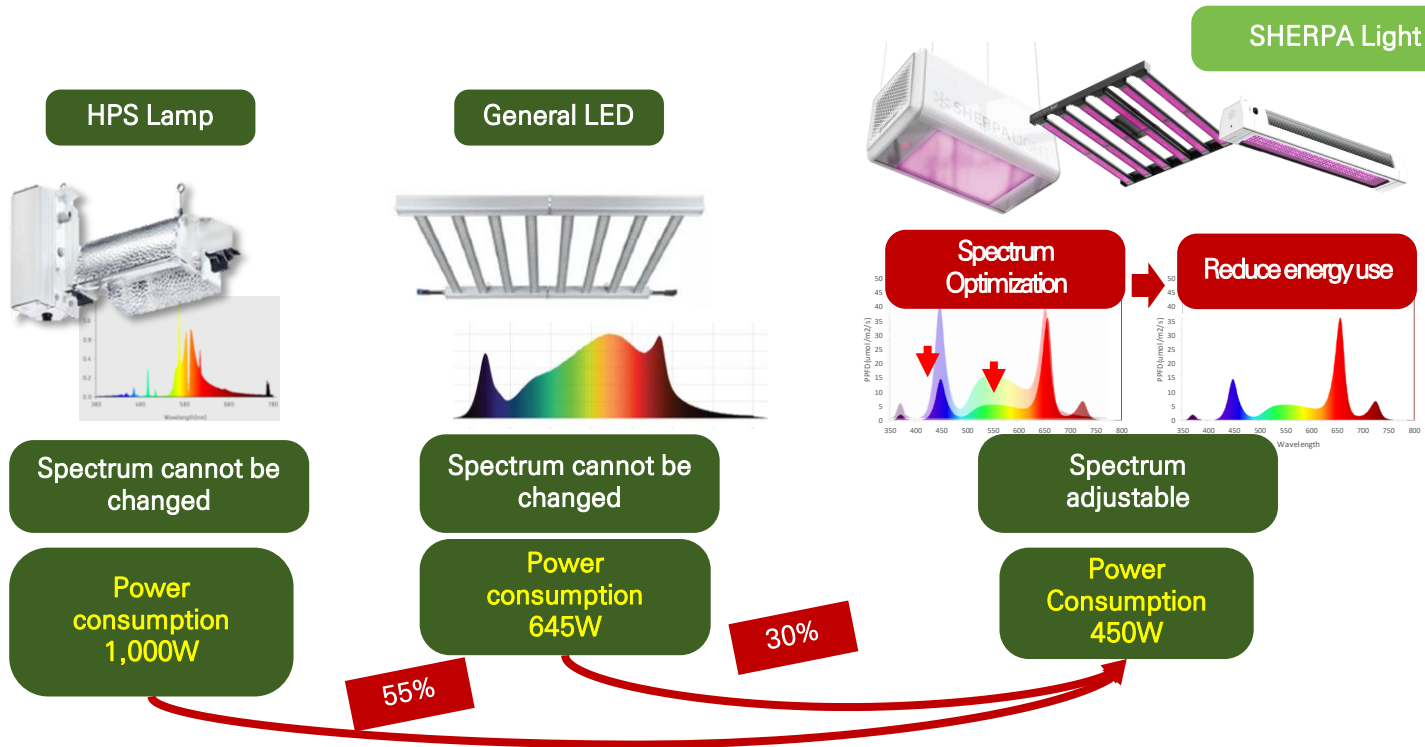
Sherpa Ray
(SR-100)



Sherpa Ray
(SR-600)

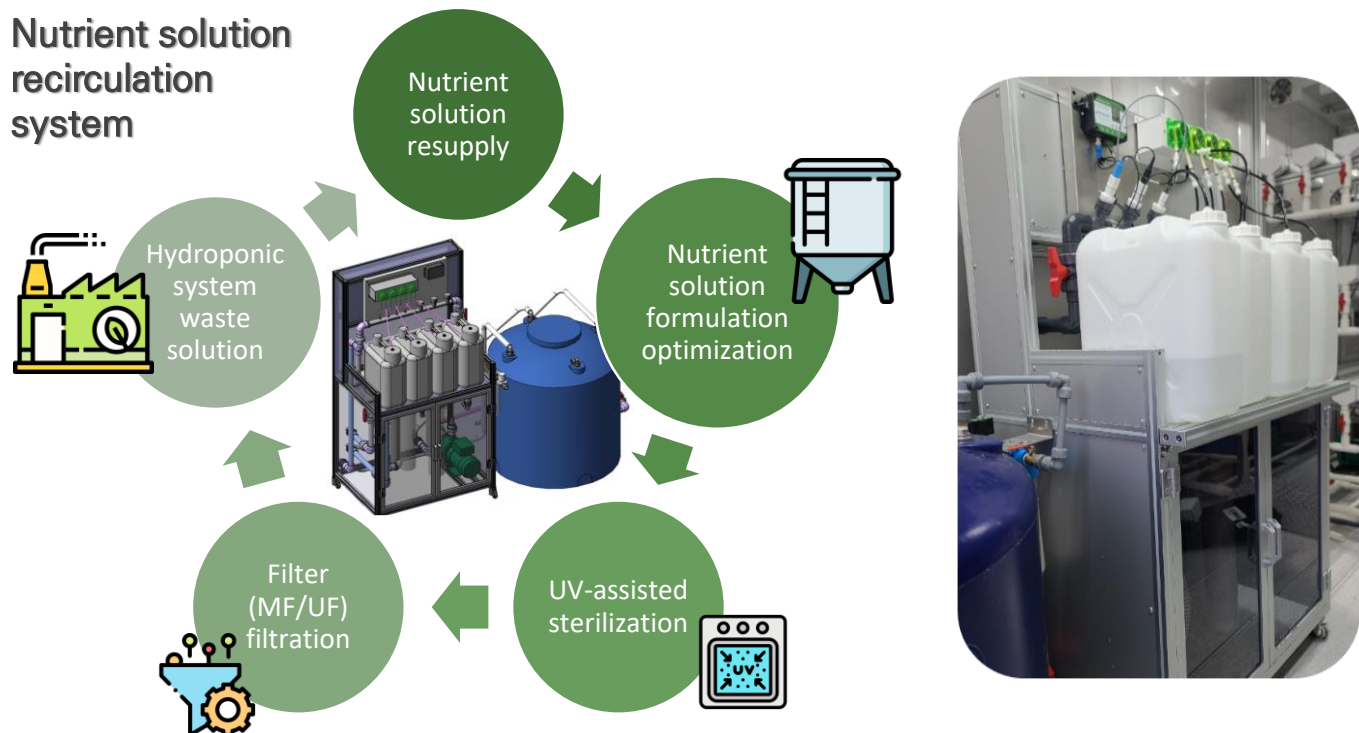
Light source energy efficiency

With Sherpa Light and Sherpa Ray's Dynamic Spectrum technology, energy savings can be up to 55% compared to conventional lighting technology.



Recirculating nutrient solution system

With our expertise in water treatment technology, we use our own nutrient solution recirculation system to reduce water usage and increase ease of management. According to user needs, customized nutrient solution can be automatically manufactured and managed in real time.



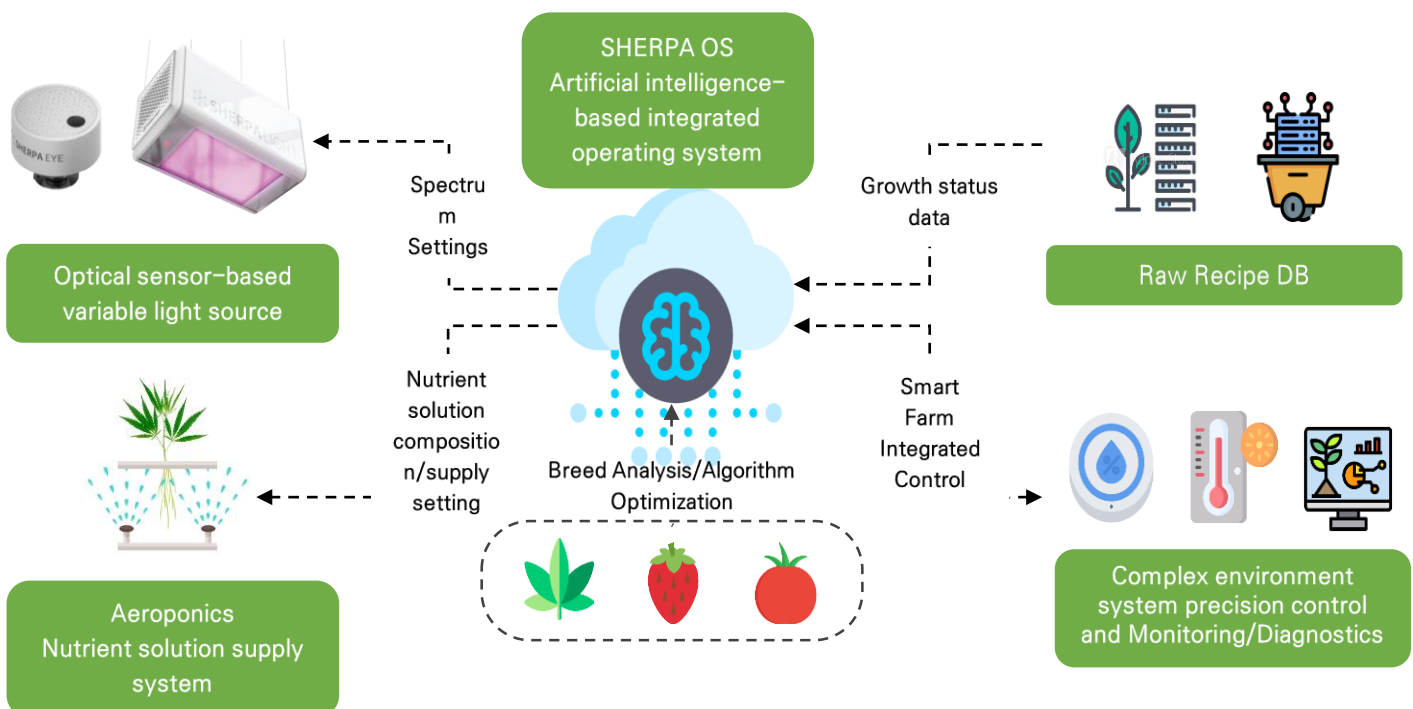
Cultivation and air conditioning system

Reflecting customer needs, we supply cultivation systems of various cultivation methods (drip type, NFT, freshwater type, spray scope, etc.). The air-conditioning system within Sherpa Farm enables automatic and precise control (temperature, humidity, CO2) to the right environment for growing crops.



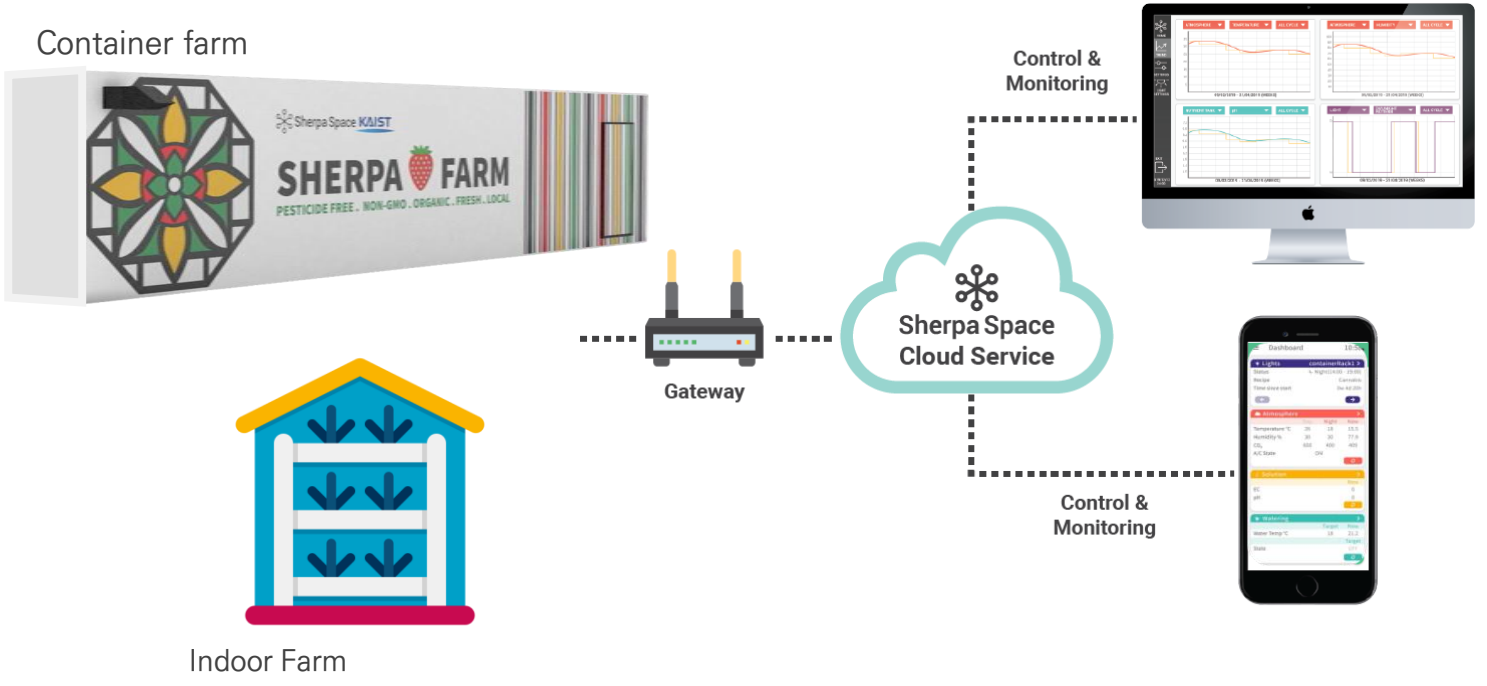
Complex Environment Precision Control Platform

AI-based integrated control can optimize the cultivation environment by variety/growth stage. It is a data-based integrated automatic control monitoring service considering the complex environment to control various element technologies of the environment, such as artificial lighting, nutrient solution control, indoor environment (temperature/humidity, airflow, CO2) control, etc., as an optimized environment for crop cultivation.



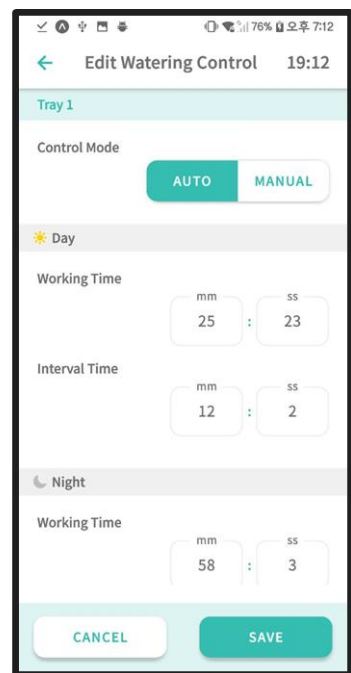
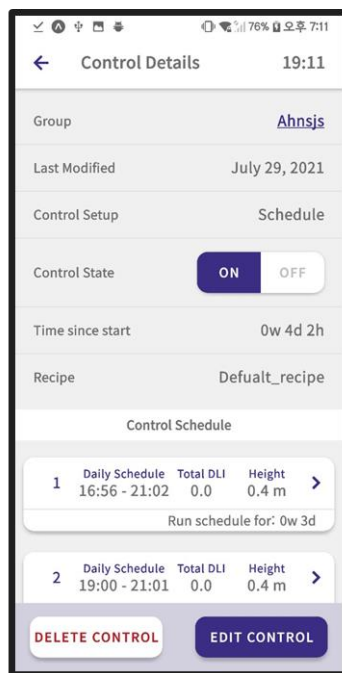
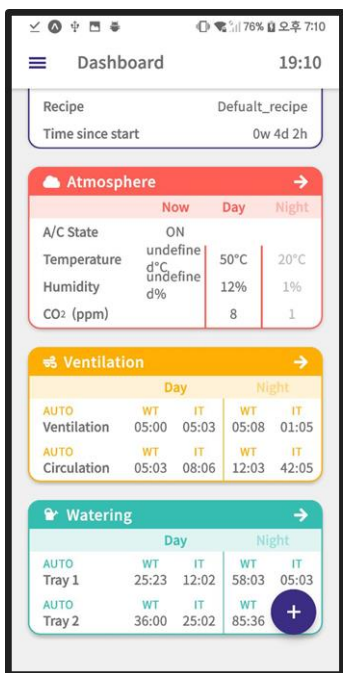
SHERPA FARM APP Service

Cloud-based Sherpa Farm software and apps enable real-time monitoring, remote control, and history management for user convenience.



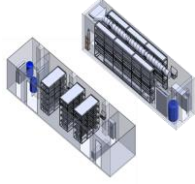
Sherpa Farm APP – Integrated Automatic Control System

The integrated automatic control system within the app enables system-specific monitoring and control settings.



Sherpa Farm Service Status

Rather than a one-size-fits-all system, we supply various hydroponic systems (drip, NFT, freshwater type, spray, etc.) to various spaces (containers, idle building spaces, etc.) reflecting customer needs.



Rooftop greenhouse
(Strawberry)

Container /
Indoor Farm
(Leafy vegetable)

Container farm
(Cannabis)

Indoor Farm
(sprout barley)

Container farm
(vegetables/
strawberries)

Container farm
(Cannabis)

Drip

NFT

Drip

Freshwater


Drip/NFT

Drip/Spray

Specifications

		Container farm	Indoor Farm
1	Cultivation system	<ul style="list-style-type: none"> • Cultivation method: NFT, fresh-liquid type, spray type, drip type, etc. customized production • Number of cultivation units: Basic 3 steps • Number of weeks of cultivation: Varies depending on the cultivation method 	
2	Light source conditions	<ul style="list-style-type: none"> • Light Spectrum Control with Customized Variable Wavelength Film (360-750nm) 	
3	Temperature range	<ul style="list-style-type: none"> • 10~30 degree 	
4	Humidity range	<ul style="list-style-type: none"> • 50~90% 	
5	Input voltage	<ul style="list-style-type: none"> • 380 AC (3-Phase) 	
6	Electric power	<ul style="list-style-type: none"> • Approx. 20 kW (depending on configuration) 	<ul style="list-style-type: none"> • Depends on configuration
7	Size	<ul style="list-style-type: none"> • 12.1 L x 2.4 W x 2.8 H m (40' Container farm) 	<ul style="list-style-type: none"> • Depends on configuration
8	Weight	<ul style="list-style-type: none"> • 7~8 Ton (depending on configuration) 	<ul style="list-style-type: none"> • Depends on configuration

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