聯動感應燈管解決方案
Solutions To Sensor +Linkage Lighting

量身定製高效能優化方案
促進能源系統應用效率提升

Tailored to provide efficient optimization solutions. Promote the application efficiency of energy system

傳統的車庫照明

優化前耗能

- (1) 無論是否有人，24小時長開，能源浪費。
- (2) 感應走到哪里亮到哪里，前方可視範圍窄，體驗差。
- (3) 有線控制回路實現節能，佈線複雜，安裝成本極高，調整不便。

優化

感應聯動車庫智能照明系統

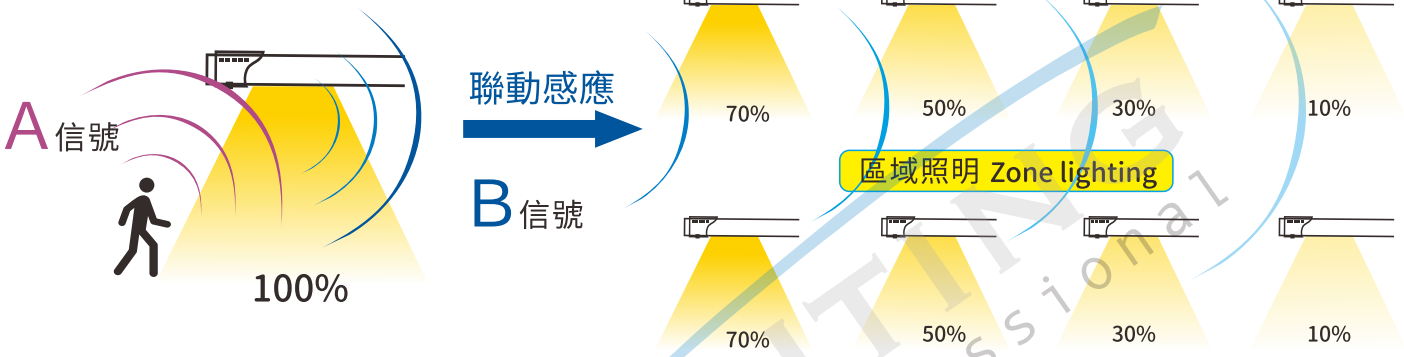
耗能降低

- (1) 根據場景，按需照明（導航照明）。
- (2) 更節能省電，亮度、延時、控制距離可按需定制。
- (3) 免網關，自帶組網系統，使用成本更低。
- (4) 無需現場調試，免手動開關操作。
- (5) 燈具自主網互聯,可分5組不同場景區域照明。
- (6) 可配合不同感應器一起應用（微波/人體紅外/聲音/光敏感應）。
- (7) 不需要做計劃，如有燈管壞掉直接換掉就可以，無需專業人員去維護。

系統原理
System Principle

Zone Lighting

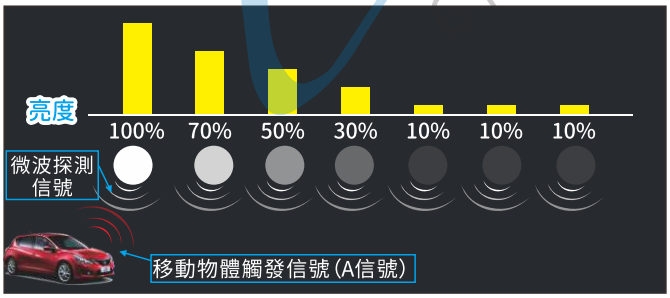
感應聯動照明



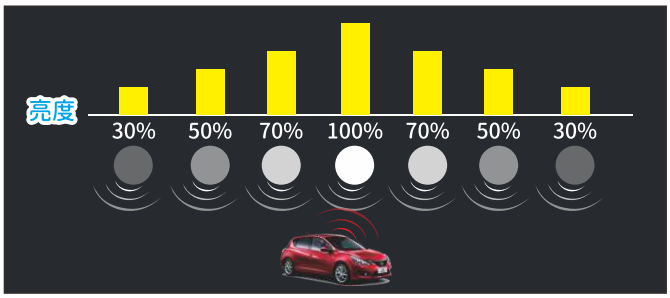
當第1根燈管感應到信號A時，就會發出無線波信號B，附近的燈管都會接受到該信號。

離得近的接受信號強，遠的接受信號弱，燈管會根據接受到的信號強弱發出不同亮度的光，如果沒接收到信號燈管則不響應。

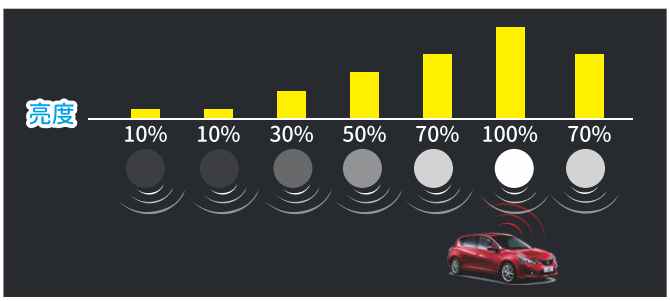
感應聯動車庫智能照明系統



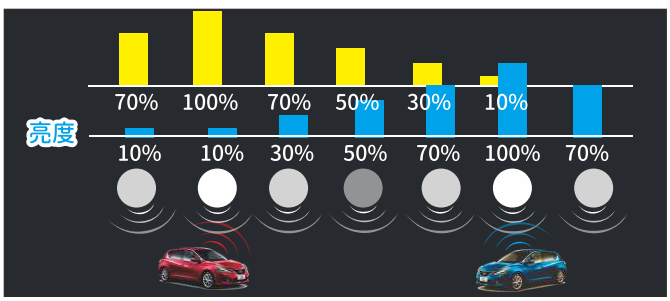
一、車輛進入地下車庫，微波感應到A信號，亮度100%，同時發出無線信號（B信號），通知附近相鄰的燈依次亮起70%，50%，30%亮度。



二、車輛駛入，微波感應到的燈依次亮起100%亮度，之前的節點延時後，根據遠近輸出70%，50%，30%亮度。（導航照明，波浪照明）



三、無微波感應信號A，且沒有無線命令B之後，燈進入休眠照度。(10%或指定亮度)



四、多車輛檢測時，附近感應燈會收到多條無線控制指令，只讀取最高亮度指令。(亮度優先)

Zone Lighting Solution :
Microwave Sensor & Group Linkage Lamps

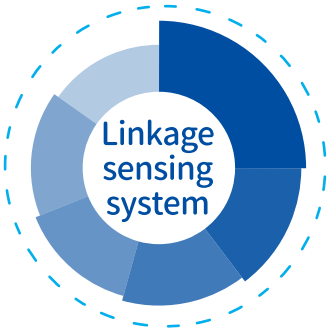
Tailor-made high-efficiency optimization solution

Improve energy system application efficiency

Traditional carpark lighting system

Improvement

Intelligent zone lighting in carpark system



Traditional

- Energy waste : Whether or not there are people, 24 hours full power operate.
- Apply individual motion detection lighting system.
- only one of the sensing tube will response brightness when detect movement object, other nearby adjacent lights no response.
- It is inconvenient to adjust detection area. Narrow front visibility for driver in car park.

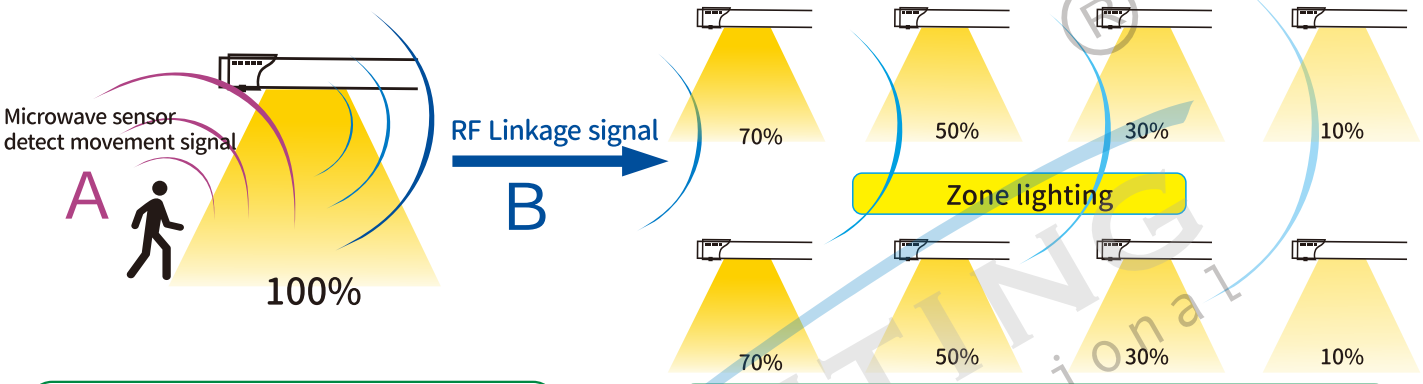
Reduced energy consumption after optimizatio

- Depending on the scenario, provide navigation lighting
- More energy saving, delay & control distance can be customized as needed.
- No need gateway, has its own linkage networking system, cost is lower.
- No need in site setup system network, Easy operation.
- Linkage network can be divided into 5 groups of different scene areas for independently lighting.
- Can be combined used different sensors . (microwave/infrared/sound/photosensor)
- No need professionals to maintain network. if one of the linkage lamp is broken, it can be replaced directly.

Zone Lighting System Principle

Zone Lighting

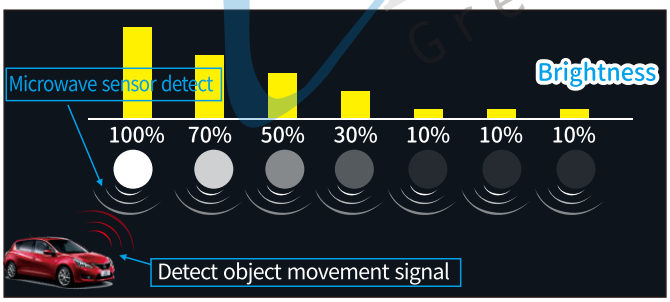
Linkage tube how to trigger zone lighting network



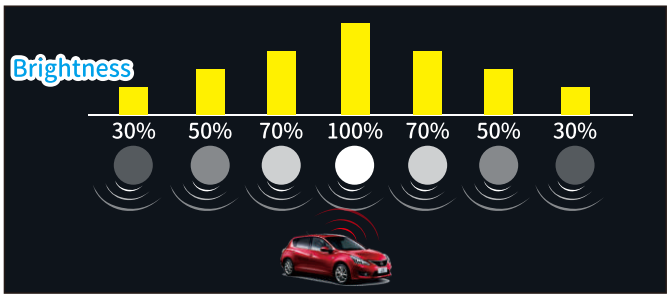
When the linkage tube senses the signal A, it will send out the RF signal B, and the nearby light tubes will all receive the RF signal B.

All adjacent tube received RF signal B. All the adjacent tubes will change the brightness depend on distance, according to the distance, some outputs 70%, 50%, and 30% brightness (navigation lighting). No response if tube can't received signal B.

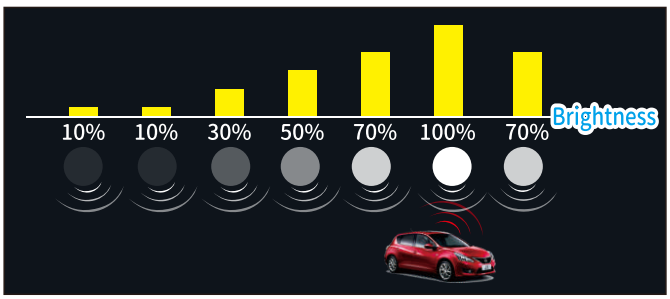
Linkage sensor tube apply in car park concept



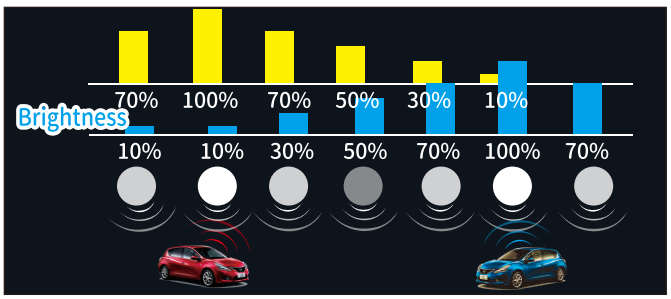
1. Any car enters the carpark, the linkage tube detect movement signal A , will change the tube brightness become from 10 to 100%, as the same time send out a RF signal (B signal) to nearby adjacent lights. All adjacent tube depend on distance, will change the brightness, turn on form 70%, 50%, and 30% so on .



2. When the car movement , the tube will change to 100% brightness when detect car movement . All adjacent tube depend on distance, will change the brightness. it outputs 70%, 50%, and 30% brightness according to the distance. (navigation lighting mode)



3. No any object movement , All tube in standby mode . (10% or specified brightness)



4. When more than one car are detected in difference location, the detect tube will affect all nearby adjacent lights to navigation lighting mode. The adjacent lights design to brightness priority, the brightness all depend on the received RF signal level.