

# PRO-UNITED

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CIC ZCB, the first zero carbon building in Hong Kong

## CIC Zero-Carbon Building When Audio Visual meets Green

By Tracy Wong

The first zero carbon building (ZCB) in Hong Kong is a joint project by the Construction Industry Council (CIC) and the Development Bureau HKSAR Government. The ZCB is located in Kowloon Bay, with a total area of 147,000 square feet, comprises a Zero-Carbon building and a green open space.

The building is a pioneer project to showcase state-of-the-art eco-building design and technologies to the industry and general public. It has achieved BEAM Plus Platinum rating, the highest rating for excellent building environmental performance.

### Project Scope

This project aims to serve as an education platform to showcase green building technologies and low carbon living to the industry, the public and student. The building controls and monitors its real-time energy use through a comprehensive Building Management System with smart control with over 2,800 sensing points.

### Pro-United Solution

#### A Buoyant and High-Tech Exhibition Tour

ZCB collaborated with Pro-United to build an interactive

education platform by designing an instantaneous tour guide system, multi-media game stations and a 3-D projection in the multi-purpose hall, which are all complying the BEAM Plus Platinum energy efficiency standard.

The tour guide system adopted Bosch Integrus language distribution system, because it is an infrared system, visitors could listen to the audio description simultaneously at different exhibition points and move freely around the location. This Bosch system is commonly used in commercial conferences.



Interactive Game Booth: showcasing the principles of the zero-carbon building

Interactive Game Booth: rounded projection with capacitive sensor



## When Audio Visual meets Green

One of the beauty of this tour guide system is that it is activated by iPad. The tour guide can control the whole audio visual system using an iPad. At different points of the exhibit, the tour guide can play the corresponding audio and video clips to the visitors. Thus creating a better learning atmosphere.

Another standout point of this system designed by Pro United is that it can cross human talks over audio clips that are related to different exhibits. In this way, a more flexible and interactive learning experience is created.

The multi-media game stations play educational videos and interactive games. To build these booths, Pro-United devised a round-shaped projected and

multi-touch game platform by precision calculations and engineering.

The platform used capacitive sensor technology, which enables a rapid respond to visitors' touch or motions and generates a fun and interactive learning experience for the visitors.

The cinema grade 3-D projection system in the multi-purpose hall that delivers true-to-life colors and high quality images is one of the few excellent projection system in Hong Kong. Which gives audiences a more surreal visual experience and understanding of climate change.

# When Audio Visual meets Green CIC Zero Carbon Building

## AV x Intelligent Building Management System (BMS)

Pro United is the pioneer of its industry to work on an environmental compliance project. This is a challenging project as there is no existing interface that can incorporate the control of AV system to the intelligent BMS. The system designer at Pro United created an interface that can integrate AV system into the BMS, which uses an iPad interface. The beauty of the iPad interface is that it aids the tour guide system, it is easy for the tour guides to use and they can activate the show and exhibits in real-time and remotely. In terms of energy saving, the logic flow and power control of different equipments in the simultaneous tours are all controlled by the iPad system. This can optimize the energy use and minimize energy wastage. The professional team in Pro United is always striving our best to provide excellent quality service and innovative solutions for our client, as a result, the outcome of the ZCB project is superb.



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**Bosch - Integrus  
Language  
Distribution System**  
Used in the tour guide  
system for a clear  
interpretation.

