

Containerised Plant Factory and Building Automation Solutions for Eco-friendly Living at JTC's Punggol Digital District in Singapore



The containerised smart plant factory integrates Delta's industrial automation, DC brushless fans, and LED lighting systems to create optimal environmental conditions for the cultivation of eco-friendly vegetables.

In addition, Delta retrofitted the PDD site gallery with its Building Automation Solutions to nurture companies and educate next generation talents on smart living solutions. Building systems, such as air conditioning, lighting, energy management, Indoor Air Quality (IAQ) monitoring and surveillance are all managed on a single platform by adopting LOYTEC's IoT-based building management platform and building control systems.

Delta's building automation solutions installed in the PDD gallery also offer benefits such as human-centric lighting control with circadian rhythm, indoor air quality monitoring and control, smart energy metering, crowd detection and people-counting. These functions are all seamlessly integrated into PDD's Open Digital Platform, which allows remote monitoring and machine learning of usage patterns to obtain the building operation performance and achieve Delta's goal of a smart, healthy, safe, and efficient life. Delta's building automation solutions can help a building project to obtain up to 50 out of 110 points of the total LEED green building rating system as well as up to 39 points of the 110 points of the WELL building certification.