

Controlled-Environment Greenhouse



Agriculture, Fisheries and
Conservation Department

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Smart Controlling System

From the Editor

Smart greenhouse is a prevailing trend of greenhouse development. The use of simple smart devices to control facilities in the greenhouse, such as the irrigation and temperature controlling systems can bring efficiency to greenhouse operations. This issue of the newsletter will briefly introduce the installation and functions of the smart controlling system.

In general, the smart system sends and receives signals primarily in the greenhouses through the wireless network provided by network interface cards, routers and gateways to connect the smart irrigation system, soil sensor and the temperature controlling system.

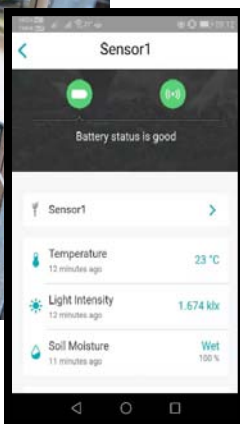
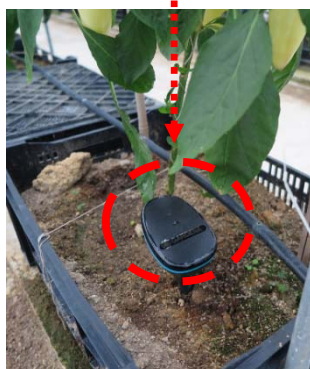
Smart irrigation system

The irrigation system comprises the water valve controller and electronic water valves, which supports the simultaneous operation of multiple electronic water valves. Each electronic water valve can be remotely controlled and scheduled through mobile application.



Soil sensor

Detects air temperature, light intensity and soil moisture and uploads the data.



Program showing:

← Temperature

← Light intensity

← Soil moisture



Temperature controlling system

The temperature controlling system controls the ventilation system, cooling sprinklers and shading nets, etc. according to the real time conditions of the greenhouses. It can also be remotely controlled and scheduled.



The smart controller of the ventilation system, cooling sprinklers and shading nets



AFCD Home Page:
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