

Future of cultivation by the **Android**



Smart Plant Factory

displayed at "Droidcon London 2013"



About Smart Plant Factory

Smart Plant Factory cultivates plants using hydroponics and artificial lighting in a completely controlled environment. Internally, it is equipped with Android OS which enables it to measure environmental information, record growth status, and control the environment through Android apps. There is an infrared touch panel and a transparent LCD in front of the Smart Plant Factory. Users can check environmental information and enter cultivation records while looking at the plants inside the machine. The recorded data is stored in the cloud so the plant's status can be checked on the go using a browser. Not only it is possible to check



Explanation of function about Smart Plant Factory



Measurement of environmental information

Air temperature, water temperature, humidity, atmospheric pressure, CO2 density, and RGB lighting can all be measured through various types of sensors that are installed within the plant factory. Measured values are shown in a graph on the screen and are stored in the cloud.

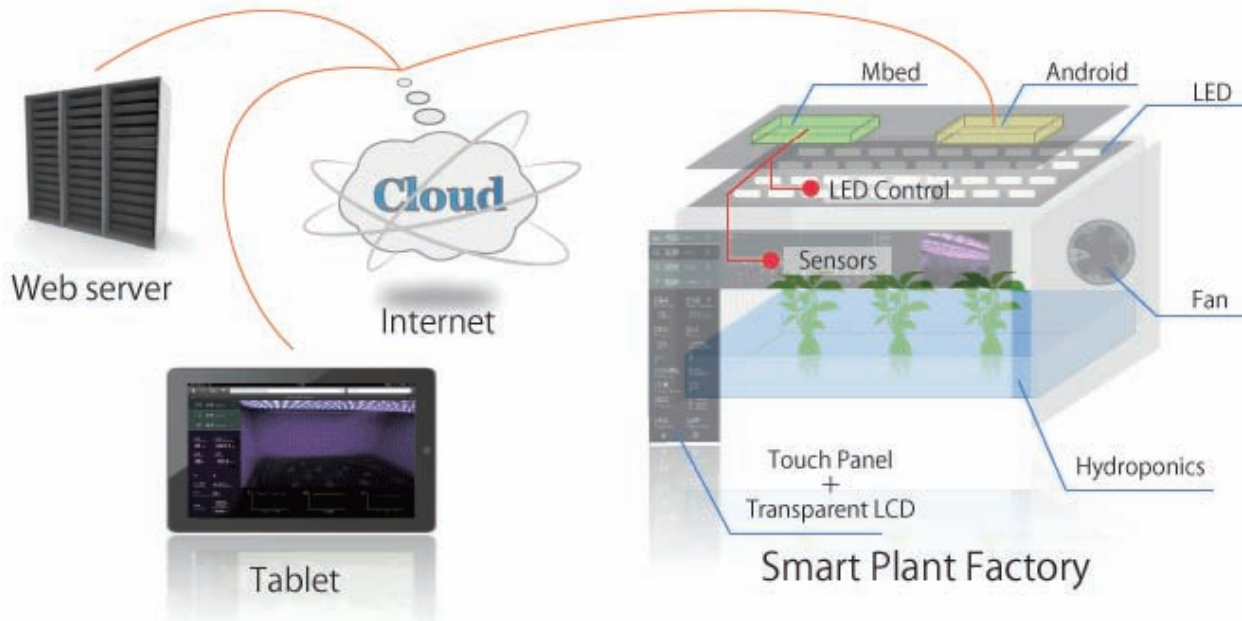
Cultivation record

Comments and pictures taken by the internal camera of the plant factory can be saved as a cultivation record. This information can even be posted on Facebook.

Environmental control

The internal environment factors of the plant factory, such as day length, light wavelength, water temperature (heater), and air flow, can all be controlled. These factors can be controlled not only through the screen in front of the unit, but also externally through a web browser.

Smart Plant Factory Mechanism



Ability of smart plant factory

1

Safe vegetables you can grow in your own home.



There is great concern over food safety nowadays. Would you consider growing vegetables on your own? Smart Plant Factory uses Android to manage the various conditions necessary for growing vegetables. It will give you the "great taste" and "safety" that you are looking for.

2

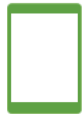
Checking plant status on the go.



Smart Plant Factory enables you to share images and various status on your mobile device via a network. You can see the appearance of your vegetables even when you're on the go so you don't have to worry about going on short vacations.

3

Controlling the status using a Smartphone or a tablet.



You can control various conditions necessary for growing vegetables inside the Smart Plant Factory, such as lighting, water temperature, and air flow, right from your smartphone or tablet. You can work from the plant factory itself using a screen displayed on a transparent LCD. By performing management through Android, you can even take on the challenge of growing vegetables that are difficult to grow because you have complete control of delicate settings.

4

Sharing information on social networking sites. Growing a kitchen garden together.



As your vegetables grow, you can upload images and create posts of your work on social networking sites to share them with everyone. You may even be able to seek advice from experts when you encounter cultivation problems. You can enjoy growing vegetables with everybody as though it was a game.

Contact



+81-3-3227-3531



plant-factory@seraku.co.jp

WEB SITE

<http://smart-plantfactory.seraku.co.jp/english/>



Smartphone app development / web application development
embedded Android development / resident engineer
Nishishinjuku Kimuraya Building 6F, 5-25 Nishi Shinjuku 7-chome,
Shinjuku-ku, Tokyo 160-0023, Japan