

NextDrive KK

NextDrive Co., a startup in Taiwan that develops IoT solutions including gateway & sensor devices, established NextDrive KK in Minato Ward, Tokyo, in January 2017. The company provides smart energy management solutions through a wide variety of independently developed technologies, including hardware, software, clouds and apps, and is now attracting a great deal of attention in Japan. We interviewed Shawn Shih, Representative Director of NextDrive KK.

NextDrive Co., a startup in Taiwan that provides smart energy management solutions for homes and businesses, established a Japanese corporation, NextDrive KK (NextDrive) in January 2017. In September, the company moved from a service office to its present three-story building. Its products include the NextDrive Cube J Series (Cube J), one of the smallest IoT gateways in the world.



NextDrive KK in Minato Ward, occupying the whole building.

IoT making life more convenient

Stepping into the NextDrive entrance in Minato Ward, Tokyo, I found a thin, diamond-shaped sensor on the door. Shawn Shih, Representative Director of the company, showed me his smartphone and said, “My smartphone just got a message that the entrance door had opened.” He explained that, when equipped on a door, “Motion pixi,” a motion sensor, detects movement and communicates it through Cube J, a miniature IoT gateway, to a smartphone. Mr. Shih pointed

at the camera at the entrance and said, “This camera is also connected to the gateway and all visitors entering here are recorded on video.”

Cube J, the company’s main product, is an IoT gateway measuring 5 cm or less in both length and width that is plugged directly into an outlet. It corresponds to the wireless standards of Bluetooth, Wi-Fi and Wi-SUN and can be used for home security as well as other purposes, such as power management based on HEMS (home energy management systems) and health management, depending on the type of device connected. Regarding health management, for example, one can see the relationship between your living environment and your blood pressure by connecting a temperature-humidity sensor and a hemomanometer to Cube J. By activating temperature-humidity sensor alerts, it will notify you when temperature exceeds a certain level.



Cube J Series and its peripherals provided by NextDrive KK

Power liberalization and the path toward HEMS

At Computex Taipei, NextDrive got motivated

to expand its business into the Japanese market at Computex Taipei, a trade fair on global information communications and IoT technology. At Computex in 2015, the company met Internet Initiative Japan (IIJ), a Japanese corporation providing integrated solution services, including internet connections. IIJ made an emphatic appeal to NextDrive to enter the Japanese market.

On top of that, liberalization of the power retail market in Japan in April 2016 convinced NextDrive that they can expand their business in Japan. As a developer of both hardware and software of IoT products, NextDrive saw the potential for various fields of business, especially HEMS.

Another factor that influenced NextDrive's business expansion into Japan before other overseas markets was the recent standardization of Japanese wireless networks. In 2013, the Tokyo Electric Power Company decided to adopt Wi-SUN as the standard for wireless communication systems between smart meters and energy management systems in homes and businesses. Japan was the only country that had unified wireless standard. In the US, for example, wireless standards vary depending on both states and corporations. Taiwan did not have a unified standard until 2017. They decided on setting up a base in Japan as they believed that its unified standard would make the country ideal for research and development aimed at expanding the HEMS business.

Collaboration with Japanese corporations and universities

NextDrive has been conducting research and development on Wi-SUN standards in collaboration with Japanese corporations, such as IIJ, and universities, such as Kyoto University. "The Japanese government plans to have all homes equipped with smart meters by 2023. This would require approximately 80 million

smart meters. The sheer size of such market is likely to drive the development of new service and apps," says Mr. Shih. Outside of Taiwan, where its headquarters are located, Japan currently accounts for the highest share of the company's sales. It is now developing Cube J especially made for the Japanese market, which has become an important foothold for research and development and marketing.

In the future, it expects to use this collaboration to venture out into Southeast Asia and the world. Mr. Shih says, "Japan has built good relations with Southeast Asia. By partnering with IIJ, which has already expanded into the region, we plan to develop into the global market. Japan, lacking in natural resources, has become a leading country in energy management and energy conservation. If these systems or models become successful in Japan, they will surely be successful in Taiwan, Southeast Asia and China." Mr. Shih emphasized the importance of collaboration with Japanese corporations.

B-to-B-to-C business model

Presently, NextDrive's Japanese office has a staff of six, including Mr. Shih and members of the research and development team. These individuals are developing a B-to-B-to-C business model. "For example, we provide our solutions to power companies and the power companies provide our solutions to their customers. If each customer is able to save electricity by 10% through our system, it would enable the whole country to save a tremendous amount of electricity. This idea will also offer an advantage to the power companies by allowing them to acquire big data concerning the usage of electricity by their customers," says Mr. Shih. By the spring of 2018, NextDrive expects to finish refurbishing its headquarters. Research and development, and customer service, will reside on the third floor, and their showroom for HEMS on the first. To achieve its goals,

NextDrive is now searching for additional engineers and customer support staff.



NextDrive KK CEO Shawn Shih

JETRO's support

JETRO provided NextDrive with a temporary office space, introduced a certified tax accountant and administrative scrivener and offered consultation on how to establish a corporation.

Mr. Shih expressed thanks to JETRO for its

service, saying, “When we first came to Japan to establish a corporation, JETRO granted us with a temporary office space free of charge. It greatly helped us. We are also still receiving the service from those professionals introduced by JETRO.”

Startups in Taiwan are attracting a great deal of attention

With its “Asian Silicon Valley Project,” Taiwan is now promoting the expansion of business into foreign countries through collaboration between Taiwanese startups and overseas corporations. Like NextDrive, a model case of this effort, active collaboration between Taiwanese startups with innovative technologies and Japanese corporations will be expected to increase in the future.

(November 2017 interview)

Company history

- 2014 Establishment of NextDrive Co. in Taiwan
- 2017 Establishment of Japanese subsidiary NextDrive KK in Minato Ward, Tokyo

NextDrive KK

Establishment:	2017
Business:	Development of products such as wireless network electronics and sensor devices related to IoT. Development and marketing of IoT service and HEMS solutions.
Parent company:	NextDrive Co.
Address:	3-19-22 Nishiazabu, Minato-ku, Tokyo 106-0031
URL:	https://jp.NextDrive.io/

JETRO's support

- Consultation on establishing a corporation
- Introduction of a certified tax accountant and administrative scrivener
- Provision of a temporary office