

Food Distribution

Vending Machines
Store Distribution



Outlook

Vending Machines

In this past 5 years or so since Fuji Electric started considering how vending machines could be made more interactive, we have examined a variety of mechanisms. We have promoted the realization of digital signage vending machines utilizing large screens, linkage with smartphones, and bi-directional communication through voice recognition, facial recognition and gestures. On the other hand, beverage manufacturers started rapidly providing point services by linking vending machines with smartphones in FY2016.

The aim is to lock in customers. When an application that can link with vending machines is installed in a smartphone, beverage coupons or giveaways can be offered according to the points that are given for every purchase from a vending machine. The obtained coupons can also be given to others as a gift, thereby serving as a tool for connecting people. Beverage manufacturers have been implementing various ideas. For example, when a person passes near a vending machine that provides this service, the location of the vending machine automatically pops up on their smartphone as information and guides the person to purchase a beverage through the smartphone.

Making devices smart has also been advancing in vending machines in China. Displays are mounted on vending machines and are used for advertisements and the payment of electronic money. Support for the management of vending machine operation has been serving as one of the important technologies for expanding vending machines, for example, controlling sold-out products and grasping sales data.

From now on, vending machines will be required to sell not only beverages but also foods, commodities and various other products. We will continue adding to our product line-up new models that are aimed at shifting to automated stores.

Store Distribution

In February 2017, we started full-scale supply of a latte machine, which is a new model of coffee machines for convenience stores. It can make fine foam

from milk in a short time. In the past, Fuji Electric has manufactured and sold beer dispensers, for which it has developed its original mechanism for making fine foam. This technology has been applied in the latte machine. It is actually little known that vending machines make coffee by actually grinding coffee beans and dripping hot water on the spot. Fuji Electric has worked on developing vending machines and functional parts for them and, meanwhile, found that researching evaluation methods that quantify tastiness itself is also a key to success. We will continue our pursuit of cooking techniques that can compete with specialized restaurants, which stick to authenticity and can provide products in a short time.

Since most shops on the premises of train stations have become similar to convenience stores, developing fine locations one after another is important for the convenience store industry. In order to simplify and speed up store construction, Fuji Electric has developed a showcase with a built-in cooling unit. This product requires neither coolant piping that has conventionally been used to connect the outdoor unit with the showcase nor piping that is to process drain water generated by cooling. It can be operated immediately after being installed and connected to the power supply.

We have previously provide showcases with a built-in cooling unit, and many of the previous showcases have the cooling unit at the bottom of the main unit. The intent was to install a large cooling unit in a stable way. However, it creates a dead space above the floor, which reduces the capacity for showcasing products. Our newly developed non-leak open showcase "USFTL22D1" has revised the structure of the main unit. The cooling unit is housed in the upper section to restrain the reduction in the showcasing space.

Labor shortage and overwork have become social issues. The vending machine, supermarket and convenience store industries are no exception. As a result of providing finely tuned services, the contents of operations have become complex, and the amount of operations that need to be managed has increased as well. Equipment provided by Fuji Electric not only needs

to pursue better quality but also is required to allow maintenance and operations to be performed simply and quickly.

We will continue to work toward providing human-

friendly and earth-friendly equipment by combining the IoT, mechatronics and cooling and heating technology we excel at.

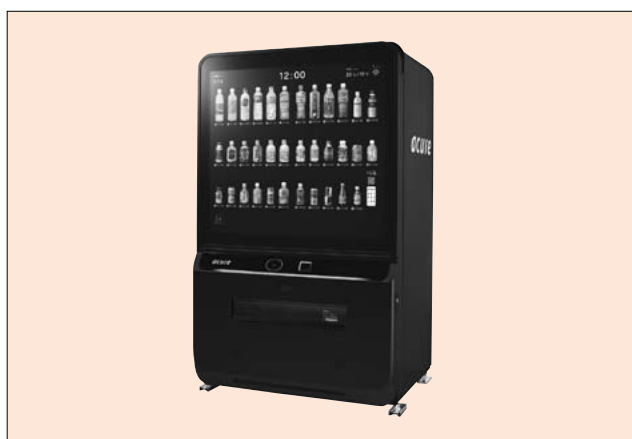
Vending Machines

1 “JI35” Digital Signage Vending Machine

Fuji Electric has jointly developed the “JI35” large-sized digital signage vending machine with JR East Water Business Co., Ltd. The product concept is to propose experiencing new value. We are conducting the market testing to be ripe for expansion. The main features are as follows:

- (1) Smartphone users can buy a product by scanning the QR code of a product into the vending machine using smartphone application.
- (2) It has a new design that is different from conventional ones, with the height changed to 2.1 m from 1.8 m and totally new icons (external appearance) that have not been seen in the previous vending machines.
- (3) It has a design that gives a sense of unity with large displays, with two 46-inch LCD displays and a large touchscreen at the front.

Fig.1 “JI35”



Store Distribution

1 “USFTL22D1” Non-Leak Open Showcase

Fuji Electric has developed the “USFTL22D1” non-leak open showcase, which can be used for in-building stores. Arranging a built-in cooling unit in the upper section of the showcase achieves a low-floor design to streamline installation work and reduce the risk of coolant leakage. The main features are as follows:

- (1) The drain water self-evaporation function eliminates the need for underground piping and has streamlined installation work.
- (2) The lower floor has made it possible to increase the number of shelves and extend the product-showcasing area.
- (3) It employs R1234yf, which is a coolant with a low environmental burden, for the first time in the showcase industry.
- (4) Modularization of the cooling unit has improved the serviceability and maintainability.

Fig.2 “USFTL22D1”





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