

## Yellow Submarine strengthens security and crime prevention for its flexible store layout.

Increased detection of shoplifters and identification of theft methods and tendencies thanks to responsive Axis surveillance solution.



**Organization:**  
Hobby Base Yellow  
Submarine Co., Ltd.

**Location:**  
Saitama City, Japan

**Industry segment:**  
Retail

**Application:**  
Safety and security, anti-  
theft surveillance

**Axis partner:**  
M&M

### Mission

Established in 1985, Hobby Base Yellow Submarine Co., Ltd., is a company headquartered in Saitama City, Saitama Prefecture that is involved in the retail, manufacture and sale of toy models and games. Known by the familiar nicknames "Yellow Submarine" and "YeSub," the company maintains a chain of 30 stores throughout Japan. Its distinctive feature is that instead of enforcing a rigidly uniform approach to store management, each store is allowed a product lineup that reflects the character of the location. The stores are packed with a variety of toys and games.

For their new surveillance solution, a flexible, high-performance monitoring system was sought. A network video recorder (NVR) had been used previously for in-store monitoring systems. However, once a fault occurs in the NVR, all of the cameras attached to the device stopped recording, and each individual NVR must be repaired or replaced as necessary. This made it impossible to implement a prompt response on site.

Furthermore, as the number of cameras increased, adding recorders became increasingly burdensome.

### Solution

Yellow Submarine adopted the AXIS F Series of small modular cameras. For the video management software (VMS), it selected AXIS Companion. When choosing network camera products, Yellow Submarine gave high marks for such features as the ability to deal flexibly with changes in camera position, and the ability for end users to easily set up cameras, and it was this that led to AXIS F Series being selected. System installation was performed by Axis channel partner M&M Co., Ltd.

AXIS F Series is designed primarily for the purposes of security and loss prevention, and video taken for verifying events that have taken place in-store is recorded on an SD card. AXIS F44 units, which can gather voice audio, are installed around the cash registers. Other locations are covered by use of AXIS F34.

**“There has been an increased rate of detection of shoplifters who we believe were not being caught previously. Furthermore, the fact that we have been able to research specific tendencies in their methods, and come up with measures to deal with them has been one important outcome.”**

**Mr. Morimoto, Accounting Section, General Administration Division, Hobby Base Yellow Submarine Co., Ltd.**

## Result

As a result of switching from an NVR system configuration to a VMS, adding one camera requires no more than the addition of a new channel, leading to improved redundancy. In terms of functionality and performance, Yellow Submarine was impressed by the ability of a single sensor to capture a wide angle of 102°, and by the simplified operation, which allows a greater number of faults to be resolved in the store, if they should occur. Because store staff are now able to change the position of the sensors themselves in response to frequent changes in store layout, the company has achieved a situation in which there are usually almost no blind spots in coverage.

## Background to system installation and related details

In some cases, the stores of Yellow Submarine change their internal layout as often as once every quarter. In order to capture product fashions, trends and booms, every part of the customer's route is changed, from product displays to the location of the cash register. This type of store management, involving frequent changes, is also a way of providing something fresh to regular customers who have been shopping there for years.

At the consideration stage, the company initially focused on adopting omni-directional cameras. It was thought that, with omni-directional cameras, even the frequent and major changes to routes within the stores might be easily covered with a small number of cameras. However, their evaluation actually indicated that a system that allowed the store staff themselves to change the position of the sensors, allowing recordings from different distances and angles, enabled far more flexible operation.

On the crime prevention and security front, the system is demonstrating its ability to hinder recurrent crime. For example, occurrences of shoplifting can be speedily detected, the footage can be checked and analyzed from various different angles. The modus operandi of the offense can then be explored for specific tendencies, enabling countermeasures to be devised.

Having store personnel directly confront a person in commission of an ongoing crime involves a variety of risks, so the response is executed primarily in close collaboration with the police. In cases of emergency, the crime can be promptly registered with the authorities and relevant video footage can be used by the police to respond swiftly to the situation. In addition, the system has twice the number of sensors than existed previously, and blind spots in coverage within the stores have almost disappeared. Despite this increase, the evaluation concluded that due to the small size of the sensor and the unobtrusive dome design there is no oppressive sense of being watched over, and that the sensors do not detract from the in-store landscape.

In the case of modular network cameras that combine the sensor and the unit, even if, for example, some kind of fault is discovered, that system can be shut down and a certain level of troubleshooting (such as inspection of the SD card), can be performed on site, enabling a rapid response. When using the previous NVR, if the system came to a halt due to faults in the equipment, there was absolutely no means of dealing with the situation on site, and repair or replacement required significant time, effort and cost. In a hectic business environment, even making such arrangements becomes in itself a significant burden. Moreover, the diversification of fault risk made possible by recording video footage to an SD card for each sensor is another point on which the system is superior to an NVR. That is because, in the case of an NVR, footage from all cameras is recorded together on the same hard disk and accordingly, if a fault occurs, every connected camera is affected.

As of September 2017, Yellow Submarine has deployed the system to about 30 stores throughout Japan. Going forward, the company plans to roll out similar solutions to all of its stores nationwide. As the adoption of the system progresses, further evolution is expected both in the way it is used and in terms of its operation.

