A History of Creating Value

Since our founding, OMRON has pursued innovation driven by social needs, leading the world in innovative ideas. We will continue to improve lives and contribute to a better society by creating value for the future. This section introduces some leading examples of OMRON's innovation driven by social needs.

1. Opening Up the Automation Market (1955-)

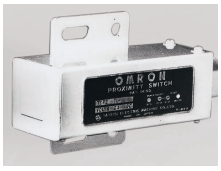
In the 1950s, Japan built the foundations to recover from World War II and entered a full-scale growth phase. In 1955, Japan's real Gross National Product per capita exceeded the prewar level, and its national life entered the era of electrification represented by 3 essential tools for modern life: TV, electric washing machine, and electric refrigerator, which were called *Sanshu no Jingi* (known as "Three Sacred Treasures).
OMRON was among the first in Japan to develop relays, timers, switches, and other components essential for the automatic operation of manufacturing machines. In this way, OMRON has supported the spread of home appliances, automobiles, and other products that enrich people's lives through the automation of manufacturing processes. At that time, little was known about the concept of automation in Japan, and OMRON pioneered a new market of automation in the country through the publication of enlightening newspapers such as Automation News and the holding of Technical Fair. Consequently, human labor was replaced by machines in Japanese manufacturing settings, reducing errors that had been caused by long working hours, and improving work efficiency and safety. At the same time, OMRON built the foundation for manufacturing in all processes, production stages, management systems, and quality control. In addition, OMRON developed the world's first non-contact switch, contributing to the creation of advanced machines capable of mass production without failure or wear. Mass production has brought an abundant supply of products to markets and made them more readily available to consumers.
For the past 65 years, OMRON has delivered relays, switches, sensors, controllers, robots, testing apparatus, and other device that help advance manufacturing processes, thereby contributing to increased productivity in the global manufacturing industry and helping enrich people's lives.
With technology and solutions centered on the industry's broadest range of control devices, OMRON continues to address increasingly serious issues in manufacturing settings, such as soaring labor costs and the shortage of skilled technicians.

Social Issues	Solutions OMRON has been providing

1950s

Automation enabled mass production during the high-growth period

1943
Japan's first microswitch



1960
World's first non-contact switch

Now

Address soaring labor costs, shortage of skilled technicians, and advanced manufacturing

2015
World's first high performance smart camera with multi-color light

2016
World's first SCARA robot with predictive maintenance functions

2020
World's first robotic integrated controller

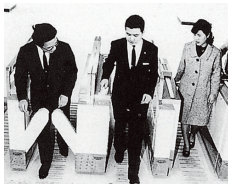
2. The Challenge of Developing an Unmanned Train Station System (1964-)

In Japan in the mid-1960s, economic development posed new social challenges. Commuting rush hour in urban areas due to population concentration was one of them. At ticket counters and gate areas at stations, station workers had to sell and check a large number of passengers tickets by hand, resulting in long waiting lines.
Since the early 1960s, OMRON has challenged solving this issue and has continued research and development by applying its cybernation technology cultivated through the development of vending machines, automated traffic signals, and other products. Cybernation is a combination of computers and automation using automatic control technology incorporating a feedback function. In 1964, OMRON began to develop automatic ticket gates for commuter passes in cooperation with Kintetsu Railway Co., Ltd. In January 1966, a prototype was completed, and a practical trial began. After that, OMRON attempted to introduce an automated ticket gate system for commuter and ordinary tickets at Kita-senri Station (Senri line), which was planned to be constructed by Hankyu Corporation. After repeated research and development, prototype testing, and adjustments, OMRON finally succeeded in developing the system in 1967, 3 years before the EXPO'70, and commenced full-scale operation. The world's first unmanned automated station system was realized with a lineup of ticket vending machines, commuter pass punchers, bill exchangers, and automated ticket gates.
For more than 50 years, OMRON has been providing automated ticket gates, ticket vending machines, and maintenance and operation services, and thereby contributing to creating safe, secure, and comfortable stations to support the growth of Japan.
In Japan, station workers are required to provide increasingly wider and more complex services, including responding to various inquiries from passengers about train connections, station precincts, and vicinities, as well as assistance with boarding and alighting from trains. In addition, it is becoming more difficult to secure human resources due to a decline in the working population resulting from the falling birthrate and the aging population. OMRON works with railway companies to automate their station operations in order to provide safe, secure, comfortable, and user-friendly station services. In 2019, OMRON began offering multi-functional service robots capable of cleaning, guarding, and guiding, and initiated demonstration experiments of a station guide robot equipped with voice-interactive artificial intelligence.

Social Issues	Solutions OMRON has been providing

1960s

Congestion in urban public transportation



1967
World's first unmanned train station system
(Kita-senri Station, Hankyu Corporation)

Now

Wider and more complex services provided by station workers

2019
Multi-functional service robots

2019
Station guide robot equipped with voice-interactive artificial intelligence

3. Wider use of home blood pressure monitors (1973-)

OMRON's efforts to develop home blood pressure monitors originated from the concept of Health Engineering in the early 1960s for the first time in the world. Health Engineering was conceived by OMRON founder Kazuma Tateishi from factory automation system at that time. Health Engineering is a concept that views the human body as a tissue engineering-based aggregate of numerous automatic control systems and uses automation technology to manage health, diagnose diseases, and treat diseases.
Based on this unique theory, we began research on health medical devices at the Central Laboratory in 1961. Since then, we have pursued the development of home blood pressure monitors to contribute to health through measurement technology based on the OMRON principles, "business should create value for society through its key practices." In 1973, OMRON released its first electronic blood pressure monitor, Manometer-typed Manual Blood Pressure Monitor (HEM-1). In 1978, OMRON's first digital blood pressure monitor, Digital Blood Pressure Monitor for Home Use (HEM-77) was developed.
Since then, OMRON has worked with healthcare professionals to promote home blood pressure monitoring. The April 2014 revision of the Japanese Society of Hypertension Guidelines for the Management of Hypertension stated that if a difference is noted between clinic and home blood pressure measurements, the latter should be preferred. Thus, home blood pressure is now an essential component in the treatment of hypertension. In this way, OMRON has created a culture of home medical care.
Today, the prevalence of lifestyle-related diseases is increasing rapidly around the world with the aging of the population in developed countries and changes in dietary habits associated with economic growth in emerging countries. In addition, the accompanying increase in medical care costs has become a new social issue. OMRON continues to contribute to the health and well-being of people by delivering home blood pressure monitors and other healthcare device to approximately 120 countries and regions around the world, as well as offering services tailored to the social infrastructure and healthcare system in each country. In 2018, OMRON launched the world's first wearable blood pressure monitor & watch that makes it possible to measure blood pressure easily anywhere at any time. In 2019, we released the world's first home blood pressure monitor with an electrocardiograph (EKG) that enables users to take an EKG easily at home. OMRON continues to bring out innovative devices.

Social Issues	Solutions OMRON has been providing

1970s

Rising concern for personal health resulting from changes in lifestyle

1973
Digital blood pressure monitors

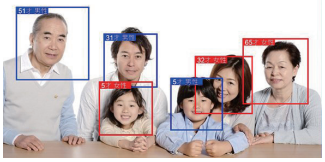
Now

Medical care costs increased by a surge in lifestyle-related diseases around the world

2018
World's first wearable blood pressure monitor & watch

2019
World's first blood pressure monitor with an EKG

In addition to the examples above, OMRON has been providing society with a multitude of world's first, Japan's first, or industry's first solutions that contribute to creating a better society.

Social Issues / Customer Issues	Solutions OMRON has been providing	
1963 **Automated meal ticket vending machines in restaurants that were crowded and understaffed only during certain times of day**		Japan's first multifunctional meal ticket vending machine
1964 **Reduced road traffic congestion due to population concentration in urban areas**	 	World's first fully automated traffic signal
1971 **Realized a cashless society where carrying a cash card instead of cash**	 	World's first online automated cash dispenser
1972 **Independence of the disabled in Japan**		Opened the welfare factory OMRON Taiyo Co., Ltd and Japan Sun Industries (Taiyo no ie), as the first attempt in JapanOpened the welfare factory OMRON Taiyo Co., Ltd and Japan Sun Industries (Taiyo no ie), as the first attempt in Japan
1987 **Developed machines capable of complex control, not just on and off**		World's first ultra-high-speed fuzzy logic controller
1997 **Technology speeding the wider use of digital devices**		OKAO® vision image sensing technology
2011 **Wider adoption of renewable energy in Japan**	 	Industry's first PV inverter for photovoltaic power generation equipped with the anti-islanding control technology (AICOT®), which prevents islanding conditions in multiple photovoltaic power generation systems
2016 **Realized safe autonomous driving technology**		World's first on-vehicle sensor using cutting-edge artificial intelligence
2019 **Ensuring means of mobility for residents in depopulated and aging local cities in Japan**	もっと動いて、もっと安かう meemo 舞鶴	Japan's first Mobility as a Service (MaaS) application combining private vehicle-for-hire by residents and public transportation such as bus and taxi