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New Products Open House Show 2023

The 32nd New Products Open House Show took place at the Nature Hall at FANUC Headquarters for three days from Monday, May 15, to Wednesday, May 17. Though only a short time had passed since the reclassification of COVID-19 to a Class 5 Infectious Disease with less limitations, this year's Open House still welcomed approximately 5,000 visitors, making it a great success. To alleviate congestion, visitors were divided into four groups, which enabled them to take a close look at FANUC's latest products and technologies.



FA

The FA area introduced new products and features that further improve machine tool productivity. The theme was “Optimization of machining processes with the latest CNC, SERVO, and Digital Twin.”

In addition to the new CNC system Series 500i-A and α i-D series SERVO, the evolution of machining processes prompted by Digital Twin for CNC and IoT, attracted much attention.



ROBOT

The ROBOT area showcased a wide variety of applications, including FANUC's collaborative robots that are easy to use even for first-time users, and newly developed handling robots.

Many visitors experienced a CRX collaborative robot demonstration, in which they held a calligraphy brush attached to the end effector of a CRX and guided it to write a character on a piece of Japanese rice paper. After this guidance, the robot replicated this exact same motion. This was well-received as a potential of robots to reproduce the expert skills of craftsmen.



ROBOMACHINE

The ROBOMACHINE area exhibited the brand new models of ROBODRILL, ROBOSHOT and ROBOCUT, as well as automation systems that combine the usage of robots with ROBOMACHINES. The theme was “ROBOMACHINE - Meeting the latest needs of the market.” Visitors were impressed by the expanded range of applications of ROBODRILL’s new model, energy saving and environmental friendliness of ROBOSHOT, and ROBOCUT’s improved cutting accuracy under nozzle open conditions, among other features.



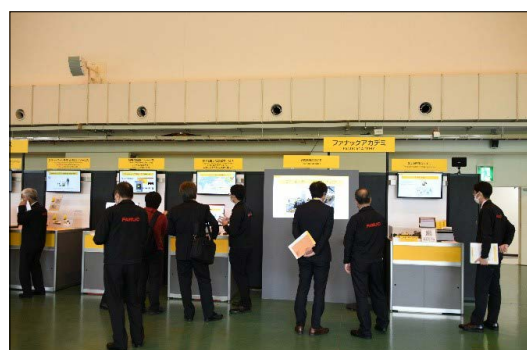
SERVICE

In the SERVICE area, visitors praised “FabriQR Contact,” a smartphone-based inquiry function, and FANUC’s lifetime maintenance policy.



ACADEMY

The ACADEMY area displayed FANUC’s training facilities and the three training styles (lecture courses at the ACADEMY, live streaming seminars, and on-demand seminars) for deepening trainees’ understanding.



Sustainability

An entire wall was dedicated to explain “FANUC’s roadmap to achieve carbon neutrality,” which is positioned as a company-wide initiative. Under FANUC’s basic policy on sustainability, carbon neutrality is considered to be an important topic throughout the company. This exhibit not only gave an overview of the company’s efforts, but showed specific examples as well.



New Products Open House Show (Nagoya)

The New Products Open House Show (Nagoya) took place in the Technical Center of the Nagoya Branch in Komaki, Aichi Prefecture, from Wednesday, June 14, to Thursday, June 15.

Despite the bad weather, it was a lively show with approximately 2,000 customers visiting.

FANUC product users working at actual production sites viewed the latest products and technologies, and offered much feedback directly including their evaluations, expectations, and opinions.



In-house Lecture by Outside Director Mieko Tomita

An in-house lecture by our Outside Director Mieko Tomita was held at the FANUC Forum of the FANUC Headquarters and concurrently online on Tuesday, May 23. She spoke on the theme of “compliance on the part of employees” as a lawyer. The lecture covered a wide range of topics from establishment and operation of an internal control system for ensuring compliance to the principle of trust. Participants reacknowledged the need to take issues concerning compliance to be their own and to develop relationships of trust through communication. An edited video was later posted on the internal portal site for viewing by employees who could not attend the lecture.

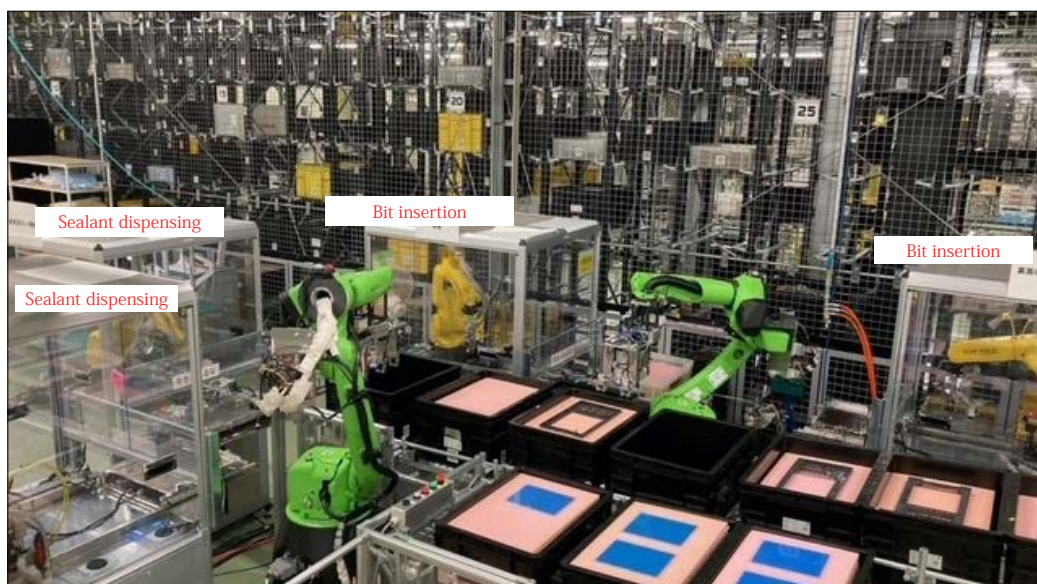


Mibu Electronics Factory

The Mibu Electronics Factory, which manufactures CNCs and servo amplifiers, utilizes collaborative robots to streamline operations. Collaborative robots play active roles in processes that are somewhat difficult for humans or simple tasks with a heavy workload. The Mibu Electronics Factory installed equipment two years ago to assemble 6-axis amplifiers for robots, using collaborative robots. Since then, production volume increased by about 10% through measures such as refining robots' motions to reduce tact time, as well as improving work processes and paths that are followed in working.

Here are some recent examples of collaborative robot usage.

First is a line for assembling LCD units for CNCs. On this assembly line, bit insertion and sealant dispensing are automated using collaborative robots and robot modules. These are complicated tasks as bit insertion requires high accuracy with respect to the insertion height, and sealant dispensing needs to be continuous with an even amount of flow. In this line, there are two collaborative robots and four robot modules. The robots supply parts to the robot modules and transfer workpieces between them. The four robot modules have different functions and are positioned around the two collaborative robots. Workers only need to supply parts and take out the workpieces. While the robots work, workers can perform other tasks, resulting in more efficient use of human resources. In addition, since collaborative robots do not need safety fences, they can be placed near people's work areas, thereby saving space.



LCD unit assembly line
(Two collaborative robots, four robot modules)



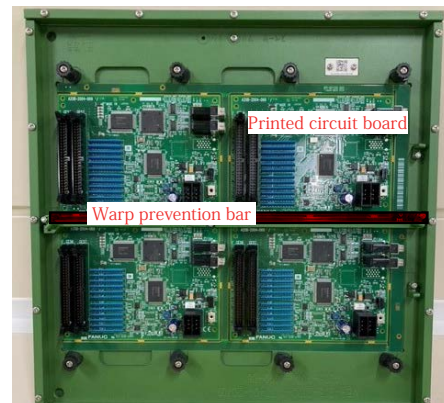
LCD units

Another example is utilizing a collaborative robot in a soldering line for printed circuit boards.

On this line, electronic parts are inserted into printed circuit boards and soldered using the flow soldering method. First, a printed circuit board is mounted on a jig called a “pallet.” This is followed by the insertion of electronic parts by workers. After insertion, the collaborative robot secures a warp prevention bar to the pallet. Soldering is performed in this state. After soldering, the collaborative robot removes the warp prevention bar, and the worker takes out the printed circuit board. This process conventionally required two workers, but is now possible with just one. Moreover, with the assistance of collaborative robots, workers can focus on inserting parts and carrying out simple visual inspections after soldering.



Printed circuit board soldering line
(Two collaborative robots)



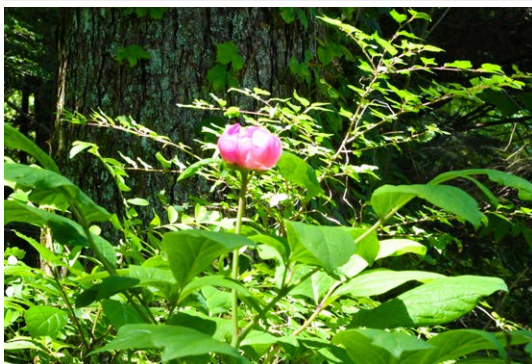
Printed circuit board and soldering jig

The Mibu Electronics Factory has gradually been increasing the number of processes performed by collaborative robots together with workers.

The emergence of collaborative robots has added another option for streamlining. Robots excel in high-precision work and simple repetitive tasks, while human workers are more skilled in handling small parts and inspections. The range of applications will be expanded further as a means of streamlining that makes the most of the advantages of both robots and humans. Additionally, the future shortage of skilled workers which is anticipated to be brought on by the mobility of human resources, will be addressed.

Four Seasons of FANUC

Summer is the season when many flowers are in full bloom. Here are some rare flowers that modestly add color to the forests in and around FANUC.



Paeonia obovata Maxim



Scutellaria pekinensis var. *transitra*



FANUC's History Series 9

"FANUC TAPE CUT-SERIES A"

FANUC's first wire electrical discharge machine.

The FANUC TAPE CUT-SERIES A was developed in 1975, based on the concept of a "compact, mechanically and electrically integrated machine, offered at a low price." As opposed to machines at that time having a configuration assumed to be typical of a machine tool, this machine was small, as the entire mechanical portion was fitted inside a cabinet, and was one of a kind.

The "TAPE" in the name comes from the fact that NC equipment of that period operated by reading paper tape.



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