

World's First! Announcing the Auto Kitting Station, a New Unit Automating the Tape Reel Loading Process for Feeders

Accelerating unmanned manufacturing with the final piece of SMT floor automation

Fuji Corporation (headquarters: Chiryu, Aichi; Representative Director, President and CEO: Joji Isozumi; hereinafter referred to as "Fuji") has developed a new unit, the Auto Kitting Station, which automates the tape reel loading process (kitting process) for feeders used to supply electronic components to machines; a process that has traditionally been difficult to automate and heavily dependent on manual labor.

The Auto Kitting Station integrates with Fuji's advanced NXTR A model placement machines, Smart Storage*, as well as AMRs (autonomous mobile robots) and automated warehouses from various manufacturers. Fuji has developed the world's first system that automates the loading of tape reels into feeders in coordination with an automated collection and transport system for tape reels and feeders that operates in accordance with production schedules (according to Fuji research, as of May 2026).

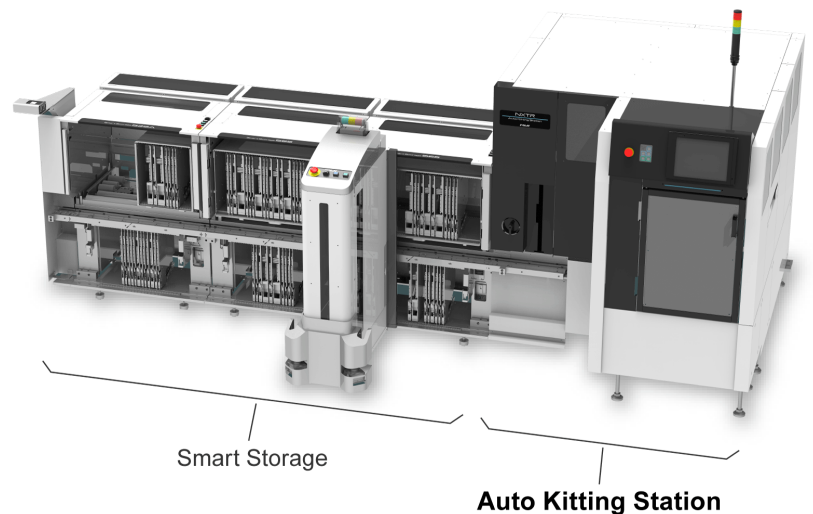
This seamlessly connects the entire flow from storage to supply of electronic components in surface mount technology (SMT) manufacturing sites, contributing to the unmanned operation of production preparation areas.

Development background

Automation in SMT processes has advanced significantly in recent years. Fuji has been advancing automation at every stage, from component storage and management to transport and production preparation support inside and outside production lines, toward realizing smart factories.

Through the expansion of the Fuji-developed NXTR A model and integrated production system, Nexim, as well as collaboration with AMRs from various manufacturers, automation of component supply inside and outside production lines has been achieved. However, kitting operations in preparation areas have remained dependent on manual labor. In high-mix, low-volume production environments, this has led to challenges such as increased workloads during product changeovers and difficulties in securing labor.

The Auto Kitting Station was developed to address these issues by automating kitting operations, thereby advancing automation in preparation areas and contributing to the realization of unmanned SMT processes.



*Smart Storage: A unit that automates the storage, sorting, and supply of feeders used to supply electronic components to machines in preparation areas away from production lines. By automatically collecting and transporting the necessary feeders in coordination with production schedules and AMRs, and by eliminating the need to search for feeders or manually transfer them, this system streamlines setup operations and reduces the workload on operators. Related information: [First showing of the new Smart Storage](#) (May 29, 2025)

Auto Kitting Station features

1. Labor-saving and stable operation through automated kitting

Kitting processes involve delicate tasks such as tape preprocessing and loading tape reels into feeders, making automation difficult and thus leaving them reliant on manual labor. This product automates the entire kitting workflow from removing empty reels after components have been used up, reading reel IDs, and preprocessing tape, to loading tape reels into feeders. This helps stabilize work quality and standardize processing times, while also reducing the workload on operators.

2. Supports widely used 8 mm tape components

This unit supports 8 mm tape components, which account for a large proportion of commonly used small electronic components in SMT processes. By supporting the most frequently used component format, the unit accommodates a wide range of applications in real-world manufacturing operations, facilitating broader adoption on the factory floor.

3. Achieves automation across the entire SMT floor through integration with related systems

Going beyond the automation of kitting operations alone, the Auto Kitting Station integrates with the NXTR A model, Smart Storage, AMRs, and automated warehouses. This creates a seamless flow from component storage and supply to placement, enabling automation across the entire SMT floor. This not only improves production efficiency but also accelerates unmanned operation throughout SMT processes, thereby helping to establish a stable production environment even in the face of labor shortages.



Image of the SMT floor automation system

Future plans

The Auto Kitting Station will make its world debut at JISSO PROTEC 2026, an exhibition for electronics assembly and packaging technologies, that will be held at Tokyo Big Sight in June 2026. Our booth will include live demonstrations of automation in production preparation areas.

Exhibit overview

Exhibit: JISSO PROTEC 2026 (27th JISSO Process Technology Exhibition)

Dates: Wednesday, June 10 to Friday, June 12, 2026, from 10:00 to 17:00

Venue: Tokyo Big Sight, Japan

Official website: <https://www.jissoprotec.jp/> (Japanese only)

Fuji booth: East Hall 1 1A-46

Company Profile

About Fuji

Company name	FUJI CORPORATION
Representative	Joji Isozumi, Representative Director, President & CEO
Address	19 Chausuyama, Yamamachi, Chiryu, Aichi 472-8686 Japan
Established	April 1959
Business details	Development, manufacturing, and sales of SMT pick and place machines and machine tools
Capital	5,878 million Yen
URL	https://www.fuji.co.jp/en/ (Official website) https://smt.fuji.co.jp/en/ (SMT website)

Contact

Fuji Corporation, Robotic Solutions Division (contact form)

<https://smt.fuji.co.jp/en/contact/>