

iRAYPLE AMR Intelligent Logistics Solution Successfully Deployed at Xunjiexing's Zhuhai Factory

HANGZHOU, ZHEJIANG, CHINA, October 9, 2025 /EINPresswire.com/ -- Shenzhen Xunjiexing Technology Corp. Ltd., a national high-tech enterprise established in 2005 and specializing in PCB (Printed Circuit Board) manufacturing, has completed the construction of its new flagship automated factory in Zhuhai in 2024. The facility has now successfully implemented 100% automated production, marking a significant milestone in the company's digital transformation.

As part of this deployment, [iRAYPLE](#) implemented a large-scale fleet of 100+ AMRs engineered for high stability, precise positioning, and flexible carrier adaptation. These AMRs are flexibly scheduled under the MES-ICS-RCS system architecture, enabling fully automated material requests, transfers, and buffer-zone management. iRAYPLE's self-developed Robot Control System (RCS) performs real-time task scheduling and optimal path planning, ensuring continuous and efficient intralogistics operations across the entire facility.

The solution delivers end-to-end smart logistics coverage throughout the PCB production process—from Board Cut to Final Quality Control—achieving fully unmanned transfers between processing equipment and buffer areas. The AMRs also interface with cross-floor elevator systems, enabling efficient vertical material flow and synchronized production across three manufacturing levels.

In addition, iRAYPLE's Integrated Control System (ICS) is fully integrated with the factory's MES platform to coordinate robotic arms for automated PCB loading and unloading. This high-level integration significantly enhances production efficiency and demonstrates the transition from isolated AMR applications to comprehensive, full-process intelligent logistics within the PCB sector.

Key Project Highlights

100% automated production, marking a significant milestone in the company's digital transformation.

The AMRs maintain rack stability and secure transport even under challenging payload conditions.

100% automated production, marking a significant milestone in the company's digital transformation.

The ICS system was rapidly integrated with both Xunjiexing's MES platform and the robotic arm equipment, enabling coordinated control for efficient and seamless PCB loading and unloading.

ICS-AMR 实时反馈 MES 平台

ICS provides real-time AMR status feedback to the MES platform, which utilizes task-traceability data to intelligently plan compact buffer zones, enabling high-efficiency, closed-loop logistics management.

AMR-电梯 无缝跨楼层物料运输

AMRs integrate with elevator systems to support seamless cross-floor material transport and production continuity.

This successful deployment demonstrates how iRAYPLE's AMR Intelligent Logistics Solution empowers manufacturers such as Xunjiexing to enhance operational efficiency, ensure intralogistics safety, and drive the PCB industry toward a new era of automation, intelligence, and scalable smart manufacturing.

关于 iRAYPLE

iRAYPLE, the flagship brand of Zhejiang HuaRay technology Co., Ltd, is a professional company focusing on R&D, manufacturing, and sales of machine vision and autonomous mobile robot (AMR) products and solutions. Concentrating on smart manufacturing, we have always insisted on satisfying customers' needs, creating value to help customers reduce costs, and making factories smarter. Founded in 2016, the business has expanded to cover more than 50 countries and regions.

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