



**Automating Lifting of Heavy Loads for
Samsung C&T's Construction Sites**



SAMSUNG C&T



EXECUTIVE SUMMARY

THIRA ROBOTICS recently partnered with Samsung C&T, an international corporation in South Korea. The Samsung subsidiary specializes in plant and infrastructure construction projects.

Recently, the company has been building and opening new semiconductor plants. Samsung C&T was in need of automation that could safely transport heavy loads while navigating human traffic. Thus, THIRA ROBOTICS provided its T1000 to bring customized automation to its facilities to improve productivity and safety.

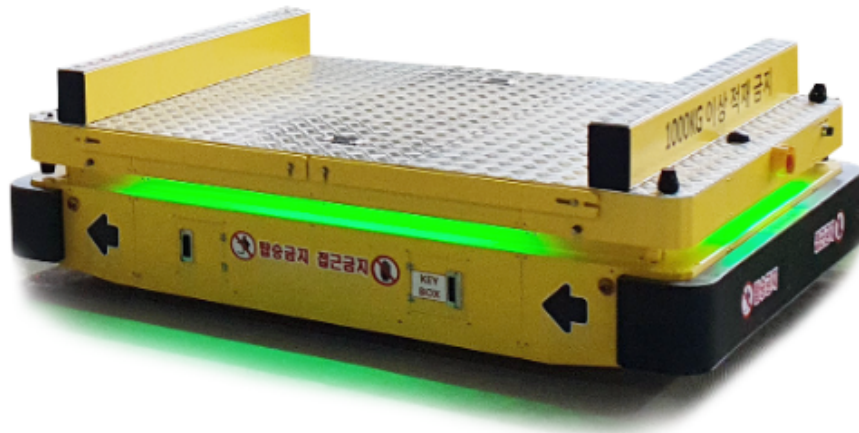
CHALLENGES: MANAGING A LARGE CONSTRUCTION PROJECT WHILE MAINTAINING EMPLOYEE SAFETY



Samsung C&T opened new construction facilities for semiconductors and required automated solutions to support their heavy workloads. The facilities' size and the number of materials took a lot of work to manage logistically. Unfortunately, Samsung C&T has rough flooring and inclines, increasing worker injury rates and making it challenging to integrate a standard AMR into their facilities.

Samsung C&T's workers were required to manually move 1,000 kgs (2204.62 lbs) of product using forklifts, leading to employee injuries. The site needed a solution to make this process more manageable.

The safety and workload management of its employees was a top concern for Samsung C&T. Samsung C&T was also seeking to alleviate the heavy workload for staff, expediting the project completion.



THE SOLUTION: THIRA ROBOTICS T1000

In January 2021, Samsung C&T implemented the THIRA ROBOTICS T1000 into its construction facilities. THIRA ROBOTICS was the perfect solution to reduce worker injuries and decrease staff workload.

With the AI Follow Function on THIRA ROBOTICS systems, workers can either assign robots to work independently or to follow a specific employee for support. At Samsung C&T, there was an opportunity for human and technology collaboration to increase productivity.

Replacing forklift drivers with THIRA ROBOTICS T1000 was aimed to help reduce the amount of workload taken on by human workers. This bot was chosen to follow workers indoors and outdoors, making it a unique, safe solution. In addition, it was selected because it was able to handle rough conditions of steep floor slopes of up to 11 degrees. In busy, high-traffic facilities, T1000 determines the best route to avoid all obstacles, including workers.





THE RESULTS

THIRA ROBOTICS T1000 replaced several forklift workers. Thanks to its ability to lift 2,204.62 lbs, the T1000 system helped reduce injuries from heavy lifting.

Samsung C&T acknowledged this integration's main benefits:

- the increased safety and prevention of possible human injuries, and
- an overall reduced workload for the expanded facilities.

As a result, Samsung C&T saw increased production efficiency and improved worker satisfaction. Samsung C&T was happy with their facilities' increased productivity and safety standards.

ABOUT SAMSUNG C&T



SAMSUNG C&T



Since its founding in the late 1930s, Samsung C&T has been designated as one of the best general trading companies leading overseas operations. Samsung C&T has merged with several large companies, such as Cheil Industries Inc., and now spans over 45 countries.

Samsung C&T is a substantial international corporation with nearly 8,872 employees across 46 countries. Samsung C&T exists in several different industries, including but not limited to engineering, construction, trading, investment, fashion, and resorts. They have held awards and achievements like first place in the Ministry of Land, Infrastructure and Transport Evaluation and the Dow Jones Substantial Index (DJSI) World Best Enterprise award.

ABOUT THIRA ROBOTICS



THIRA
ROBOTICS



THIRA ROBOTICS is the AMR subsidiary of global smart factory solution leader THiRA UTech. It manufactures autonomous mobile robots (AMR) and creates complete automation solutions to meet unmet market needs.

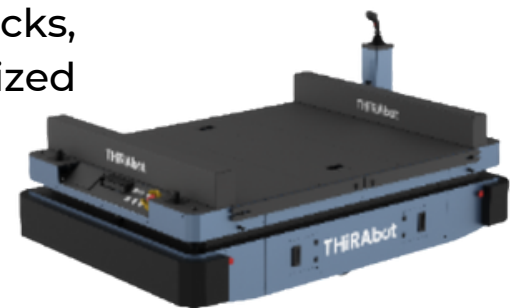
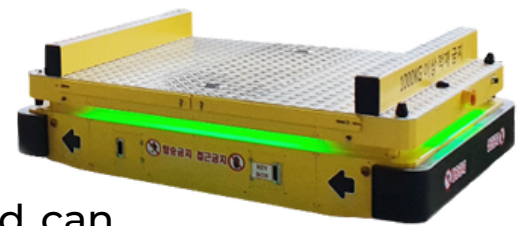
THIRA's AMR technology is employee-friendly and optimized to navigate harsh conditions, including damaged floors, changing facility surroundings, slopes, narrow spaces, spills, and elevators.

All THIRA ROBOTICS systems are built in-house, enabling high-quality and unique customization needs for international leaders across multiple industries, including Samsung, the National Cancer Center, LG CNS, and AmorePacific.

ABOUT T1000



T1000 holds up to 1,000 kg (2,204.62 lbs) and can feature a conveyor on its top for optimal factory automation. This model is designed to follow workers using AI Follow Function at construction sites, especially those that require heavy lifting, such as automotive parts. The functionality of this system helps reduce worker injuries from heavy lifting. It operates regardless of any floor conditions, including liquids, oils, bumps, cracks, multi-levels, and more. T1000 can be customized to any facility's needs.



CONTACT US



To learn more about our AMR solutions, contact sales@thirarobotics.com