**For efficient processes in intralogistics**

 **Easily configure superstructures for AMRs online**

**Autonomous mobile robots (AMRs) are a flexible solution for warehouse automation. They are perfect for transporting loads from A to B, usually using small load carriers, pallets or mesh boxes. To ensure both individual and multiple containers can be moved around securely, item has developed a base carrier made of aluminium profiles and matching fasteners. This carrier can be ordered directly in standard dimensions through the** [**Online Shop**](https://www.item24.com/en-de/?_gl=1*gnxceu*_ga*MzE1NTQxODEwLjE2MzY1NDMwMDQ.*_ga_SZT8K908WG*MTY2MzMxMTEyMC44Ny4xLjE2NjMzMTExODEuMC4wLjA.*_ga_L5MYWBK2L4*MTY2MzMxMTEyMC4xMjEuMS4xNjYzMzExNzQ1LjAuMC4w&_ga=2.262890508.1243017843.1663311120-315541810.1636543004)**, but can also be easily customised using the** [**item Engineeringtool**](https://item.engineering/DEen/tools/engineeringtool)**.**

One frame, countless potential applications – the base carrier developed by item ensures materials and components can be efficiently transported in an automated system using AMRs. Measuring 1200 mm x 800 mm, the design has initially been tailored to the MiR250 autonomous mobile robot from Mobile Industrial Robots A/S. However, it can also be adapted for use with other models of robot. Depending on where and how it is being used, the base carrier can accommodate mesh boxes, pallets, or even specially developed racks from item that can be used to carry multiple small load carriers (SLCs). The racks are made predominantly from components in the Lean Production Building Kit System from item and are lightweight, but still robust.

**Customising superstructures**

The rack superstructure designs are available in the [item Engineeringtool](https://item.engineering/DEde/tools/engineeringtool/57ca53a8d95b400484cc9a6dac814486). They can be called up directly in a web browser and, if necessary, adapted to suit specific requirements. For example, the length of the profiles can be altered and, depending on the weight of the load to be carried, users can opt for either light aluminium profiles or more heavy-duty variants. Additional roller conveyors can also be added to the standardized rack. The item Building Kit System offers a whole host of components for designing bespoke solutions. “In line with the lean philosophy, we are simplifying and optimising intralogistics transport processes with our new designs,” explains Przemyslaw Krzysztyniak, a project manager and systems developer at item. “Customers can either opt for the standardised models or develop their own custom superstructures to suit their specific needs.” The building kit system solution offers maximum flexibility for creating bespoke solutions.

Summary: The item superstructures are used to integrate autonomous mobile robots into industrial production sequences as weight-optimised transport trolleys and relieves the strain on staff, who can focus instead on activities that add value. All they need to do is fill the racks and mesh boxes or pallets with goods – the AMR takes care of moving the goods from A to B.

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**Caption 1:** item now offers a base carrier made of aluminium profiles and matching fasteners that combines with autonomous mobile robots to facilitate safe and secure transport.

**Caption 2:** Depending on where and how it is used, the base carrier can accommodate mesh boxes, pallets, or even specially developed racks from item.

**Caption 3:** The design has initially been tailored to the MiR250 autonomous mobile robot, but can be adapted to other models of robot. The item Engineeringtool is the design platform for these solutions.

**About item**

item Industrietechnik GmbH is the pioneer in building kit systems for industrial applications and a partner of the manufacturing industry across the entire globe. Today, the item product portfolio comprises more than 4,000 high-quality components designed for use in machine bases, work benches, automation solutions and lean production applications. The company has received a string of awards for products with ground-breaking industrial design and end-to-end ergonomics.

item is spearheading digital engineering by driving forward the digitalisation of processes with software tools developed in-house. The item Academy offers training at various levels, with on-demand training and online courses available in multiple languages.

Headquartered in Solingen, Germany, item has subsidiaries in various countries. Some 900 employees worldwide harness their know-how and passion to develop innovative solutions and services. Twelve sites make sure the company is always close to customers in Germany, with a global logistics chain ensuring swift delivery times for all components.

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