



The Mobile Robot Company

Knowledge Center — Multi-Point Pallet Transport · 2026-08-04

<https://info.mobilerobot.com/applications/use-cases/multi-point-pallet-transport>

Multi-Point Pallet Transport

Real pallet flows are rarely a single A-to-B shuttle. Goods move from several origins to several destinations, and the mix changes daily. The J1600 handles this as multi-point-to-multi-point transport: every saved location can pair with every other, without demonstrating each combination.

The location model

- A location is created by driving the J1600 to the point manually and tapping **Save location**.
- There is no software limit on the number of [saved locations](https://info.mobilerobot.com/documentation/user-guides/location-management/) — practical limits come from available floor space.
- The robot navigates to any saved point from wherever it is. You do not teach routes between pairs; you teach points, and the [3D LiDAR SLAM navigation](https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/) plans each route itself.

That last property is what separates [teach-and-repeat](https://info.mobilerobot.com/documentation/concepts/teach-and-repeat/) points from fixed-route automation: ten saved points already give you every pairing among them. See [Temporary Location Setup](https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/) and [Dynamic Route Changes](https://info.mobilerobot.com/applications/scenarios/dynamic-route-changes/).

Task patterns for multi-point work

Pattern	Behavior	Typical use
Deliver and return	Drop at B, come back to A	Repetitive feeding loops — see Deliver and Return (https://info.mobilerobot.com/applications/scenarios/deliver-and-return/)
A-to-B-to-C	Drop at B, continue empty to C	Chained flows, repositioning — see A-to-B-to-C Transport (https://info.mobilerobot.com/applications/scenarios/a-to-b-to-c-transport/)
Deliver and wait	Drop at B, stay there	Staging lanes — see Deliver and Wait (https://info.mobilerobot.com/applications/scenarios/deliver-and-wait/)
Deliver and park	Drop at B, go to parking	End of a run — see Deliver and Park (https://info.mobilerobot.com/applications/scenarios/deliver-and-park/)
Come-to-me	Robot comes to the caller	On-demand pickup — see Come-to-Me (https://info.mobilerobot.com/applications/scenarios/come-to-me/)

Each task starts the same way: manual pickup, destination and post-delivery behavior chosen on the touchscreen, autonomous mode confirmed with the physical start button. See [Manual Pickup and Autonomous Delivery](https://info.mobilerobot.com/applications/scenarios/manual-pickup-and-autonomous-delivery/) (<https://info.mobilerobot.com/applications/scenarios/manual-pickup-and-autonomous-delivery/>).

Where multi-point flows pay off

- **[Cross-docking](https://info.mobilerobot.com/applications/use-cases/cross-docking/)** (<https://info.mobilerobot.com/applications/use-cases/cross-docking/>): shuffling pallets across multiple doors and lanes is the defining multi-point application.
- **[Buffer and staging management](https://info.mobilerobot.com/applications/use-cases/buffer-and-staging-management/)** (<https://info.mobilerobot.com/applications/use-cases/buffer-and-staging-management/>): lines, buffers, and storage zones form a many-to-many network.
- **[Temporary storage](https://info.mobilerobot.com/applications/use-cases/temporary-storage/)** (<https://info.mobilerobot.com/applications/use-cases/temporary-storage/>): short-lived points join and leave the network without touching anything else.
- **Changing operations:** when flows change, you add points, not projects — a fit described in [Brownfield Automation](https://info.mobilerobot.com/applications/use-cases/brownfield-automation/) (<https://info.mobilerobot.com/applications/use-cases/brownfield-automation/>).

Capacity and limits

Each trip moves up to 1,600 kg at up to 5.4 km/h on indoor, level routes, dropping at floor level. Carriers must be open-base within 1,250 × 1,250 mm including overhang — see [Open Cages and Alternative Load Carriers](https://info.mobilerobot.com/applications/use-cases/open-cages-and-alternative-load-carriers/) (<https://info.mobilerobot.com/applications/use-cases/open-cages-and-alternative-load-carriers/>) and the [J1600 technical specifications](https://info.mobilerobot.com/products/j1600/technical-specifications/) (<https://info.mobilerobot.com/products/j1600/technical-specifications/>).