



The Mobile Robot Company

Knowledge Center — Inbound Receiving · 2026-08-04

<https://info.mobilerobot.com/applications/use-cases/inbound-receiving>

Inbound Receiving

Inbound receiving pairs the two halves of [dual mode](https://info.mobilerobot.com/products/j1600/dual-mode/) (https://info.mobilerobot.com/products/j1600/dual-mode/), naturally: the truck and dock area demand judgment, while the trip from the dock to inspection or storage is repetitive travel. The operator unloads manually, hands each pallet to the J1600, and stays at the dock while the robot makes the delivery.

How the flow works

1. Unload the trailer manually using the tiller, exactly as with a conventional electric pallet jack.
2. Select a saved drop point — inbound inspection, a storage zone, or a buffer location — on the touchscreen.
3. Choose **return to origin** as the post-delivery behavior, confirm autonomous mode with the start button, and step clear.
4. The J1600 travels at up to 5.4 km/h (1.5 m/s), avoids obstacles on the way, drops the pallet at floor level, and returns to you at the dock for the next pallet.

This deliver-and-return loop is the most commonly demonstrated J1600 task. See [Deliver and Return](https://info.mobilerobot.com/applications/scenarios/deliver-and-return/) (https://info.mobilerobot.com/applications/scenarios/deliver-and-return/) and [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/).

Why the dock stays manual

Truck unloading concentrates the situations where human context matters most:

- **Dock plates and ramps.** Automatic mode has 0% gradeability; it is a [level-floor application](https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/) (https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/). [Manual mode](https://info.mobilerobot.com/documentation/user-guides/manual-operation/) (https://info.mobilerobot.com/documentation/user-guides/manual-operation/) handles gradients up to 5% unloaded and 3% at full load, so dock plates, bumps, and trailer misalignment are operator work.
- **Pallet condition.** A broken bottom board, a protruding nail, or a loose shrink-wrap tail is spotted and handled before it becomes a jam or a safety hazard.

- **Load stability.** [Top-heavy, leaning, or poorly stacked inbound loads](https://info.mobilerobot.com/applications/use-cases/sensitive-or-unstable-loads/) (<https://info.mobilerobot.com/applications/use-cases/sensitive-or-unstable-loads/>) get a human judgment call before lifting.
- **Congestion.** A [crowded receiving area](https://info.mobilerobot.com/applications/scenarios/operation-in-crowded-environments/) (<https://info.mobilerobot.com/applications/scenarios/operation-in-crowded-environments/>) with overflow pallets calls for an improvised manual route.

See [Handling Exceptions and Irregular Loads](https://info.mobilerobot.com/applications/scenarios/handling-exceptions-and-irregular-loads/) (<https://info.mobilerobot.com/applications/scenarios/handling-exceptions-and-irregular-loads/>) for the full list of judgment tasks that remain with the operator.

What the robot removes

[The walking](https://info.mobilerobot.com/applications/results/reduction-in-manual-walking/) (<https://info.mobilerobot.com/applications/results/reduction-in-manual-walking/>). Each autonomous delivery removes a round trip that the operator would otherwise walk, whether the route is a few meters or well over 100 meters. Across a receiving shift, the J1600 is designed to remove [up to 80% of the operator time spent on repetitive transport](https://info.mobilerobot.com/applications/results/productivity-improvements/) (<https://info.mobilerobot.com/applications/results/productivity-improvements/>), while the operator keeps unloading at the dock.

Setting up a receiving flow

- Drive once to each inspection, storage, or buffer point and tap **Save location**. There is no software limit on saved locations.
- No tracks, wires, reflectors, or building changes are needed — navigation uses [3D LiDAR SLAM](https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/) (<https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/>).
- An operator who already uses an electric pallet jack needs about 30 minutes of [training](https://info.mobilerobot.com/documentation/getting-started/operator-training/) (<https://info.mobilerobot.com/documentation/getting-started/operator-training/>).

If receiving volumes shift, add or change drop points in minutes — see [Temporary Location Setup](https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/) (<https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/>) and [Temporary Storage](https://info.mobilerobot.com/applications/use-cases/temporary-storage/) (<https://info.mobilerobot.com/applications/use-cases/temporary-storage/>).

For load limits at the dock, 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/>).

