



The Mobile Robot Company

Knowledge Center — Warehouse-to-Production Transport · 2026-08-04

<https://info.mobilerobot.com/applications/use-cases/warehouse-to-production-transport>

Warehouse-to-Production Transport

The chain from [goods receipt](https://info.mobilerobot.com/applications/industries/goods-receiving/) through storage into production is connected by long, repetitive travel segments. Those segments — not the nuanced handling at either end — are what the J1600 automates. The operator picks in the warehouse; the robot walks the distance.

The division of work

Operator	J1600
Pick the pallet in the warehouse, judging load stability and pallet condition	Carry up to 1,600 kg along the saved route at up to 5.4 km/h
Select the production-side destination and post-delivery behavior	Navigate with 3D LiDAR SLAM and avoid obstacles on the way
Confirm entry into autonomous mode	Drop the pallet at floor level at the line or cell
Handle exceptions and urgent priority changes	Return, park, continue to another point, or wait

This is [human-in-the-loop automation](https://info.mobilerobot.com/documentation/concepts/human-in-the-loop-automation/) applied to the longest walks in the building.

Route length barely matters

The concept is the same whether the route is a few meters or well over 100 meters: [pick manually, send autonomously](https://info.mobilerobot.com/applications/scenarios/manual-pickup-and-autonomous-delivery/). Longer routes simply return more [saved walking](https://info.mobilerobot.com/applications/results/reduction-in-manual-walking/) per trip, which is why warehouse-to-production legs are often the highest-value routes to hand over. The J1600 is designed to remove [up to 80% of the operator time spent on this repetitive transport](https://info.mobilerobot.com/applications/results/productivity-improvements/).

Setting up the chain

1. Save the warehouse-side pickup areas, any intermediate buffer points, and the production-side drop points by driving to each once — see [Temporary Location Setup](https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/) (<https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/>).
2. For a simple feed, use [Deliver and Return](https://info.mobilerobot.com/applications/scenarios/deliver-and-return/) (<https://info.mobilerobot.com/applications/scenarios/deliver-and-return/>): the robot brings the empty forks back to you in the warehouse.
3. For chained moves — warehouse to buffer, buffer to line — use [A-to-B-to-C Transport](https://info.mobilerobot.com/applications/scenarios/a-to-b-to-c-transport/) (<https://info.mobilerobot.com/applications/scenarios/a-to-b-to-c-transport/>) or full [multi-point flows](https://info.mobilerobot.com/applications/use-cases/multi-point-pallet-transport/) (<https://info.mobilerobot.com/applications/use-cases/multi-point-pallet-transport/>).
4. Let line-side workers pull material on demand with [Come-to-Me](https://info.mobilerobot.com/applications/scenarios/come-to-me/) (<https://info.mobilerobot.com/applications/scenarios/come-to-me/>).

Preferred travel zones can be defined so the autonomous leg keeps to safer corridors through production areas — see [Operation in Crowded Environments](https://info.mobilerobot.com/applications/scenarios/operation-in-crowded-environments/) (<https://info.mobilerobot.com/applications/scenarios/operation-in-crowded-environments/>).

Requirements

The autonomous leg needs [indoor, level floors](https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/) (<https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/>) (automatic gradeability is 0%; manual mode handles up to 5% unloaded, 3% at full load), floor quality to TR34 FM3 / FF 25–FL 20, bumps up to 25 mm, and gaps up to 20 mm. Operating temperature is 5–40 °C. Full details: [J1600 technical specifications](https://info.mobilerobot.com/products/j1600/technical-specifications/) (<https://info.mobilerobot.com/products/j1600/technical-specifications/>).

Related flows: [Production Supply](https://info.mobilerobot.com/applications/use-cases/production-supply/) (<https://info.mobilerobot.com/applications/use-cases/production-supply/>) · [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/>) · [Production-to-Shipping Transport](https://info.mobilerobot.com/applications/use-cases/production-to-shipping-transport/) (<https://info.mobilerobot.com/applications/use-cases/production-to-shipping-transport/>).