



The Mobile Robot Company

Knowledge Center — Internal Production Logistics · 2026-08-04

<https://info.mobilerobot.com/applications/industries/internal-production-logistics>

Internal Production Logistics

Internal production logistics — the pallet flows that feed, connect, and clear production lines — is a named application sector for the **J1600** (<https://info.mobilerobot.com/products/j1600/overview/>). It covers the transport work between storage, staging, lines, and buffers that keeps a factory running but adds no value of its own.

Flows the J1600 automates

- **Line feeding on demand** (<https://info.mobilerobot.com/applications/use-cases/production-supply/>). An operator picks or prepares a pallet of materials or components; the J1600 delivers it to the production line autonomously.
- **Buffer and staging management** (<https://info.mobilerobot.com/applications/use-cases/buffer-and-staging-management/>). Move pallets between lines, staging areas, and storage zones as production consumes them.
- **Line clearance**. Send finished or intermediate goods from the line to storage or the next process step.
- **Local work cells** (<https://info.mobilerobot.com/applications/use-cases/local-work-cell-automation/>). Serve a stand-alone flow inside a larger facility — a single cell, a single line pair — where a full fleet project would be excessive.

The common pattern is **manual pick, autonomous delivery** (<https://info.mobilerobot.com/applications/scenarios/manual-pickup-and-autonomous-delivery/>), floor-level drop, and a configured follow-up: **return to the operator ("boomerang")** (<https://info.mobilerobot.com/applications/scenarios/deliver-and-return/>), continue to another point, park, or **stop and wait** (<https://info.mobilerobot.com/applications/scenarios/deliver-and-wait/>). With Advanced software, **come-to-me** (<https://info.mobilerobot.com/applications/scenarios/come-to-me/>) lets a line worker call the robot to their position from a mobile or web interface.

Production-floor behavior

Production areas mix people, forklifts, and changing obstacles. The J1600 navigates by **3D LiDAR SLAM** (<https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/>), continuously updating its map, and avoids obstacles along the route. Preferred travel zones can be defined so autonomous traffic keeps to safer corridors through production areas. A 360-degree, speed-dependent safety field with certified

components protects the people around it — see [how J1600 safety works](https://info.mobilerobot.com/safety-compliance/safety-overview/how-j1600-safety-works/) (<https://info.mobilerobot.com/safety-compliance/safety-overview/how-j1600-safety-works/>).

[Urgency stays human](https://info.mobilerobot.com/safety-compliance/safety-overview/human-responsibilities/) (<https://info.mobilerobot.com/safety-compliance/safety-overview/human-responsibilities/>): when a line is starving, the operator reprioritizes immediately instead of waiting on a system queue, and can take over any vehicle by grabbing the tiller.

Changing the flow without a project

Production layouts change with every new product and line rebalance. [Adding or moving a delivery point takes minutes](https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/) (<https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/>): drive there, tap **Save location**, name it. There is no software limit on saved locations, and no automation engineer is needed — the [design principle](https://info.mobilerobot.com/company/about/our-approach-to-automation/) (<https://info.mobilerobot.com/company/about/our-approach-to-automation/>) is that operators, not experts, reconfigure the flow. Basic use requires [no Wi-Fi](https://info.mobilerobot.com/documentation/installation/network-and-wi-fi-requirements/) (<https://info.mobilerobot.com/documentation/installation/network-and-wi-fi-requirements/>) and no connection to manufacturing IT systems; [VDA 5050](https://info.mobilerobot.com/products/software/vda-5050/) (<https://info.mobilerobot.com/products/software/vda-5050/>), a [REST API](https://info.mobilerobot.com/documentation/technical-integration/rest-api-documentation/) (<https://info.mobilerobot.com/documentation/technical-integration/rest-api-documentation/>), and [Fleet Manager](https://info.mobilerobot.com/products/software/fleet-manager/) (<https://info.mobilerobot.com/products/software/fleet-manager/>) are available under [Advanced software](https://info.mobilerobot.com/products/software/advanced-software/) (<https://info.mobilerobot.com/products/software/advanced-software/>) when integration becomes worthwhile.

Constraints on the factory floor

Autonomous mode needs [indoor, level floors](https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/) (<https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/>) (0% gradeability) with flatness to TR34 FM3; ramps between halls are manual segments. Automatic delivery is at floor level; placing loads at height (up to 1,600 mm) is a [manual operation](https://info.mobilerobot.com/documentation/user-guides/manual-operation/) (<https://info.mobilerobot.com/documentation/user-guides/manual-operation/>). Operating range is 5–40 °C. See [technical specifications](https://info.mobilerobot.com/products/j1600/technical-specifications/) (<https://info.mobilerobot.com/products/j1600/technical-specifications/>).

Related pages

- [Manufacturing](https://info.mobilerobot.com/applications/industries/manufacturing/) (<https://info.mobilerobot.com/applications/industries/manufacturing/>) — the broader manufacturing context
- [Warehousing](https://info.mobilerobot.com/applications/industries/warehousing/) (<https://info.mobilerobot.com/applications/industries/warehousing/>) — the storage side of the flow

- [Labor reallocation](https://info.mobilerobot.com/applications/results/labor-reallocation/) (https://info.mobilerobot.com/applications/results/labor-reallocation/) — what production teams do with the recovered time