



The Mobile Robot Company

Knowledge Center — Lower Integration Complexity · 2026-08-04

<https://info.mobilerobot.com/applications/results/lower-integration-complexity>

Lower Integration Complexity

Integration effort is the hidden cost of most automation projects. The J1600 is designed so that basic operation requires none of it — and so that [integration remains available, as an option](https://info.mobilerobot.com/documentation/technical-integration/integration-overview/) (<https://info.mobilerobot.com/documentation/technical-integration/integration-overview/>), when a site grows into it.

What the J1600 does not require

- **No mandatory Wi-Fi.** The basic out-of-box workflow runs [without a network connection](https://info.mobilerobot.com/documentation/installation/network-and-wi-fi-requirements/) (<https://info.mobilerobot.com/documentation/installation/network-and-wi-fi-requirements/>).
- **No warehouse-management-system or fleet-manager dependency.** Tasks are created and launched on the robot's own touchscreen.
- **No infrastructure changes.** [3D LiDAR SLAM](https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/) (<https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/>) replaces tracks, wires, reflectors, and marked target zones; certified safe reversing works without specially marked zones.
- **No code and no expert configuration.** [Teach-and-repeat](https://info.mobilerobot.com/documentation/concepts/teach-and-repeat/) (<https://info.mobilerobot.com/documentation/concepts/teach-and-repeat/>) setup is performed by the operator; new locations are saved by driving to them.
- **No integration project for changes.** [Layout changes](https://info.mobilerobot.com/applications/scenarios/dynamic-route-changes/) (<https://info.mobilerobot.com/applications/scenarios/dynamic-route-changes/>) are handled on the floor, in minutes.

This is what "works out of the box" means concretely: the machine is usable on delivery, and the standard software is deliberately reduced to essential functions.

The cost this avoids

Removing the human from the last part of pallet work is what drives integration cost in full automation: the system then needs warehouse-management-to-fleet-manager integration, precise load data, controlled processes, and expert configuration — investments that can reach approximately €1 million for a fully integrated system. By keeping the operator for judgment tasks, the [dual-mode](https://info.mobilerobot.com/products/j1600/dual-mode/) (<https://info.mobilerobot.com/products/j1600/dual-mode/>) approach avoids that entire integration layer while capturing [up to 80% of the labor benefit](https://info.mobilerobot.com/applications/results/productivity-improvement/) (<https://info.mobilerobot.com/applications/results/productivity-improvement/>).

ovements/). See [human-in-the-loop automation](https://info.mobilerobot.com/documentation/concepts/human-in-the-loop-automation/) (<https://info.mobilerobot.com/documentation/concepts/human-in-the-loop-automation/>).

Integration when you want it

Lower complexity does not mean a dead end. One J1600 hardware platform supports [two software versions](https://info.mobilerobot.com/products/software/software-comparison/) (<https://info.mobilerobot.com/products/software/software-comparison/>):

- **Standard software** (<https://info.mobilerobot.com/products/software/standard-software/>) — configuration-free teach-and-repeat for single-unit deployments.
- **Advanced software** (<https://info.mobilerobot.com/products/software/advanced-software/>) (€14,500 end-user list upgrade) — adds VDA 5050 interoperability, a [REST API](https://info.mobilerobot.com/documentation/technical-integration/rest-api-documentation/) (<https://info.mobilerobot.com/documentation/technical-integration/rest-api-documentation/>), [Fleet Manager](https://info.mobilerobot.com/products/software/fleet-manager/) (<https://info.mobilerobot.com/products/software/fleet-manager/>) (€6,500 per robot), advanced mission planning, and [integration with other software and equipment](https://info.mobilerobot.com/documentation/technical-integration/external-system-integration/) (<https://info.mobilerobot.com/documentation/technical-integration/external-system-integration/>).

[VDA 5050](https://info.mobilerobot.com/products/software/vda-5050/) (<https://info.mobilerobot.com/products/software/vda-5050/>) is fully supported, and the company works with established VDA 5050 fleet-management providers — so a J1600 can join a multi-vendor fleet under a compatible fleet layer when orchestration becomes worthwhile. The upgrade is easiest to install at the factory when the robot is ordered; a partner can perform it later.

UPGRADE INSTALLATION

The Advanced software upgrade is installed at the factory or by a partner. It is not customer-installable.

Related pages

- [Faster deployment](https://info.mobilerobot.com/applications/results/faster-deployment/) (<https://info.mobilerobot.com/applications/results/faster-deployment/>) — the go-live speed this enables
- [Operational flexibility](https://info.mobilerobot.com/applications/results/operational-flexibility/) (<https://info.mobilerobot.com/applications/results/operational-flexibility/>) — staying uncommitted to fixed processes
- [ROI examples](https://info.mobilerobot.com/applications/results/roi-examples/) (<https://info.mobilerobot.com/applications/results/roi-examples/>) — the cost comparison with integrated systems

- Third-party logistics (<https://info.mobilerobot.com/applications/industries/third-party-logistics/>) — a segment where integration overhead is fatal