



The Mobile Robot Company

Knowledge Center — Reduction in Manual Walking · 2026-08-04

<https://info.mobilerobot.com/applications/results/reduction-in-manual-walking>

Reduction in Manual Walking

"Automate the walking" is a core J1600 [design principle](https://info.mobilerobot.com/company/about/our-approach-to-automation/) (<https://info.mobilerobot.com/company/about/our-approach-to-automation/>). The product does not try to automate every nuance of pallet handling — it removes the repetitive travel that fills an operator's day without adding value.

The scale of the walking problem

Pallet transport is [a large, lightly automated activity](https://info.mobilerobot.com/documentation/concepts/pallet-automation-fundamentals/) (<https://info.mobilerobot.com/documentation/concepts/pallet-automation-fundamentals/>): more than one million pallet jacks are sold worldwide each year, more than 300,000 in Europe alone, and more than six million people use pallet jacks in their daily work. Only about 1% of pallet handling is automated. For most of those six million people, every pallet moved means walking the route with it — both ways.

What changes with the J1600

With the [J1600](https://info.mobilerobot.com/products/j1600/overview/) (<https://info.mobilerobot.com/products/j1600/overview/>), the walk disappears from the repetitive part of the task:

1. The operator [picks up the pallet manually](https://info.mobilerobot.com/applications/scenarios/manual-pickup-and-autonomous-delivery/) (<https://info.mobilerobot.com/applications/scenarios/manual-pickup-and-autonomous-delivery/>) — the judgment-heavy part.
2. The operator selects a saved destination on the touchscreen, confirms autonomous mode, and steps away.
3. The robot walks the route instead: it drives autonomously, avoids obstacles, drops at floor level, and returns, parks, waits, or continues as configured.

Whether the route is a few meters or more than 100 meters, the operator's share of it is now zero. In the common ["boomerang" pattern](https://info.mobilerobot.com/applications/scenarios/deliver-and-return/) (<https://info.mobilerobot.com/applications/scenarios/deliver-and-return/>), the robot returns to the operator for the next pallet while the operator keeps working at the pickup point — unloading a truck, picking the next load, or doing something else entirely.

The employee effect

Removing repetitive walking is an employee-satisfaction benefit, not only a cost line: less tiring, repetitive movement, and more time on work that uses judgment and skill. The company's position is that robots should assist rather than displace operators — the person keeps task authority, pickup, and [exception handling](https://info.mobilerobot.com/applications/scenarios/handling-exceptions-and-irregular-loads/) (<https://info.mobilerobot.com/applications/scenarios/handling-exceptions-and-irregular-loads/>), while the tedious transport is delegated. 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/>).

Walking that should remain

Not all movement belongs to the robot. Dock plates and slopes (autonomous gradeability is 0%), congested floors, misplaced pallets, and urgent reprioritizations are situations where a person walking over and taking the tiller is the fastest, safest answer. The J1600 supports immediate manual takeover precisely so this remaining walking stays rare and purposeful.

Related pages

- [Productivity improvements](https://info.mobilerobot.com/applications/results/productivity-improvements/) (<https://info.mobilerobot.com/applications/results/productivity-improvements/>) — the same effect measured in operator time
- [Safety improvements](https://info.mobilerobot.com/applications/results/safety-improvements/) (<https://info.mobilerobot.com/applications/results/safety-improvements/>) — fatigue and handling risk
- [Goods receiving](https://info.mobilerobot.com/applications/industries/goods-receiving/) (<https://info.mobilerobot.com/applications/industries/goods-receiving/>) — a flow where the dock-to-storage walk dominates