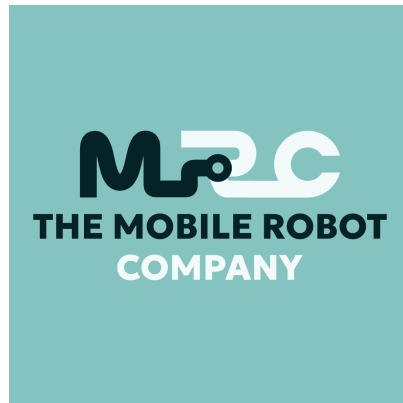




The Mobile Robot Company

Knowledge Center — Mapping Problems · 2026-08-04

<https://info.mobilerobot.com/support/troubleshooting/mapping-problems>

Mapping Problems

The J1600 [maps by driving](https://info.mobilerobot.com/documentation/getting-started/creating-the-first-map/) (<https://info.mobilerobot.com/documentation/getting-started/creating-the-first-map/>): an operator drives it manually through the facility with the tiller, and the robot continuously learns and updates a three-dimensional model of its environment using [3D LiDAR SLAM](https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/) (<https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/>). No tracks, wires, reflectors, or building modifications are involved. Most mapping problems are coverage problems.

The robot does not know an area

The robot only knows areas it has been driven through. To extend coverage, drive it manually through every aisle and zone it should later travel autonomously. The 3D LiDAR scans environmental structures at heights of up to 70 m above the vehicle, so large halls are mapped from floor level without extra equipment.

A destination is missing

Destinations are [saved locations](https://info.mobilerobot.com/documentation/user-guides/location-management/) (<https://info.mobilerobot.com/documentation/user-guides/location-management/>), not map annotations made at a desk:

1. Drive the robot manually to the exact drop point.
2. Tap **Save location** on the touchscreen.
3. Name the point — for example "Pallet Bay 1".

There is no software limit on the number of saved locations; the practical limit is your floor space. Saved points can be freely recombined into tasks without teaching every origin-destination pair. See [Task and location problems](https://info.mobilerobot.com/support/troubleshooting/task-and-location-problems/) (<https://info.mobilerobot.com/support/troubleshooting/task-and-location-problems/>).

The map is out of date

After a significant [layout change](https://info.mobilerobot.com/applications/scenarios/dynamic-route-changes/) (<https://info.mobilerobot.com/applications/scenarios/dynamic-route-changes/>), drive the robot manually through the changed area so the map refreshes. Day-to-day clutter does not require this — obstacle avoidance deals with

temporary objects, which is what makes the J1600 suitable for [brownfield sites](https://info.mobilerobot.com/applications/use-cases/brownfield-automation/) (<https://info.mobilerobot.com/applications/use-cases/brownfield-automation/>) and changing layouts.

A location has physically moved

If a [drop point](https://info.mobilerobot.com/documentation/installation/mapping-and-drop-point-setup/) (<https://info.mobilerobot.com/documentation/installation/mapping-and-drop-point-setup/>) moves — a staging area is relocated, a buffer zone shifts — drive to the new position and save it again. Adding or moving a location takes minutes and needs no automation expert.

Still having trouble

If the robot cannot localize or [repeatedly loses its way in a mapped area](https://info.mobilerobot.com/support/troubleshooting/navigation-problems/) (<https://info.mobilerobot.com/support/troubleshooting/navigation-problems/>), contact support — see [Submit a support request](https://info.mobilerobot.com/support/contact/submit-a-support-request/) (<https://info.mobilerobot.com/support/contact/submit-a-support-request/>).