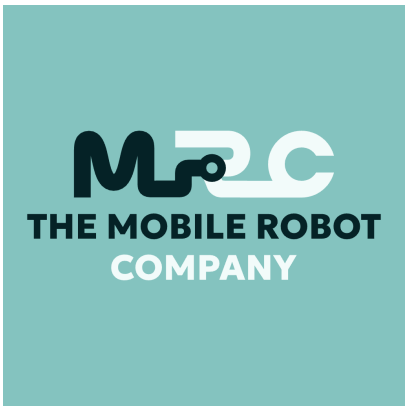

The Mobile Robot Company

Knowledge Center — Mapping and Drop-Point Setup · 2026-08-04

https://info.mobilerobot.com/documentation/installation/mapping-and-drop-point-setup

Mapping and Drop-Point Setup

The J1600 maps a facility by being driven through it. There is no survey, no CAD import, and no infrastructure to install — the robot builds and updates a 3D map while an operator drives, then delivers autonomously to the points you save. This page walks through first-time mapping, drop-point creation, and the first task.

How mapping works

The robot uses 3D LiDAR SLAM (https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/) (simultaneous localization and mapping) processed on an industrial NVIDIA Jetson AI computer. While you drive manually, it continuously learns and updates its understanding of the environment, scanning structures at heights reaching up to 70 m above the vehicle. It needs no fixed tracks, wires, reflectors, or building modifications, and the map keeps updating as the facility changes — which is what makes the J1600 practical in brownfield sites (https://info.mobilerobot.com/applications/use-cases/brownfield-automation/) with shifting layouts.

Terms are defined in the glossary (https://info.mobilerobot.com/documentation/concepts/glossary/).

First-time setup

1. Power on the J1600 and follow the on-screen tutorial.
2. Use the tiller to drive manually through the facility. The robot learns the environment as you go.
3. Drive to each point where the robot should drop pallets autonomously.
4. Tap **Save location**, name the point, and repeat for every destination you need.

There is no software limit on the number of saved locations — practical limits come from available warehouse space.

> **TIP**
>
> Name locations the way your team talks about them ("Pallet Bay 1", "Line 3 infeed"). Operators pick destinations from the map or list, so recognizable names keep task creation (https://info.mobilerobot.com/documentation/user-guides/task-management/) fast.

Adding and changing drop points later

New locations are added the same way: drive there once, tap **Save location**, done. Operators change the setup themselves — adding a point takes minutes and needs no automation expert or IT ticket. Saved points (https://info.mobilerobot.com/documentation/user-guides/location-management/) can be recombined freely into tasks; you do not need to demonstrate every possible A-to-B variation.

Creating the first task

1. Manually pick up a supported pallet or load carrier (https://info.mobilerobot.com/products/j1600/pallet-and-load-compatibility/).
2. Open task creation on the touchscreen.
3. Choose the task type and the saved drop destination.
4. Choose what happens after delivery: return to origin, go to another point or parking, or stop and wait (https://info.mobilerobot.com/applications/scenarios/deliver-and-wait/).
5. Execute the task. The robot asks to enter automatic mode; confirm with the physical start/go button.
6. Step away when the interface tells you to. The robot drives, avoids obstacles, drops the pallet at floor level, and follows the selected post-delivery action.

Pallet pickup is always manual, and autonomous delivery is at floor level (https://info.mobilerobot.com/applications/scenarios/manual-pickup-and-autonomous-delivery/) — the manual lift capability up to 1,600 mm does not apply in automatic mode. See dual mode (https://info.mobilerobot.com/products/j1600/dual-mode/) for the handover model.

Constraints to respect while placing points

- Drop points must be on level floor: automatic-mode gradeability is 0%. See Floor Requirements (https://info.mobilerobot.com/documentation/installation/floor-requirements/).
- Routes between points must stay within the operating environment limits (https://info.mobilerobot.com/documentation/installation/operating-environment-requirements/).
- Preferred travel zones can be defined for safer routing through production areas.

Drop points in the commissioning package

If you purchase the five-day commissioning package, on-site Day 1 includes creation of up to 25 drop points plus task validation — see the Deployment Checklist (https://info.mobilerobot.com/documentation/installation/deployment-checklist/). Additional validated drop points are available as an add-on.