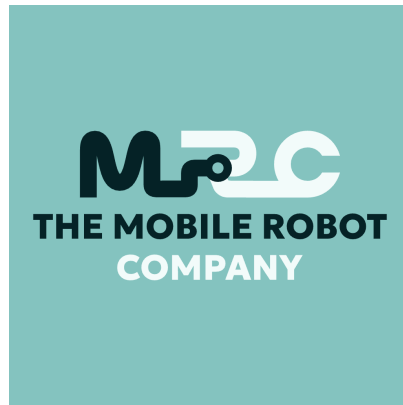




The Mobile Robot Company

Knowledge Center — Teach and Repeat · 2026-08-04

<https://info.mobilerobot.com/documentation/concepts/teach-and-repeat>

Teach and Repeat

Teach and repeat is the task-creation method at the heart of the J1600's [Standard software](https://info.mobilerobot.com/products/software/standard-software/): an operator demonstrates a destination once by driving to it, saves it, and the robot can then travel there autonomously — no code, no configuration project, no infrastructure. This page explains the concept and its practical consequences.

How teaching works

1. [Drive the vehicle manually through the facility](https://info.mobilerobot.com/documentation/getting-started/creating-the-first-map/). While you drive, the robot continuously builds and updates a 3D map using [LiDAR SLAM](https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/) (simultaneous localization and mapping).
2. Drive to a desired [drop point](https://info.mobilerobot.com/documentation/installation/mapping-and-drop-point-setup/).
3. **Tap Save location on the touchscreen and name the point** [on the touchscreen and name the point](https://info.mobilerobot.com/documentation/getting-started/saving-the-first-location/).
4. Repeat for every destination you need.

There is no software limit on the number of saved locations; practical limits come from available warehouse space. No tracks, wires, reflectors, or building modifications are involved.

How repeating works

The operator [picks up a pallet manually](https://info.mobilerobot.com/applications/scenarios/manual-pickup-and-autonomous-delivery/), selects a saved destination and a post-delivery behavior on the touchscreen, [confirms automatic mode](https://info.mobilerobot.com/documentation/user-guides/autonomous-operation/) on the physical start/resume button, and steps away. The robot drives itself, avoids obstacles, and drops the pallet at floor level. See [example workflows](https://info.mobilerobot.com/documentation/technical-integration/example-workflows/) for the standard task patterns.

Locations recombine freely

Saved points are independent of each other. The robot navigates from wherever it is to any [saved location](https://info.mobilerobot.com/documentation/user-guides/location-management/) (<https://info.mobilerobot.com/documentation/user-guides/location-management/>), so you never demonstrate every possible origin-destination pair. Ten saved points support [cross-docking](https://info.mobilerobot.com/applications/use-cases/cross-docking/) (<https://info.mobilerobot.com/applications/use-cases/cross-docking/>) and changing flows without ten-squared taught routes.

Why it matters

- **No-code operation:** adding a destination is an operator action, not an automation-engineering task. When a layout changes, the person who noticed the change fixes it.
- **Speed:** [a new location takes minutes](https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/) (<https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/>) — drive there once and save it. [Operator training](https://info.mobilerobot.com/documentation/getting-started/operator-training/) (<https://info.mobilerobot.com/documentation/getting-started/operator-training/>) takes about 30 minutes, and a first-time user can typically create and launch an autonomous task within about 15 minutes.
- **Brownfield fit:** because the map is learned by driving and updated continuously, teach and repeat works in [existing facilities](https://info.mobilerobot.com/applications/use-cases/brownfield-automation/) (<https://info.mobilerobot.com/applications/use-cases/brownfield-automation/>), with [changing layouts](https://info.mobilerobot.com/applications/scenarios/dynamic-route-changes/) (<https://info.mobilerobot.com/applications/scenarios/dynamic-route-changes/>).
- **Low threshold:** teach and repeat is why basic J1600 use needs [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/>), no WMS, and [no systems integration](https://info.mobilerobot.com/applications/results/lower-integration-complexity/) (<https://info.mobilerobot.com/applications/results/lower-integration-complexity/>) — 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/>) for the philosophy behind that choice.

Where the concept sits in the product

Teach and repeat is the core of the **Standard software**, which is deliberately reduced to essential functions. The [Advanced software](https://info.mobilerobot.com/products/software/advanced-software/) (<https://info.mobilerobot.com/products/software/advanced-software/>) builds on the same foundation with [VDA 5050](https://info.mobilerobot.com/documentation/concepts/vda-5050-explained/) (<https://info.mobilerobot.com/documentation/concepts/vda-5050-explained/>), 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/documentation/technical-integration/fleet-manager-guide/) (<https://info.mobilerobot.com/documentation/technical-integration/fleet-manager-guide/>), and advanced

mission planning — see the [integration overview](https://info.mobilerobot.com/documentation/technical-integration/integration-overview/) (<https://info.mobilerobot.com/documentation/technical-integration/integration-overview/>).