



The Mobile Robot Company

Knowledge Center — Emergency Stops and Manual Takeover · 2026-08-04

<https://info.mobilerobot.com/safety-compliance/safety-overview/emergency-stops-and-manual-takeover>

Emergency Stops and Manual Takeover

Anyone working near a J1600 can stop it, and the operator can reclaim manual control at any moment. This page lists every stop and takeover control and what each does.

Emergency-stop buttons

The J1600 has three emergency-stop buttons. The emergency-stop function is rated [Performance Level d \(PL d\)](https://info.mobilerobot.com/safety-compliance/safety-functions/performance-levels/) (<https://info.mobilerobot.com/safety-compliance/safety-functions/performance-levels/>), the highest level assigned to any J1600 safety function. The emergency stop is one of the [externally visible controls](https://info.mobilerobot.com/documentation/technical-reference/interface-specifications/) (<https://info.mobilerobot.com/documentation/technical-reference/interface-specifications/>) on the vehicle, alongside the start/resume button, key switch, and tiller.

Belly button

A belly button provides stop and reverse. It protects the person at the tiller position: activating it stops the vehicle and reverses it away.

Tiller takeover

The tiller is both the manual control and a safety device:

- **Grab or move the tiller** during autonomous operation and the vehicle immediately returns to manual control.
- Two tiller-position switches back this up: one functions as an emergency stop, the other enables manual control. Tiller-position detection is a certified safety function rated PL c — see [Tiller detection](https://info.mobilerobot.com/safety-compliance/safety-functions/tiller-detection/) (<https://info.mobilerobot.com/safety-compliance/safety-functions/tiller-detection/>).

Takeover requires no menu, code, or supervisor: the [design principle](https://info.mobilerobot.com/company/about/our-approach-to-automation/) (<https://info.mobilerobot.com/company/about/our-approach-to-automation/>) is that immediate human intervention is always available. See [Human responsibilities](https://info.mobilerobot.com/safety-compliance/safety-overview/human-responsibilities/) (<https://info.mobilerobot.com/safety-compliance/safety-overview/human-responsibilities/>).

Key switch

The three-position key switch selects power off, manual-only, or automatic mode. Turning it out of the automatic position ends autonomous operation. Mode selection is a certified safety function rated PL c — see [Mode selection](https://info.mobilerobot.com/safety-compliance/safety-functions/mode-selection/) (https://info.mobilerobot.com/safety-compliance/safety-functions/mode-selection/).

Start and resume

Autonomous execution is controlled by a physical LED start/resume button. The vehicle **does not enter automatic mode on a touchscreen tap alone** (https://info.mobilerobot.com/support/troubleshooting/robot-will-not-enter-autonomous-mode/) — the operator must confirm with this button, and the interface instructs the operator to step away before the task starts. See [Manual and autonomous mode safety](https://info.mobilerobot.com/safety-compliance/safety-overview/manual-and-autonomous-mode-safety/) (https://info.mobilerobot.com/safety-compliance/safety-overview/manual-and-autonomous-mode-safety/).

Automatic protection alongside manual controls

Manual stops complement, rather than replace, the automatic protection layers: certified [person detection](https://info.mobilerobot.com/safety-compliance/safety-functions/person-detection/) (https://info.mobilerobot.com/safety-compliance/safety-functions/person-detection/) (PL d) and [braking](https://info.mobilerobot.com/safety-compliance/safety-functions/braking/) (https://info.mobilerobot.com/safety-compliance/safety-functions/braking/) (PL d) act on the 360-degree protective field regardless of operator input. The full component list is in [Safety architecture](https://info.mobilerobot.com/safety-compliance/safety-overview/safety-architecture/) (https://info.mobilerobot.com/safety-compliance/safety-overview/safety-architecture/).