



# The Mobile Robot Company

Knowledge Center — Dimensions and Performance · 2026-08-04

<https://info.mobilerobot.com/products/j1600/dimensions-and-performance>

# Dimensions and Performance

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This page holds the complete J1600 dimension, motion, and battery data. Headline figures and hardware components are on [Technical specifications](https://info.mobilerobot.com/products/j1600/technical-specifications/) (<https://info.mobilerobot.com/products/j1600/technical-specifications/>).

## **PRELIMINARY SPECIFICATIONS**

These January 2026 specifications are preliminary and subject to change.

## Dimensions

| Parameter                               | Metric   | Imperial |
|-----------------------------------------|----------|----------|
| Vehicle length                          | 1,893 mm | 75 in    |
| Vehicle width                           | 850 mm   | 33 in    |
| Vehicle height, forks lowered           | 2,060 mm | 81 in    |
| Vehicle height, forks at maximum height | 2,350 mm | 93 in    |
| Fork height, highest position           | 1,600 mm | 63 in    |
| Fork height, lowest position            | 90 mm    | 3.5 in   |
| Fork length                             | 1,150 mm | 45 in    |
| Fork width                              | 180 mm   | 7 in     |
| Fork thickness                          | 60 mm    | 2.4 in   |
| Fork outer distance                     | 680 mm   | 27 in    |
| Fork inner distance                     | 320 mm   | 13 in    |
| Ground clearance                        | 30 mm    | 1.2 in   |
| Tiller-handle height, upright           | 1,234 mm | 49 in    |
| Wheelbase                               | 1,106 mm | 44 in    |
| Turning radius                          | 1,501 mm | 59 in    |

Truck weight is 980 kg.

## Motion and lift performance

| Parameter                        | Metric             | Imperial               |
|----------------------------------|--------------------|------------------------|
| Rated payload                    | 1,600 kg           | approximately 3,500 lb |
| Top speed                        | 5.4 km/h (1.5 m/s) | 3.4 mph                |
| Fork lifting speed, no load      | 0.10 m/s           | 0.33 ft/s              |
| Fork lifting speed, full load    | 0.08 m/s           | 0.26 ft/s              |
| Fork lowering speed, no load     | 0.08 m/s           | 0.26 ft/s              |
| Fork lowering speed, full load   | 0.12 m/s           | 0.39 ft/s              |
| Automatic pallet-delivery height | Floor level        | Floor level            |
| Manual pallet-pick height        | Up to 1,600 mm     | Up to 63 in            |
| Manual pallet-delivery height    | Up to 1,600 mm     | Up to 63 in            |

The up-to-1,600 mm pick and drop heights are [manual capabilities](https://info.mobilerobot.com/documentation/user-guides/manual-operation/) (<https://info.mobilerobot.com/documentation/user-guides/manual-operation/>); autonomous delivery is always at floor level. Gradeability and floor requirements are on [Operating environment](https://info.mobilerobot.com/products/j1600/operating-environment/) (<https://info.mobilerobot.com/products/j1600/operating-environment/>).

## Battery and power

| Parameter                        | Value                                       |
|----------------------------------|---------------------------------------------|
| Battery                          | 24 V, 200 Ah                                |
| Chemistry                        | Lithium iron phosphate (LiFePO4)            |
| Drive motor                      | AC, 1.5 kW                                  |
| Lift motor                       | 2.2 kW                                      |
| Drain while driving fully loaded | approximately 13% per hour                  |
| Drain while driving without load | approximately 12% per hour                  |
| Standby drain                    | approximately 2% per hour                   |
| Charging rate                    | approximately 47 percentage points per hour |

## Runtime

Runtime exceeds eight hours in a typical duty cycle. The listed [drain rates](https://info.mobilerobot.com/documentation/technical-reference/battery-specifications/) (<https://info.mobilerobot.com/documentation/technical-reference/battery-specifications/>) imply approximately 7.7 hours of continuous fully loaded driving, or 8.3 hours unloaded, before allowing for standby, lifting, duty cycle, battery reserve, and operating conditions. These calculated figures are derived from the drain rates and are not guaranteed runtimes.

Charging options — manual plug-in and automatic opportunity charging — are described on [Chargers and accessories](https://info.mobilerobot.com/products/j1600/chargers-and-accessories/) (<https://info.mobilerobot.com/products/j1600/chargers-and-accessories/>).