

FLOW Core Software Platform

Product Guide



Overview

Omron's Fleet Operations Workspace (FLOW) Core software package is designed to boost the capabilities of LD Series mobile robot fleets and improve their ease of use. In particular, the software simplifies integration and supports flexibility, while also maximizing reliability and efficiency for this innovative mobile robot solution.

As the standard, all-in-one software platform that powers the navigational capabilities of individual robots as well as the optional fleet management of up to 100 mobile robots, FLOW Core provides an intuitive design that helps users maximize their mobile robot investment.

Applications

- Automotive assembly and inspection
- Semiconductor wafer fabrication
- Mobile device manufacturing
- Food and beverage stockroom transport
- Sterilization room transport
- Laboratory sample transport

Primary Benefits

- Increases flexibility, efficiency and productivity
- Simplifies integration and operations of LD robots and fleets
- Maximizes reliability and uptime

Key features


- Intelligent job assignment with queuing management
- Single software suite with easy integration to IT systems (MES, ERP and WMS)
- Powerful tools for map creation and editing
- Efficient motion management and traffic control for mobile robots
- Easy updating of fleet-connected robots
- Simplified LD robot charge management
- Reduction in mobile robots' time-to-goal by up to 15% with motion smoothing
- Dynamic obstacle avoidance with real-time trajectory predictions
- Optional Cell Alignment Positioning System (CAPS) for improved position accuracy

FLOW Core Supported Robot Models

| Appearance | Product Name | Payload | Max Speed | Runtime (between charges) |
|--|------------------|---------------|--------------------|---------------------------|
|  | LD-60/90 | 60kg / 90kg | 1800mm/s, 1350mm/s | 15 hours |
|  | LD-250 | 250kg | 1200mm/s | 13 hours |
|  | Cart Transporter | 105kg / 130kg | 1350mm/s, 900mm/s | 12 hours |

Please refer to the LD Datasheet (catalog number I828I-E3-05) for part numbers

FLOW Core Fleet Management Solutions

| Appearance | Product Name | Configuration & Attachment | Part Number |
|---|-------------------------|---|-----------------|
|  | Primary Fleet Manager | EM2100 Appliance with 5 year Fleet Operations Workspace License | 20271-900-OEI-5 |
| | Secondary Fleet Manager | EM2100 Appliance with 5 year Fleet Operations Workspace License | 20271-901-OEI-5 |