OMRON’s Command Center for Mobile Robotics

OMRON’s Fleet Operations Workspace (FLOW) Core provides a comprehensive mobile robot and fleet management solution for factory and manufacturing applications. It seamlessly integrates the navigation and safety of OMRON’s mobile robotics with its industry leading fleet management into a single software suite. Fleet Operations Workspace (FLOW) Core provides factory managers a complete mobile robot solution with the most advanced fleet management available.

Ensuring Effective and Efficient Fleet Operation

FLOW Core offers a number of benefits so factories can optimize their fleet:
- Optimized efficiency through intelligent job assignment, managed motion, and traffic control
- Reduced job execution time through improved navigation and driving algorithms
- Increased flexibility with alternate path navigation and easy goal location programming to quickly respond to factory layout changes
- Displays robot location and status
- Displays job queue
- Prioritizes important jobs
- Selects fastest routes based on human and robot traffic
- Optimizes battery charging

Intuitive Set-Up and Management

OMRON’s MobilePlanner remains the control center for FLOW Core. Its user interface has tools for all major autonomous mobile robot activities, such as creating and editing maps, defining goals, setting tasks, managing job priorities, commanding fleets, and optimizing fleet configurations.

Continuous Improvement

FLOW Core provides a continuously improving solution for mobile robot fleets. Through our close relationship with global manufacturers, we constantly learn new ways to improve our solution to meet real-world needs.
Integrates with Factory Systems

FLOW Core quickly and easily integrates with your factory’s manufacturing execution system (MES) or enterprise resource planning (ERP) solution. The integration toolkit provided with FLOW Core connects OMRON’s mobile robot fleet with any MES/ERP system via industry standard RESTful, SQL or MQ APIs.

Once connected, our FLOW Core solution also reduces programming in your manufacturing execution system (MES) or enterprise resource planning system (ERP).

FLOW Core then automatically begins optimizing the mobile robot fleet by:
- Selecting fastest routes based on human and robot traffic
- Identifying blocked paths and creating alternative routes
- Optimizing job assignments, battery charging for most efficient use
- Prioritizing important jobs in real time

OMRON’s Fleet Manager coordinates mobile robots and provides traceability, job allocation, and traffic control across the entire fleet.