What is a *Robot Fleet Management* System?

Do you need it for your business?

Ricardo Tellez, CEO of The Construct





HEALTHCARE | STAFF REPORTER , SINGAPORE

② PUBLISHED: 1 YEAR AGO ③ 105 VIEWS



Photo courtesy of CNN

Changi General Hospital deploys 50 staff robots



Tasks done by those robots:

- Delivery of food
- Delivery of drugs
- Cleaning



Transportation of materialsand others...



The Problem: How to orchestrate the robots to deliver all the tasks?



To prevent

- Robots downtime
- Robots interlocks
- Taking too much time to serve a task



It needs to be decided

- Which robots serves which task
- Which path must follow each robot
- Which doors/elevators to control
- · Which robots go to charge



Taking into account different types of robots



Taking into account different manufacturers



Taking into account different machines the robots need to interact with



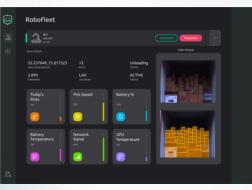
Introducing Fleet Management Software

- Connects to each robot and knows its status
- · Decides which robot will serve what
- Decides optimal route to avoid collision between robots
- Decides which robot must go to charge
- Decides which elements to activate and when (doors, elevators, PLCs, conveyor belts...)

We must differentiate between

- Fleet monitoring system
- Fleet management system

Provide current status of the fleet and allow remote control



Fleet Management Systems

Actual orchestration of the robots under

changing conditions



Formant





Freedom Robotics





Braincorp



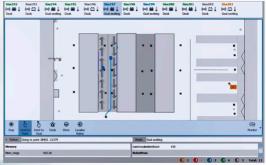


MIR Fleet





OMRON
Fleet



 Otto Fleet Manager





 FetchCore Software





Fleet Management Systems Standards

 MassRobotics, standard for AMRs interoperability



Fleet Management Systems Standards

VDA 500: standardised interface for AGV comms.





Fleet Management Systems For General Robots

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Fleet Management Systems For General Robots

Open-RMF

Cpen-RMF



Learn Open-RMF in a 3 days intensive online training

- How RMF works
- How to adapt RMF to your project:
 - Warehouses
 - Restaurants
 - Hospitals



theconstructsim.com/robot-fleet-management-ros2-open-rmf-training/



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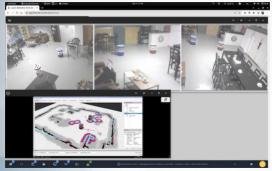
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