



HANDLING  
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**SCOUT®**

Mobile Robot for Efficient  
& Flexible Use in Cleanrooms

Powered by



# SCOUT®

## Mobile Robot for Efficient & Flexible Use in Cleanrooms

The SCOUT® is an automated guided vehicle for flexible transportation of materials in semiconductor fabs and other clean production environments. It navigates autonomously and does not require any kind of guidance system on the floor or on the ceiling. Once it has been programmed, it is capable of transporting materials and products between any point in the fab, taking measurements, and providing tools and auxiliaries. Equipped with different handling units, (i.e. robot-arms or linear-axis) or transport features, (i.e. for SMIF Pods and HA 200 boxes), SCOUT® can be individually configured to customers' specific needs. Its compact size and extreme agility make it very flexible, and thanks to its reliable sensor technology, it can even be used safely in areas where people and machines work very closely together.

The advantages are obvious: automated transportation improves utilization of production facilities and leaves operators free to complete important tasks. The automated, independent use of the SCOUT® also ensures high availability. It may also be adjusted at any time to suit the production environment without construction procedures.

This makes the SCOUT® an ideal alternative in case a permanently installed transport system such as rails or a conveyor system cannot be implemented or would be too expensive.

### Specifications

Example: SCOUT®*active*

- SCOUT® Controller with Touch GUI
- Light Tower
- Emergency Stop Button
- Case for Navigation Unit
- Case for Motor and Power Supply

- 3D Sensor
- Handling Unit for Material Pick&Place
- WiFi Antenna
- Safety Laser Scanner
- Safety Switch (Bumpers)

**Mobile platform:** SCITOS G5 by MetraLabs GmbH  
**Max. payload:** 6 kg for SCOUT®*active* with 6-axis-robot; up to 50 kg for SCOUT models with passive transportation applications  
**Speed:** translation up to 1.4 m/s  
**Clean room class:** ISO class 3/US FED class 1  
**Sensors:** encoders, laser scanners, bumper, 3D sensor  
**Operating time:** Up to 18 hours after 5 hours full charge - opportunity charging possible  
**Navigation technology:** CogniDrive by MetraLabs GmbH  
**WiFi based fab-wide tracking and transport job management**  
**Optional ID integration** (e.g. RFID)  
**Fleet Manager** for multiple SCOUTs®



## Features

### Autonomous navigation

- Independent navigation via programmable parameters
- Integrated 3D sensor that records the environment of the SCOUT® in real time
- Operating personnel do not need to be present
- No additional infrastructure required

### Clean

- Proven cleanroom suitability up to ISO class 3/US FED class 1
- Integration of special drive systems
- Contactless charging process

### Safe

- Detection of the environment and people and avoidance of hindrances including permanent, optimized path planning via use of innovative 3D sensor technology
- Shock-absorbing loading systems for transportation of sensitive loads

### Flexible use

- Free navigation in the factory via configurable map elements ("no go" areas, speed areas)
- Temporary route blocking possible
- Destination may be changed in seconds (in principle, any point in the factory may be reached)

### Save costs

- Moderate investment and low operating costs produce a more attractive return on investment
- No installation expense
- Low-maintenance and power-saving

### Efficient

- Daily working period up to approx. 18 hours with 5 hours of charging
- Speed up to 1.4 m/s
- Optimal solution for low to mid transported loads, in which case investment in a permanently installed rail or conveyor system is not feasible

## SCOUT® Fleet Manager

- Optimized Central Transport Job Queueing, Dispatching and Charging for multiple SCOUTs®
- Gateway between Fab MES and SCOUTs® with Standard Compliant Interfaces
- Restricted Area & Temporary No-Go Area Management
- Central Map and Configuration Management
- Fab Visualization via Global Graphical User Interface



### ■ SCOUT®*triax300*

triple linear axis handler for 300mm FOUPs

### ■ SCOUT®*substrate*

transporter for large glass substrates

### ■ SCOUT®*cargo*

transporter for various boxes

### ■ SCOUT®*triax*

triple linear axis handler for reticle boxes and SMIF Pods

### ■ SCOUT®*roro*

roll-on roll-off handler for boxes and cassettes

### ■ SCOUT®*active*

6-axis handler for cassette loading at non-standard ports

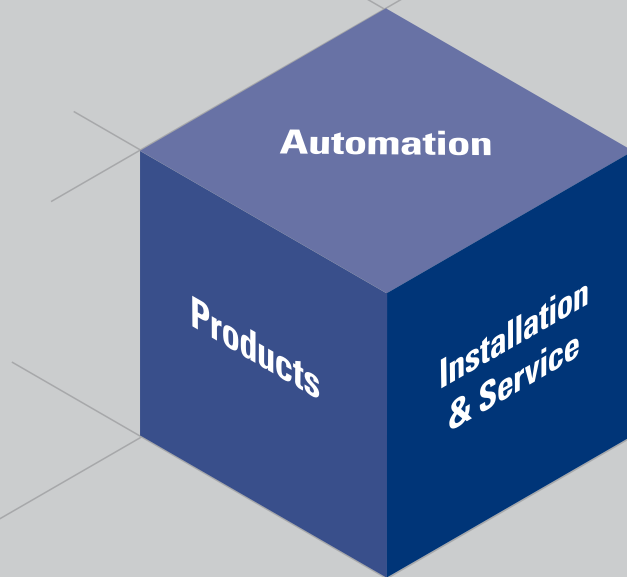
## Diverse applications possible

Various attachments enable the SCOUT® to be adjusted to different conditions according to the desired use and industry. What transportation processes would you like to automate at your company? We would be pleased to develop the right application for you. Just contact us!

# Ortner's divisions at a glance

## The missing Link

We have the enabling technologies you have been looking for to make your production lines more efficient and competitive.



### Automation

Design, conception and implementation of customized automation projects for a safer and more efficient wafer and cassette handling



### Products

Innovative solutions supporting the material-flow optimization such as RFID components, logistic systems and special products



### Installation & Service

Customized service packages throughout the systems' life-cycle inclusive installation, commissioning, maintenance and failure analysis

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SCOUT® in Action:

