SWEEPING INTELLI-GENT & EFFICIENT

ADLATUS SR1300 + S1300

Vacuum sweeping robot system with service station

MISSION

DESIGNED TO SERVE ...

That is the mission of ADLATUS Robotics GmbH.

Digitalization and globalization drive change in the facility management service sector and demand new products and solutions from companies. ADLATUS Robotics GmbH supports this change with innovative autonomous service robots for professional use.

Adlatus comes from Latin and means helper. This is also the idea of ADLATUS Robotics GmbH „to provide companies with an assistant that can take care of tasks independently". From the beginning, ADLATUS has chosen the approach of full autonomy for its service robots and increased their autonomy with service stations.

Our assistants are designed to make life and work easier and successfully provide services independently as a colleague.

ADLATUS Robotics GmbH develops, produces and sells service robots and offers customers complete solutions including consulting, commissioning, training and service.

INNOVATION, COMPETENCE & SAFETY

... these are our strengths in the development and realization of fully autonomous cleaning robot systems.

Due to the shortage of skilled labour in many sectors, the demand for process automation is growing. However, a major disruptive factor for process reliability is dust and dirt. To minimize this, regular maintenance cleaning is a must, but can often only be carried out infrequently due to a shortage of labour.

These challenges have motivated ADLATUS Robotics from the very beginning to develop new robotic system solutions for the professional cleaning of floors with a great deal of passion, perseverance and team spirit. With the ADLATUS Trusted Robotics platform, ADLATUS Robotics focuses on data protection and data security for its users in addition to full autonomy and high safety performance when developing its robot systems.

EFFICIENT, FLEXIBLE & ECONOMICAL

ECONOMIC EFFICIENCY
Cleaning frequencies can be flexibly increased without additional costs, cleaning processes are efficiently designed, customised and integrated into existing workflows. Employees who were previously tied up can be deployed for other activities that are less stressful for the body or more efficient.

FLEXIBILITY
Cleaning times can also be flexibly adapted to traffic frequencies outside working hours. Increased cleaning quality through efficient regular cleaning increases occupational safety.

USER-FRIENDLY
Thanks to the simple and user-friendly user interface, the vacuum sweeping robot system can be started easily by the cleaning staff. Either directly on the robot's touch display next to the device or remotely via a mobile device. In addition to starting the cleaning programs manually, it is also possible for the robot to start the cleaning programs fully autonomously via a timer.

SAFETY PERFORMANCE LEVEL
A combination of different intelligent sensors ensures stability in navigation and brings collision avoidance to a performance level that complies with the global safety standard IEC 63327. This increases the independence and autonomy of ADLATUS robot systems and ensures safety even in environments with many people.

DATA PROTECTION GDPR* COMPLIANT
Privacy by design – at ADLATUS, data protection begins with product development and does not record any personalized or environmental data.
*General Data Protection Regulation

CONNECTIVITY
The vacuum sweeping robot system has options for customised communication with technical systems. It can be integrated into the building infrastructure or IOT systems and can thereby communicate with fire alarm or alarm systems, operate automatic doors and gates or, for example, transmit the fully automated documentation of the cleaning carried out as a log by email.

TRANSPARENCY THROUGH DOCUMENTATION
Fully automated reporting after each use of the service robots facilitates the documentation and verification of services for billing purposes, performance records or audits. For example, the area cleaned, time spent and more details. The documentation of the cleaning process is certified and data protection compliant.

AUTONOMOUS CLEANING ROBOT

The **fully autonomous vacuum sweeping robot system** is equipped with a service station in which the robots battery is charged. In addition, the system offers fully automatic disposal of the swept-up dirt, which can be dumped into a standard container.

The fully autonomous vacuum sweeper is build on the ADLATUS Trusted robotics platform. This platform supports the intelligent autonomy of the vacuum vacuum sweeper and offers maximum process stability during navigation, economical use of smart features and security when handling our customers‘ data.

The robotic vacuum sweeper system was specially developed for logistics and industrial areas to remove coarse dirt in large halls or warehouses efficiently. The vacuum sweeper can turn on the spot and can also be used for cleaning in confined spaces. The system can drive on ramps with gradients of up to 20%.

Automatic emptying of the dirt collection container and automatic battery charging increase the degree of automation of the autonomous vacuum sweeping robot and minimize the need for manual maintenance.

FIELDS OF APPLICATION:

- INDUSTRY / PRODUCTION
- LOGISTICS
- PUBLIC FACILITIES
- SHOPPING CENTRES
- CAR PARKS
- AND OTHER APPLICATIONS


ADLATUS SR1300
Vacuum Sweeping Robot System

TECHNOLOGY IN FOCUS

YOUR ADVANTAGES AT A GLANCE

FULL AUTONOMY WITH SERVICE STATION

A fully automatic service station increases the degree of automation of the autonomous cleaning system and minimizes the amount of maintenance required from staff. In addition to battery charging, cleaning programs are started automatically and the dirt collection container is emptied.

SUSTAINABLE BATTERY EXTENSION

The SR1300 vacuum sweeping robot system can be equipped with a different number of batteries depending on the desired area performance. The battery capacity can be varied between 180 Ah and 480 Ah, which offers a running time of up to eight hours.

NAVIGATION WITH OUR OWN SOFTWARE PLATFORM

ADLATUS vaccum sweeping robotic systems are operated on a specially developed software platform which, in combination with a powerful sensor system, ensures a high level of stability in navigation. The software is continuously optimised based on findings from the field and customer requirements and updates are made available to users accordingly.

Together with sensor manufacturers, ADLATUS has developed a sensor system in which different sensors interact, to increase the stability of navigation and improve collision avoidance to a performance level that complies with the European EN IEC 63327 standard. Lidar sensors enable the safe detection of obstacles or people and the early recognition of drop of points. ADLATUS is the only manufacturer that does not use high-resolution cameras for navigation for data protection reasons. 2D and 3D lidar sensors are used for this purpose, which do not record any personal data and do not classify any details of the surroundings during operation. Surrounding data is only recorded as coordinates.

SELF-SUFFICIENT OPERATION

The operation of the cleaning robots is completely self-sufficient and no connection to a WiFi network or a continuous internet connection is required. This minimizes risks in terms of IT security in companies. This means that ADLATUS cleaning systems can also be used in security-relevant environments, such as prototype construction, public buildings or other sensitive environments.

USER INTERFACE

The system is controlled through the touch display, which is intuitive and can be used by any worker without much prior knowledge. The user interface is multilingual and cleaning programs can be started using self-explanatory symbols, which can be operated by anyone after a short briefing. The start of the cleaning programs can be fully automated for every day of the week. If needed additional executions might be started manually by the staff.

INDUSTRIAL SUITABILITY

The vacuum sweeping robotic system is CE certified, is suitable for industrial use and is characterised by a quality-conscious, robust design that is designed for long-term use. High-quality components and parts are used, such as stainless steel elements or maintenance-free brushless motors.

TECHNICAL DETAILS

Voltage	24 V
Maximum power	2.63 kW
Drive unit	Front drive
Max. Forward speed	1.11 m/s = 4 km/h
Max. driveable gradients	20% = 11.3°
Minimum distance between two walls for turning manoeuvres	3.000 mm
Filter area (with pocket filter)	5.5 m^2
Filter area (with cartridge filter)	6.4 m^2
Sweepings container capacity	115 l
Width of the main brush / cleaning width	800 mm
Width of the main brush + one side brush	1.163 mm
Width of the main brush + two side brushes	1.271 mm
Max. cleaning performance with 2 side brushes (theoretical)	5.000 m^2/h
Battery capacity for standard version	approx. 180 Ah (expandable up to 480 Ah)

SIDE BRUSH
Dust and dirt is channelled into the machine by the side brushes. This is mainly used to clean corners and edges, after which they are usually switched off and raised to prevent dust being stired up unnecessarily.

ROLLER BRUSH
The roller brush or main brush guides the dust and dirt into the container and is the main cleaning element of the machine. Its hight is adjustable depending on the type of floor or material to be picked up und to compensate wear and tear.

CARTRIDGE OR POCKET FILTER
The filter system ensures that the vacuum sweeping robotic system does not stir up dust in the environment during operation. Various class M filters in different substances and treatments can be used. Cartridge filters are only used for light dust volumes, as they otherwise quickly become clogged. However, they can also be used in environments where moisture can occur on the floor.

Cleaning of the filter is integrated into the software application by means of automated shaking.

DIMENSIONS SR1300

Weight (standard equipment)	485 kg
Width	1.300 mm
Length	1.700 mm
Height	1.500 mm

FULLY AUTONOMOUS SERVICE STATION

- Emptying station with safety zone
- Inductive battery charging
- Automated high discharge up to 1450 mm from the ground
- Suitable for waste containers DIN EN 840 (1100 litres)
- Automatic emptying of the waste container

The vacuum sweeping robotic system is able to dispose the collected waste fully autonomously in an area monitored by safety sensors, where the robot's batteries are also charged wirelessly. The sweepings are emptied into a standard waste containers with a high discharge.

Charging time (standard version)	5 hours
Charging time (double charging configuration)	2,5 hours

DIMENSIONS S1300

Weight	approx. 240 kg
Width	2.000 mm
Length	3.500 mm
Height	2.000 mm

STEP BY STEP TO SUCCESS

FROM PREPARATION TO PROJECT MANAGEMENT

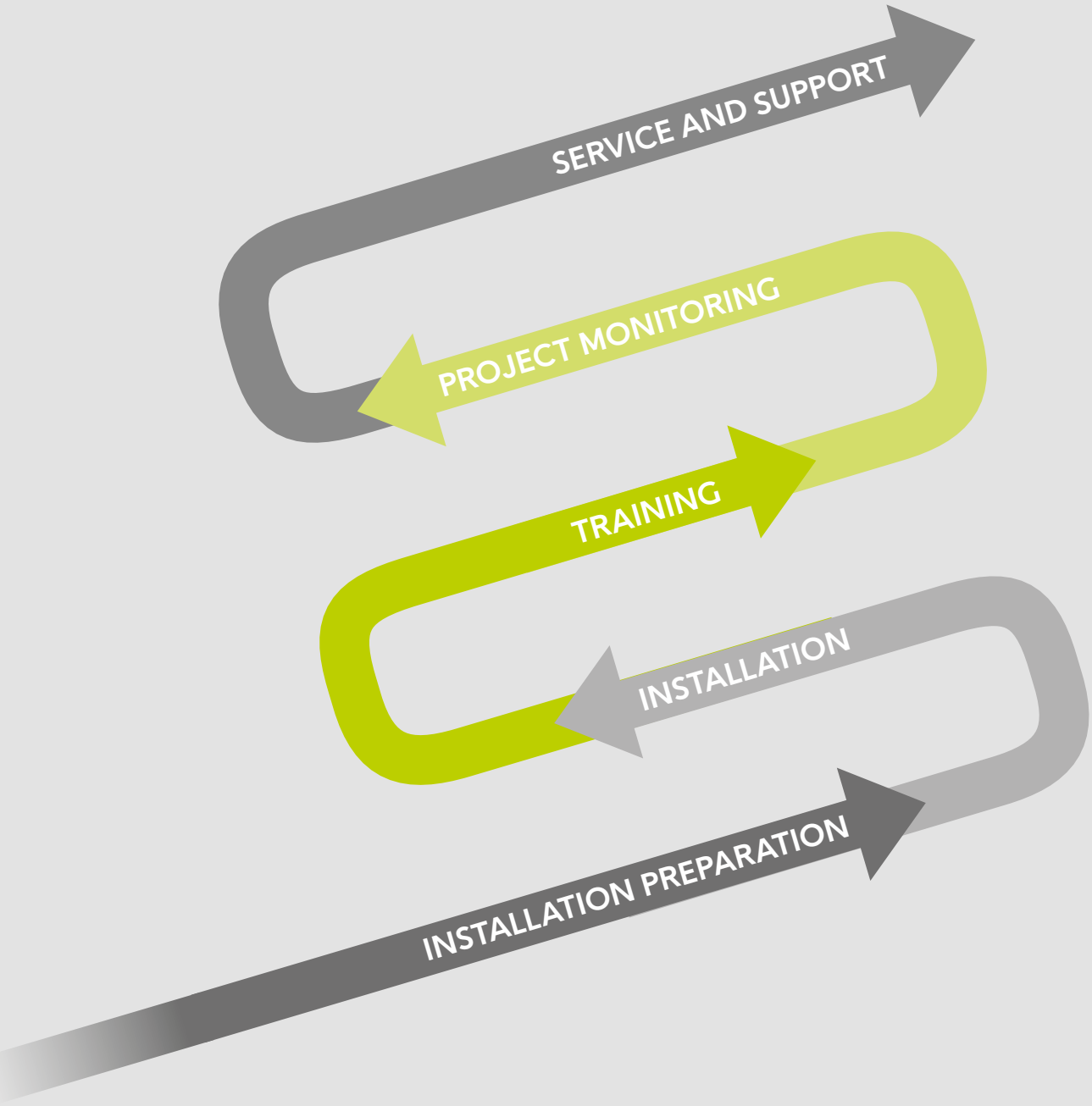
INSTALLATION PREPARATION
The key to success lies in careful installation preparation. Our experienced employees work closely with our customers to assess the property to be cleaned using comprehensive checklists. Customer requirements are checked for feasibility, challenges are discussed, the setup of the cleaning robot is defined according to the floor conditions and amount of dirt, cleaning areas and programmes are determined and project managers are communicated by the customer.

INSTALLATION
Experienced ADLATUS Robotics specialists are on hand at all stages of commissioning. This begins with the first application steps and continues with the efficient integration of the ADLATUS cleaning robots. ADLATUS Robotics is at your side from the start-up phase during commissioning at the customer's premises through to optimisation during ongoing operation. With the aim of ensuring and increasing the efficiency and productivity of maintenance cleaning.

EDUCATION AND TRAINING
ADLATUS Robotics offers users and operators a comprehensive training programme for the operation and maintenance of service robot systems. Depending on the customer's cleaning requirements and application, we offer a training package customised to the company.

PROJECT MONITORING
After commissioning, we monitor the project using log data, analyse it and optimise various parameters in close cooperation with our customers. This ongoing process serves to adapt the efficiency of the system to specific customer requirements and provide ADLATUS with valuable input for future developments.

SERVICE AND SUPPORT
Thanks to a comprehensive international service network with ADLATUS Robotics partners and dealers, we offer our customers on-site service on working days. In addition, our experts are available to customers via a service hotline and online support. The customized structure of ADLATUS Robotics service and maintenance contracts ensures that our customers receive service support that precisely meets their wishes and needs.


SERVICE AND SUPPORT
PROJECT MONITORING
TRAINING
INSTALLATION
INSTALLATION PREPARATION

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International Sales and Service Network

Technical changes and errors excepted

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