



ADLATUS CR700C + S700C

Fully autonomous cleaning robot system



DESIGNED TO SERVE...

MISSION

Designed to serve ...

The mission of ADLATUS Robotics GmbH.

Digitalization and globalization are driving change in the service sector of facility management and demands new products and solutions from companies. ADLATUS Robotics GmbH supports this through 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 a helper who can take care of tasks independently“. From the beginning ADLATUS has chosen the approach of an integrated automation for its service robots and increases their autonomy with service stations.

Our assistants should make life and work easier and as a colleague successfully provide services independently.

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

INNOVATION, EXPERTISE & SAFETY

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

Due to the shortage of skilled workers in many areas, demand for the automation of processes is increasing. A major disruptive factor for process reliability is dust and dirt. To minimize this, regular maintenance cleaning is a must, but due to the shortage of manpower, it can rarely be carried out.

These challenges motivate ADLATUS Robotics from the very beginning, with a lot of passion, perseverance and team spirit for the professional cleaning of floors. With the ADLATUS Trusted Robotics platform, ADLATUS Robotics focuses on full autonomy and high security performance, the focus in the development of its robot systems on the data protection and data security of its users.



DESIGNED TO SERVE...

EFFICIENCY, FLEXIBILITY, USER-FRIENDLY ...

... and thus cost savings, simplification of work, quality improvement, safety or transparency are examples of factors that motivate our customers to use our products.



Economic efficiency

Cleaning frequencies can be increased flexibly without additional costs, cleaning processes can be efficiently designed, individually adapted 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 be flexibly adjusted according to traffic frequencies, even outside of working hours. Increased cleaning quality through efficient regular maintenance cleaning increases occupational safety.



User-friendly

Thanks to the simple and user-friendly interface, the cleaning robot can be started easily by the cleaning staff. Either directly on the touch display of the robot directly at the device or also remotely via a mobile device. In addition to the manual start of the cleaning programs it is also possible that the robot starts the cleaning programs independently via a time control.



High safety performance level

An interplay of different intelligent sensors ensures stability in navigation and brings collision avoidance to a performance level that complies with the worldwide IEC 63327 safety standard. This ensures the autonomy of the ADLATUS robots systems and ensures safety even in environments with many people.



Data protection GDPR* compliant

Privacy by design and default - Data protection at ADLATUS already starts with product development and has the claim not to record any personalized or environment-related data.

* General General Data Protection Regulation



Connectivity

The cleaning robot system has possibilities of individual communication with technical systems. It can be integrated into the building infrastructure or IOT systems and enter into a kind of dialog with fire alarm or alarm systems, operate automatic doors and gates or, for example, transmit the fully automatically generated documentation of the cleaning work.



Transparency through documentation

Fully automated logging after every use of the service robots facilitates the documentation and proof of services for invoicing purposes, proof of performance or auditing. For example, about the areas cleaned, time spent and so on. The documentation of the cleaning process is certified and compliant with data protection regulations.

ADLATUS CR700C CYLINDRICAL BRUSH

FULLY AUTOMATED CLEANING ROBOT

When cleaning floors, the **ADLATUS CR700C** cleaning robot system with cylindrical brushes picks up the coarse dirt and cleans efficiently in one step.

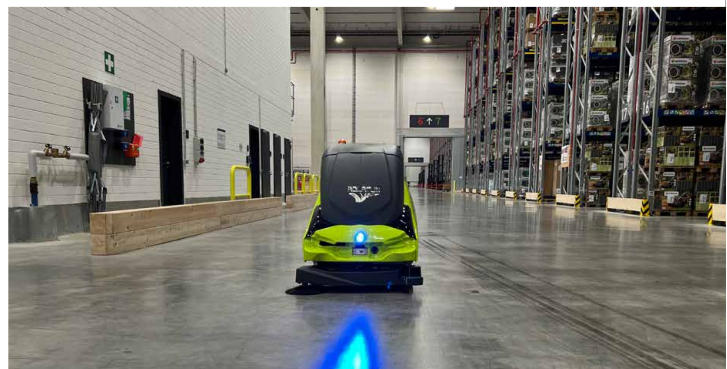
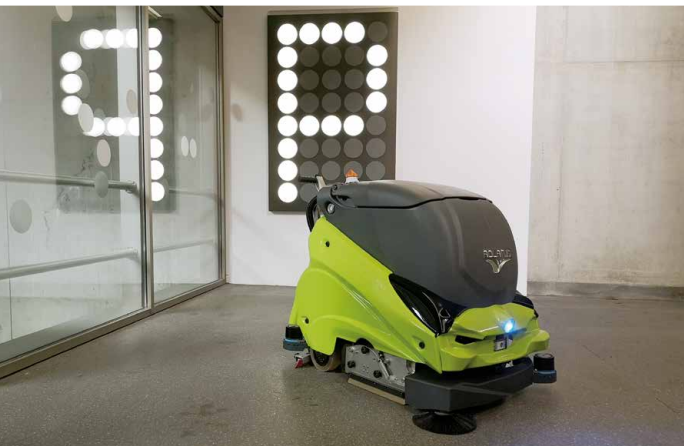
The movement of the cylindrical transports loose dirt and particles into a collecting hopper which is emptied by the operator at regular intervals. This minimizes the preliminary work of sweeping and saves time in floor cleaning. The additional side broom enables cleaning close to the edge.

Cylindrical brushes can be made from a variety of materials. The specific type depends on what kind of floor is to be cleaned.

Cleaning with cylindrical brushes gives a very good cleaning result on textured and uneven floors or on surfaces with joints or cracks, where dirt can get stuck.

FIELDS OF APPLICATION

Public facilities, parking garages, production plants, industry, logistics and other applications



ADLATUS CR700C CYLINDRICAL BRUSH

AUTONOMOUS OR MANUAL OPERATION



Autonomous or manual operation

The cleaning robot system carries out cleaning tasks completely autonomously and offers the option of manual operation too. If, for example, a spot needs to be cleaned spontaneously, it can be operated very easily in manual mode. The user guides the CR700C manually via joystick conveniently to any desired cleaning position.



Full autonomy with service station

A fully automated service station increases the degree of automation of the autonomous cleaning system and minimizes the need for personnel support. In addition to battery charging cleaning programs are started automatically and the dirty water is emptied, and the fresh water are carried out automatically.



Cleaning close to the edge

An additional side-mounted broom sweeps dirt and particles into the area of the cylindrical system and enables cleaning close to the edge.



Navigation with own software platform

ADLATUS cleaning robot systems are operated on a specially developed software, which, in combination with powerful sensor technology, ensures high stability in navigation. The software is continuously developed and extended by customer requirements.

Together with a sensor manufacturer, ADLATUS has developed a sensor system, in which sensors interact, increase the stability of the navigation and improve the collision avoidance to a performance level that complies with the European EN IEC 63327. Lidar sensors enable a reliable detection of obstacles or persons and the early detection of landings, levels and steps. ADLATUS is one of the few manufacturers that does not use high-resolution cameras for navigation. 2D and 3D lidar sensors are used for this purpose, which do not record personal data and do not recognize any environmental details during operation. Data of the environment is only recorded as coordinates.



Autarkic operation

The operation of the cleaning robots is completely self-sufficient and no connection to a WLAN network or a continuous Internet connection is required. Risks with regard to IT security in companies are thus minimized. This enables the use of ADLATUS cleaning systems even in security-relevant environments, such as prototyping, public buildings or other sensitive environments.



User interface

The system is operated on the touch display, is intuitive and can be used by any cleaning staff member without much prior knowledge. The user interface is multilingual and cleaning programs can be started by self-explanatory symbols, which can be operated by anyone after a short briefing. The daily start of the cleaning programs is fully autonomous on any day of the week and at any time of the day and only has to be started manually by the cleaning personnel.



Industrial suitability

The cleaning robot is CE certified, has an industrial suitability and is characterized by a quality-conscious, robust construction. High quality components are used, such as stainless steel elements or maintenance-free brushless motors.

ADLATUS CR700C CYLINDRICAL BRUSH

CLEANING ROBOT CR700C

TECHNICAL INFORMATION

DIMENSIONS OF THE CR700C

Weight	max. 260 kg
Width	827 mm
Length	1267 mm
Height	1067 mm

Robot control	Fully autonomous systematic operation
3D sensors for 360° coverage	2D and 3D laser sensors, acceleration sensors, cliff detection sensor
User interface	Accesses via on-board touch display and smartphone or tablet
Service Station (optional)	Fully automated battery charging, supply of fresh water and pumping off of the dirty water
Connectivity	Access to operator information via WLAN, Control and fully automatic documentation
Cleaning width / Pick-up width	700 mm / 750 mm + side broom
Brush speed	400-550 rpm
Brush type	cylindrical brushes
Rollers	2 pieces, 180 mm diameter, 656 mm length
Volume fresh water tank	60 l with fully automatic dosing during cleaning operation and refilling at the service station
Dirty water tank volume	55 l with fully automatic emptying at the service station
Cleaning agent tank	2 l with fully automatic dosing during cleaning operation



PERFORMANCE

Cleaning time	4 to 6 h per battery charge (depending on battery capacity 120Ah/180Ah) depending on battery option and cleaning intensity
battery type	Li Ion
Battery charging time	1.5 to 2.5 h depending on battery and charging unit option (depending on battery capacity) for speed charging
Cleaning speed	Up to 4 km/h, individually adjustable
Cleaning capacity (theoretical)	Theoretical 2,750 m ² /h depending on environment and cleaning intensity
Application example	With an average operation of approx. 4 hours, the CR700C with cylindrical brush can clean approx. theoretical 10,000 m ² per battery charge.

ADLATUS S700C CYLINDRICAL BRUSH

FULL AUTONOMY WITH THE S700C SERVICE STATION

DIMENSIONS OF THE S700C

Weight	approx. 70 kg
Width	980 mm
Length	345 mm
Height	911 mm

STATUS OF CHARGING FUNCTIONS

Loading:	1,5 - 2,5 h
Clean Water:	< 10 Minutes
Waste Water:	< 5 Minutes



The S700C service station enables fully automatic charging of the batteries, drainage of the dirty water and refilling of the fresh water, thus increasing the level of automation of the robotic cleaning system. With a stored schedule the cleaning programs are started fully autonomously on any day of the week and at any time.

TECHNICAL INFORMATION

Water connection	The connection is secured with an aquastop valve, which enables the service station control can shut off the water supply. Water connection 3/4" min. 3 to 6 bar
Power connection	230 volt socket
Fully automatic service operation	The fresh water tank is automatically filled and the waste water tank emptied. In addition, the batteries are also charged in the service station.
Status - signal line	The display of the service station shows whether the battery is being charged, the fresh water filling and waste water emptying filling and wastewater emptying are active, and whether the robot is ready for further use.



Commissioning and production support

Experienced ADLATUS Robotics specialists are on hand during all phases of commissioning. This starts with the first application steps and continues with the efficient integration of the ADLATUS cleaning robots. From the start-up phase during commissioning to optimization during operation, ADLATUS Robotics is at your side. With the goal of securing and increasing the efficiency and productivity of maintenance cleaning.

Service and Support

During normal business hours on working days and individually for contract customers even beyond, ADLATUS Robotics offers its customers accessibility and reliable telephone and online support by experts.

Through a comprehensive international service network with ADLATUS Robotics partners and distributors we offer our customers on-site service.

With preventive maintenance management, customers benefit from maximum availability. The individual design of ADLATUS Robotics service and maintenance contracts ensures that our customers receive service support that exactly meets their wishes and needs.

Training and education

For the users and operators ADLATUS Robotics offers a comprehensive training and education program for operation and maintenance of the service robot systems. Depending on the cleaning requirements and application of the customer, we offer a training package adapted to the company.

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International sales and service network



Subject to technical changes and errors.