

### **Hako and Bosch-Engineering jointly develop automation software for autonomous cleaning machines**

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Technology that understands: the new autonomous Scrubmaster B75 i

Abstatt; Bad Oldesloe – Autonomous cleaning systems perform recurring tasks with high efficiency and consistently good cleaning quality, even over long periods of use. In addition, they give the operator the opportunity to take care of other important tasks. Hako and Bosch-Engineering have developed an automation software for cleaning machines within a cooperation project. This software is being used for the first time in the new Scrubmaster B75 i. Hako has thus developed an autonomous scrubber-drier that saves time, effort and costs and, thanks to a large vertical range of manufacture, meets customer requirements with the best quality and safety.

#### **The technology makes the difference**

The new Scrubmaster B75 i cleans learned routes independently, reliably and efficiently. To enable the machine to navigate safely in autonomous operation, LiDAR sensors are used to locate and protect people, for example, as well as intelligent 3D camera technology for obstacle detection. The Scrubmaster B75 i therefore fully complies with the safety standards for autonomous cleaning machines. Mapping technologies allow routes to be recorded and stored during the cleaning journey. An 8-inch touchscreen functions as a smart interface to the user: the machine can be intuitively operated and programmed via the display. The Scrubmaster B75 i increases productivity with ease, as the machine can perform cleaning tasks at any time of the day or night.

#### **Safety made by Hako**

When developing the new autonomous cleaning machine, Hako attached great importance to offering the complete system from a single source. A decision in the interest of the customer, because the software developed in-house, for

example, meets all requirements for security and data protection – even in the future: because the rights remain with Hako.

To ensure maximum functionality as well as reliability of the navigation and safety technology before market launch, Hako relied on the support of the digitalisation experts from Bosch-Engineering. Together, the automation software was developed specifically for the requirements of cleaning machines. The Hako software includes the operating concept, the device management and any cleaning- and machine-specific algorithms. The Bosch-Engineering software supplements with generic robotics functionalities such as the localisation of the machine, as well as the detection and avoidance of obstacles (navigation).

The next step is already being planned: for even more efficient use, Hako is developing supplementary systems that are optimally matched to the autonomous cleaning machine – for example, a home base for battery charging, emptying the recovery tank and filling the solution tank with fresh water is currently in the development phase. Use of the base together with the Scrubmaster B75 i in the field is already prepared.

The internal know-how that has been built up within the company enables Hako to adapt the autonomous system to the customers' individual requirements and applications.

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*[www.hako.com/en/](http://www.hako.com/en/)*