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SESTO HealthGUARD, the Autonomous Mobile Disinfectant Robot

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Round-the-Clock Environment Disinfection and Surface Hygiene Now Possible with SESTO HealthGUARD



Singapore's leading autonomous mobile robot company SESTO Robotics has launched a dual-function Autonomous Mobile Disinfectant Robot - SESTO HealthGUARD. Addressing the urgent need for tiptop hygiene standards and minimum environment infection risk during COVID-19, the robot can efficiently and effectively disinfect facilities 24-hour, round-the-clock, with its dual functionality, eliminating 99.99% of bacteria, germs and viruses.

SESTO HealthGUARD is designed to self-navigate and manoeuvre around tight places, avoiding obstacles and people, making it suitable for many indoor facilities. Proudly made in Singapore, the robots are currently in production and ready for deployment. SESTO autonomous mobile robots are versatile and safe, and automate labour-intensive and repetitive tasks in healthcare and manufacturing facilities.

Mr Ang Chor Chen, Chief Executive of SESTO Robotics says**,** "There are no "off-days" or "after hours" for viruses and hence round-the-clock protection from pathogens is essential to maintain the 24hr hygiene at a health sensitive zones like hospitals. He further provides insight into this self-navigating, deep-tech robotics, the "SESTO HealthGUARD"

- **How essential it is to achieve Round-the-Clock Environment Disinfection and Surface Hygiene using robotic technology?**

The worldwide threat of the COVID-19 virus means an urgent need for facilities to adopt a quick, continuous, and thorough disinfection procedure, as an assurance to its workforce and the public. Complementing manual cleaning with robotic technology ensures the highest level of disinfection and cleaning of large spaces efficiently.

Facilities with high-touch surfaces and high human traffic such as hospitals, shopping malls, airports and train stations have higher levels of risk of environmental infection and community spread of bacteria, germs, and viruses.

Autonomous mobile robots can carry out round-the-clock disinfection based on pre-programmed cleaning missions, schedules, and deployments.

Hospitals for example, operate 24-hours and so need processes and technologies to support that.

- **COVID-19 is compelling huge investments towards disinfection and sanitisation to avoid hospital-borne infections. How SESTO HealthGuard Robotics can assist in the present scenario?**

COVID-19 is of course an urgent infection risk, but it is not the only risk. The pooled prevalence of overall healthcare-associated infections (HAIs) (excluding COVID-19) in Southeast Asia is about 9.0%, as reported in a systematic review and meta-analysis of seven studies from Southeast Asia. HAIs are recognised by the healthcare system as a burden in terms of patient recovery rates and costs.

SESTO HealthGUARD has dual-operational abilities - a multi-nozzle sprayer and high-output germicidal UV-C lamps, to minimise environment infection. During operational hours with human traffic, SESTO HealthGUARD can disinfect the environment with hospital-grade disinfectant from its multi-nozzle sprayer, eliminating 99.99% of bacteria, germs, and viruses. The multi-nozzle sprayer targets high-touch surface areas and disinfects large surfaces more efficiently and thoroughly.

It is also equipped with six UV-C high-output germicidal lamps, which can be activated after operational hours, or in closed environments, such as patient rooms. Its UV-C light delivers a powerful intensity to eliminate 99.9% of bacteria, germs and viruses. At 254nm wavelength, its short-length UV will break the molecular bonds within micro-organisms, thereby destroying them.

SESTO HealthGuard can effectively disinfect an area of 100 square metres in approximately 45 minutes. SESTO HealthGUARD is fully autonomous and designed to self-navigate and manoeuvre around tight places, avoiding obstacles and people, making it suitable for many indoor facilities. It addresses the urgent need for 24-hour, round-the-clock disinfection and surface hygiene, allowing facilities to maintain tiptop hygiene standards and minimum environment infection risk during COVID-19.

- **What makes SESTO HealthGuard superior from other robotic cleaning assistive devices available at present?**

The SESTO HealthGUARD comes with a few industry-leading features.

Designed and made in Singapore, SESTO HealthGUARD provides a high utilisation rate of up to six hours on a single charge. The battery hotswap can be easily done in less than five minutes. It can also auto-dock to its charging station to charge its battery. In other words, the robot can conduct continuous round-the-clock disinfection, with minimal downtime.

In six hours, the SESTO HealthGUARD robot can cover an estimated 9,000 square feet while a mid-size facility of an estimated 100,000 square feet can be disinfected within 24-hours using three or four SESTO HealthGUARD robots.

The SESTO HealthGUARD is also safe to use around people during operational hours, with its multi-nozzle disinfectant sprayer. The robot sprays hospital-grade disinfectant targeting high-touch surfaces. It is also equipped with six UV-C high-output germicidal lamps, which can be activated after operational hours, or in closed environments, such as patient rooms. The UV-C rays destroy pathogens by effectively breaking the molecular bonds within micro-organisms.

Powered by SESTO's proprietary user interface, operators can easily set up cleaning missions, schedules and deployment on a tablet or laptop. This means operators can conveniently change and update the robots' cleaning routine, as necessary.

- **When will be SESTO HealthGuard technology be deployed in APAC healthcare sectors? What are the other Asian countries which will be benefiting from this technology?**

With SESTO HealthGUARD being newly launched, the robots are in production and ready for deployment. We have received much interest, not just in healthcare but across industries ranging from retail malls to transportation and hospitality. We believe this technology will be beneficial in Singapore and other Asian countries, as we fight the spread of the pandemic together.

- **Can the manufacturing and healthcare sectors rely on the continued adoption of Autonomous Mobile Disinfectant Robot replacing the manual and conventional methods?**

The manufacturing and healthcare industries must heighten their controls and set new protocols for hygiene and disinfection regime.

Adopting Autonomous Mobile Disinfectant Robots to complement the existing cleaning and disinfection protocol will not only reduce the workload but will also allow managers and operators to maintain high hygiene standards. Autonomous Mobile Robots such as SESTO HealthGUARD will also provide assurance to the operators, its workers and members of the public of adequate disinfection measures being in place.