

SESTO introduces autonomous mobile disinfectant robot

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Round-the-Clock environment disinfection and surface hygiene on high-touch surfaces using dual-operational abilities like a multi-nozzle sprayer and high-output germicidal UVC lamps

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 said "There are no "off-days" or "after hours" for viruses. Our self-navigating, fully-autonomous SESTO HealthGUARD is ready for round-the-clock thorough facility disinfection. Applying our knowledge in deep-tech and robotics, the team at SESTO Robotics hopes to accelerate public health and safety with innovation and technology."

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. The robot provides an industry-leading utilisation rate of up to six hours on a single charge, auto-returns to its charging station when required and battery hotswap in less than five minutes.

Responding to the growing concerns around environmental infection and community spread with the outbreak of COVID-19 in Singapore and around the world, the team at SESTO Robotics conceptualised the product in less than four weeks, integrating the disinfectant unit on its industry-adopted mobile robot platform. The proof-of-concept was rolled out in mid-April to much interest across industries ranging from retail malls, bus operators, hotels and healthcare facilities.

Manual cleaning and disinfection may be inadequate and subject to human error, especially in large spaces. 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 enables facilities owners and operators to disinfect large surfaces more efficiently and thoroughly.

Also equipped with six UV-C (254nm) high-output germicidal lamps, SESTO HealthGuard effectively disinfects an area of 100 square metres in approximately 45 minutes. 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.

A mid-size indoor facility – mall, hotel, healthcare centre – of around 100,000 square feet can be disinfected within 24-hours using three or four SESTO HealthGUARD robots.

“With Singapore stepping up the cleaning protocol to ensure the safety of all Singaporeans, this means higher reliance on a cleaning workforce which translates to a heavier workload and responsibilities for the cleaning team. SESTO HealthGUARD provides assurance to the operators, cleaning team and members of the public. While alleviating the additional workload of the cleaning team during COVID-19, it allows facility operators to increase the facility cleaning routine and frequency to stay ahead of such public health risk factors,” added Ang.

SESTO Robotics is in talks with retail mall operators and other facilities management on trials and purchases.