

UV-C Robot helps businesses win the fight against Covid

As the UK's customer-facing businesses plan their reopening strategies, keeping consumers and staff safe from Covid will be a key priority. In a bid to prevent future outbreaks at high footfall, everyday environments like supermarkets, bars and gyms, industrial automation specialist OMRON has teamed up with UV Systems UK to produce an autonomous robotic sterilisation system that guarantees to kill the virus without damage or harm to surrounding goods.

UV Systems UV-C Robot eliminates 99% of lingering Covid virus cells from ceiling to floor with full traceability. It incorporates proven UV-C light sterilisation technology which, for decades, has kept the general public safe from harmful bacteria in major leisure centres. This has now been adapted to kill the Covid virus in work and leisure environments where social contact is unavoidable, such as the retail, hospitality, travel and leisure sectors.

Restoring customer confidence

Ensuring the highest levels of hygiene will be essential to entice customers back to the high street post-pandemic. In a survey of 2,000 UK adults by Citron Hygiene and OnePoll, 67% of respondents said they are more afraid of germs and conscious of hygiene now than before March 2020. Employers and owners of supermarkets, shops, bars, restaurants, hotels, gyms and other leisure facilities, as well as office spaces, must therefore deploy a robust indoor cleaning protocol to stop the spread of Covid and other bacteria and pathogens. Companies that fail to do so run the risk of an outbreak being traced to their facility and subsequent closure. Not only would this lead to a significant loss of business, but brand reputation, consumer safety and workforce wellbeing are also on the line.

The solution developed by UV Systems UK, part of the Topline Group, guarantees to eliminate viruses, pathogens



OMRON has teamed up with UV Systems UK to produce an autonomous robotic sterilisation system that guarantees to kill the Covid virus without damage or harm to surrounding goods.



Comprising an array of precision UV-C lamps developed by Phillips and mounted on top of an OMRON mobile robot platform, the UV-C Robot autonomously navigates the natural features of a facility,

and bacteria on all touchpoints within a facility, helping businesses to regain public confidence, relieve the burden on employees and meet regulations. Although manual processes are still required to clean away visible dirt, the UV-C Robot has been proven as a failsafe method to combat Covid and other viruses such as SARS, MERS and Ebola – in 2020, Boston University researchers validated that UV-C light sources were capable of inactivating SARS-CoV-2, the virus that causes COVID-19. The robotic solution also reduces the need for powerful chemicals that present health and safety risks to the operator.

Autonomous sanitisation

Comprising an array of precision UV-C lamps developed by Phillips and mounted on top of a cutting-edge OMRON mobile robot platform, the UV-C Robot autonomously navigates the natural features of a facility, requiring no user input. As opposed to manual cleaning that would require numerous personnel, when modelled on a 100,000 sq ft supermarket, a single robot would complete the ceiling-to-floor sanitisation process within 2-3 hours. A run time of up to four hours means it can treat large areas efficiently, reliably and quickly, even returning itself to the charging station once the regime is complete. The solution is also built with sensor technology to allow the robot to detect obstacles in its path and prevent collisions. If a human comes within eight metres of the system, it will automatically shut down.

Fully traceable

In addition, the wi-fi enabled UV-C Robot provides full traceability of the area being treated. With manual and mechanical processes, there is no official record or validation, or even a way to check that every touchpoint has been sterilised. By contrast, the UV-C Robot tracks, logs and records its path to provide complete validation that a space is Covid-free. If it fails to sanitise an area due to obstruction, for example, it reports the information so the issue can be resolved.

“With a minimum ten-year lifespan and the ability to eliminate all bacteria and viruses, the UV-C Robot is the only proven method to kill Covid on all surfaces and touchpoints of indoor work and leisure spaces,” says Andrew Hunt, CEO of UV Systems Ltd. “It is set to play a critical role in helping British businesses protect their customers, staff and brand for years to come.”

About UV Systems and Topline Electronics

UV Systems is part of the Topline Group of companies who were established in 1986, as an electronics manufacturer for the telecommunications and defence industry. In the mid-1990's the business moved into the manufacture of swimming pool chemical control units for third parties, evolving over the next twenty years to become the UK's leading manufacturer of swimming pool control equipment. During the late 1990's and early in the new millennium, Topline became more involved in the overall water quality and the automated control of all functions associated with the swimming pools, spa's, saunas and steam rooms. The company designs, manufactures, markets, installs and provides on site technical support. It is this unique approach adopted by Topline that places the company in a position to develop new products, including LED underwater lights, control systems, automated plant rooms, energy reduction controls and ultra violet water treatment systems. It is the proven technology used to treat water with ultra violet light that has been adapted to treat open spaces. Topline has offices based in Hailsham, East Sussex and Preston, Lancashire with a team of 27 mobile service engineers to provide fast and efficient cover throughout the UK. All Topline Products are designed and built in the UK. The new partnership with OMRON Robotics brings the UV-C Sterilising robot to the market to assist in ensuring areas are COVID-19 clean.

About OMRON

As a leading company of automation centered on its proprietary Sensing & Control + Think technologies, OMRON Corporation is engaged in a wide range of businesses, including control equipment, electronic components, social systems, healthcare, and the environment. In the field of industrial automation, OMRON supports manufacturing innovation by providing advanced automation technologies and products, as well as through extensive customer support, in order to help create a better society.

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