

ITRI wins CES Innovation Awards for second consecutive year



ITRI's Hybrid Power Drone with High Payload and Duration and ELECLEAN's Disinfectant Spray both named CES 2019 Innovation Awards Honorees.

Industrial Technology Research Institute (ITRI), Taiwan's largest and one of the world's leading high-tech applied research institutions, has won the CES Innovation Awards for two consecutive years.

ITRI's Hybrid Power Drone with High Payload and Duration was named a CES 2019 Innovation Award Honoree in the Robotics and Drones category, and its spinoff ELECLEAN received the same honor with ELECLEAN Disinfectant Spray in Home Appliances. The two honorees will be showcased at Venetian Ballroom, CES Tech West in Las Vegas during January 8-11, 2019.

The annual CES Innovation Awards program honors outstanding product design and engineering in brand-new consumer technology products. According to the Consumer Technology Association (CTA), honorees are those whose products scored highly across all judging criteria, including engineering, aesthetic, and design qualities, user value, positive impact to quality of life, and competitiveness in the marketplace.

This year's honorees include leading companies such as NVIDIA, Honeywell, and Sony.



ITRI's Hybrid Power Drone with High Payload and Duration is an octocopter that can hover up to 45 minutes at 30 kg payload, which is over three times the endurance of a drone powered solely by lithium battery. The drone consists of an optimized carbon fiber reinforced plastics (CFRP) fuselage and a hybrid power system including the lightweight aviation internal combustion engine (ICE) and the high power density electric generator and lithium batteries. The hybrid system, with a power-to-weight ratio of 0.6 kg/kw at 7.5 kw output, is very light and can provide the enormous power demand of the over 3 m axis diameter octocopter.

The drone passed a preliminary field test for a smart spray system in a mountainous tea garden in the end of 2017. With high payload, the drone can even carry granular fertilizers, proving its capabilities as an advanced agricultural drone for plant protection. With highly efficient electric propulsion and fault-tolerant autopilot, it can perform robust delivery service and long range infrastructure inspection as well.

ELECLEAN Disinfectant Spray is a portable device that uses water to produce a disinfectant to kill 99.9% of bacteria and viruses such as H1N1 Virus, Enterovirus, and E. coli. It was developed by ITRI startup ELECLEAN, using the world's first nanocatalysis electrochemical technology to convert water molecules into reactive oxygen species (ROS) in 15 minutes. ELECLEAN Disinfectant Spray is designed to be eco-friendly and convenient.

Without adding chemicals, the device alleviates the need for preservatives, stabilizers, or scents that are common in conventional disinfectants, and thus will not result in skin allergies or dermatitis. Moreover, its user-friendly and compact design makes it easy to use and carry. The ELECLEAN Disinfectant Spray can be applied in homes, hospitals, restaurants, or schools for multiple purposes including disinfecting surfaces, cleaning hands, or sanitizing pets.

Source: ITRI

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