

TECHNICAL SPECIFICATION- UVC STERILIZING ROBOT



Table of Disinfection Parameter comparison

MERS-CoV	Novel Coronavirus (2019-nCoV)	SARS- CoV
UV disinfection dose	UV disinfection dose	UV disinfection dose
Log1 (90%)= 21 J/m ²	Log1 (90%)= 21 J/m ²	Log1 (90%)= 21 J/m ²
Log2 (99%)= 42J/m ²	Log2 (99%)= 42J/m ²	Log2 (99%)= 42J/m ²
Log3 (99.9%)= 63 J/m ²	Log3 (99.9%)= 63 J/m ²	Log3 (99.9%)= 63 J/m ²
Log4 (99.99%)= 84 J/m ²	Log4 (99.99%)= 84 J/m ²	Log4 (99.99%)= 84 J/m ²
Influenza A virus subtype H7N9	Influenza A virus subtype H1N1	Ebola- Virus
UV disinfection dose	UV disinfection dose	UV disinfection dose
Log1 (90%)= 34 J/m ²	Log1 (90%)= 34 J/m ²	Log1 (90%)= 55 J/m ²
Log2 (99%)= 68J/m ²	Log2 (99%)= 68J/m ²	Log2 (99%)= 110J/m ²
Log3 (99.9%)= 102 J/m ²	Log3 (99.9%)= 102 J/m ²	Log3 (99.9%)= 165 J/m ²
Log4 (99.99%)= 136 J/m ²	Log4 (99.99%)= 136 J/m ²	Log4 (99.99%)= 220 J/m ²

Specifications

Technical Items	Description
Appearance design	<p>The shell is made of PC + ABS and aluminum alloy, which is antibacterial and easy to clean</p> <p>Dimensions: 540mm x 580mm x1740 mm</p>
Hardware Parameters	<p>Processor: integrated Intel J1900 quad-core processor 2.00 Ghz chip set Intel Bay trail SOC chip set</p> <p>Autonomous navigation: multi-sensor fusion navigation scheme based on at least 3 types of sensors (laser ray/speedometer/gyroscope)</p> <p>Intelligent obstacle avoidance: The robot can flexibly avoid any obstacles. It is able to avoid any obstacles under low light condition</p> <p>Motor torque: 8:1 Nm (high load capacity and low power consumption)</p> <p>The chassis is equipped with a suspension system, which can stabilize the robot while it traverses a threshold.</p>
Operating Parameters	<ol style="list-style-type: none"> 1. Speed of motion: 0.45m/s (under navigation state) 2. A high- precision laser positioning function, with a laser measuring precision of +/- 2cm 3. steering performance: 360 degree zero- radius steering 4. Routine operating time:>= 4 hours 5. The robot can move autonomously, thus realizing autonomous navigation obstacle avoidance and other functions 6. You can pause the robot while it is working. It can continue its mission after the pause mode is disabled. 7. The robot is capable of controlling the automatic opening/closing of electric door via the internet of Things 8. Support the expansion of elevator control scheme to achieve cross-area multi floor operation 9. It does not need to rebuild the environment and add path and positioning marks. The robot realizes autonomous navigation in the whole process. 10. The robot supports autonomous recharging. When the power is low, it returns for charging, thus ensuring continuous operation.
Disinfection mode	<p>The robot can automatically patrol for sterilization and disinfection in the predetermined area. In addition, two disinfection modes can be set. Mode 1: Air circulating sterilization and disinfection. The sterilization and disinfection is equipped with high power UV lamps. Air flows into the UV sterilization channel through the purification and circulation system. The robot is capable of killing microorganisms in the air, such as fungi, bacteria and viruses and has significant effects on harmful microorganisms in aerosols and the like. At the same time, PM 2.5, formaldehyde, TOVC and other harmful substances in the air can be eliminated due to HEPA filtration. The robot can work continuously in 24h and the personal safety of staff in the working area is protected through sensor induction.</p> <p>Mode 2: UV sterilization and disinfection. The robot is turned on in an unmanned state through sensor induction, and the sterilization and disinfection center will emit the condensed UV beams to kill bacteria and other harmful microorganisms, which prevents cross infection in high-risk areas and makes air purified.</p> <p>Multi- point and 360 degree surface disinfection can be performed around the disinfection target in the disinfection process.</p>
Disinfection performance	<p>Condensed UV beams can effectively kill bacteria and other harmful microorganisms, with a maximum disinfection rate of 99.99%</p>