

Smart robot can lend hospitals a big hand

July 26 2021, by Zhang Nannan



Smart functional robot that realizes simultaneous disinfection of both air and object surface developed by HFIPS researchers. Credit: ZHANG Wen

Recently, researchers from the Hefei Institutes of Physical Science (HFIPS) of the Chinese Academy of Sciences developed a smart functional robot that realized simultaneous disinfection of both air and object surface.

The key credits go to dry fog hydrogen peroxide and Ultraviolet C radiation, which work together for highly effective and simultaneous disinfection.

Besides, compared with other disinfection robots, this [novel technology](#) can automatically identify the disinfection object and control the positioning of the manipulator according to the user's needs, so as to achieve fixed-point and accurate disinfection. Therefore, the [robot](#) is applicable in many medical environments, like Intensive Care Medicine (ICU), Disinfection Supply Center and Static Delivery Center, etc.

To protect disinfection personnel from risky environment, the researchers used teleoperation and deep learning technology to ensure the robot under a smart operation that it can identify targets itself and then to put its arm at a right place for accurate [disinfection](#).

Moreover, they wanted their robot applicable in more operational [environment](#), so they installed it with Mecanum wheel that has advantages of omni-directional movement and zero turning radius and even with the load capacity of more than 300 kilograms.

For much safer use, different from other robots, wireless charging technology gets this smart robot charged in a new and safer way even without precise docking.

Afterwards, the team continues their work in smart hospital technology and is planning to push it further by developing a series of smart robots for medical material delivering, auxiliary supply distribution, and intelligent sputum suction in open artificial airway.

Provided by Chinese Academy of Sciences

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