

Intelligent Disinfection Robot



TMiRob

Represented by Frontier Instruments in Australia



Intelligent Disinfection Robot



The Mainly Controlled Environment in Medical Institutions



Surgery rooms: Inanimate environmental surface being touched at high frequency

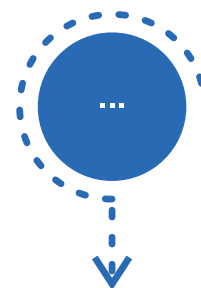
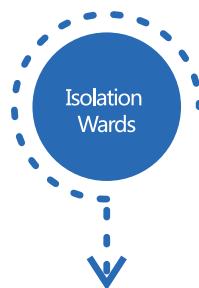
Frequent pollution: Under lab's simulated condition, the efficiency of microbial propagation from the surface of the object to the hand is 27.59%-68.80%



ICU : If not being sterilized strictly, wards, once inhabited by infected patients, will have increased verdigris infection ratio at OR2.3, $P < 0.02$ as well as increased acinetobacter baumannii infection ratio at OR2.4, $P < 0.01$.



Wards: Almost 56% of wards are not cleaned and sterilized in a right way, which can bring infection risk to new patients.



Product Introduction

Application

Suitable for disinfection of indoor air and object surfaces in hospital

Features

The robot serves as a carrier to integrate three disinfection modes: ultraviolet rays, ultra-dry mist hydrogen peroxide, and plasma air filtration to meet the high-level disinfection requirements, killing endospores at the rate as high as 99.9999%. It applies the autonomous navigation technology and is autonomously mobile. Intelligent operation interface, simple and easy to operate

Policy & Regulation Support

GuoWei BanYi Han- Notice of General Office of National Health Commission Concerning Further Strengthening of Infection Prevention and Control of Medical Institutions, Basic System of Infection Prevention and Control of Medical Institutions (trial)

Value

Autonomous

Totally intelligent operation, separated operation from operator to machine, security guarantee.

Timing

Calculate disinfection time autonomously based on area space.

Efficient

Equipped with various disinfection methods, quantitative management on disinfection process.

Precise

Automatic disinfection around targets without any blind corner.



Function Module



CMA test certification passed

Ultra-dry mist hydrogen peroxide nozzle

Accord with "Disinfection Standard for Medical Institutions" and the 11.2.1.5 standard of WS/T 367.

Ultraviolet Lamp

Tally with "Disinfection Standard for Medical Institutions", the A.3.1.2 standard of WS/T and the GB19258 standard.

Hydrogen peroxide air concentration sensor*

Air Filtration Module

Conform to the requirements from standard 5 of GB/T 18801-2015.

Ultraviolet Lamp

Tally with "Disinfection Standard for Medical Institutions", the A.3.1.2 standard of WS/T and the GB19258 standard.



*Non standard options

Disinfection Mode



Ultra-dry mist hydrogen peroxide disinfection mode



Ultraviolet rays disinfection mode



Multi-mode combined disinfection - ultraviolet catalyzed hydrogen peroxide decomposition

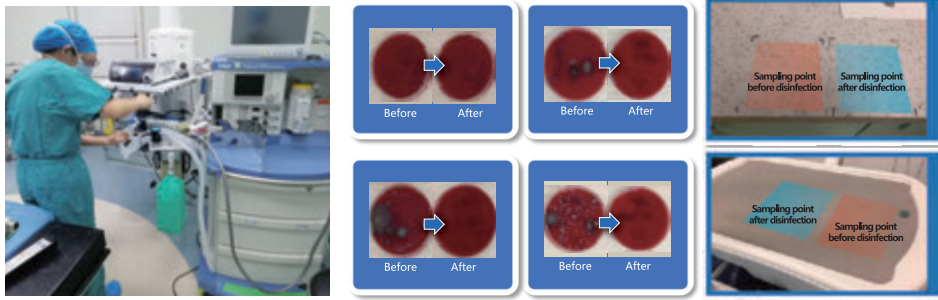


Plasma air filtration disinfection mode



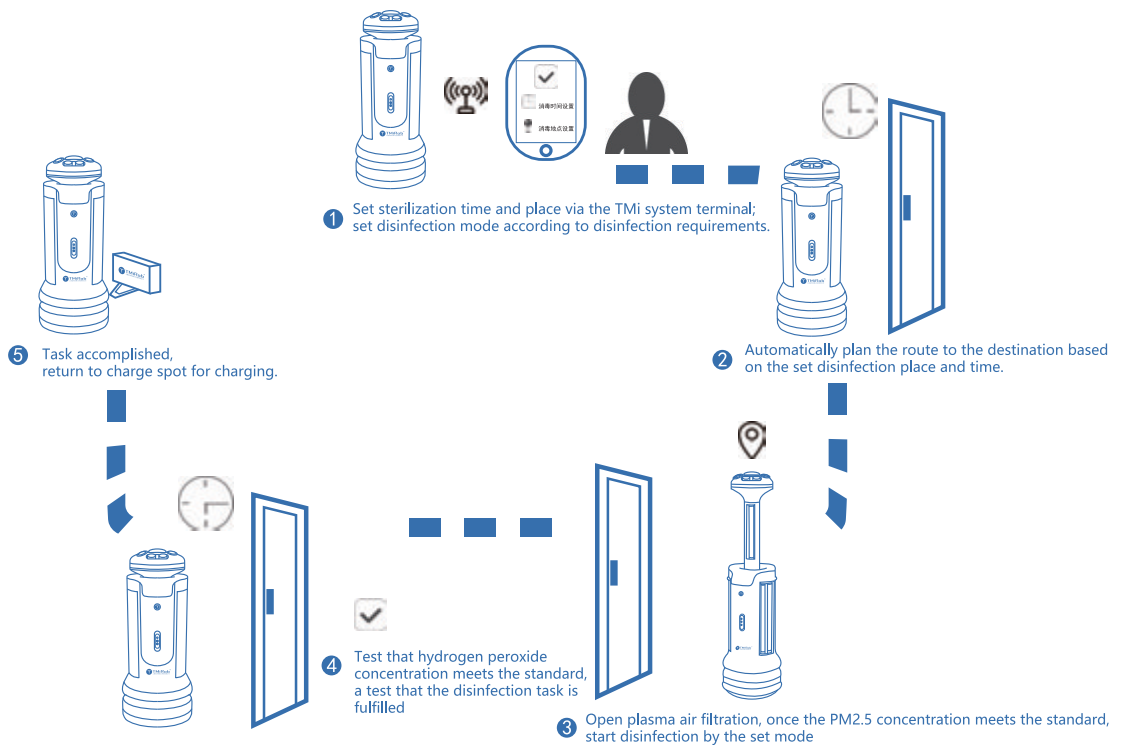
Clinical Application

ICU, negative pressure isolation wards, laboratories (virus, bacterial), surgery rooms, pathology departments, laboratory departments, PIVAS, supply rooms etc.



| Disinfection type | Sampling point | Before | Manual disinfection | Machine disinfection |
|----------------------|----------------|----------|---------------------|----------------------|
| | | | After | After |
| Air disinfection | ① | 21cfu | 2cfu | 0cfu |
| | ② | > 100cfu | 6cfu | 1cfu |
| Surface disinfection | ① | 53cfu | 21cfu | 1cfu |
| | ② | 6cfu | 3cfu | 0cfu |
| | ③ | 4cfu | 1cfu | 0cfu |

Workflow



Success Stories

Union Hospital affiliated to Tongji Medical School of Huazhong University of Science & Technology



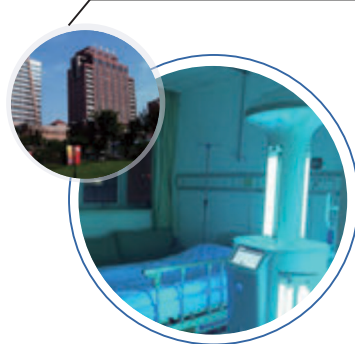
Hong Kong Sanatorium & Hospital



Shenzhen Baoan Maternal and Child Health Hospital



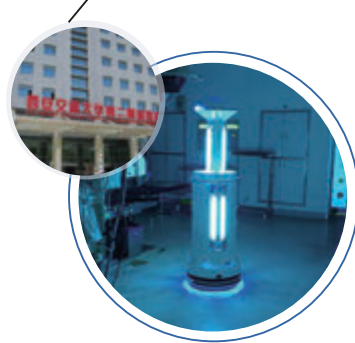
Renji Hospital affiliated to Shanghai Jiaotong University School of Medical



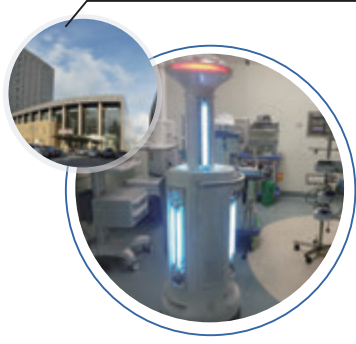
The Central Hospital of Wuhan



The Second Affiliated Hospital of Xi'an Jiaotong University



Shenzhen People's Hospital



Xinqiao Hospital, Second Affiliated Hospital of Army Military Medical University (Third Military Medical University)





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