

CABIN FOR EPIDEMIC PREVENTION AND CONTROL DETECTION AND PRELIMINARY VIRUS SCREENING

TECHNICAL FIELD

The disclosure relates to the technical field of epidemic prevention and control detection, in particular to a cabin for epidemic prevention and control detection and preliminary virus screening.

BACKGROUND

At present, there is no device for large-scale epidemic prevention and control detection and preliminary virus screening in the market to ensure rapid detection and isolation of human body.

SUMMARY

In order to solve the deficiency of the prior art, the present disclosure provides a cabin for epidemic prevention and control detection and preliminary virus screening that can identify abnormal patients, detect virus germs, and kill pests.

In order to solve the above technical problems, the present disclosure adopts the following technical solution: A cabin for epidemic prevention and control detection and preliminary virus screening, comprising a biosafety detection cabin and a negative pressure isolation cabin, and both of the biosafety detection cabin and the negative pressure isolation cabin are in a cuboid shape, wherein left and right sides of the biosafety detection cabin are respectively provided with an entrance door and an exit door; a rear side of the negative pressure isolation cabin is connected with a front side of the biosafety detection cabin near the exit door and communicated through a side door; the rear side of the negative pressure isolation cabin and the biosafety detection cabin form an L-shaped structure; an inside of the biosafety detection cabin is provided with a portal frame adjacent to the entrance door; and the portal frame is provided with an inductive body temperature detection device and an abnormal body temperature alarm device.

The biosafety detection cabin is provided with a biosafety warning broadcast device on a top of the entrance door.

Bottoms of the biosafety detection cabin and the negative pressure isolation cabin are provided with a plurality of cabin wheels which are capable of braking.

The negative pressure isolation cabin is provided with a partition wall, the partition wall divides an interior of the negative pressure isolation cabin into a negative pressure room at the front side and a disinfection room at the rear side, the partition wall is provided with a negative pressure cabin door, the disinfection room is provided with an inductive non-contact wall hanging hands-free disinfectant storage device, and a top of the disinfection room is provided with an induction roof spray disinfection device and an ultraviolet disinfection equipment in cabin.

The biosafety detection cabin is provided with a retractable and foldable entry ramp at a lower side of the entrance door, and the biosafety detection cabin is provided with a retractable and foldable exit ramp at a lower side of the exit door.

When the present disclosure is in use, the detected person enters the biosafety detection cabin through the entrance ramp and the entrance door, and then enters through the portal frame. The body temperature of the detected person are measured by the inductive body temperature detection device arranged on the portal frame, when the measured body temperature is abnormal, the abnormal body temperature alarm device sends a sound and light alarm signal, and the exit door is closed at the same time. The detected person enters the disinfection room of the negative pressure isolation cabin through the side door. In the disinfection room, the hands can be disinfected by the inductive non-contact wall hanging hands-free disinfectant storage device. At the same time, the inductive roof spray disinfection device disinfects the whole body of the abnormal detected person, and then enters the negative pressure room through the negative pressure cabin door for negative pressure isolation, so as to prevent infection to other people. If the temperature measured by the inductive body temperature detection device is normal when the detected person passes through the portal frame, the exit door will open, and the detected person directly goes out of the biosafety detection cabin to the right, and then goes down along the exit ramp.

The biosafety detection cabin and the negative pressure isolation cabin are made separately, which is convenient for manufacturing and transportation, and can be flexibly organized, quickly connected and expanded according to the actual needs. At the same time, space is also reserved in

each section to facilitate the installation of specific detection positions and connection lines designated by the user. External power, water, gas and other interfaces and pipelines are reserved to meet the requirements of rapid deployment, rapid installation and rapid use.

The biosafety warning broadcast device can broadcast the epidemic situation, remind the detected person to keep the distance between two adjacent persons, and come out for medical treatment in time if someone feels abnormal.

The cabin wheels can move on the ground. After the biosafety detection cabin and the negative pressure isolation cabin are fixed and connected, each cabin wheel is braked to determine the stability of the biosafety detection cabin and the negative pressure isolation cabin during operation.

The inductive roof spray disinfection device automatically disinfects the human body with ultraviolet rays when someone passes through, so as to ensure the safety of the use process. The ultraviolet disinfection device in the cabin can regularly sterilize the interior of the negative pressure isolation cabin with ultraviolet rays.

To sum up, the disclosure has scientific principle, novel design, simple and compact structure, and implements the design concept of people-oriented and green environmental protection. The psychological factors of the tested personnel are fully considered in terms of personnel detection environment, mode and information collection mode. The latest humanized technology is adopted in terms of prompt, contact, color and space. An independent sealing system is provided for the possible harmful waste water and exhaust gas, which will not cause pollution to the environment. The present disclosure utilizes information technology and biotechnology to provide the society with a technology capable of strictly sealing and controlling hazard sources and ensuring the safety of normal social activities.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic diagram of the overall structure of the present disclosure.

DETAILED DESCRIPTION OF THE EMBODIMENTS

As shown in FIG. 1, a cabin for epidemic prevention and control detection and preliminary virus screening provided by the present disclosure includes a biosafety detection cabin 1 and a negative pressure isolation cabin 2, both of which are in a cuboid shape. The left and right sides of the biosafety detection cabin 1 are respectively provided with an entrance door 3 and an exit door 4. The rear side of the negative pressure isolation cabin 2 is connected with the front side of the biosafety detection cabin 1 near the exit door 4 and communicated through the side door 5. The rear side of the negative pressure isolation cabin 2 forms an L-shaped structure with the biosafety detection cabin 1. The inside of the biosafety detection cabin 1 is provided with a portal frame 6 adjacent to the entrance door 3. The portal frame 6 is provided with an inductive body temperature detection device 7 and an abnormal body temperature alarm device 8.

The biosafety detection cabin 1 is provided with a biosafety warning broadcast device 9 on the top of the entrance door 3.

The bottom of the biosafety detection cabin 1 and the negative pressure isolation cabin 2 are provided with a plurality of cabin wheels 10 that can be braked.

The negative pressure isolation cabin 2 is provided with a partition wall 11, and the partition wall 11 divides the interior of the negative pressure isolation cabin 2 into a negative pressure room 12 at the front side and a disinfection room 13 at the rear side. The partition wall 11 is provided with a negative pressure cabin door 14. The disinfection room 13 is provided with an inductive non-contact wall hanging hands-free disinfectant storage device 15. The top of the disinfection room 13 is provided with an inductive roof spray disinfection device 16 at the top of the cabin and an ultraviolet disinfection device 17 inside the cabin.

The biosafety detection cabin 1 is provided with a retractable and foldable entry ramp 18 at the lower side of the entrance door 3, and the biosafety detection cabin 1 is provided with a retractable and foldable exit ramp 19 at the lower side of the exit door 4.

When the present disclosure is in use, the detected person enters the biosafety detection cabin 1 through the entrance ramp 18 and the entrance door 3, and then enters through the portal frame 6. The body temperature of the detected person are measured by the inductive body temperature

detection device 7 arranged on the portal frame 6, when the measured body temperature is abnormal, the abnormal body temperature alarm device 8 sends a sound and light alarm signal, and the exit door 4 is closed at the same time. The detected person enters the disinfection room 13 of the negative pressure isolation cabin 2 through the side door 5. In the disinfection room 13, the hands can be disinfected by the inductive non-contact wall hanging hands-free disinfectant storage device 15. At the same time, the inductive roof spray disinfection device 16 disinfects the whole body of the abnormal detected person, and then enters the negative pressure room 12 through the negative pressure cabin door 14 for negative pressure isolation, so as to prevent infection to other people. If the temperature measured by the inductive body temperature detection device 7 is normal when the detected person passes through the portal frame 6, the exit door 4 will open, and the detected person directly goes out of the biosafety detection cabin 1 to the right, and then goes down along the exit ramp 19.

The biosafety detection cabin 1 and the negative pressure isolation cabin 2 are made separately, which is convenient for manufacturing and transportation, and can be flexibly organized, quickly connected and expanded according to the actual needs. At the same time, space is also reserved in each section to facilitate the installation of specific detection positions and connection lines designated by the user. External power, water, gas and other interfaces and pipelines are reserved to meet the requirements of rapid deployment, rapid installation and rapid use.

The biosafety warning broadcast device 9 can broadcast the epidemic situation, remind the detected person to keep the distance between two adjacent persons, and come out for medical treatment in time if someone feels abnormal.

The cabin wheels 10 can move on the ground. After the biosafety detection cabin 1 and the negative pressure isolation cabin 2 are fixed and connected, each cabin wheel 10 is braked to determine the stability of the biosafety detection cabin 1 and the negative pressure isolation cabin 2 during operation.

The inductive roof spray disinfection device 16 automatically disinfects the human body with ultraviolet rays when someone passes through, so as to ensure the safety of the use process. The

ultraviolet disinfection device 17 in the cabin can regularly sterilize the interior of the negative pressure isolation cabin 2 with ultraviolet rays.

The inductive body temperature detection device 7, the abnormal body temperature alarm device 8, the biosafety warning broadcast device 9, the cabin wheels 10, the inductive non-contact wall hanging hands-free disinfectant storage device 15, the inductive roof spray disinfection device 16, the ultraviolet disinfection device 17 in the cabin, the retractable and foldable entry ramp 18 and the retractable and foldable exit ramp 19 in the present disclosure are all existing mature technologies, and the specific structure will not be described here for brevity.

This embodiment does not limit the shape, the material and the structure of the present disclosure in any form. Any simple modification, equivalent substitution and modification made to the above embodiments according to the technical essence of the present disclosure are within the scope of the technical solution of the present disclosure.

What is claimed is:

1. A cabin for epidemic prevention and control detection and preliminary virus screening, comprising a biosafety detection cabin and a negative pressure isolation cabin, and both of the biosafety detection cabin and the negative pressure isolation cabin are in a cuboid shape, wherein left and right sides of the biosafety detection cabin are respectively provided with an entrance door and an exit door; a rear side of the negative pressure isolation cabin is connected with a front side of the biosafety detection cabin near the exit door and communicated through a side door; the rear side of the negative pressure isolation cabin and the biosafety detection cabin form an L-shaped structure; an inside of the biosafety detection cabin is provided with a portal frame adjacent to the entrance door; and the portal frame is provided with an inductive body temperature detection device and an abnormal body temperature alarm device.
2. The cabin for epidemic prevention and control detection and preliminary virus screening according to claim 1, wherein the biosafety detection cabin is provided with a biosafety warning broadcast device on a top of the entrance door.
3. The cabin for epidemic prevention and control detection and preliminary virus screening according to claim 1, wherein bottoms of the biosafety detection cabin and the negative pressure isolation cabin are provided with a plurality of cabin wheels which are capable of braking.
4. The cabin for epidemic prevention and control detection and preliminary virus screening according to claim 1, wherein the negative pressure isolation cabin is provided with a partition wall, the partition wall divides an interior of the negative pressure isolation cabin into a negative pressure room at the front side and a disinfection room at the rear side, the partition wall is provided with a negative pressure cabin door, the disinfection room is provided with an inductive non-contact wall hanging hands-free disinfectant storage device, and a top of the disinfection room is provided with an induction roof spray disinfection device and an ultraviolet disinfection equipment in cabin.

5. The cabin for epidemic prevention and control detection and preliminary virus screening according to claim 1, wherein the biosafety detection cabin is provided with a retractable and foldable entry ramp at a lower side of the entrance door, and the biosafety detection cabin is provided with a retractable and foldable exit ramp at a lower side of the exit door.