

UGM CIMEDs Develops Innovative Door Handlers to Prevent Corona Transmission

Wednesday, 08 July 2020 WIB, By: Natasa Adelayanti




As a human, we cannot separate pulling and pushing the door from our parts of daily activities. The door has doorknob. There are door handles that are not moved or rotated when we open and close the door so that the door handles only used to push or pull the door. There are also door handles that need to be moved or rotated to release the spring locks from the door handles.

Well, the door handle that needs help from our palm might allow a medium for the transmission of diseases caused by bacteria and viruses so that it can be a medium of transmission.

"There have been various efforts to avoid the spread of bacteria, viruses and poisons through the use of door handles that we often touch using the palm. The palm is an organ that can transmit bacteria, viruses and toxins to the mouth, nose, eyes, ears and other organs. It is because the hands act as holders of these organs," said Head of the Research Team for the Center for Innovation of Medical Equipments and Devices (CIMEDs) UGM Faculty of Engineering, Dr. Suyitno, S.T., M.Sc., on Wednesday (8/7).

In his remarks, he said that the palm could transmit bacteria, viruses and poisons to others through



objects that are held and used by others. That way the simplest way to avoid channelling bacteria, viruses and toxins through the doorknob media is to wash your hands before opening the door. However, the door handles used in public facilities can not always be controlled by the wearer by washing his hands.

To overcome this problem, CIMEDs developed additional tools on the door handles that make the door handles open and close with arms, elbows and soles.

"Then the possibility of channelling bacteria, viruses and poisons through the palm can be avoided," Suyitno said.

The advantage of this invention is that it can be mounted on doors with a variety of door handles without modifying the door and door handles.

The possibility of the arms, elbows and soles of the feet touching other organs of the owner or touching other organs of the body is very scanty. Thus this additional tool will prevent the spread of bacteria, viruses and poisons.

Suyitno explained that the developed device consisted of four types, namely door pullers and pullers with arms and elbows, door pushers and pullers with soles, door handle rotators with arms and elbows, and door handle rotators with soles of the feet. Turning the door handle with the arms and elbows have been registered with the registration number P00202004526. At the same time, the doorknob player with the sole has also recorded a patent with registration number P00202004528.

"Sure, it is beneficial for the doors of public facilities which are likely to be opened and closed by many people, such as office doors, restaurant doors, terminal doors, station doors, ATM doors, public toilet doors," he explained.

This tool currently manufactured with aluminium alloy material, this form was chosen because Covid-19 can survive the shortest on the surface of aluminium compared to other materials. He revealed this fact in a study conducted by Kampf and friends in 2020 and published in the Journal of Hospital Infection, published by Elsevier.

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Photo: Suyitno

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