

## Three Hospitals in DIY Use UGM Swab Sampling Booth

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Three hospitals have used the Covid-19 patient swab booth developed by the UGM team in DIY. The three hospitals are UGM Academic Hospital, Panembahan Senopati Bantul Hospital and Yogyakarta RUSD. Dr. Raden Sumiharto, S.Sc., as a member of the Gama Swab Research team as well as a Lecturer in the Department of Computer Science and Electronics FMIPA, M.Kom, said that gamma swab aimed to facilitate swab taking comfortably and safely because it can protect patients and health workers. "We deliberately propose this innovation of taking swabs safe and comfortable, as a form of UGM's contribution to the prevention of Covid-19," Sumiharto said on Thursday (9/7).

According to Sumiharto, the Gama Swab booth, which launched at the end of April was inspired by his turmoil witnessing the work of his wife, who struggled in treating covid patients. He also intends to make a booth that makes it easy for health workers to take samples and not have to use PPE clothing in full. Other research team colleagues from FKKMK UGM, UGM Vocational School and UGM RSA also shared this idea. "It so happens that the wife of a pulmonary specialist at Panembahan Senopati Bantul hospital has daily interaction with Covid-19 patients," he said.

According to Sumiharto to make this swab room, he and the team also asked for input from the hospital's experience in taking samples. If previously, the sampling conducted indoors, the aerosols around the room would be covid transmission media so that the decontamination of the booth carried out for 5-10 minutes after sampling. The decontamination process does not only make the patient's waiting time even longer makes it difficult for medical personnel who must use the PPE

continuously in the room.

The Gama swab booth is designed with a size of 1.2x1.2 x2 meters and is equipped with an H14 filter size HEPA so it can filter out viruses that enter the chamber. Operators can use PAD level 1 and 2 can also use the cubicle. There is also UV light inside the booth, so it is always sterile. "The outside air will not enter and the air entering the chamber will be filtered by the filter HEPA," he said.

Besides, the use of the Gama swab booth can be done outdoors and relocated. The advantage in outdoor swab sampling, according to him, would be to kill the virus when exposed to sunlight when it is taken during the day.

In addition to the HEPA filter, the gamma swab chamber also equipped with an air cooler, microphone, hand rub, swab hole, positive pressure fan, exhaust filter, UV light, glove, disinfectant, disinfecting pedal.

According to him, the process of making a swab booth carried out using scientific principles and global health standards. However, he hopes that there would be many regions also used this gamma swab booth. According to him, he opened up opportunities for cooperation for those who wanted to use the concept of the gamma swab booth. "We want our health workers to be safe and comfortable when taking swab samples, no longer need to use a complete PPE," he concluded.

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