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Viet Nam launches COVID-19 prevention and control products

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Focusing on products for COVID-19 prevention and control, students, lecturers and researchers at the university hope to contribute their abilities and efforts to the country's combat against the pandemic

Students and scientists at the Viet Nam National University Ho Chi Minh City (VNUHCM) have carried out extensive research and developed products that help prevent the spread of COVID-19.

Viet Nam's University of Science developed a technology to produce protein from Ecoli bacteria at low cost for COVID-19 antibody tests. The VNUHCM's National Key Laboratory of Digital Control and System Engineering (DCSELab) collaborated with the Centre of Science and Technology Development for Youth designed several COVID-19 assistive devices;

- A mobile disinfection chamber. With sensors detecting and automatically spraying once a person steps in, signal lights, and a 360-degree fog mist sprayer, the chamber uses anolyte solution and ultraviolet, ozone and heat disinfection technologies to help disinfect the whole body. The chamber has been used at several hospitals in the city since the COVID-19 pandemic broke out.
- An automatic chamber for disinfection and obtaining samples from patients without making contact. The chamber disinfects automatically before the next person enters for giving samples. Though ultraviolet disinfection technology is used, the UV rays do not directly touch peoples' bodies and so are not harmful to health officials or patients. Moreover, the high-efficiency particulate air filter technology combines with UV to completely kill viruses and bacteria remaining in the air after being sucked out of the chamber.
- A simple ventilator working on the principle of automatically squeezing and releasing Ambu bag to deliver air into a patient's lungs. The product is being finalized after many revisions and consultancy from specialists at Cho Ray Hospital and the University of Medicine and Pharmacy.

Scientists at the Bach Khoa Research Centre for Manufacturing Engineering at the University of Technology have also made a mobile disinfection system with air filters to ensure clean air is discharged in the environment. The technology has been transferred to companies for commercialization and mass production.

A research team at the University of Technology's material technology faculty has made masks that could be used by healthcare workers for continuous hours. Research team also developed preventive clothes, goggles and masks with a bacteria and air filter membrane to avoid infection. Another team made automatic machine for sewing masks from anti-bacterial clothing. Besides, the university's lecturers and students made goggles that keep out aerosols from patients using 3D printing technology and sanitizers.