

SANIPOD:

A Self-Contained Disinfecting Cubicle



THE PROBLEM

COVID-19 is a highly contagious disease caused by the SARS-CoV-2 virus. Since the start of the COVID-19 pandemic in early 2020, our healthcare workers have been in the frontlines in our continuous fight against the said disease. Being medical frontliners, they are constantly in contact with infected patients and therefore are very vulnerable to contract the infection. Medical frontliners wear personal protective equipment (PPE) and practice proper hygiene as measures to protect themselves. However, improper doffing of PPEs may still cause unwanted spread of viruses. Decontaminating PPEs is therefore deemed as a necessary additional measure in preventing the transmission of pathogens in clinical settings.

THE SOLUTION

The University of the Philippines Manila, in collaboration with the Department of Mining, Metallurgical and Materials Engineering of the University of the Philippines Diliman, designed and developed SaniPod. This is a sturdy, fully-automated, and smart self-contained cubicle that is capable of decontaminating outer clothing such as PPEs. SaniPod was created by a team of researchers led by Dr. Edward H. Wang through a project that was funded by the Philippine Council for Health Research and Development (PCHRD).

SaniPod is a modified version of SaniTent, an economical and easy-to-assemble sanitation tent that helps reduce the danger of COVID-19 transmission. SaniPod is built with a: (a) metal- and acrylic-infused enclosed sidewalls in metallic frame, (b) a control system with a motion sensor, timing, and open and close command, (c) mist spraying mechanism, and (d) a foot sanitation unit. The device also features disinfection in combination with a far-ultraviolet (UVC) light, that can kill pathogens without harming healthy tissues.



TECHNOLOGY GENERATOR

University of the Philippines Manila
Project leader: Edward H. Wang, MD, MSc

TECHNOLOGY DEVELOPMENT

The device is currently at Technology Readiness Level (TRL) 6. SaniPod units are already deployed at the Philippine General Hospital for field testing. System prototyping is currently being implemented in partnership with Red Dot Design. Customer discovery process has been done in coordination with MedHyve and Research Institute for Tropical Medicine (RITM).

SaniPod is at Investment Readiness Level (IRL) 5. Product validation and market fit has been determined. UP Manila is open for licensing negotiations with potential partners, preferably those in the field of medical equipment and device manufacturing for the scaling up of the technology.

Interested technology adopters may send a letter of intent addressed to:



Dr. Lourdes Marie S. Tejero
Director, UP Manila-Technology Transfer and Business Development Office
upm-ttbdo@up.edu.ph