

# Senegal engineering students fight virus with inventions

May 13 2020, by Clement Di Roma

---



The robot dubbed "Dr. Car" should be able to measure blood pressure and temperature, reducing exposure to infected patients and the use of expensive protective clothing

Senegalese engineering students are throwing themselves at the West African state's growing coronavirus problem with inventions such as

automatic sanitiser dispensers and medical robots.

Youngsters from a top engineering school in the capital Dakar have turned their technical skills toward easing pressure on the wards—and they are already in talks with hospitals over some of their innovations.

One example is a small robot, dubbed 'Dr. Car', which will be able to measure patients' blood pressure and temperature, according to students from Dakar's Ecole Superieure Polytechnique (ESP).

The university is considered one of West Africa's best for engineering and technology, and is highly selective, with 28 nationalities represented among its 4,000 students.

Lamine Mouhamed Kebe, one of the students who conceived the robot, said the machine would reduce the exposure of doctors and nurses to infected patients and use of expensive protective gear.

"At a certain point ... we realised that medical equipment was limited," the 23-year-old added. "We can do something".

Guided by a mounted camera and controlled via an app, doctors will also be able to communicate with patients through the robot, Kebe said, potentially allowing them to treat people isolated in hard-to-reach rural areas.

Senegal's coronavirus outbreak pales in comparison to the situation in virus-stricken Europe and the United States.

But after a slow start, confirmed cases in the nation of some 16 million people are increasing.



Students at Dakar's Ecole Supérieur de Polytechnique (ESP) engineering school are taught to focus on practical projects and entrepreneurship

And as with other poor countries in the region, there are fears that Senegal is ill equipped to handle a large outbreak.

Authorities have recorded more than 1,700 cases to date, including 19 fatalities. Hospital staff in Dakar are also beginning to contract COVID-19.

Faced with an increased threat, frontline Senegalese doctors are taking the young engineers seriously.

An initial prototype designed by the students was essentially a small

mobile trolley, designed to carry equipment or meals to patients.

But Abdoulaye Bousso, the head of an emergency ward in a Dakar hospital, asked to redesign it to include mechanical arms capable of conducting medical tests— an upgrade the students are working on now.

"It's a whole process," Bousso said, adding that the robot could cut down on their use of expensive bibs and gowns, which must be thrown away.

## **Focus on practicality**

Ndiaga Ndiaye, an ESP professor in charge of marketing the inventions, said that the university has long emphasised practical projects and entrepreneurship, which meant students were poised to act when the virus broke out.

The robot is "far from being a gadget," he said, and could be produced at a larger scale once ready.

Citation: Senegal engineering students fight virus with inventions (2020, May 13) retrieved 7 May 2024 from <https://medicalxpress.com/news/2020-05-senegal-students-virus.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.