Diving masks turned into specialized face masks



Teachers from **Tec de Monterrey**, working alongside the Salvador Zubirán National Institute of Medical Sciences and Nutrition (*Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán*, INCMNSZ), have developed an adapter so that **diving masks** can be used by health workers to avoid contagion by **COVID-19**.

Rita Q. Fuentes, Manuel Hernández, and Mariel Alfaro are teachers from the <u>School of</u>
<u>Engineering and Sciences</u> in the <u>Tec's Mexico City Region</u> who have joined forces with Fanny Alvarado and Jesús Mejía from the **INCMNSZ**, as well as independent researcher Rubén Fuentes.

"There's a shortage of **N95 face masks**, which is a serious problem because it's the only type of face mask that can protect health workers. In Europe, they've developed a way of adapting diving masks and using them.

"These masks cover your face completely. We've **created an adapter** that allows you to add a **filter** to provide **protection** against pathogens entering and leaving," said Mariel Alfaro.



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Alfaro Ponce, Director of the bachelor's degree course in **Biomedical Engineering** at the Tec in Mexico City, explained the **benefits** of diving **masks** with the relevant modifications for use in the health sector.

"The advantage of this type of face mask is that it's **fully sealed** and it's safer. There was a great deal of interest from the National Institute of Medical Sciences and Nutrition, whom we've been working with, so we did some tests.

"All the material can be sterilized, which is another advantage, and all the **material** can be **obtained in Mexico**," she added.

The teachers have promised to deliver **500 adapters** in the days to come. This will benefit the hospital, which is being used to treat COVID-19 patients in Mexico City.

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