

# A new app can help detect the coronavirus

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Credit: Ecole Polytechnique Federale de Lausanne

EPFL researchers have developed an artificial intelligence-based system that can listen to your cough and indicate whether you have COVID-19.

With the new Coughvid app, developed by five researchers at EPFL's Embedded Systems Laboratory (ESL), you can record your [cough](#) on a smartphone and find out whether you might have COVID-19. So how can a [smartphone app](#) detect the new [coronavirus](#)? "According to the

World Health Organization, 67.7% of people who have the virus present with a [dry cough](#)—producing no mucus—as opposed to the wet cough typical of a cold or allergy," says David Atienza, a professor at EPFL's School of Engineering who is also the head of ESL and a member of the Coughvid development team. The app is still being developed and will be released in the next few weeks.

## **Free and anonymous**

Once the app is available, users will simply need to install it and record their cough—the results will appear immediately. "We wanted to develop a reliable, easy-to-use system that could be deployed for large-scale testing," says Atienza. "It's an alternative to conventional tests." In addition to being easy to use, the app has the advantage of being non-invasive, free and anonymous. "The app has a 70% accuracy rate," he adds. "That said, people who think they may have the disease should still go see their doctor. Coughvid is not a substitute for a medical exam."

## **Using artificial intelligence to help patients**

Coughvid uses [artificial intelligence](#) to distinguish between different types of coughs based on their sound. "The idea is not new. Doctors already listen to their patients' coughs to diagnose whooping cough, asthma and pneumonia," says Atienza.

Right now his team is collecting as much data as possible to train the app to distinguish between the coughs of people with COVID-19, healthy people, and people with other kinds of respiratory ailments. "We'll release the app once we've accumulated enough data. It could take a few more weeks," says Atienza. In the meantime, COVID-19 patients who would like to contribute to the development work can record their cough at <https://coughvid.epfl.ch/> or on the Coughvid [mobile app](#).

Provided by Ecole Polytechnique Federale de Lausanne

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