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Taiwan develops rapid coronavirus test kit

April 21, 2020 | News

The new test kit is superior to conventional methods, as it is 90% precise, lightweight, sensitive and produces results within an hour



Taiwan researchers at Industrial Technology Research Institute (ITRI) have developed a new nucleic acid test kit to detect Coronavirus with 90 Percent accuracy and detection period of less than an hour.

ITRI researchers developed this kit in cooperation with the National Defense Medical Center and four private companies.

"Similar in size to a soda can, the test kit is "highly accurate, lightweight, sensitive and efficient," said ITRI President Edwin Liu. Deputy Minister of Economic Affairs Lin Chuan-neng displayed a prototype of the COVID-19 rapid testing kit developed by the ITRI at a news conference on 13 April 2020 at the Executive Yuan in Taipei.

The test kit analyzes samples obtained by swabbing the patient's throat or nasal passage to detect the SARS-CoV-2 virus and produces results within an hour. According to the ITRI, the new test can detect the coronavirus 0-7 days after infection, including in pre-symptomatic patients. The lightweight kit which weighs just 600gm is similar to the widely used quantitative polymerase chain reaction (qPCR) test.

Lin Chii-wann, director of the ITRI's biomedical technology and device research laboratories, said the institute plans to complete the required regulatory applications by the end of the month and have the test kits ready for mass production by July. The institute targets to produce 1 million kits by the end of the year.

The government has invested NT$2.16 billion (US$71.7 million) in the testing, treatment, prevention and research of the disease, National Health Research Institute (NHRI) president Liang Kung-yee said.