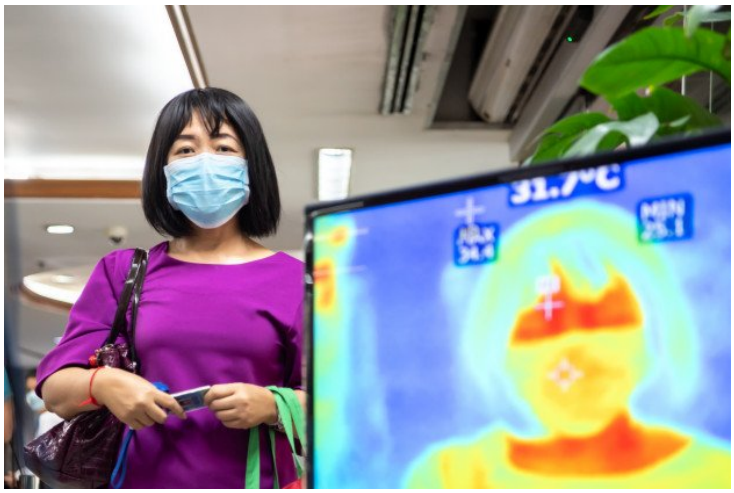
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Singapore's T-SMART invents AI-powered non-contact temperature monitoring

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Trace-Temp1 and its accompanying Trace-TempAI application couple artificial intelligence with infrared technologies



T-SMART Pte Ltd has launched an Indiegogo crowdfunding campaign on 1 March 2021 to raise fund for the mass production of Trace-Temp1. Trace-Temp1 and its bundled Trace-TempAI mobile application are powered by both artificial intelligence and infrared technology to provide accurate and repeatable human body temperature measurements, as well as to enable early detection and monitoring of possible fever-related concerns.

Temperature monitoring has been used as the first line of defence in pandemic control but its potential has been limited by the current thermometers and temperature monitoring devices. This includes both the infrared thermometers that come with mobile application for summary charts and data storage, and infrared cameras with face detection capabilities. All those devices only provide a singular temperature measurement for users to make sense of.

T-SMART thus developed Trace-Temp1 and the Trace-TempAI application to unlock the full potential of temperature monitoring and allow users to gain deeper insights about their health. The handheld infrared device uses artificial intelligence to identify and restrict temperature taking to be within the optimal measurement zone (OMZ) for best accuracy and repeatability. As for the Trace-TempAI application, it is powered by artificial intelligence to learn the user's normal body temperature range and pick up on subtle signs when the temperature is deviating from the norm. The application will automatically map the temperature pattern against known clinical fever pattern markers for early detection and identification of possible fever related concerns. The Trace-TempAI application will also provide suggestions of precautionary steps for each of the anomaly identified.

By mapping the temperature patterns of the user against common fever patterns such as intermittent, remittent, and continuous, the user will obtain timely and valuable information about the his/her health. Such data and analysis are also useful for clinicians and statisticians who have a keen interest in the relevance of temperature profiles. T-SMART will also be releasing an enterprise version to offer more data and analysis for individuals and groups within an organization.