

# Fujitsu smartphone can take your pulse

March 18 2013

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A Fujitsu engineer demonstrates how a smartphone that can take the pulse of a user just by looking at his or her face works, at the company's headquarters in Tokyo, on March 18, 2013. Fujitsu plans to put the invention to practical use within a year, enabling people at work or at home to track their health and collect data for analysis without wearing special devices.

A smartphone that can take the pulse of a user just by looking at his or her face has been unveiled in Japan.

Technology giant Fujitsu plans to put the [invention](#) to practical use within a year, enabling people at work or at home to track their health and collect data for analysis without wearing special devices.

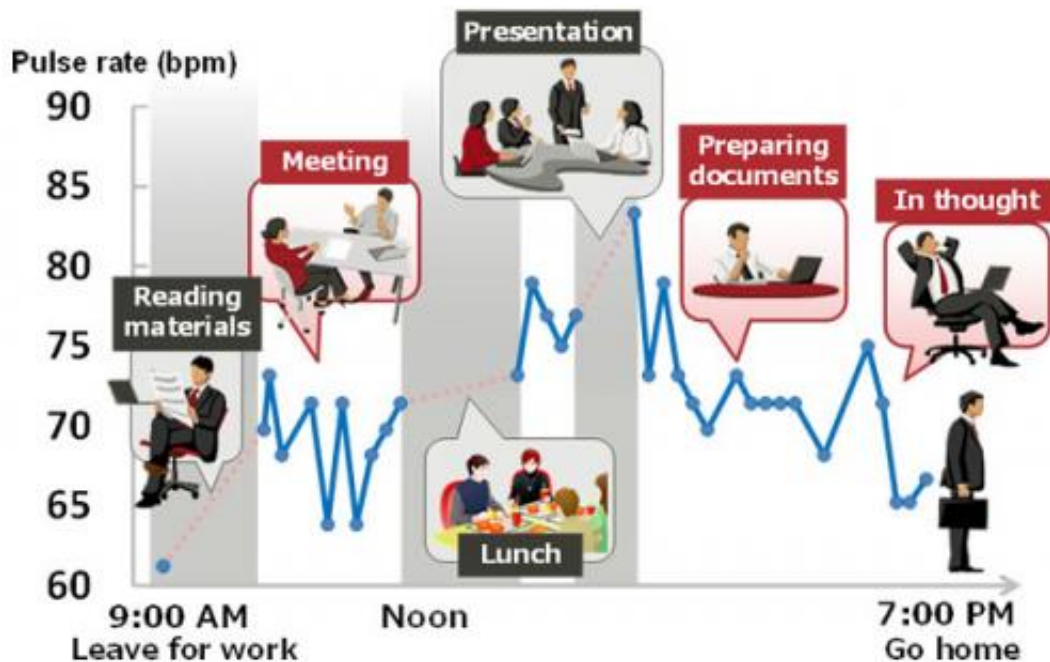
The [smartphone](#) works by measuring variations in the brightness of a person's face caused by the flow of blood.



Health support services based on human-centric computing

Researchers say countless tiny blood vessels run through the face, enabling monitoring of haemoglobin which absorbs green light. [Haemoglobin](#) is a protein found in [red blood cells](#) that contains iron and transports oxygen.

Simply pointing a camera at a person's face for as little as five seconds will enable pulse-taking, while the technology automatically filters out the effect of head movements or changes caused by standing up quickly.



An illustration of pulse changes along with staple activities recorded over the course of one day

"Even at a busy workplace, or any time a person is sitting in front of a PC, whether for [teleconferencing](#) or writing e-mails, their pulse can be measured during brief moments of quiet," the company said in a press release.

"At home, a camera built into a TV can measure the pulse of people relaxing in front of it, or a mirror, for when people are getting ready in the morning," it said.

"Pulse detectors built into gates at event sites or control points at airports could be a possible security application by detecting people in ill health and people acting suspiciously."

**More information:** [www.fujitsu.com/global/news/pr ...](http://www.fujitsu.com/global/news/pr...)

[013/20130318-01.html](https://phys.org/news/2013-03-fujitsu-smartphone-pulse.html)

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