

Scientists in Singapore develop wearable sensor to measure real skin feel

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Allowing rigorous assessment of the touch sensory experience



To mark the 10th Anniversary of Procter & Gamble Singapore Innovation Centre (SgIC), a new innovative wearable skin sensor with the potential to disrupt the skincare industry was recently unveiled.

Known as "HapSense", the patent-pending device allows scientists to speed up their analysis of skincare cosmetic products by up to 10 times and yet cost just a fraction of the existing expensive skin-testing panels.

Typical skin-test panels consist of skincare product reviewers who represent a defined user demographic, depending on the nature of the study. Unlike conventional methods that rely on subjective assessments like consumer surveys, HapSense offers precise, objective and quantifiable measurements of tactile sensations, enabling a more accurate understanding of the human sense of touch.

Made possible through the advanced field of soft electronics, HapSense was developed through almost a decade of research & development collaboration between P&G SgIC, Nanyang Technological University, Singapore (NTU Singapore) and the Agency for Science, Technology and Research (A*STAR).

The development of the HapSense device is a huge step forward in removing the guesswork from skincare product development, allowing rigorous assessment of the touch sensory experience. It also has the potential to expand its applications to testing surfaces and products in categories beyond skincare, e.g. fabric care, hair care, baby care, or feminine care.