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TACTILE SENSATIONS ON-SCREEN, NO MECHANICAL VIBRATION REQUIRED

 FASHION & BEAUTY

Multitouch interfaces are becoming increasingly common in computing devices of many kinds, but most still rely on mechanical vibration to create a tactile sensation. New technology from Finnish [Senseg](#), on the other hand, uses small electrical fields on-screen to produce a wide range of subtle sensations without the sound radiation and other unwanted side-effects that physical vibration tends to cause.



SENSEG'S E-SENSE TECHNOLOGY USES AN ELECTRO-SENSORY PHENOMENON TO REPLICATE THE FEELING OF TEXTURE ON VIRTUALLY ANY TOUCH INTERFACE SURFACE

Now available for early incorporation into devices large and small, Senseg's E-Sense technology uses an electro-sensory phenomenon to replicate the feeling of texture on virtually any touch interface surface, whether it's flat or curved, transparent or opaque. Whereas most such "haptic" implementations today use a mechanical vibration of the device to confirm a key press, for example, Senseg uses technology it calls "tixels" — short simply for "tactile pixels" — to generate a controlled electric field that extends several millimeters above the device's surface. Tiny electrical charges are allowed to pass into the tixel elements on a localized basis without ever exposing users to any electrical current; instead, fine-tuned sensations are created on the user's skin that can delicately replicate the feel of textures ranging from rough to smooth and sticky to slippery. Tixels are highly durable, Senseg says, and can even be incorporated into non-screen materials such as wearable fabric. With elements of hardware, software and effect design, E-Sense is provided to hardware partners through a combination of the necessary tixel laminate technology, an electronic module and software APIs. Senseg maintains offices in Helsinki and Tokyo, and demos are available; early

partners include Toshiba, the company says. Other device makers large and small: one to test out early for a haptic advantage of your very own? Spotted by: John Greene

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