Written by Marco Attard 11 January 2017

Tanvas has an intriguing demo at CES 2017, where it shows off surface haptics technology allowing one to feel the texture of different materials through a touchscreen.



Seen in the shape of a repurposed Nexus 9 tablet, TanvasTouch technology simulated a number of surfaces, including wood, cobblestone and grass. Another demo allows one to drag their finger through a virtual pool with a pebble floor, and a partnership with apparel maker Bonobos offers the chance to check the difference between cotton and corduroy fabrics by rubbing the touchscreen.

How does Tanvas touchscreens work? Reportedly the result of 10 years of research at Nortwestern University, the technology involves "real-time control of the electrical forces between your fingertip and the touch surfaces." Essentially the display has a TanvasTouch layer on top of the touchscreen acting as an electromagnet. The magnet physically pulls the tips of users' finger as they move across the screen, creating a "sense" of touch.

"Touchscreens are more integrated into our lives than ever and yet we are still tapping away at lifeless glass. TanvasTouch adds a new dimension of interaction," the company says. "Our goal at CES is to provide a glimpse of what's possible and, like our first-mover partners, inspire a new wave of creative innovators to build TanvasTouch into their products and applications."

However the technology does have limitations-- the fingers need to be moving in order to "feel" the different surfaces, meaning it cannot simulate stationary on-screen elements such as buttons. Tanvas is also in need of hardware partners, which we hope CES helped in that regard.

## Feel Fabric on a Touchscreen With Tanvas

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