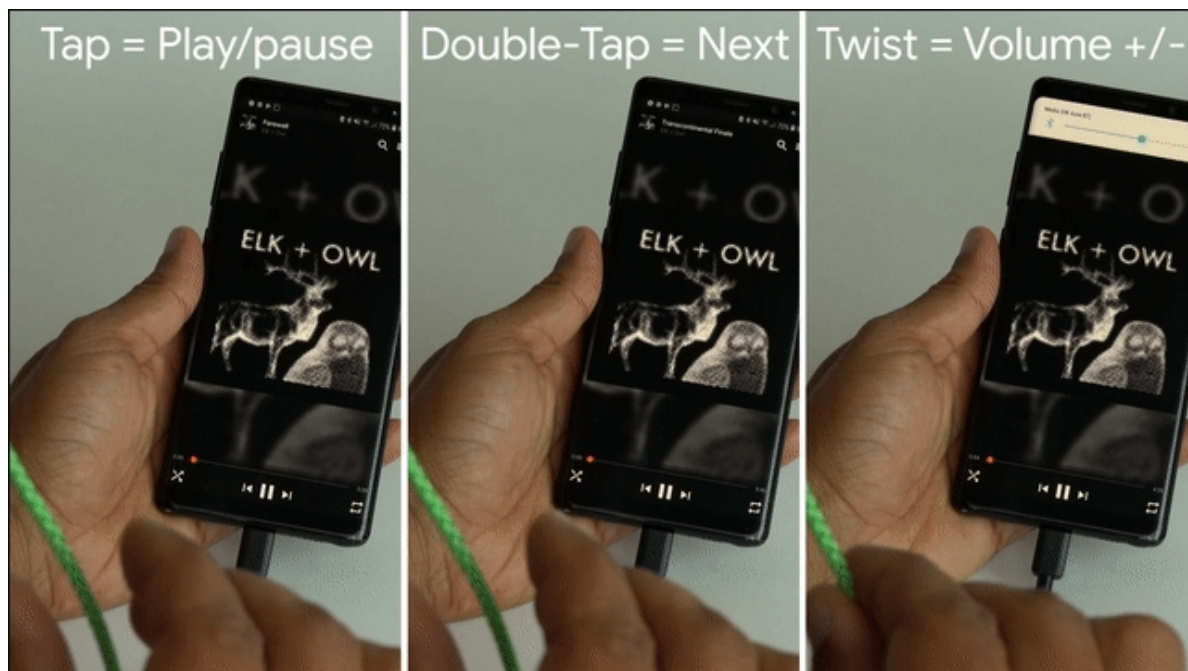


Audio Control Through Cable Presses?

Written by Marco Attard
26 May 2020



Google looks into turning the headphone cable into a control interface through the experimental I/O smart braid, a fabric cord allowing users to control a connected smartphone through pinch, squeeze and swipe gestures.

A Google blogpost describes a "helical sensing matrix" (HSM) consisting of a series of capacitive and conductive yarns woven into the braid. The yarns can detect gestures from any angle or part of the cables, with an experimental setup involving single taps for play/pause, a double-top for skip track and a twist for volume adjustments. The fabric also includes fibre optic strings, providing useful visual feedback.

The search giant used machine learning and data from volunteers to figure out how the cable can tell between different gestures. The result, is claim, is software able to recognise gestures with around 94% accuracy. As such, it might be not accurate enough for headphones cables, but Google says volunteers found the I/O braid easier to use compared to traditional in-line headphone controls.

The I/O smart braid remains an experimental device, at least so far, but Google might still look into incorporating the technology in wearable devices, especially considering previously partnered with Levi's to create a denim jacket with touch-sensitive controls in the sleeves.

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