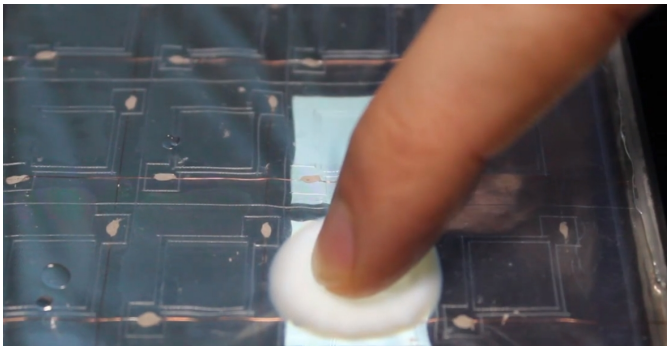


Adding Buttons to Touchscreens With GelTouch

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Researchers at the Technische Universität Berlin propose a means to add temporary tactile buttons to a touchscreens-- the GelTouch, a display with a layer of gel that hardens with the application of heat.



GelTouch uses a heat-responsive hydrogel. The gel is fluid and transparent at room temperature, but turns stiff and opaque when heated above 32°C. A layer of conductive indium tin oxide (ITO) heats discrete areas of the display via electric current, turning the gel solid to create any number of button layouts.

A 7-inch prototype shows a grid of buttons, a slider and a 1-finger joystick buttons, all usable with applications such as a phone dialler and simple games. Buttons disappear once heat is removed.

However the technology has a number of problems-- first off it turns areas of the screen white and opaque. Second, the screen takes around 2 seconds to harden, and the same amount of time to soften up. And lastly the gel requires constant power to maintain a hard state.

Still, as seen with the likes of the [Tactus Phorm](#) iPad accessory, at least some customers want the advantages of both touchscreens and tactile buttons. Thus GelTouch should find future applications once refined further.

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