

Patent talk shows Samsung's ideas for future phone design

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Look what Samsung's future phones might look like, if patent talk is anything to go by. A Samsung patent filed with WIPO for a "Biometric sensor and device including the same" was published October 18.

The patent focus is on an optical in-screen fingerprint scanner. Reporters cut to the chase in highlighting what Samsung's concept involves. The patent shows a system where the fingerprint sensor is etched to an opening on a printed circuit board. Samsung is careful to ensure that a safe distance from the [display](#) is maintained.

Samsung's placement of the sensor would go under the screen, with the [region](#) around the sensor being pressure-sensitive, said Stephen Mayhew in *BiometricUpdate.com*.

This is what Anton Nagy, editor-in-chief, *Pocketnow*, saw between the lines in this patent idea: "Samsung is slowly reaching the point of removing the fingerprint scanner altogether. The phone-maker initially moved the scanner from the front to the back, and it will likely take the second step of concealing it behind the [glass](#)."

Like several other reporters, Omar Sohail in *Wccftech* thought the new patent from Samsung could make its way into the Galaxy S10, translating into the [phone](#) carrying an optical fingerprint sensor.

(*Forbes* recently mentioned that Samsung will launch the Galaxy S10 "with triple rear cameras and eye-catching [gradient](#) color schemes.")

CNET's Abrar Al-Heeti, however, said it was still not clear if these features show up in the Galaxy S10 or other future phones. "If they do, it'll mean the display could fill up the whole phone [screen](#)."

Reporters underscored the significance in meaning that the company would now be developing its own fingerprint scanner. Why it matters: Thoughts were that the phone would be carrying Qualcomm's Ultrasonic one but here is patent talk, and indication that Samsung is thinking of keeping the fingerprint reader in-house.

If Samsung makes its own in-display sensor instead of getting it from Qualcomm, it means Samsung has thought twice about outsourcing such a task, and about reliance on other manufacturers.

As for [phone](#) design implications, the recent buzz over Samsung's future phones is not just about sensor places but on what happens to camera features.

Joe Fedewa posted in *XDA-Developers.com* on Friday: "The notch is a stop-gap solution before manufacturers can figure out how to completely remove all bezels and [sensors](#). Samsung Display is one company working on a [solution](#). "So, "what if the camera could be under the display? That's the solution Samsung Display is shooting for."

The post reflected on a future of smartphones, where devices "are almost 100% display on the front with no sensors or bezel present."

In addition to the fingerprint sensor as the focus of a patent, expect to hear a lot of buzz about cameras.

"Samsung Display held an "[AMOLED](#) Forum" event with about 20 attendees in China," said *XDA-Developer.com*, and it is there where they actually talked about "under-display" features.

"The new [innovations](#) supposedly include a camera sensor, fingerprint reader, audio technology, and touch-sensitive system all built under the screen. If that's to be believed, that means there will be no need for a bezel, resulting in an increased screen to body ratio," said Jay Bonggolto in *Neowin.net*.

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