

New capacitor developed for brighter camera flashes on mobile devices

By [Ben Coxworth](#)
February 20, 2013

[2 Comments](#)
[2 Pictures](#)



A typical smartphone flash with its existing capacitor (silver cylinder), and the new polymer capacitor material (lower left)

[Image Gallery](#) (2 images)

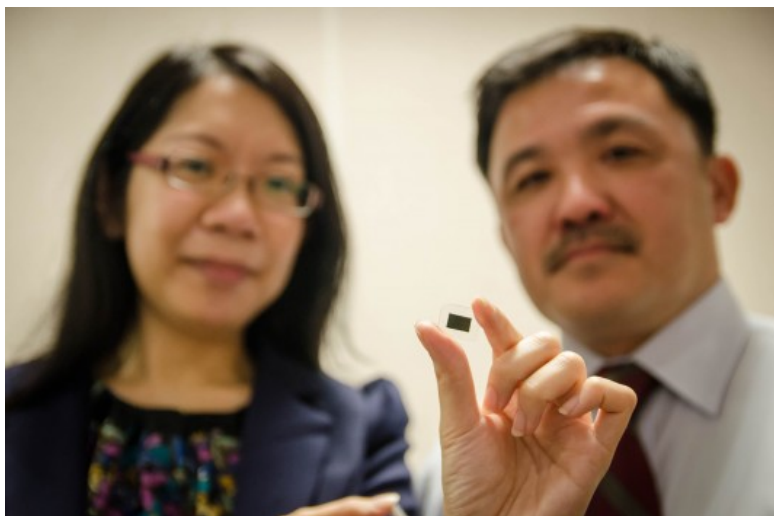
While stand-alone compact cameras are increasingly at risk of being made obsolete by smartphone cameras, they [do still have their advantages](#). One

of those advantages is the fact that, in most cases, their flashes are considerably more powerful. Smartphones may soon be catching up in that area, however, thanks to a new small-but-mighty capacitor paired with a dedicated xenon flash.

Developed by Associate Professor Lee Pooi See of Singapore's Nanyang Technological University, the capacitor is made from stacked layers of a novel co-polymer. According to the university, "the new capacitor is at least four times smaller than current electrolytic capacitors and is several times faster [at charging and discharging] than current ceramic-based capacitors."

Additionally, it's able to deliver enough of a charge to power a xenon flash, like those used in many regular cameras. Xenon flashes incorporate a glass tube filled with xenon gas, and emit a high-intensity burst of white light that's much brighter than that of the LED flashes typically found on smartphones.

Ordinarily, a capacitor that was sufficiently powerful to activate such a flash would simply be too big to fit inside a smartphone.



Prof. Lee Pooi See (left) and Xenon Technologies CEO Jack Tuen, with the new capacitor material

The university has partnered with Xenon Technologies, which is reportedly the world's largest manufacturer of xenon flashes. The company is now developing a flash to work with the capacitor, which will be the smallest xenon flash in existence once it's complete. The capacitor could also conceivably be used in other electronic devices, where space is at a premium.

It is hoped that a working commercial prototype of the capacitor/flash will be ready by this September.

Source: [Nanyang Technological University](#)

An experienced freelance writer, videographer and television producer, Ben's interest in all forms of innovation is particularly fanatical when it comes to human-powered transportation, film-making gear, environmentally-friendly technologies and anything that's designed to go underwater. He lives in Edmonton, Alberta, where he spends a lot of time going over the handlebars of his mountain bike, hanging out in off-leash parks, and wishing the Pacific Ocean wasn't so far away. [All articles by Ben Coxworth](#)

