

## Kateeva coating could finally give us bendable displays

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A new startup based in Menlo Park, California called Kateeva might have solved one of the problems that is keeping manufacturers from selling us portable devices with bendable displays. They've developed a coating process for organic liquid crystal displays (OLEDs) that they claim is in a price range that would make manufacturing bendable displays possible.



Bendable displays have become like the elusive jetpack—ceaselessly promoted and often promised, but never seeming to materialize. Every now and then we see a demo—just last year Samsung showed off a device with a flexible screen at CES. But problems arose and now the project appears to have disappeared from Samsung's promo materials. Sure, some companies make and sell devices with curved or bent screens, but they are fixed in place—nobody is going to fold one up and put it in their pocket.

There are two major hurdles preventing hardware makers from creating and churning out devices with bendable screens. The first is figuring out how to seal the displays—because OLEDs must be used, rather than LEDs, the displays have to be protected against both moisture and oxygen—both can render a screen useless. That means the screens have to be tightly covered, as in airtight and therein lies the problem—engineers haven't been able to figure out a way to seal the screens while maintaining flexibility, all at a reasonable price. In their announcement, Kateeva is claiming to have solved both problems using a printing process that seals the displays at a cost half that of others that have been developed, making the process, at least for now, marketable. They have also announced that they are set to begin shipping to manufacturers, which means it's now up to hardware makers to decide if the product is as good as advertised.

The other major hurdle is figuring out how to move the electronics behind the OLEDs to the new form—bending causes the traditional <u>indium tin oxide</u> that allows displays to be used as a touch screen, to crack and break. But there is news here as well: Canatu, a Finnish company, has announced that they've developed a nanotube based thin film that can be applied to the conductive material to keep it from cracking.

There is no way to know at this point if the claims of either company



will hold true, thus, as in the past, we will all just have to wait to see if the new technology pans out and if Samsung, Apple, or some other company finally starts selling us those bendable devices we've been promised.

## More information: Kateeva: <u>kateeva.com/</u>

via <u>TechnologyReview</u>

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