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INNOVATION OF THE YEAR	GRAND AWARDS	INNOVATORS	MULTIMEDIA	SWEEPSTAKES	SHOWCASE
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COMPUTING

 **ONE LAPTOP PER CHILD XO**
BETTER SCREEN, BETTER WORLD



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The goal of the XO is simple and noble: to give every child a laptop, especially in developing countries, where the machines will be sold in bulk for about \$130 apiece. But the One Laptop Per Child nonprofit, formed at MIT, didn't just create a cheap computer. In addition to cutting costs—by designing lower-priced circuitry and using an open-source operating system, among other things—it also improved on the standard laptop by slashing the machine's energy use by 90 percent, ideal for a device that could be charged by hand-cranked power in rural villages. The biggest power hog is typically the display, so engineers invented a new LCD. Each pixel has one part that reflects light and one that lets light pass through a colored filter. Turn on the LED behind the screen, and a full-color image appears as rays stream through the tinted filters. Turn it off to save power, and light bounces off the reflective parts of the pixels to form a black-and-white image perfect for e-mail or e-textbooks. Even more efficient, the CPU suspends itself when the image is static. Expect the tech in full-price laptops in a few years.

laptop.org



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