



2006 GEAR OF THE YEAR AWARDS
PLUS 396 HOT NEW PRODUCTS

→ **SPECIAL**
Women's Section
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Outside Buyer's Guide

2006 ANNUAL

The
**BEST
GEAR
NOW**

EVERYTHING YOU
NEED FOR YOUR
ACTIVE LIFE

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Jackets
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Shoes



Torture-Tested:

DIGITAL AUDIO WINDSHELLS SURFBOARDS LIGHT HIKERS TENTS
BINOCULARS SUNGLASSES BACKPACKS GPS WATCHES KAYAKS
SLEEPING BAGS HYDRATION PACKS LUGGAGE ROAD RUNNERS



Rising Stock

Power Clothes

The personal trainer of the future will be a running shirt

WHAT HAS YOUR T-SHIRT DONE for you lately? It might sound strange, but Stacey Burr ponders that question all the time. "By our estimation, textiles make up about 70 percent of the surfaces that people touch on a daily basis," says Burr, founder and CEO of Textronics. "But they've been fairly passive. Beyond fashion, and providing protection from environmental factors, fabrics don't do much." But all that's about to change: With the advent of Textronics electro-textiles, your T-shirt will soon do a lot more than simply advertise your alma mater.

Textronics, a 12-employee company based in Wilmington, Delaware, focuses exclusively on the emerging high-tech field of incorporating sensors into everyday fabrics. In 2005, the company introduced its first product, the NuMetrex sports bra (\$75 with transmitter; www.numetrex.com). Sensors are woven into the bra's nylon-and-Lycra fabric, and a Polar WearLink transmitter snaps on and off at the sternum. The transmitter sends heart-rate readings to the user's watch (compatible with most Polar and analog models). Depending on the watch, more sophisticated data like calorie burn can also be collected. Textronics is currently working on technology that will enable the transmitter to send data farther than your wrist—to a trainer, say, or a medical clinic.

"If you're developing a consumer garment, not only does the technology have to be very robust; the garment itself must be as good as or better than the products consumers are used to purchasing," Burr says. "That means it has to be comfortable, look good, and be washable and reasonably



priced." Textronics estimates that the sports bra can be washed—with transmitter removed—about 80 to 100 times before performance is affected.

What's next? Textronics is working on a men's counterpart, most likely some form of a shirt with sensors built in, to be released later this year. "I think the long-term view around wearable monitoring systems is a wardrobe of garments that people wear throughout the day with a variety of integrated sensors," says Burr. "Data could be measured so that slow or subtle health trends are identified earlier, both for the elite athlete and the average person interested in living a longer, healthier life."

—MELINDA MAHAFFEY