

# CLOTHES THAT EXTEND YOUR LIFE

## SMART FABRIC

Flexible optical fibers

System status: "ready for monitoring"

Outside layer: Textile antennas

Inside layer: stretchy, soft materials harvest and store energy

Nanostructures stay soft for normal operation, but can become rigid ribs to change shape of fabric

Spider silk-inspired weave opens pores when hot and self-wicks

Bandana senses air toxins and activates to shield user

Fabric morphs into other useful shapes, such as an umbrella

vertex inverts to form umbrella handle

Monitors brain activity

Eyewear rapidly responds to light levels

Embedded electronics and computing for hands-free communications and navigation

Grip strength (for arthritis)

Extremely low power sensors

Automatically responds to body temperature

Integrated, soft exoskeleton boosts mobility

Comfortable enough to run in

SENSORS MONITOR:	DETECT:
brain activity	atmospheric lead,
breathing	mercury and gases
blood sugar	smoke & other
electrical activity of muscles	particulates
pulse, temperature	mold & pollen
	radiation

Bio-feedback for user and health-care providers

IN EMERGENCIES, CLOTHES CALL FOR HELP

SMART SHOES ADJUST TO TERRAIN

Insole sensors detect gait and give real-time feedback