

# Watch, Listen, and Feel Movies with a Haptics Jacket

March 23 2009, by Lisa Zyga

---



A sensor-studded jacket lets viewers feel movies, allowing for emotional immersion. Image credit: Steve Brewster.

(PhysOrg.com) -- Sometimes you may feel a shiver go up your spine as you're watching a chilling movie scene, but a new jacket can actually give you a real shiver. The haptics jacket, designed by scientists at Philips Electronics, can enable movie viewers to feel movies through a sense of touch, in an attempt to provide full emotional immersion in a film.

Paul Lemmens, a Philips senior scientist, explains that the [jacket](#) isn't meant to make viewers feel the actual punches and blows that the actors are receiving on the screen. Rather, the intentions are more subtle. The jacket's purpose is to make viewers feel anxiety and other emotions through signals such as sending a shiver up the viewer's spine, creating tension in the limbs, and creating a pulse on the chest to simulate a rapid heartbeat.

"People don't realize how sensitive we are to touch, although it is the first sense that fetuses develop in the womb," said Lemmens, who will be presenting recent research on the jacket at the IEEE-sponsored 2009 World Haptics Conference 2009, in Salt Lake City.

To produce these [emotional](#) sensations, the jacket contains 64 independently controlled actuators, which can cycle on and off 100 times per second. Because of the way the brain perceives touch, only eight actuators on each arm placed six inches apart are enough to cover sensations on the entire arm. The system uses such a small amount of current that two AA batteries could provide power for an hour if 20 motors were operating simultaneously.

The jacket can respond to signals encoded in a DVD, or it can be controlled on the fly, adding another element of reality to entertainment.

Via: [IEEE Spectrum](#)

© 2009 *PhysOrg.com*

Citation: Watch, Listen, and Feel Movies with a Haptics Jacket (2009, March 23) retrieved 25 April 2024 from <https://phys.org/news/2009-03-movies-haptics-jacket.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.