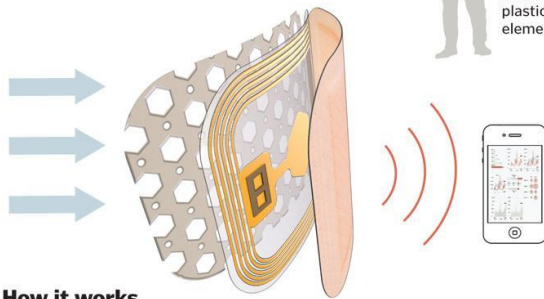


\$25M Advanced Roll-to-Roll Manufacturing Demonstration Facility to Open as Part of UMass Center for Personalized Health Monitoring



Military health monitor

Researchers at the University of Massachusetts, General Electric, and the Air Force are working on a health monitor to measure stress and fatigue in military personnel.



How it works

- 1** Biomolecules that indicate stress and fatigue are transferred through sweat and collected by the patch.
- 2** The biomolecules are transported via microscopic channels and valves to an electronic sensor to measure their concentration.
- 3** The data is transferred via a wireless connection, where it can be used to evaluate personnel.

SOURCE: General Electric

LUKE KNOX/GLOBE STAFF [Boston Globe](#), August 4, 2014

- CHM research is driving advances in autonomous, intelligent sensor platforms.
- The University of Massachusetts Amherst was awarded \$46,000,000 in capital funds from the Massachusetts Life Sciences Center to establish the Center for Personal Health Monitoring (CPHM).
- The CPHM will develop, fabricate and test intelligent autonomous patch sensors for health monitoring.
- Laboratory fit-out is underway, completion in 1Q 2016.
- Projects in this area include collaborations with GE funded by the NanoBioManufacturing Consortium to develop sweat-based biomarker stress sensors. This work was featured in the Boston Globe in August 2014.

The \$25,000,000 Center for Advanced Roll-to-Roll Manufacturing is an open access facility that will deploy leading edge technology and pilot tools for sensor systems, packaging and associated flexible electronics platforms This Center is built upon and has been enabled by advances in the CHM.