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UC Berkeley's Floating Sensor Network



Scientists and engineers at [UC Berkeley](#) are recently deployed a fleet of floating sensors into the Sacramento River in order to measure the movement of water, salinity and pollution. More from the aptly-named float.berkeley.edu:

The Floating Sensor Network team will build 100 motorized drifters, which are communication-enabled and integrate numerous sensors, including GPS, temperature, and salinity. The fleet will be deployable rapidly, in response to unanticipated events such as floods, levee breaches, and contaminant spills. The team is also working on hydrodynamic models (one and two dimensional shallow-water equations) and inverse modeling algorithms (Ensemble Kalman Filtering and its extensions) to integrate these measurements in the models.

Jointly with the Lawrence Berkeley National Laboratories and the California Department of Water Resources, the team is developing a computational infrastructure which will run online (Web-based), and integrate in real-time the measurements from static sensors (for example, USGS permanently deployed sensing stations), mobile measurements, and any other data feed available to us, to estimate river flow and contaminant propagation in real-time, using online measurements. The results will be available to users in the form of "water maps", that show the motion of water in real-time, and corresponding transported quantities (such as salt).

The idea of using floating, transceiver+GPS-enabled sensors to track water movement is brilliant, particularly in the case of floods. Perhaps someday every coastal city will even have similar units mounted just on-shore at beaches, to be swept out to sea in the event of a tsunami or tidal wave — such a network could provide immediate data to help track where the water is going.

[via robots.net]

(this project was [previously reported](#) by Tyler Cooper)

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- February 2012
- January 2012
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- November 2011
- October 2011
- September 2011
- August 2011
- July 2011
- June 2011
- May 2011
- April 2011
- March 2011
- February 2011
- January 2011
- December 2010
- November 2010
- October 2010
- September 2010
- August 2010
- July 2010
- June 2010
- May 2010
- April 2010
- March 2010
- February 2010
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- December 2008
- November 2008
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- July 2008
- June 2008
- May 2008
- April 2008
- March 2008
- February 2008
- January 2008
- December 2007
- November 2007
- October 2007
- September 2007
- August 2007
- July 2007
- June 2007
- May 2007

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March 2007
February 2007
January 2007
December 2006

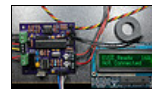
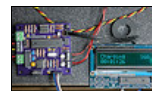
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