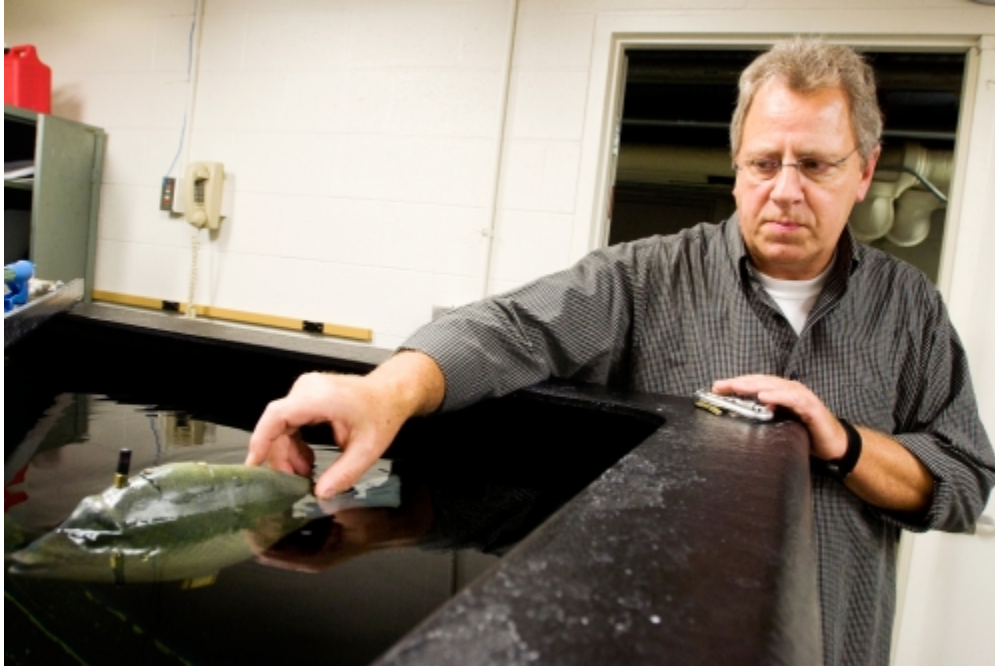


**The State News**

URL: <http://statenews.com/index.php/>  
Current Date: Fri, 23 Sep 2011 13:47:13 -0400

## New robotic fish detect harmful pollutants

By [Kelsie Thompson](#) | Originally Published: 15 hours ago | Modified: 15 hours ago | [No comments](#)



Justin Wan | The State News

[BUY REPRINT](#)

Program presenter-on-call John Thon demonstrates the functionality of robotic fish at the Engineering Building. Developed by MSU associate professor Xiaobo Tan, a robotic fish mimics nature and can detect oil and pollutants in water.

5

[Recommend](#)

In a 15-foot-long tank holding 6,000 gallons of water in the basement of the Engineering Building, a group of robotic fish swim in sync to help the environment thanks to a team of MSU researchers and students.

The research began as a program to build interest among children in the fields of science and engineering through demonstrations with robots, but soon became a much more serious project, said Xiaobo Tan, an associate professor of electrical and computer engineering.

After realizing robotic devices potentially could be used to detect pollutants, oil and other harmful bacteria in natural water sources, Tan, along with a group of MSU researchers and students, started a project to develop a robotic fish that can function in a real environment while collecting important data.

“We realized there were a lot more serious applications for these robots,” Tan said. “(We) were driven to look at how to design and coordinate them so they could function well in a real environment.”

The robotic fish are engineered to take on similar behaviors as real fish said Phil McKinley, a computer science engineering professor who is working on the project.



Video: Not Your Average ...

Equipped with tail fins, which use electrical currents to mobilize the fish, the robotic fish are able to swim with the precision and agility of a real fish, McKinley said.

“Until recently, we haven’t had the technology to study this,” McKinley said. “I think our team is definitely on the forefront in the development of these robotic fish.”

Tan said the fish have been tested at a lake south of campus, but the team still has work to do.

The project received a \$100,000 grant from the National Science Foundation, according to its website and Tan said the project also has received funding through the Office of Naval Research.

Chemical engineering junior Victoria Snoblen said having advanced research on MSU’s campus is something to be proud of.

“It’s incredible,” Snoblen said. “Our technology is growing here, and it’s exciting to be a part of it.”

Ideally, the robots will be used to detect traces of crude oil and toxic bacteria, which can be harmful to aquatic life and humans, Tan said. If everything goes as planned, the fish will be able to collect useful information and transmit it wirelessly to computers, human operators and even other robotic fish, which then can be used in future research, Tan said.

“We’ve realized that if we do things right, this prototype is going to make a huge impact,” Tan said.

#### Article Tools:

#### Short URL:

<http://statenews.com/r/0d7dbe96>

#### Possibly related:

#### More in City:

- [Alleged break-ins at Chandlers Crossing target iPods, MacBooks, TVs](#)
- [Canine companion](#)
- [MTV poll shows young people prone to send slurs more easily online](#)
- [One Book, One Community author coming to MSU Sunday](#)
- [East Lansing and Lansing have state's cheapest gas prices](#)

## Commentary

Add your \$0.02, [go to the comment form](#) or follow the [comment feed](#)

### Add a Comment

The State News reserves the right to remove any comment deemed racially derogatory, inflammatory, or spam...atory. Repeat offenders may have their IP address banned from posting future comments. *Please be nice.*

Name

Email Address

Your email will not

be published and we promise not to spam you.

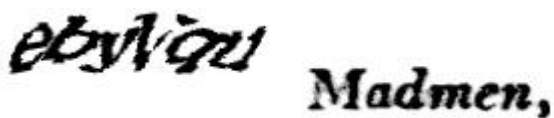
**Please note:** If this is the first time you've commented with this email address, your comment won't appear until you've verified the address.

Your Comment

**Format options:** Links: "my link":http://my.url.com

Bold: \*something!"

Italic: \_OMG!\_



Type the two words:



Please make sure you've entered a valid email address. You will be required to verify it before your comment is published. If you have questions or concerns, please do not hesitate to [contact us](#).

**Submit Comment**

### Find us on Facebook



**The State News**

Like

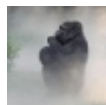
2,344 people like **The State News**.



Leah



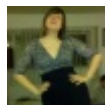
Brent



Todd



Laz



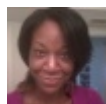
Meghan



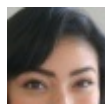
Daisy



Dave



Camille



Esmeralda



Jon

Facebook social plugin

**The State News** is published by the students of [Michigan State University](#). **State News, Inc.** is a nonprofit corporation. Its current 990 tax form is available for review upon request at *435 E. Grand River Avenue* during business hours.

All Content © Copyright 2011, The State News, State News, Inc.  
Proudly powered by [Detroit Softworks](#)

