

**Intelligent Micro Patterning, LLC in the News  
St. Petersburg Times**

# BUSINESS

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## WHAT IS A MEMS?

**What it stands for:** microelectromechanical systems

**What they do:** combine mechanical, fluid, optical and electronic functions on one tiny chip

**How they're used:** in automotive air bags and braking systems; in disposable blood pressure monitors; to monitor air and water quality



## Big plans for tiny devices

■ USF hopes to interest area businesses in a St. Petersburg lab for prototyping microgadgets.

By KRIS HUNDLEY  
Times Staff Writer

ST. PETERSBURG — In a lab on the St. Petersburg campus of the University of South Florida, engineers have been working for the past two years to miniaturize marine instruments that can test for every-

thing from pollutants to explosive mines under water.

Friday, representatives of the Center for Ocean Technology showed off their facility, told about plans for expansion and tried to interest Tampa Bay area companies into tapping their expertise in making microelectromechanical devices that work under water.

The devices, known as MEMS, have been around for more than a decade and have been incorporated into everything from automotive air-bag sensors to read/write heads for

computer hard drives to inkjet printer heads. The benefit of MEMS devices is that they combine multiple functions — mechanical, fluid, optical and electronic — on a chip smaller than a dime and thinner than a human hair.

Though MEMS have been most widely used as pressure sensors — they're in the tires on the space shuttle and in the braking system of your car — the experts who spoke Friday said that's just the beginning.

One speaker, Kurt Petersen, runs

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