

Big savings for water treatment plants

Singapore start-up's monitoring system may save a firm up to \$200k

By FENG ZENGKUN

A HOME-GROWN company is planting the Singapore flag in France and Australia with its new water technology.

Membrane Instruments and Technology (Mint) has developed a system that could shave up to \$200,000, or two-thirds, of the annual water-monitoring operat-

ing cost of a typical water treatment plant.

The water monitoring system is being tested in France, Australia and Singapore. Mint founder Adrian Yeo, 34, said the company is in talks to expand its reach to the United States by the end of the year.

The start-up was showcased in last year's Singapore Internation-

al Water Week (SIWW). Since then, it has doubled in value to \$4 million.

With the new monitoring system, the six-man company is expected to rake in \$1 million in sales this year. Each unit costs about \$10,000; a typical plant that processes 200 million litres daily would need 10 to 12 units.

The system uses pressure sensors connected to a computer program that can detect a change in water quality when one out of 100,000 membrane water filters is damaged. This makes it up to

five times more sensitive than other systems in the market.

Currently, most treatment plants rely on pressure-based or light-based systems to check the water quality. To make sure the water filters are intact, technicians usually shut down sections of the plant to check the filters.

Light-based systems shine lasers through the water to detect contaminants, but they may be misled by water bubbles.

Mint's technology diverts small water samples to its sensors, allowing the plant to run at



Mint founder Adrian Yeo with the company's water monitoring system. He is holding parts of its sensor, which is small and cheap to deploy so companies can install more of them. PHOTO: DIOS VINCOY JR FOR THE STRAITS TIMES

full capacity at all times.

The sensors, which consist of \$1 filters, plastic shells and screws, are also small and cheap to deploy. This means companies can install more of them to pinpoint more accurately where the filters are damaged.

The technology has been funded by the Environment and Water Industry Programme Office, set up in 2006 to support water technologies here.

The system will also be showcased at the SIWW next month.

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