

# Clean water thanks to robot swans

Wednesday, August 19, 2015 - 01:46

Researchers in Singapore have developed an autonomous robotic swan that collects real time data about water quality in an effort to efficiently monitor reservoirs. Ben Gruber reports.

## Transcript

STORY: It looks like a bird but it's actually a robot. It's called NuSwan and it's been designed to monitor the water quality in Singapore's reservoirs. NuSwan's developers began the project six years ago. The original plan was to build underwater autonomous vehicles to keep tabs on water quality, but lead research Mandar Chitre wanted to find a simpler solution that can utilize existing infrastructure. For that he needed a robot that can float. (SOUNDBITE) (English) HEAD OF THE ACOUSTIC RESEARCH LAB AT THE TROPICAL MARINE SCIENCE INSTITUTE NUS, MANDAR CHITRE, SAYING: "The swans being on the surface, they can use GPS, they can use cellular networks, which are existing infrastructure and we can easily add different kind of sensors on them and you can use them pretty much for 24 by seven monitoring." The robot swan uses an array of sensors to collect real time data about about acidity, oxygen, and chlorophyll levels and can also collect samples for closer examination. NuSwan can be given instructions via text message or work autonomously. Chitre says that before the Swan model, his robot was an ugly duckling. (SOUNDBITE) (English) HEAD OF THE ACOUSTIC RESEARCH LAB AT THE TROPICAL MARINE SCIENCE INSTITUTE NUS, MANDAR CHITRE, SAYING: "The idea started off with a duck before it was a swan, it just, in the the first phase the duck was a little too small for what we wanted to do and so we decided to go with swans, and people like swans because swans usually like clean waters so there is a natural connotation that you have clean waters when there are swans." And it's not just Singapore's water supply that will benefit. After a few more tests, the robotic swans will migrate north to monitor China's largest reservoir, and demonstrate that NuSwan is one idea that floats.