Poster paper

Water Measurement Data Collection System

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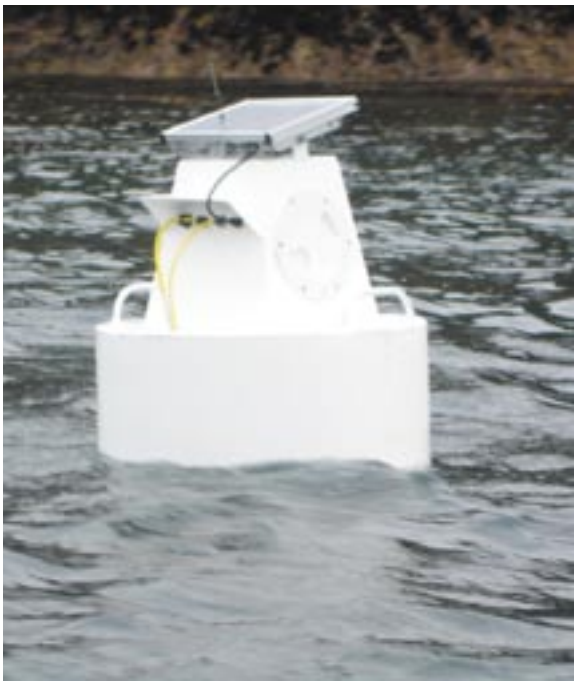
The overall aim of this project is to create a device that can measure various aspects of water quality in real time, and transmit those measurements back to a base station, where the results are to be displayed in an easy to read manner.

This project was initiated in reaction to pollution problems around the world. This problem can be observed in atoll islands throughout the pacific, where the human population has exceeded the limits of the land. Human waste is being pumped into the ocean, with little or no treatment. In order to solve the ever growing pollution problem, we need a way to measure the pollution in real time. People need to be able to react to the problems as they appear, instead of finding problems after they have existed for an unknown amount of time (as currently happens with human-assisted measuring techniques).



The intended deployment for such a device could include lagoons, lakes and harbours, where monitoring might be beneficial, and where adverse environmental factors are at a minimum.

The benefits for such a system include:

- More timely data acquisition means that users can react to potential problems faster.

- Multiple devices deployed in separate locations allows users to monitor a wider area at once.

- Remote nature of devices helps reduce total labour cost.