

## **Democratizing Real-Time Water Quality Monitoring**

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This project reports on building and deploying a low-cost software and hardware infrastructure for water quality sensing in Indigenous communities. Each sensor node, including probes and the buoy, is about \$1400 (cf \$5700 for equivalent commercial node). They are specifically designed for low power consumption (2 months on 6 AA batteries), deployment in areas with unreliable connectivity (using a mesh network with routers and gateways), with a modular hardware and software architecture (offering options for low-cost or low-power, a diverse set of probes, 3G or satellite), for educational use (with thorough documentation for DIY). Through a low-cost server, data can be displayed on mobile devices and desktops (in a language of choice) or exported for research purposes. We report on field experience.