Water Quality Monitoring System using Machine Learning

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Goals

• Develop a Water monitoring system that obtain the Turbidity, Temperature, Conductivity, and Light Intensity.
• Send data wirelessly to a computer for storage and analysis.
• Use machine learning theories on obtained data to forecast and predict events.

Research Methodology

• Install all the sensors in an Arduino board, and create a watertight case to contain all the system.
• Process and clean previously obtained data, and use machine learning theories to come up with an hypothesis that represent the data.
• Deploy the system and test the sensor and the transmission of the data.
• Process the data obtained through the machine learning algorithm.
• Test the algorithm to predict/forecast event of interest.

Expected Results

• Create a System that can retrieve data, and be able to send it to a computer for further analysis.
• Come up with an hypothesis from old data, using current machine learning algorithms.
• Forecast probable events, and be able to alert critical events.

Figure 1. Current sensors.

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