Abstract
This project focuses on developing a sustainable and economical water filter for use in developing countries, particularly Haiti. After investigating various methods of purification, it was determined that a combination of ultraviolet treatment and carbon filtration was the most promising approach. A prototype of the design was developed; looking forward partnerships with non profit organizations are the best method of implementation.

Background
• Current purification methods aren’t sustainable or economical
• Water borne bacteria are the main cause of illness and death in Haitian children
• Water used in cultural rituals must taste a certain way; most filtration methods change the taste

Awareness
• Many do not understand the link between illness, water, and bacteria

Project Goals/Objectives
• Gain a comprehensive understanding of challenges facing Haiti with respect to contaminated water
• Investigate treatment methods to design an effective water treatment sustainable and economical system
• Define productive and contrary components of various water treatment methods
• Implement the design in a community with a plan to educate the community about the design and cultural implications

Conclusions/Recommendations
• Haitian communities would benefit from a more sustainable filtration system
• Charcoal filtration and UV solar disinfectant are cost effective filtration designs
• Combining charcoal filtration and UV solar disinfectant into a single design will better Haitian water quality

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