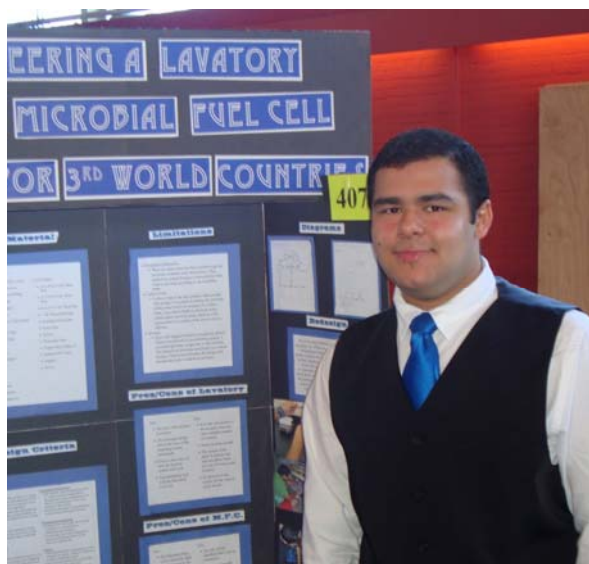




2010

MASSACHUSETTS CLEAN TECHNOLOGY AWARDS

A Program from The Foresight Project Inc; www.theforesightproject.org



Region VI: Boston

Pablo Silva: The Engineering School, Hyde Park

CleanTech Award: *"Engineering a Lavatory with a Microbial Fuel Cell"*

About Me:

I am originally from Brazil, but at the age of twelve, I moved to Allston, MA with my mother. My favorite subject is science, which is why I have been so involved with the science fair my entire high school career.

Besides science, I enjoy novels by Michael Crichton, my favorite author, which inspires me to write my own short stories. Like Crichton, I plan to study Biology when I attend college and then hopefully attend medical school.

My Project:

Being born in Brazil, a developing country, I know that in many places in the world, the hygiene level from water is not on the safe side. Not only are people affected by the consequences of poor hygiene, but the environment is as well. My project's goal is to increase the level of hygiene until it is safe for its residents and environment. I designed a lavatory for public spaces with high population.

This lavatory uses a Microbial Fuel Cell, engineered into a plumbing system that allows water to run in the MFC, filtering the water back into the system. The system is arranged so that it can collect rainwater and incorporate it in the system as well. Another great advantage of a MFC is the electricity it produces, allowing for a small ventilating system.

The MFC lavatory not only solves the problem of diseases, but also solves problems being caused to our environment. I went through five different lavatory and plumbing designs to make sure that the design worked with the MFC.

My project contributes a lot to the area of engineering and environmental science because I use engineering as the foundation for my project's goal, which is to better the environment, thus bettering the people in it.