IPRO 337

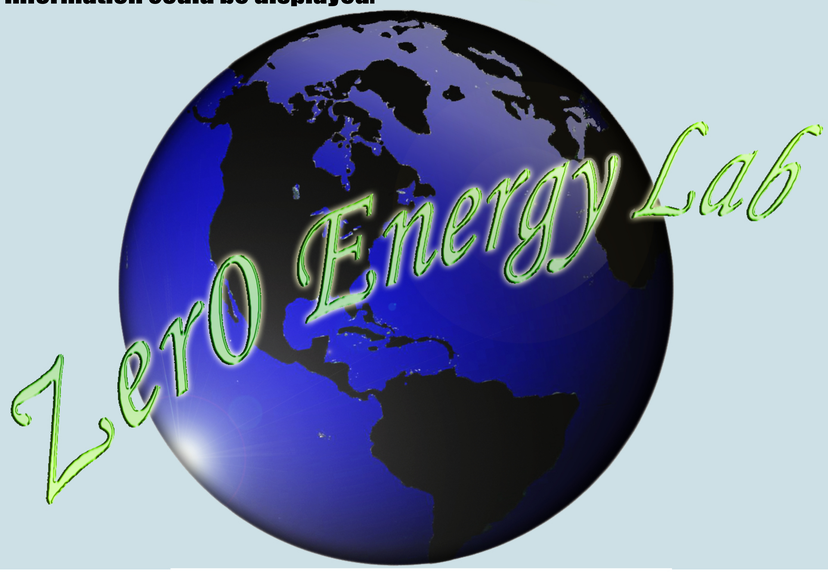
Illinois Institute of Technology

Golf Cart Team

This subgroup had a large task of disassembling the golf cart, reconfiguring it to accept the wind turbine's gathered energy and the photovoltaic panel energy that could not be stored in the stationary battery bank. During the first few weeks, the team took photographs and documented as much about the golf cart in it's original state before proceeding to take part portions to make the cart easier to carry up to the fourth floor. After the cart was moved, the golf cart team split into two groups. One group to work on the electrical plans for inigrating the cart to the green technologies on the roof. The other group worked on repairing the cracks and body damage before painting it and adding the Zero Energy Lab logo.

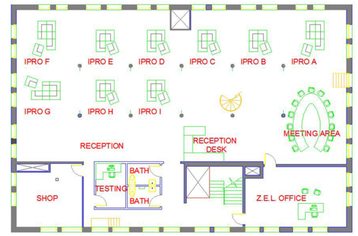
Lab Space Team

This final subteam was in charge of building from past IPRO 337 groups and continuing the development of the space. The group aimed at designing a new work surface and storage desk that was made from a kit of parts. From this kit of parts, one or two people could assemble the desk without fasteners within a few minutes. Each group could chose the number of desks or storage units they needed to do their work. Once the experiment or IPRO was completed, each desk could be rolled over to another group to use or disassembled and rolled out of the way. The desks were made so someone could move the desk up to the fourth floor as well as around the floor without needing more equipment. The banner system was designed to display information about each project going on within the lab. The straps were designed to be adjustable, so even now while the space is unergoing renovations, information could be displayed.



The future of IPRO 337

The next step of IPRO 337 will be researching more green technologies for Machinery Hall. Systems such as solar thermal panels for heating, cooling and warm water. Future IPROs will be faced with similiar challenges to this semester's class was. They will need to find the best solution of various green, innovative energy producing technologies. From there, how to intergrate them into the building, whether that be electrical, mechanical, or structural challenges. The new designs will definately impact not only the roof of Machinery Hall, but also the floor plan and the battery banks the space has now. The following groups will continue the renovations with paint stripping, repairing the floors, as well as the saw-toothed roof windows in the lab space. After the wind turbine is installed and the moble battery bank in the golf cart are fully operational, the lab could being to be used as working lab and testing space. After the lab is deemed operable, the following IPROS will need to continue working on furnishing the space and adding amenities, such as bathrooms and possibly repairing the elevator for an ADA accessible lab.



Team Members:

Director: Nancy Hamill-Governale

Memmbers:
Scott Lowe
Abdelmalek Aouissa
Evan Larkin
Brian Rojas
Farouk Yaker
Oba Vincent
James Meyer
Adam Kadzban
Jennifer Gambrell
Christopher Chiu
James Dodgen
Clark Wolfe

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Andrew Kedzuch