

# The Wrench

ASME-UF Publication

<http://www.mae.ufl.edu/asme/index.htm>

American Society of  
Mechanical Engineers

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## Benefits of ASME

The benefits of joining ASME. There is a large and varied amount of activities that University of Florida offers ranging from Rock, Paper, Scissors Club to Gators for Sustainable campus. One such thing that may catch your eye is American Society of Mechanic Engineers.

Why is this such a great place to get involved? Because of the many opportunities it gives to do so. As an engineer in school, we know that only part if any of the things we learn in class will be directly applicable to the job we want. Where does this leave us with regards to the job when we get there, dead in the water if you're not proactive. ASME gives student something they cannot get inside of class, experience. As in everything, learning from a book can only get you so far.

The projects range from creating a Human Powered Submarine to a Mars Rover, these normally go into contests as it is felt competitive juices will get your brains headed in the right direction.

Another of the benefits is meeting with companies that are interested in hiring or actively recruiting for jobs in the engineering fields, if something interest you chances are there is a contact in ASME that can get you started in that direction.

Not least of all, many of the engineers have taken the classes you will be taking can offer anything from advice to tips about teachers or even to tell you what to focus on in the course.

Pictured Below is the Human Powered Submarine "Swamp Thing 2"



## Innovations in Engineering

### Cooling Suit

Originally Reported February 2008 in Ivanhoe Newswire

PITTSBURGH, Pa. (Ivanhoe Newswire) -- Firefighters battle flames and smoke in gear that is specially designed to insulate them -- even when temperatures exceed one thousand degrees. But the very same life-saving equipment a firefighter dons may be putting him or her at risk -- by raising body temperatures to dangerous levels. Now researchers are developing a system to cool them off while they're

smack dab in the middle of the fire.

Firefighting is dangerously hot work. The heat from a house fire can reach over 11-hundred degrees Fahrenheit. "It causes you to build up body heat," Jon Williams, Research Physiologist at the National Institute for Occupational Safety and Health told Ivanhoe.

But soon -- firefighters may add another layer of protection that will subtract body heat. This is a

cooling suit -- a spandex undergarment, lined with plastic tubing. Physiologists say when a firefighter starts to work hard. His body gets rid of heat by moving warm blood into the skin. These tubes allow cool water to carry the heat away from the firefighter's body. The suit is designed to concentrate on areas where the body transfers the most heat.

"The scalp, the areas of the chest, the forearms. Where you get more heat transfer in those areas than you would if you

### Get Involved:

#### Human Powered Submarine

Contact: Brian Green  
[eagleace@ufl.edu](mailto:eagleace@ufl.edu)

#### Solar Splash Electric Boat:

Contact: Marshal Thomson  
[mtgator@ufl.edu](mailto:mtgator@ufl.edu)  
(Also looking for electrical team)

#### Mars Rover Projects:

John Kennedy  
[Supared@ufl.edu](mailto:Supared@ufl.edu)



### Schedule of Events

- December 2nd-General Body meeting-6:15pm-7:00pm
  - Speaker: Eric Layton– UF biodiesel
  - December 9th– ASME Breakfast (free donuts and coffee)-MAE B 221
- Upcoming Events:  
 January 13th: 1st General Body Meeting  
 January 20-21st: Career Showcase (2nd day is technical day)

December 2008						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

### Cooling Suit continued (page 1)

were cooling another area of the body," Williams said.

At the National Institute for Occupational Safety and Health Lab, volunteers test the suit -- by walking on a treadmill -- to raise the person's core body temperature. For this test, researchers turned on the water transfer system. The volunteer's temperature barely changed.

For the second test, the cooling system was not turned on. After just a few minutes, the monitor showed a temperature spike -- his body went from ninety-seven -point-seven degrees Fahrenheit to ninety-eight-point- seven.

So now, scientists hope fire-fighters can douse flames and keep cool all at the sametime.

### Spotlight on Professor

In the future, this spot will be reserved for interviews with professors. This will cover their research, thoughts on the world, and even tips for students.

If you feel your professor has fascinating research, an interesting outlook, or would be interested in being interviewed.

Contact:

Tim Bengtson  
 tbengtso@ufl.edu



A professor just doing his thing

## Engineering Joke of the Day

### The Lost Balloonist

A man is flying in a hot air balloon and realizes he is lost. He reduces height and spots a man down below. He lowers the balloon further and shouts, "Excuse me, can you help me? I promised my friend I would meet him half an hour ago, but I don't know where I am."

The man below says, "Yes. You are in a hot air balloon, hovering approximately 30 feet above this field. You are between 40

and 41 degrees N. latitude, and between 58 and 59 degrees W. longitude."

"You must be an engineer" says the balloonist.

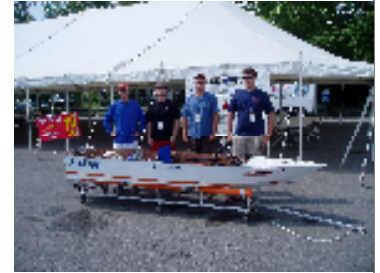
"I am," replies the man. "How did you know?"

"Well," says the balloonist, "everything you have told me is technically correct, but I have no idea what to make of your information, and the fact is I am still lost."

The man below says "You must be a manager."

"I am," replies the balloonist, "but how did you know?"

"Well," says the man, "you don't know where you are, or where you are going to. You have made a promise which you have no idea how to keep, and you expect me to solve your problem. The fact is you are in the exact same position you were in before we met, but now it is somehow my fault."



Solar Splash Electric Boat in Fayetteville

## Current Projects

### Mars Rover

Due to the success of the Phoenix Mars Lander in retrieving soil samples, NASA has decided they want to include a radio controlled vehicle to retrieve small rock samples. There will be simulated landscape is done with 2x4 studding and teams will be rated by difficulty in retrieving the rock and accuracy in placing it in receiving area.

There are two teams currently working on it. One headed by Michael Wong and the other by John Kennedy.

### Solar Splash Electric Boat

A solar powered electric boat competition. Project head Marshal Thomson updates on it "We are currently modifying last year's hull to be the plug for this year's competition. We will continue to fine tune the plug

until it is close to perfect and then produce a mold and then finally our completed hull."

Looking for people to join because many are graduating seniors.

### Human Powered Submarine

The team is currently preparing Swamp Thing II for the 10th International submarine race in June 2009. Also pursuing new sponsorship contacts.

*Engineers aren't boring people, we just get excited over boring things. --Anon.*

## ASME Officers

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