

Collegiate Design Series News

Volume 1, Issue 5 February 2004

Special Interest Articles:

- Mini Baja West
Portland, Oregon
- Engine Order Updates
- Walking Robot Challenge
Schenectady, NY
- FSAE Paddock Spaces

**FREE
REGISTRATION**

Do you have information, stories, or pictures that you want to share regarding your team?

Email them to CollegiateCompetitions@sae.org and qualify for a drawing for Free Registration to a 2005 event of your choice!

**Student
Newsletter
Survey**

Share your thoughts regarding the Collegiate Design Series! The Student Newsletter Survey is now available at:

<http://www.surveymonkey.com/s.asp?u=93481347338>

Mini Baja West



Date: April 22–24, 2004

Place: Portland, OR

Currently registered for this event are 63 teams from across the country. And while there is rumor that the west event has tamed down to a less difficult track, organizer Pete Strause, begs to differ. In fact the west is very much alive and kicking. In a letter to all participants and readers posted on the event website (<http://www.oregonsae.org/2004mbw/index.shtml>), Pete Strause gives some insight of what is being prepared for the event. While the endurance course does incorporate portions of a laid out track used for the AMA National Motocross Championship race, the majority of the course will be rugged terrain including off camber, rocky and muddy portions through trees, elevation changes and **yes** wet conditions. There will also be a meadow that the endurance race will cut through as well as the notorious "Horsepower Hill" that will be utilized for hill climb.

Washougal MX Park located in Washougal, Washington which is approximately 45 minutes driving time from Portland is home to many motocross racing participants and fans. Below are a few of the pictures taken by event staff during a day of scouting areas/trails/track portions to be used for the competition.



If attending this event, I would strongly encourage you visit the event website <http://www.oregonsae.org/2004mbw/index.shtml>. On the website you will be able to find important details like the tentative daily event schedule, lodging, maps, nearby ATV shops that you just might need to make a quick stop at during the event, etc.

Observant Note: Two days of the event will be at Washougal Park in Washington which is 45 minutes from Portland, Oregon. Something to think about when making lodging reservations.

Organizer Note: If there is enough interest, we can have the showers opened up at the banquet facility for about a \$2 towel fee per person. Please contact Andre at susantoa@pdx.edu

Engine Order Update



Queen's University
Midwest Mini Baja 03'
Driver: Allan Rodgers

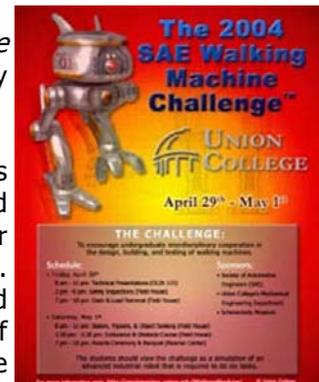
If you have not received your engine yet...**DO NOT FEAR**, it will be coming. We recently received a flood of inquiries regarding the status of Mini Baja engines. Briggs & Stratton is currently running on a tight production schedule with the Mini Baja engine and are doing their best in keeping up with the demand. The only engine affected is the Mini Baja engine; all Supermileage engines have been shipped. We apologize for the delay. Orders placed on or before November 21st have been shipped. The last day to order an engine was January 17, 2004, therefore any engine order placed, yet not received, will be shipped by mid-February. All Mini Baja West engines will be shipped first priority due to it being the first event. Shipping takes anywhere from 4–6 weeks. We are asking that if you do not have your engine by the first week of March 2004, to please contact us at collegiatecompetitions@sae.org. Again, we apologize for the delay.

Walking Robot Challenge

Date: April 28—May 1, 2004 **Place: Schenectady, NY**

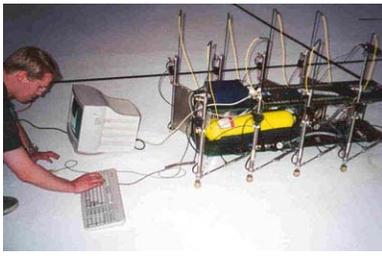
The 2004 SAE Walking Robot Challenge (formally the Walking Machine Challenge) will be hosted by Union College in Schenectady, NY April 29 - May 1, 2004.

This competition, which is part of the SAE Collegiate Design Series, provides students with the opportunity to design, build, and test a self-contained walking robot incorporating an onboard power source (generally electric or pneumatic), control hardware, actuators, sensors and ancillary devices. Students benefit from the opportunity to work with technologically advanced components and systems necessary for the construction and development of robots and other complex intelligent machines. During the competition, the robots perform six progressively more challenging events ranging from the relatively simple *Dash* to the grueling *Endurance and Obstacle Challenge*. While the first five events are known to the competitors in advance of the competition, the exact nature of the final obstacle course remains a mystery until moments before the event.



Walking Robot Poster available online

Several robot control modes are permitted at the competition. These control modes range from *tethered* (i.e. controlled by a human operator in direct visual contact with the robot) to *Autonomous Level 2* in which robots use sensors to remotely analyze their environment and base their movements and actions on the information provided by these sensors. Scoring is adjusted to reward robots with greater levels of autonomy.



For further event information including schedules, travel advice and lodging, consult the official 2004 competition website at:

<http://engineering.union.edu/WalkingMachine/>
or contact Prof. Nick Krouglicof at krouglin@union.edu.

FSAE Paddock Space Announcement

Important

When you arrive at the Pontiac Silverdome for Formula SAE 2004 you'll find a major change: the competition will have moved from the South lot, where we've been since 1994, to the North lot. One consequence of the move is that the team paddock spaces have been significantly rearranged. With the new paddock layout teams will still be assigned 4 standard parking spaces (That's an area 17 ft wide x 34.5 ft long.), however, we unfortunately will not have the flexibility we've had in the past to accept oversized trucks and transporters.

Therefore, if your team is planning to bring a truck or trailer that will overhang your assigned space -- to any extent -- then you must inform Kathleen McDonald, katklauz@aol.com, not later April 15, 2004, and provide the exact length of your transporter. We will do our best to accommodate somewhat oversized rigs in the order in which we receive your "oversize transporter notification." However, we strongly encourage you to stay completely within the 34.5' pit length.

Sorry, but if your team is planning to bring an oversized transporter and you do not tell us in advance, then you will not be permitted to locate your rig in your paddock space.

Please note - Under no circumstances can we accommodate commercial tractor trailers.



"A Passion for Performance"

2 1/2 days with the designers and engineers of the fastest vehicles on the planet!

Do you like high performance vehicles? Then don't miss the SAE Annual World Congress and Exhibition on March 8-11, 2004 in Detroit, Michigan. SAE members, **which includes student members**, can attend the event at **no charge**. This is a once-in-a-lifetime opportunity to see and hear the people who are designing and building the fastest cars in the world. These people and these organizations will likely never be together, in one place at one time, again. Here are the organizations:

BMW, Ferrari, Toyota, Ford, Roush, Porsche, AVL, Prodrive, Carroll Shelby International, DaimlerChrysler, General Motors, Delphi, Ricardo, Cosworth



Rochester Institute of Technology
FSAE-A 2003

And just some of the speakers:

John Coletti, Ford SVT, Dave Hill, GM/Corvette, Dan Knott, Daimler/Chrysler PVO, Pete Spence, TRD/Toyota, Carroll Shelby, Carroll Shelby International, Jack Roush, Roush Industries, John Force, Paolo Martinelli, Ferrari, J. T. Battenberg, Delphi, Csaba Csere, Car and Driver, Dennis Simanaitis, Road & Track, and many more.

This entire program takes place in two theaters on the exhibition floor of the SAE World Congress. Seating is limited. SAE members attend at no charge. For details go to: <http://www.sae.org/congress/highperformance/> To register for the SAE World Congress or join SAE, go to: <http://www.sae.org/congress/about/register/>. Don't miss this once-in-a-lifetime chance!

Take A Survey!

Do you want to tell us your ideas and opinions regarding the SAE Collegiate Design Series Competitions? A survey is available for you to do just that. We will review all surveys and take all comments into consideration. Your opinions matter, so let your voice be heard.



<http://www.surveymonkey.com/s.asp?u=93481347338>

Planning for the Future

Excerpt from Jan. 04' issue of Automotive Engineering International
By: Terry Costlow and Carey Cyphert

SAE International's Collegiate Design Series events have united students on a global basis for years. The Formula SAE event was started in the United States, and has since launched partnered events in the United Kingdom (Formula Student) and Australia (Formula Australasia). Formula SAE began in 1981 with six entries, and has since grown to 140 for the upcoming 2004 competition with teams from Finland, Puerto Rico, Japan, and Singapore to cite a few countries.

"The SAE is the premier professional society in developing student competitions that challenge engineering students to work as a team and to be evaluated at an international level," said Bob Woods, Professor of Mechanical Engineering and long-time Formula SAE Faculty Advisor at the University of Texas-Arlington. Woods continued, "These competitions cover all interest areas in SAE and develop engineering skills that cannot be taught in the classroom. They emphasize the significant factors of working on a team, on a budget, and on a deadline, with multidisciplinary aspects that are necessary to industry. Recruiters have recognized that the students graduating with this experience not only have a couple of years' head start on other students, but that they will be quality employees since they have volunteered for an activity way above and beyond the necessary."

Some managers note that a few years ago, most new hires needed a fairly extensive training program for design tools. But "the caliber of students coming out today is extremely satisfying," said Bob Cruse, Executive Director of Vehicle Systems for General Motors North America Engineering.

For more on this 6-page article in the January 2004 issue of *automotive engineering international* regarding how the industry and academia are partnering to improve education and what the industry is looking for in tomorrow's engineers, please visit www.sae.org/students/magazines/. SAE student members have online access to the automotive and aerospace magazines as well as *Update*, SAE's monthly member newsletter.



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