



Mississippi State University

X-cited!

Wisconsin Team Visits MSU

Special points of interest:

- Wisconsin Challenge X team comes to visit! Read the adjacent article.
- See what each thrust is working on in our regular Thrust Update Area.
- Terri Christian is featured as this edition's Student in the Spotlight.
- Elementary school students! Give us your ideas for a name for our Equinox! See page 2.

A visit from the Wisconsin Challenge X team ended with a running diesel engine last week as the two teams collaborated for work and a little team bonding.

Four students and the faculty advisor from the Wisconsin team made the week long trip, which had several objectives, including an outreach event and touring an aluminum ladder production plant to see how the plant handled aluminum extrusions.

"The outreach event was very successful, and touring the plant gave us a chance to see metal being used in a real way instead of just the classroom," said Liz Casson, one of Wisconsin team members.

During the team's visit here, they worked with MSU team members to get the GM Diesel



The Wisconsin team and the MSU team pose together next to MSU's Equinox. The Wisconsin team spent Friday afternoon through Sunday working with the MSU team, and also had a little time to socialize.

Thrust Update Area: What are they working on?

Vehicle Modeling and Controls

Jimmy has been working on our control strategy.

Kennabec has been doing some testing with the motor and lead acid batteries and working on laying out all of the inputs and output for each component.

Thrust Leaders: Jimmy Mathews and Kennabec Walp

Mechanical

We have gotten the GM diesel running with the help of the Wisconsin team. We are also beginning rear cradle construction.

Thrust Leader: Brian Christian

Electrical

The electrical group has finished work on the lead acid battery pack, and a successful test of the Ballard electric drive was conducted using the lead acid batteries. Work is continuing on the wiring schematics, and developing the emergency stop circuit for the competition.

Thrust Leader: Ron Lewis

Powertrain

We have received the Ballard cooling heat exchanger. The cradle analysis is underway and results are expected soon. The rear suspension has been removed from the mule Equinox.

Thrust Leader: Christopher Whitt

Outreach Program

Our second Outreach Report was turned in in December. Now we're gearing up for the spring semester with several exciting outreach events.

Outreach Coordinator: Amanda McAlpin

engine running, one of the main goals for this semester. The information that the Wisconsin and MSU teams gained while working on the motor will be shared with the 9 other teams using a diesel engine in their vehicle.

"This was really important because it is information that was needed by all 9 teams using a diesel engine," said David Oglesby, the MSU team leader. "We really benefited from the Wisconsin team's experience, since they have entered competitions similar to Challenge X in the past."

While the Wisconsin team was here, they also got to have a little fun, and try a taste of southern cuisine. Friday night both teams dine on fried catfish.

Atta-Dawgs

- Good job team on bringing the GM Diesel engine to life!

Upcoming Events

January 24—Engineering the Automotive Future Workshop, University of Alabama

January 26—Progress Report 2 due.

January 26—Control Strategy Tech

"Name our Vehicle" Contest

Open to grades K-8

Submit your idea for a great name for our vehicle! If your idea is chosen by the Challenge X team, we'll put it on our Equinox and you'll get a prize!

Deadline March 15

Please submit name ideas with your name and contact information to:

Challenge X
200 Research Blvd
Starkville, MS 39759

Students in the Spotlight

This column gives you a behind-the-scenes look at the students who are working on the Challenge X competition at MSU.

This week's student in the spotlight section features Terri Christian, a part of the outreach group and the team Radar. Terri has been a part of the Challenge X team since early 2005. Terri's enthusiasm and positive attitude make a great contribution to the team, and that's why we chose her for this edition's spotlight.

Name: Terri Christian

Hometown: Mathiston, MS

Major: Undergraduate student in Machine tool operation

Here Terri answers a few questions about her experience with Challenge X.

Q. What do you feel like you are gaining out of being part of Challenge X?

A. People skills and organizational skills are definitely important. I'm also getting a lot of automotive and troubleshooting experience.



Terri during summer vacation, next to the Alaska pipeline

Q. What are the ups and downs of being the team Radar?

A. Communicating with radars from other teams is very cool. We all email back and

forth between each other to find out what all the teams are doing. But taking care of last minute things is one of the more difficult parts.

Q. What do you most enjoy about being a part of the team?

A. Being a part of the whole process, being involved with the team and going to competition. And seeing where you're making a difference in the future.

Q. What is one of the most memorable experiences from Challenge X for you?

A. I really enjoyed going to competition last summer in Detroit.

I also really enjoyed the visit from the Wisconsin team. It was fun getting to know other members of other teams from Challenge X. We had a lot of time to talk and then we were able to get the diesel engine running. They were a big help with that.

Q. What do you plan to do after you get your degree?

A. I'd like to start my own machining business.

For newsletter suggestions or corrections, please contact Amanda McAlpin at amcalpin@cavs.msstate.edu.