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Mississippi State University

Newsletter

General Motors Mentor Visits MSU Team

Special points of interest:

- *Bill Beggs, our GM mentor, was here to visit; see adjacent article.*
- *See what each thrust is doing, article below.*
- *Our new column titled "Student in the Spotlight:" features a student involved with the competition, see page 2 for column.*
- *Happy Easter to everyone!*

This week our mentor from General Motors visited with us to offer some guidance and support for our team. Each university that is competing in Challenge X is assigned an engineer from General Motors to mentor them through the competition.

As part of his visit, Bill met with all thrust leaders to review what they have been working on lately.

"I think they are doing well so far in the competition," said Bill. "So far they have done a lot of computation and modeling and that has really played to the strengths that the MSU team has in that area."

Bill said that the next part of the competition will involve hardware evaluation, and he thinks that will present special challenges for the team, however, he feels that students meeting these challenges has been one of the most important parts of the competition.

"The thing that I enjoy about mentoring students is that I can see them learn new skills and then they want to be able to demonstrate their abilities and show what they have learned," Bill said.

For the students, Bill's visit was a chance to get feedback and assurance that they are heading in the right direction, as explained by David Oglesby, Challenge X team leader.

"His visits are always important because he communicates directly with Challenge X and GM coordinators, so he always has insightful feedback related to our project."

Bill Beggs is our mentor assigned to us by General Motors to guide us through the competition.

Thrust Update Area: What are they working on?

Vehicle Modeling and Controls
Running simulations to verify vehicle technical specifications. This includes things like 0-60 time, fuel efficiency, emission levels, and other performance issues. Also getting started on report 4. Working on electrical subsystem for upcoming hardware inspection.

Mechanical
Finishing up documentation of mechanical fasteners, starting a wiring diagram for the test stand and vehicle.
Thrust Leader: Brian Christian

Electrical
Electric motor will be here soon for the pre-hardware competition. Testing batteries for the battery management system. Phillip is working tirelessly to procure parts and write safety procedures.
Thrust Leader: Phillip Conley

Powertrain
Getting B-20 biodiesel for Equinox from BP. Mocking up electric motor and transaxle assembly. Working to procure engine and transmission.
Thrust Leader: Christopher Whitt

Outreach Program
The first two groups of area homeschoolers visited with us in the past few weeks. We are really excited about having them here.

We recorded a segment with Lazer 96, a local radio station, telling about our progress in the competition. Also please remember our upcoming discussion forum "Transportation Solutions to the Critical Energy Crisis" to be held on April 21st. All are invited to attend.
Thrust Leader: Justin Crapps

Upcoming Events

April 14 Report #4- "Control Strategy Development" Due

April 21 Discussion forum in Hunter Henry Center

April 26 Pre-hardware inspection

May 9 Design Report #5 Due

June 5-9 Year One Competition, Detroit, MI

Atta-Dawgs

- Thanks to **Bob Kirkland** for procuring lead-acid batteries for the electrical thrust to test their battery management system!
- Good job to **Kiran Solanki, Kennabec Walp, David Oglesby, and Neil Littell** for working to turn in report #3 last week!
- Great job to the **outreach team** for all their recent effort with outreach activities!

Please visit our website!
www.cavs.msstate.edu/projects/challengex/index.htm

Student 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 is Kennabec Walp. Kennabec is part of the Vehicle Modeling and Controls thrust. We felt that Kennabec's outstanding dedication makes him an asset to the team. That's why we chose him to be our first student featured in the spotlight.

Name: Kennabec Walp
Hometown: Tylertown, MS
Major: Pursuing a master's in Computer Engineering

Kennebec Walp working on the Chevrolet Equinox for the Challenge X competition.

Wherever there is a Challenge X event or meeting, you almost always see Kennabec's face. Kennabec has been a dedicated member of the Challenge X team since MSU was chosen to compete last summer.

Kennabec is an avid sports fan, loves going to MSU ballgames, and likes to play basketball. But he is serious about school, and his participation in Challenge X. Kennebec said it is sometimes difficult to balance schoolwork and the time he spends on Challenge X, but still thinks the competition is worth it for him.

"It's going to be an awesome experience and I've already learned a lot," Kennabec said. He thinks it is a great way to get your foot in the door with various areas of the automotive industry. He also hopes more companies will see his resume. Most students post resumes through Challenge X, which are seen by many in the industry looking for new and fresh faces in the engineering world.

Kennabec's favorite part of the competition was going through the workshops held twice a year. In August, Kennebec went with other team members to Boston, MA for a workshop.

"We got to visit Fenway Park, and that was exciting since I'm a sports fan," said Kennabec.

Kennabec just finished helping submit report #3 and now is working on beginning to put together report #4. He is also working with his thrust on getting the electrical subsystem up and running for a hardware inspection in about a month.

Next Kennabec looks forward to year two of the competition, which will involve a lot more hands-on work.

"So far we've done a lot of simulation," said Kennabec. And spoken as a true engineering student he adds: "I'm looking forward to working on stuff you can put your hands on and see it move."

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