Happy New Year!

Election Forms for 2014-2015 season due Feb. 6

Subteam Updates: DII Team

While Body team focuses on the outside of our vehicle, Driver Interface and Integration is concerned with the inner infrastructure. DII is responsible for designing the steering, safety, and controls systems for the vehicle. This year, subteam lead John Young has several new designs planned for the upcoming vehicle. We will implement a rear brake which functions similar to a parking brake; this way the driver can step out of the vehicle without relying on another member to hold the car steady. Of particular interest to John, who is also our main driver during competition, is the new seat. Previously, we used a foam platform that required our drivers to brace themselves with their elbows. Now, with a new steering system that does not allow for this, we will develop a seat that supports the driver in all directions.

This new steering system comes from a change in competition rules: all steering must be with a natural steering system. This makes our vehicle a little bit more like a road car when the driver steers right, the car turns right. Finally, in order to place these components in their correct locations, DII has developed a mounting system to ensure precise mounting points. This new structure should provide more accuracy and better performance of our vehicle.

Sponsor Highlight: Michigan Fiberglass Sales

Michigan Fiberglass is a wholesale provider of high quality fiberglass supplies and composite materials. Though UM Supermileage has the male mold machined by the College of Art and Architecture and we prep the mold ourselves, Michigan Fiberglass helps with much of the mold making process. When it comes time for the fiberglass female mold, they have provided mentorship and supplied us with the chemicals and materials for the process. Michigan Fiberglass Sales also allow us their time and the use of their facilities for the carbon fiber vacuum infusion. The staff has also provided body team with advice on how to go about the layup process. Based on their advice, this year’s mold will be created using smaller, discrete pieces. Also advised for this year’s mold is the use of locators along the edge of the layup flange. These locators are shaped like pyramids and allow for easy access removing the mold as well as lining it up with the other pieces. Thank you for your support and guidance!
As soon as break ended, Supermileage members were back at work, testing our ¼ scale model in the UMich wind tunnel. We spent almost two days preparing our model in the tunnel, making sure that it was aligned perfectly and the tunnel was calibrated to our fit.

This 5’x7’ tunnel is one of the largest in the area, a subsonic low turbulence tunnel capable of operating at over 150 mph. We are interested in measuring the aerodynamic resistance on our vehicle at different speeds that will occur during the race. We ran measurements up to 120 mph, though we don’t plan on getting anywhere near that during competition! This high speed comes from the Reynolds number; our scale model is one quarter of the real size, so we have to run tests at four times our projected race speed to compensate. With this empirical data, we can solve backwards to find a more accurate coefficient of drag to use in our simulation models. This coefficient, which describes how our vehicle interacts with a fluid, is uniquely characterized by the shape of our shell. A low drag translates to a lengthy coasting distance. As we cut out assumptions from our optimization model we will get a better understanding of the other areas and systems in which our car needs to improve.

Thanks to Sarah Nesbitt from the Multidisciplinary Design Program for the great pictures!
The purpose of a newsletter is to provide specialized information to a targeted audience. Newsletters can be a great way to market your product or service, and also create credibility and build your organization’s identity among peers, members, employees, or vendors.

First, determine the audience of the newsletter. This could be anyone who might benefit from the information it contains, for example, employees or people interested in purchasing a product or requesting your service. You can compile a mailing list from business reply cards, customer information sheets, business cards collected at trade shows, or membership lists. You might consider purchasing a mailing list from a company.

Next, establish how much time and money you can spend on your newsletter. These factors will help determine how frequently you publish your newsletter and its length. It’s recommended that you publish your newsletter at least quarterly so that it’s considered a consistent source of information. Your customers or employees will look forward to its arrival. Your headline is an important part of the newsletter and should be considered carefully.

You can also research articles or find “filler” articles by accessing the World Wide Web. You can write about a variety of topics, but try to keep your articles short. Much of the content you put in your newsletter can also be used for your website. Microsoft Word offers a simple way to convert your newsletter to a Web publication. So, when you’re finished writing your newsletter, convert it to a Web site and post it.

The subject matter that appears in newsletters is virtually endless. You can include stories that focus on current technologies or innovations in your field. You may also want to note business or economic trends, or make predictions for your customers or clients. If the newsletter is distributed internally, you might comment upon new procedures or improvements to the business. Sales figures or earnings will show how your business is growing.

Some newsletter s include a column that is updated every issue, for instance, an advice column, a book review, a letter from the president, or an editorial. You can also profile new employees or top customers or vendors. Selecting pictures or graphics is an important part of adding content.

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