



LEHIGH
UNIVERSITY

Lehigh University Formula SAE

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Friday, March 1st, 2013

Dear Lehigh Formula SAE Sponsors,

We would first like to thank you for your contribution to the Lehigh Formula SAE team. Your generosity demonstrates that the engineering, business, and motorsports industries are as dedicated as ever to projects that develop young engineering oriented men and women into future effective engineering and technology leaders. Your contribution is one potential facet of a relationship with the Formula SAE team, as contributing technical insight, manufacturing capability, and career networking and advice are additional opportunities to encourage the development of our team and engineers. A continued relationship with the Formula SAE team will increase exposure to the Lehigh engineering graduate community through networking and recruiting receptions and available meetings with the team.

The team completed technical design and modeling of the new X43 prototype prior to the Thanksgiving holiday, allowing the manufacturing process to begin while portions of the chassis and components were optimized to reduce weight, improve safety, and increase strength and rigidity. Contributions and technical insight from sponsors this season have expanded our capabilities, as this is the first year that we are manufacturing our unique carbon fiber suspension a-arms and integrated flexure joints using pre-preg fabric instead of a resin infusion. Test layups are in progress to prove the performance and reliability of the new process. Chassis manufacturing identified improvements this year, as we were able to decrease excess epoxy resin in the adhesive layer between structural foam sheets, decreasing weight and potentially increasing bonding strength and rigidity. The foam chassis core has been machined in the IMBT composites lab, and is about to be wrapped in carbon fiber and epoxy resin before final curing in the next few weeks. A new engine dynamometer is being built with components that are better suited to our testing demands. It will then serve as our dedicated engine testing unit for the next several years.

If you have any questions about the progress of the X43 prototype race car or would like to schedule a meeting with the team, please feel free to contact me at dws309@lehigh.edu or 484-241-0445. Our team captain and chassis team manager Jim Lohan is also available at jpl414@lehigh.edu, as are our co-captains Dan Shea, suspension team manager, and Nick Acosta, machining team manager, to address specific concerns about the vehicle. We will keep you updated with the progress of construction and elaborate on the specifics of our networking reception anticipated for early April on our website, www.lehigh.edu/~insae and our twitter account @LehighRacing.

We hope everyone at your organization enjoyed the holidays and drives safely this winter and spring!

Sincerely,

Dalton Smith

*Corporate Funding Manager and Engineering Manager
Lehigh University Formula SAE | X43
BS Chemical Engineering, Class of 2013*

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