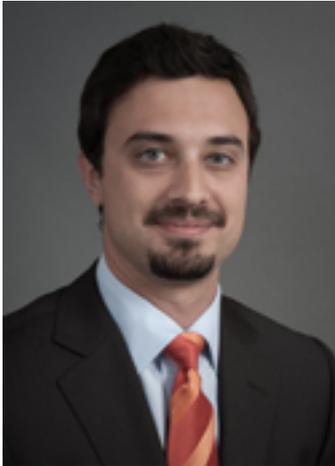


University of Washington EcoCAR 2 Team midpoint update

Communications Manager, UW EcoCAR 2 Team



It's been awhile since you, dear readers, have been updated on the status of the University of Washington EcoCAR 2 Team. Last you read, the Team was nearing the end of Year 1 wherein all of our hybrid architecture modeling needed approval to begin manufacturing and modification. Well, a lot, has happened since then.

We're now at the midpoint of Y2 of the 3 year EcoCAR 2 competition. In the last few months, the 2013 Chevy Malibu was disassembled – almost to the point of body-in-white. Further, much of the rear sub-frame was cut out and replaced by a cradle for the electric traction motor and transmission. The modified sub-frame, motor, transmission, and vehicle still occupy mutually exclusive space, and a major milestone for the Team will be the installation of those components.

In fact, that milestone is rapidly approaching by necessity. In merely 10 days from the date of this writing, an operational 4-wheeled Frankenstein has to be shipped to tech inspection. As stated above, much of the vehicle is still disassembled. Needless to say this will be a challenge! Engineers in the Team lab, the UW Advanced Vehicle Works, are working feverishly to meet this deadline.

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Another technical challenge has been the integration of our small diesel engine. The link between the Malibu's body control unit (BCU) and the new engine control unit (ECU) is a common wiring harness. The bulk of the wiring harness's connections are to engine sensors, so the new engine's harness is being used. Unfortunately, the new harness connector for the BCU is different than the Malibu's stock harness. Electrical sub-team lead Blake Simpson explains:

The harness interfaces with the engine just fine... we're having trouble with interfacing the harness with the existing body control module and the fuse block because we just don't know which pins connect. If we don't get the interface down this front powertrain is not going to work."

Fret not, we are working closely with our GM mentor Michael Abowd to sort out the correct modification of the harness-to-BCU and fuse block connectors. Once this hurdle is cleared and the electric motor, transmission, and energy storage system are installed, the difficult task of linking both powertrains through a software interface can begin. This may prove the greatest challenge of all.

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In our communications efforts, the Team has been active in the Seattle community. Since the last update we displayed at the 2012 UW commencement ceremony, presented to local policymakers at an environmental engineering conference, and hosted several events for elementary and middle school students, among other things. Working with young students has been the highlight of the year. Between average grade school students and accelerated middle school students interested in engineering, each event has left the Team participants with a genuine feeling of satisfaction. More student workshops will surely follow.

Thank you all, dear readers, for taking the time to read an update on the UW Team. Long story short, we ship the car to safety tech in 10 days, it returns to us shortly thereafter, and then we'll have just about 9-10 weeks to address any safety issues and non-functioning systems. It's going to be incredibly challenging work, and a heck of a lot of fun.

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