

CRIMSON RACING NEWSLETTER

Summer 2016

Greetings from Crimson Racing!

The end of summer has already crept up on everyone here at Crimson Racing! Even after placing 42nd at FSAE Michigan 2016, the team was back to work only a week after the car had been rolled out of the trailer. While many students participated in partial or full time internships over the summer, the shop maintained a constant hum of activity. Also, as is the case every year, some of the senior students have graduated and moved into new and exciting careers. We here at Crimson Racing wish them the very best of luck and look forward to hearing their input on future builds!

Driver Training, and Vehicle Refinement

One of the main goals the team had this summer was to have all returning members test drive the CR-16. This was done both to begin the driver selection process for FSAE Michigan 2017, and further refine the characteristics of the existing vehicle. We began by creating a system of accurate and repeatable driving courses that were representative of what our drivers will face in Michigan next spring. We have also begun a rigorous data collection and driver ability testing regimen. Through this we hope to establish a set of consistent and skilled drivers.

Another goal for the team was to optimize the tuning of the suspension and engine control system. Throughout the summer, adjustments have been made to the suspension setup and engine fueling control. Comprehensive data logging and iterative testing have led to a much more polished version of the CR-16, furthering the team's tuning expertise in the process. This has allowed the car to cut lap times with every driver.



Team Captain Cole Frederick (Far Left) discusses the layout of the track and effects of suspension changes with Mechanical Engineering Junior and driver Zach Hagan (Right). Mechanical Engineering Junior David Barnes prepares to launch the car during an acceleration test run

Preliminary Designs for Chassis, Suspension, and Powertrain

To keep up with a new self-imposed team goal of having a test drivable vehicle built by March 2017, early designs have already been assembled for each subsystem of the car. Extensive simulation has taken place for the engine, suspension geometry, and mechanical performance of the space frame chassis. As the powertrain sub-team prepares an engine dynamometer for testing, the suspension and chassis sub-team are ordering raw materials to begin their eagerly awaited component manufacturing.

Looking Back and Looking Forward

As always, this team could not be successful in producing a car like the CR-16 without the help of our generous sponsors and all those that support us. As we bring the 2016 competition year to a close we can only offer a sincere and profound thank you to all that help make our team a reality. We plan to carry this momentum into a 2017 build year that is already shaping up to be better than the previous one! Of course, if you have any questions, comments, suggestions, please feel free to contact us at the email provided below; we would love to hear from you!

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