

UNH Precision Racing has hit the ground running this school year in preparation for next May's Formula SAE competition. Already this fall, the team has been active in gathering support and interest for the program. The team was busy getting its name out at the university and in the community with a series of events over the UNH homecoming weekend.



The team participated in the homecoming parade with last year's car, Car 42, leading a contingent of team members down Durham's Main Street. UNH Precision Racing also set up a booth at the homecoming football game, where team members were on hand to answer questions and talk about the program. The car was also present, and community members were invited to take a seat in Car 42 and get their picture taken.

But Car 42 hasn't just been used in parades and displays, as the team has held three track days this fall. On September 23, team members from the class of 2007 were invited to drive the car at the New Hampshire International Speedway in Loudon, New Hampshire. Another event was held on October 21 for both current and new team members. UNH Precision Racing finished off their fall track schedule on October 28 with a track day for sponsors at NHIS. The UNH Precision Racing team now looks ahead to this year's project, as design work on the car has already begun. The team

plans on building on the success of last year's efforts and a strong finish at competition is expected come May 2008.

Sponsor Track Day

The UNH Precision Racing Team held a successful sponsor track day on Sun-

day, October 28 at New Hampshire International Speedway. The team brought Car 42, their entry in last May's Formula SAE competition, to run demonstration laps for sponsors, as well as to familiarize new team members with the operation and capabilities of an FSAE car.

The speedway generously allowed use of their autocross pad for the demonstration runs, and the steady wind and chilly temperatures at the track did not deter sponsors and past team members from attending the event. UNH Manchester sophomore Scott Highland, a veteran of karting and Formula Ford competition, was on hand to drive the demonstration laps.

With a warm-up and a quick battery change, Car 42 performed flawlessly during two demonstrations for sponsors on the cone-lined autocross course. After the runs, a lunch was followed by a discussion led by Managerial Team Captain, Brandon Courcy, who covered the goals for this year's team. Later, sponsors were given the chance to sit in 42 where Joe Bova from Hutchinson jumped on the opportunity.

When the sponsors' event concluded, the team continued running laps on the course, with team members taking turns behind the wheel of Car 42. The car was eventually returned to the trailer with a gearbox issue, but the day was nevertheless considered a success. The UNH Precision Racing Team would like to thank all the sponsors who support the team, and Precision Racing looks forward to continued success this year in the Formula SAE competition.

2008 Car Progress

UNH Precision Racing is now hard at work on the design of their 2008 FSAE competitor, Car 36. The design subgroups have already made a lot of progress this semester. Following are recent updates of progress made by each subgroup.

Engine Subgroup

After a disassembly and thorough inspection of the Yamaha YZF450 engine that will power this year's car, the engine subgroup members have begun a careful reassembly of the engine components. Progress has been made on the theoretical equations used to create efficient intake and exhaust components for the engine, and design work on those components is now underway. The team hopes to have the engine running on a dynamometer shortly, and the subgroup has been busy designing and will soon begin fabricating an engine stand for those dyno tests.



Electronics Subgroup

The electronics subgroup hopes to take a big step forward this year with the integration of a sophisticated electronics package into the design of the car. The subgroup has begun the research and development of a wireless telemetry system that will allow telemetry data to be streamed from the car to the pits while the car is on the track. The subgroup is also developing its own digital dash display for the cockpit of the car. Alongside the other systems, the subgroup has an ambitious goal of integrating traction control into Car 36, and the team is hard at work developing the best possible traction control solution for the project.

Frame Subgroup

A successful frame design is critical to the packaging and performance of the car, and the frame subgroup is on its way towards an innovative frame design. The subgroup has concentrated its design efforts on the front bulkhead area of the car, and is busy deciding on both the pedal assembly and bottom support member designs for integration into the car. The frame subgroup has also been working with the suspension subgroup to hash out the suspension configuration of the car. And with plenty of underclassmen involved in creating the frame, the subgroup hopes to have them

participate in welding classes soon, alongside lessons in design principle.

Suspension Subgroup

The suspension subgroup has been busy designing the front suspension components of the car. The subgroup has been working out suspension point layout, as well as placement of the steering rack and tie rod in the car design. Design of the rear suspension components on the car will be the next big step for the subgroup, alongside continued development of the steering components. One area the suspension subgroup hopes to decide on soon is the wheel packaging design; integrating the upright, steering, and brake components with the wheels.

Drivetrain Subgroup

The drivetrain subgroup has been working to ensure that the power to be put out by the engine gets to the wheels. Currently, the team is sorting out which combination of hubs, drive shafts and differential will be the most effective at transmitting power. With weight and cost both priorities, the subgroup has been exploring a variety of options for sources of these components. A big decision to be made will be the choice between a driveshaft or a chain to transmit power to the wheels. The drivetrain subgroup will be spending a lot of time at the computer modeling these options.

Look for recent updates from all of the subgroups both in future editions of the newsletter and on the team website.



Brandon Courcy
Managerial Captain
bgj2@unh.edu
Phone: 603.620.5446

Justin Courcy
Technical Captain
jmj22@unh.edu
Phone: 603.620.5441

John Laakso
Public Relations
jwe5@unh.edu
Phone: 603.978.7504