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The University of Florida Mini Baja team poses with the car that won fourth place in the SAE Mini Baja East, May 9-11, in Montreal. Members include Tom Steger, Vince Martling, Ed Luaces, Ken Kirkpatrick, Wayne Wilson, Kevin Lara, and Ed West. Ed's father, Don West, is pictured at far right. Cory Wiltzner was also on the Baja team.



En route to the Formula SAE, held May 17-19 in Detroit, Michigan, the team was delayed on Highway 401 during a traffic gridlock caused by Canadian truckers protesting a new fuel tax. This gave them a chance to work on their Formula car (in the trailer) and make a run for cold drinks using their Mini Baja car.

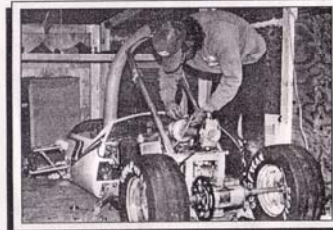
TAKE THE
UNIV. OF FLORIDA
CHALLENGE!

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Divide one student
design team by two
demanding projects.

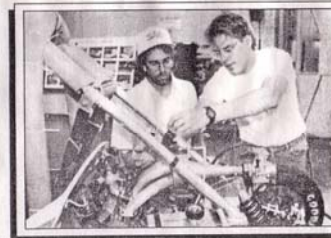
—
Subtract eight months
of social life.

+
Add two tough
competitions just one
week apart...and ask
yourself:

=
"Do I really need
this???"



Vince Martling works on the Formula car throttle inside the 8 X 12 ft. covered trailer that students built to haul both cars 3,500 miles. Besides the trailer (hauled by a Pathfinder), the team "caravan" consisted of a Camaro and a pickup truck pulling a 4 X 8 ft. trailer.



Vince Martling and James Weeks make last minute adjustments on the formula car at the GM Technical Center prior to the race.

Engineering students at the University of Florida at Gainesville have been scratch building off-road vehicles to compete in SAE Mini Baja events for several years now. In fact, they've been getting good at this competition, with two top 10 finishes in the last two years.

Instead of building just a new Mini Baja car, 1991 team members made a bold decision — they entered both the SAE Mini Baja East (May 9-11 in Montreal) and Formula SAE (May 17-19 in Detroit).

Here is a first-hand account of the team's experiences by Edward West, a Univ. of Florida senior in pursuit of a B.S. in mechanical engineering

Ed has helped construct four Mini Baja vehicles and one Formula SAE car. He spent the summer as an intern at Ford Motor Co. in Dearborn, Michigan.

This year our team decided to really outdo ourselves and enter two different SAE student design events. In addition to putting together a new Mini Baja vehicle, we would build a Formula car as well!

Anyone who has been remotely involved in one of these events can understand the difficulty of undertaking such an endeavor. But for the benefit of those unfortunate souls who have never tried it — let me enlighten you.

Building a team

First, one has to have a group of half a dozen to a dozen dedicated and creative students. Then one has to persuade them to give up their social lives and weekends for eight months. In the last two months before the competition, one has to convince them that four hours of sleep a night is plenty, and that studying and classes should be taken in moderation since it is imperative that the project be finished.

Once one has assembled such an improbable group, the challenges begin: fundraising proposals, technical research, letter writing, phone calls, budgets, purchasing, component design, technical drawings, component machining, publicity, vehicle assembly, and much more. This will go on for months. Then right before the competition, the team will enter "crunch time:" at least a month of eating, sleeping and living for the project!

Of course, this type of challenge is standard when a team builds a single new car for one competition. We decided that we were going to produce two new vehicles for two competitions!

We were fortunate to have 10 very devoted individuals who wanted to see the completion of our projects. A tremendous amount of effort was involved in organization and fundraising during the fall semester, so actual construction of the vehicles really began in the spring semester.

Lost weekends

In March, during our spring break, the team entered "crunch time," with half of the team remaining in Gainesville to work 16 hours a day on the vehicles. During the seven weeks prior to the Mini Baja competition, most members contributed four hours a day and 15 weekend hours to the project. By the beginning of "dead week" (the week before finals), work at our shop continued virtually on a 24-hour-a-day basis.

Finally, after months of effort and weeks of little sleep, we had our trip to the two competitions before us. This would take us on the road for two weeks over a distance of 3,500 miles. All the time not spent driving would be spent working on the vehicles or actually competing in the events.

The reward for our hard work was a fourth place overall against 32 entries at the SAE Mini Baja East competition in Montreal. We were the front runners until our car hit a tree and broke the front suspension during the endurance event. A quick repair got us back in the race. We finished first in the stability and mud bog events, and took second place in the water event.

In the Formula SAE competition in Detroit, we competed successfully in every event — quite an accomplishment for a first year team. We earned first place for cost analysis and third place for combined static judging. We also received a \$1,000 award from Dow for Best Use of Composites. Our overall finish was 37th out of 50 vehicles.

But more valuable, and much more lasting, was the experience that all of the team members gained through their involvement in these competitions. We learned a great deal about working as a team to complete our goal. We learned how to organize and fund a major project. We now know the total design process through first-hand experience. We learned how to take responsibility for getting a job done.

All of this will mean a great deal to us when we're performing on our jobs, and it will benefit us for many years to come.

So, if you're thinking of entering an SAE student design competition in 1992, please take my advice: I encourage all students — both technical and non-technical — to get involved in any of these events if the opportunity arises. The possibilities for learning are endless and the rewards are immeasurable!