

Rick Bolt started working on the FSAE™ team in 1988 when he transferred to the University of Michigan-Ann Arbor from Calvin College. He saw a poster about FSAE™ in the hallway early in the fall semester and concluded that FSAE™ seemed like a fun project combining racing, cars, and engineering, all of which would also help make friends in a new city. Little did Rick know where it would lead both professionally and personally to be involved in FSAE™ until receiving his MSME in 1992.

The FSAE™ team in 1988 was new and completely green. None of the team members had

controls, and bodywork. He led the re-work of the 88-89 car to compete a second year, drilled holes in fingers due to lack of sleep; and, of course, drove in the competition.

So what did Rick gain from the FSAE™ experience? As with any project this intense and involved, Rick developed a set of friends that he is in contact with regularly and which provide a network that stretches across automotive companies and suppliers all over the world. In fact, Rick still competes with and against some of them on the racetrack in the SCCA!



Rick getting the University of Michigan-Ann Arbor #28 car ready to race at Lawrence Technological Institute in 1990.

Formula SAE® Success Stories – Ford Motor Company

Rick Bolt developed a set of friends through FSAE™ that he is in contact with regularly. These friends provide a network that stretches across Ford and other automotive companies all over the world. He still competes against many of them on the racetrack in the SCCA.

ever met before starting the project and only one of them had ever been present at a prior FSAE™ competition. This new group of students would be the first University of Michigan FSAE™ team to ever compete; however, they did inherit a partially completed car which they planned to finish and race.

Several months into the effort the team had learned just enough to realize that they were doomed. Would you believe a V4 motorcycle engine with the supercharger installed backward so it pulled a vacuum instead of providing boost? How about a 600 pound dry weight? The team decided in early December to start over with all new components i.e. 14 engine, wheels, tires, brakes, and chassis/suspension. At a frantic pace the team got sponsorship, sourced components, and began designing an all-new car. The car, unpainted and minimally tested, was completed with hours to spare and loaded into a van to drive to San Antonio. Rick missed the opportunity to paint the car at midnight in a rest stop because after 40+ hours without sleep he had medical problems and ended up semi-conscious in the hospital, but he flew down to Texas soon after to arrive just as the competition started.

As with many things, the first year of competing in FSAE™ was the toughest, but the project was very rewarding and most of the team stayed involved for several years. During his participation in FSAE™, Rick was involved in nearly every aspect of the project. This included the overall vehicle layout; design, analysis, fabrication, and development of systems such as the frame, intake, exhaust, engine, fuel injection,

Because it was enjoyable and intense, FSAE™ allowed Rick to quickly improve on many skills that provided a career advantage, including teamwork, leadership, systems engineering, fabrication, planning, budgeting, and decision-making. To gain a similar level of broad technical and vehicle knowledge at an OEM where product design takes four years from concept to production and assignments can last one to five years in length is difficult or impossible. The teamwork, leadership, budget, planning, and decision making skills exercised in FSAE™ were invaluable. In the corporate structure, it takes a minimum of three to ten years to get to the point where you are making engineering or management decisions on a production vehicle that compare to the deci-

sions made on an FSAE™ car i.e. aluminum or steel frame, 4-1 exhaust, or 4-2-1 exhaust, etc.

After joining Ford, Rick moved through jobs in vehicle development, Ford Motorsports, and vehicle engineering, to become the Manager of Vehicle Design and Proportion in 2000. Prior to program team formation, his team was responsible for advanced engineering studies such as technical studies to support planning, vehicle architecture development for major new programs, and advanced technology development. This was in most respects is just like running a FSAE™ team to produce street vehicles and uses all of the skills developed on the team.



Rick (middle) at Gratten Raceway in August 2000 with other UofM FSAE alumni Mike Ray (left), Chris Ochocinski (right) and his Dad (far right).