



Josh Pu'u drives the car to an impressive fifth-place finish in the autocross event. Unfortunately, a transmission failure ended hopes for an even better finish.

a 22nd-place finish in acceleration. However, this was followed with an eighth-place finish in skidpad and a fifth-place finish in autocross. Unfortunately in the last run of autocross, a transmission failure sent the car spinning off course. With further investigation, the team determined an engine swap was necessary and completed the majority of the swap in two hours as many bystanders anxiously watched.

The team was able to make the necessary repairs in time for the endurance event. Competing in the first endurance run group, the UW car raced among the fastest cars on the track, consistently passing our competitors. Tragically, a drivetrain failure on lap 13 forced the car off course and ended our hopes of a first-place finish.

Despite the DNF in the last event, Team 20 was able to place 17th overall at the competition. With strong finishes in design and presentation events as well as one of the fastest cars on track, UW has the experience

and preparation to follow through with Team 21.

Back at the drawing board in Seattle, UW FSAE Team 21 hopes to make some radical improvements for the 2010 competition.

Starting with a solid foundation, the newly redesigned spaceframe has an expected build stiffness 2.5 times greater than previous years.

Sized to fit drivers from a fifth percentile female to a 95th percentile male, the driver's cell is the most spacious yet. Spaceframe manufacturing time consumes a large part of vehicle development, but has been shortened significantly with the sourcing of precision notched tubes from a Canadian supplier.

The drivetrain team has put their minds together for the sake of innovation. Components such as the rear sprocket, which in years past have been purchased, are now being designed and manufactured in-house. This extra attention to detail and design as well as an increased factor-of-safety goal — from 1.5 to 2.0 — prom-

ises to yield a much more reliable drivetrain.

To help reduce drag, the aerodynamics team is exploring new methods of front wing and nosecone integration, a lower rear wing, along with new wing profiles.

Most notably, Team 21 is moving to a much tighter manufacturing and design schedule. With work on the spaceframe already in progress, the team will have a complete chassis before year's end.

The new Haas three-axis mill is sure to decrease manufacturing time and increase quality. The mill was given to the Mechanical Engineering Department by the UW Student Technology Fund thanks to the hard work of students on Team 20.

With these changes, the team hopes to finish manufacturing on March 1, with a running car later that month.

Follow the team's progress online at students.washington.edu/auto as Team 21 builds its design from the ground up.