

Japanese Team Tokai wins the 3,021 km 2011 Veolia World Solar Challenge

October 21 2011, by Bob Yirka



Image credit: World Solar Challenge

(PhysOrg.com) -- The Japanese Tokai University Solar Car Team has won the Veolia World Solar Challenge, a 3,021 kilometer race between tiny cars relying on mostly solar power. Running between Darwin, a remote town in one of the most northern parts of Australia, and the city of Adelaide in the very south, the race bisects the continent and takes the drivers and their teams through some very hostile territory.

Coming in second, just 30 minutes behind the winners, was Nuon Solar, the Team from the Netherlands. The team from the University of Michigan came in third.

The race, which was started in 1987 as a means of promoting solar-powered technology had 37 entrants this year, and put drivers through a variety of challenges including wild animals, [high temperatures](#), road trains (trucks with multiple trailers), [high winds](#) and a bushfire that put a stop to the race at one point. Team Philippines ran into a very serious problem on Wednesday when its battery exploded after overheating. The battery was replaced and the team forged ahead, showing just how much fortitude the contestants must possess.

And while the race has been running since last Sunday (October 16), the contestants were obviously only able to run at night. The actual driving time for the winning car was 32 hours and 45 minutes. Over the course of the race, the cars were stopped at seven checkpoints to allow the teams to see how things were going with the driver and the car, to check weather, etc. Each team was only allowed to perform very routine maintenance such as clearing debris that had accumulated and inflating tires.

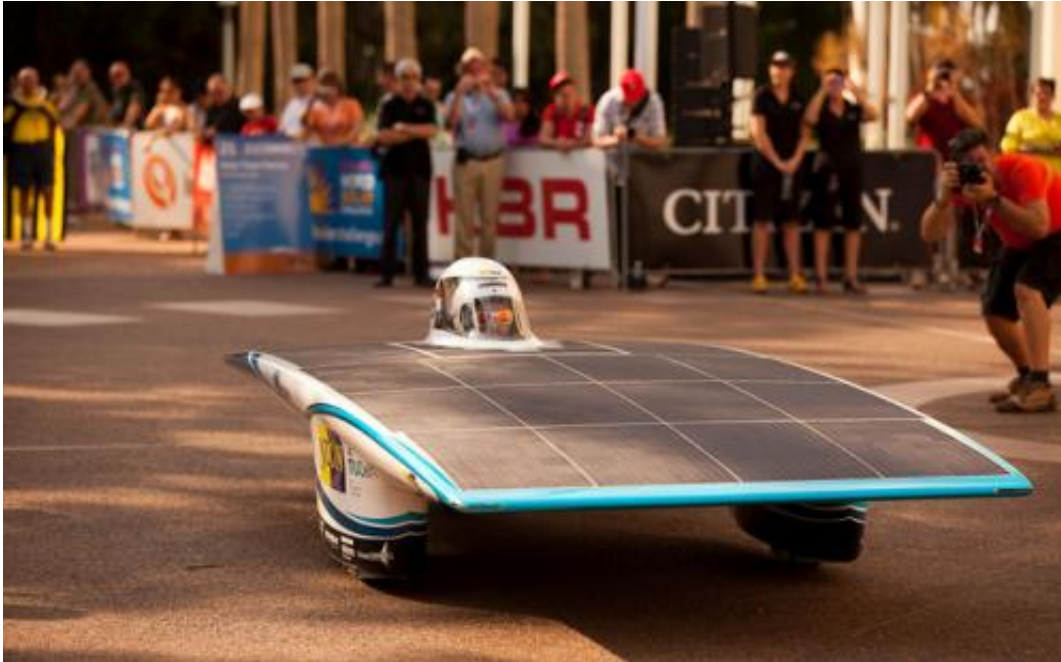


Image credit: World Solar Challenge

Team Tokai's car, sponsored by Panasonic, is basically a tricycle with a high-end carbon frame which is covered with HIT solar panels supplied by Panasonic. Inside, in addition to the driver, is an electric motor and 8650-type high-capacity lithium-ion rechargeable batteries. At its fastest, the car can travel 160 km/h, though for the race it averaged 91.54 kilometers per hour.

This is the second victory in a row for Team Tokai; they took home the prize the last time the race was run two years ago. Initially the race was held every three years, but in 1999, it was decided that two years would be better. Over the history of the race, fourteen races have been conducted and Japanese teams have won six, including this year. Teams from the Netherlands have also had some success, winning four. A team from the United States won the first race, but has not been able to repeat that success since.

This year the race was particularly emotional for the Japanese team as they dedicated their race to the reconstruction efforts still going on in the wake of the earthquake and tsunami that struck the country last March.

More information: www.worldsolarchallenge.org/

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