

## Duke Student Team Breaks Guinness World Record for Vehicle Efficiency with Altair



A vehicle built at Duke University has broken the Guinness World Record for electric vehicle efficiency, traveling 797 miles per kilowatt-hour, or 27,482 MPGe. The new record was confirmed by Guinness on July 9.

By improving aerodynamic performance by 39 percent, the team was able to capture the new world record.

Qian's weekly consultations with computational fluid dynamics engineers at Altair, a global information technology company, enabled huge leaps forward in the design of the new car, which has a drag force of less than one Newton at the race speed of 6.7m/s, as measured in a full-scale wind tunnel. For comparison, a Toyota Camry has a drag force of over twenty Newtons at the same speed.

"Breaking the record absolutely would not have been possible without Yukai's aerodynamic improvements," said Grady.

Learn more here – <https://mems.duke.edu/about/news/duke-student-team-wins-second-guinness-world-record-vehicle-efficiency>