

Dutch Students Break Electric Car Acceleration Record

By Lucas Laursen

Posted 20 Sep 2013 | 19:59 GMT

Dutch students today shaved 20 percent off the record time for an electric car to reach 100 km/h. The Delft University of Technology Racing Team (<http://dutracing.tudelft.nl/>) first prepared the ground by blow-torching the rain-soaked runway at Valkenburg Airport, says team manager Tim de Morée, and sweetened the deal by drizzling a little sugar-water on the strip. "Drag racers use actual glue," he said when questioned about the sportsmanship of the tactic.

The car, driven by the team's lightest member, Marly Kuijpers, repeated the run about ten times. The team tweaked the traction control and tire slippage for each run. The Dutch press declared victory when the car hit 100 km/h in 2.15 seconds, but de Morée told IEEE Spectrum that a later run achieved the target speed in 2.13 seconds.

For comparison, organizers of the upcoming Formula E series, a sibling to the Formula 1 series, expect their car to take closer to 3 seconds to hit 100 km/h. Of course, the battery in the Formula E car will weigh about what the entire Delft car weighed, with Kuijpers in it. In addition to their careful driver selection, the team shaved weight for the record bid by leaving off the car's anti-roll bars. They did have to add some instruments to comply with Guinness record-keeping requirements.

The car, left over from the 2012 Formula Student series, produced about 135 hp (101 kilowatts) and distributed its power to all four wheels, a relatively recent innovation in the Formula Student series. De Morée calls it a "winning" idea. Sure enough, a Swiss team using an electric four-wheel-drive car won a Formula Student race (<http://www.racecar-engineering.com/news/eth-zurich-males-history-at-formula-student/>) against gasoline-powered competitors for the first time this July.

De Morée says that rule changes make the team's 2013 and 2014 cars less likely contenders for future acceleration records. For one thing they will have downward-forcing wings, which add drag, and burlier batteries, adding weight. The heavier machines are unlikely to reach a new record, so Delft may well hang on to the top spot longer than another student team (http://www.facebook.com/permalink.php?story_fbid=528585900502903&id=116752091693382), which held its record just over a year.

The zippy record and wins against gas-powered cars may help the image of EVs in the automotive world, but the team's choice of celebration venue probably won't: after the runs, the team adjourned to a pancake bakery near the airfield.

Photo: Delft University of Technology

