

2.15 seconds: Students break 0-100 acceleration world record

September 25 2013



The DUT Racing team from TU Delft, The Netherlands, has broken the world record for acceleration from 0 to 100 km/h for electric cars. The previous record stood at 2.68 seconds, but as of today the record is now held by the TU Delft students with 2.15 seconds. 'We thought that under these conditions we'd be happy with 2.30, but we really didn't expect 2.15,' says team manager Tim de Moree.

The students used their self-built [racing car](#) from 2012, the DUT12: a compact racing car with full four-wheel drive, weighing only 145 kg. The car was built for the Formula Student competition and the students won the unofficial World Championship with it at Hockenheim.

As light as possible

Every effort was made to break the acceleration record. Gihin Mok, one of the students responsible for the car, explains: 'We made the car a little lighter where possible, but the major difference lies in the electric motors. In the Formula Student competition, they were only allowed to produce 114 horsepower. The motors we used now are actually much more powerful, which means we had to limit them during the race. Now we used the [maximum power](#). That totals 135 horsepower, about 33 horsepower per motor and almost one horsepower for each kilogram of weight.'

A home-made oven, made from an old oil barrel, ensured that the tyres were heated at the start. Even the racing driver was changed to achieve the fastest possible acceleration: Marly Kuijpers, 24, is the lightest member of the DUT Racing team. During the official competition, she had already achieved 2.50 seconds for acceleration from 0 to 100 km/h. Today, she has set her own and the world's fastest time. Talking about the feeling during the drive, Marly says: 'It feels like a [roller coaster](#), that part when you just drop over the edge.'

Provided by Delft University of Technology

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