

It's a bird... it's a new flying machine by NUS students

Sabrina Faisal

A team from the National University of Singapore (NUS) has designed and built what it said is the world's lightest electric paraglider trike – an aircraft with two rear-mounted twin propellers.

The team of eight NUS engineering students built the aircraft, called The Delta, after it was challenged to build a flying vehicle for a new National Geographic Channel series called *Machine Impossible*.

The Delta, which weighs just 49kg, can carry one person weighing up to 75kg and can fly up to 36kmh for 10 minutes.

The team designed and built The Delta from January to March this year, before its first flight on March 19.

Mr Chan Wai Yang, 23, a Year 3 Electrical Engineering student who was one of the eight students in the team, said: "Designing and building The Delta was an experi-

ence like no other. We had a great learning experience tackling various aspects of the project.

"It was an engineering challenge we greatly relished."

The Delta uses two electric motors, each weighing 1.5kg, which provide extra stability.

The first flight, which took place in Sungai Rambai Aerodrome in Malacca, was a success at the first try.

The team had also designed several features to ensure the safety of the pilot, such as a roll cage for protection, fibre glass rods to cushion landing and barrier nets between the pilot and the propellers.

Associate Professor Martin Henz, the supervisor for the project, said: "While it isn't a form of transportation, as a form of recreation, The Delta could possibly be a great contribution to the sport of paragliding."

The Delta uses two lithium polymer batteries to provide power for the propellers and the motors without causing excessive noise.

Prof Henz said: "We are thrilled to have this opportunity to build an all-new machine for the National Geographic Channel.

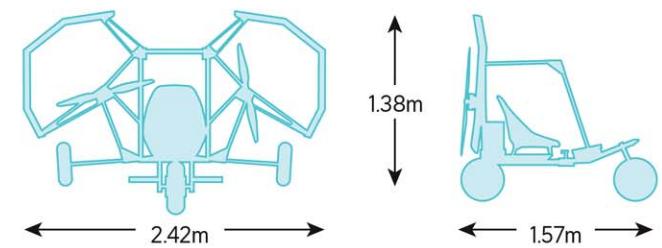
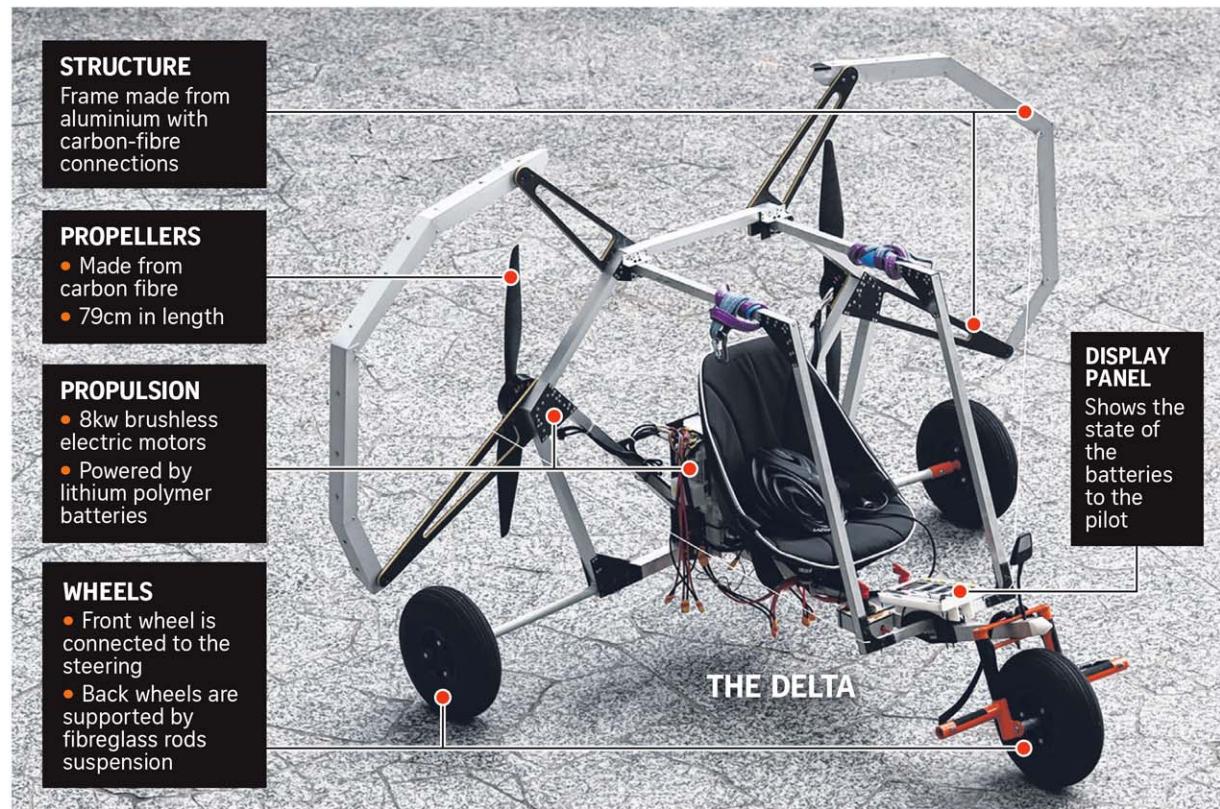
"Such projects have tremendous value in the education of our students in engineering."

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Flying light

A team of eight engineering students from the National University of Singapore has successfully designed and built the world's lightest electric paraglider trike.



Weight
49kg

Speed
Up to 36kmh

Load
One person up to 75kg

Flight time
10 minutes

Charge time
45 minutes

VIDEO ONLINE
Watch The
Delta in action
<http://str.sg/4SmM>

Source: NUS PHOTOS: DON WONG FOR THE STRAITS TIMES, NUS STRAITS TIMES GRAPHICS