

Tuesday, 25 February 2025

PRESS RELEASE:

Winner is announced for Coventry University student competition to design Riversimple hydrogen electric supercar

The UK-based hydrogen car maker plans to produce a limited run of radical zero emission supercars that may be based on winner Haoyan Bai's design. The supercar is engineered to have a range in excess of 400 miles, weighing in at only 620kg. It could be on the road in 2030.

The winner of a competition run in collaboration with Riversimple and [Coventry University's School of Automotive and Transport Design](#) has been announced – Haoyan Bai, 22. A cohort of 14 post graduate students responded to the unique brief as part of their individual project for the autumn semester. Runners up included Yuyong Yin, Bo Silkens and Zefan Chang.

Haoyan Bai presented a design with 'excellent' proportions and a thoughtful response to the brief. Bai's sketches throughout the process were elegant, and maybe a nod towards one of his key influences, Pinky Lai's 996-gen Porsche 911.

The judging panel included Hugo Spowers, Riversimple founder; Associate Professor, Aamer Mahmud; Darren Day, Head of Bentley Design and a Coventry alumnus; Ian Callum, former Jaguar design chief; Steve Copley, from Autocar and Riversimple consultant engineer Jim Router. The judging process was described as 'ruthless', and fast, with students presenting initial sketches, CAD developments and a clay model – as well as answering judges' questions.

The brief was also demanding and students were asked to deliver on a range of styling points, from accommodating Riversimple's unique powertrain and technology through to Spowers' powerful vision for the hydrogen supercar:

"I was really searching for a look that rebels against the hyper-aggressive styling so prevalent right now. Sophistication, timelessness and lightness were key for me; the fact that this supercar will be treading lightly in every way needs to be expressed with finesse.

"I felt that Haoyan Bai, from the beginning, captured the grace and balance I was after; while accommodating and enhancing the radically different fuel cell engineering. Although Bai took the prize, we were very impressed overall with the way all of the students responded so professionally and artfully to this brief."

The development and design process for big manufacturers is typically closed and secretive, so this opportunity has been uniquely special for students. Coventry University is renowned for its connection to industry and has a remarkable alumni that include Tesla, Maserati and Aston Martin design directors.

The process was covered extensively by Steve Cropley of Autocar, and the final judging and results were featured in a special update in Autocar, Issue 12 February 2025.

Details on the supercar:

The Riversimple supercar will push the limits of range, efficiency and lightweighting and use advanced carbon composite materials, inboard motors and brakes, lightweight fuel cell technology and supercapacitors. It will accelerate from 0-60mph in 3.5s, 0-100mph in 6.4s and have a 410 mile range, with a fuel cell of only 29kW, or 39bhp. The ultra-low unsprung mass translates to unrivalled dynamics and the car will be superlight – at just 620kg, over 1,000kg less than the battery electric Lotus Evija.

New cars today are [25% heavier than they were seven years ago](#). Weight has a range of unintended consequences, none of them positive – increased resource consumption, embedded carbon in manufacturing and energy consumption in use, increased injuries from accidents, air and water quality from tyre emissions ([78% of microplastics in the world's oceans are from tyres](#)) – and battery electrification has exacerbated the issues. [Scientists are warning](#) that we are in danger of replacing one environmental crisis with another.

With a top speed of 100mph, the Riversimple supercar is a different take on what makes for the ultimate driving experience, showcased as an antithesis to current supercar one-upmanship. Competing on power and top speed leads to wide, heavy and over-complex vehicles more suited to use on the track than the road. Styling, even naming, has become increasingly aggressive with an inference of 'taming the beast', a far cry from the concept of being at one with the machine.

The supercars will use similar technology to Riversimple's new production vehicle, based on the Rasa but in a more practical, everyday package and are being developed in parallel in a joint programme. The company is preparing for production at scale, and is seeking investors, partners and sites for [regional manufacturing plants](#).

Riversimple supercar fact sheet:

- 29kW hydrogen fuel cell (39bhp)
- 620kg vehicle weight
- 410 miles of range
- 0-60mph in 3.5s
- 0-100mph in 6.4s
- 100mph top speed
- Carbon fibre chassis
- 4 inboard motors, 450Nm per (geared) motor and brakes
- Ultra-low unsprung mass, unrivalled dynamics
- 0.65g pure regen phased braking
- 1.1kWh high density advanced supercaps pack
- No batteries
- 800V architecture

For media enquiries, please contact Fiona Spowers fiona@riversimple.com or Lyndall King lyndall@kingrobertson.com.

ENDS

Notes to editors:

Riversimple is pioneering the next generation of zero emission vehicles with a circular business model. Their vehicles use hydrogen, not batteries and emit nothing but water, with a refuel time of around five minutes.

Production plans do not require large-scale 'gigafactories' – Riversimple aims to build a distributed network of compact and efficient manufacturing plants that will regenerate communities and create jobs.

Riversimple was founded by former motorsport engineer Hugo Spowers MBE. Hugo set up OSCar Automotive in 2001, which became Riversimple in 2007 and led the Morgan LIFECar project, shown at Geneva in 2008. Riversimple was awarded the SIMMS Medal by the RAC Club in 2016 for "outstanding contribution to motoring innovation" and elected as an Emerging Innovator member of the Circular Economy network CE100 by Ellen MacArthur Foundation in 2017. In 2022 Hugo was awarded an MBE for Services to Technology.

Follow and like us at [LinkedIn](#), [Bluesky](#) and [Instagram](#)





