

Renault Zep'lin - solar-powered racing airship

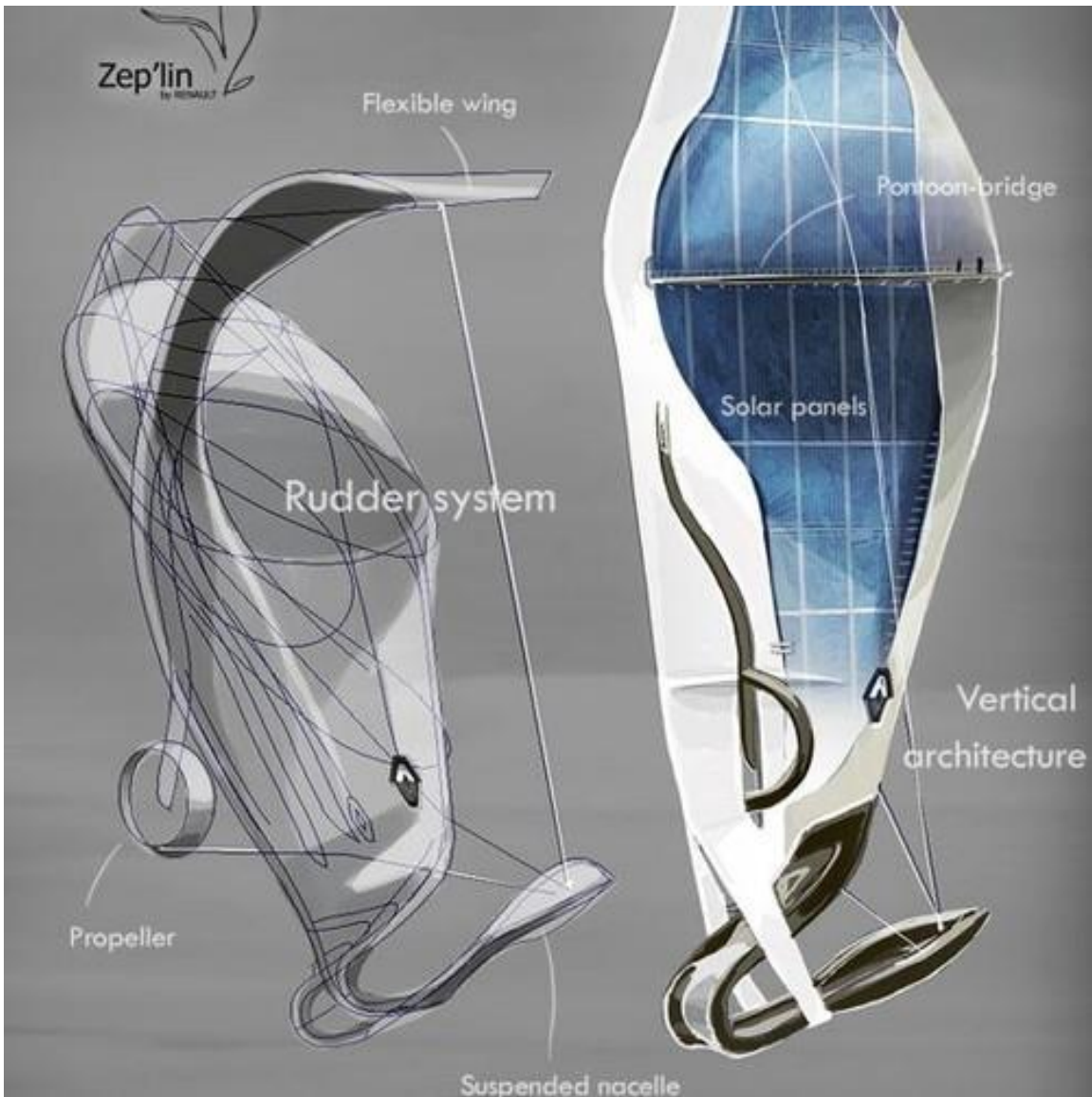
Peter Lobner, updated 18 March 2022

Designed for Renault by German industrial designer Damien Grossemy in 2009, the “Zep'lin” is a concept for a solar electric-powered, highly-maneuverable airship that could engage in an around-the-world race intended to promote new technologies for electric vehicles. The Zep'lin features a vertical architecture that gives the airship a small footprint on the ground and enables it to land almost anywhere without the need of infrastructure.



*Rendering of the start of a Zep'lin around-the-world race in London.
Source. Inhabit*

The crew is housed in a long, slender gondola (“nacelle”) suspended under the 8,000 m³ (282,500 ft³) helium gas envelope. The airship generates power from solar panels on the gas envelope. With its clever rudder system that moves a flexible wing, Zep'lin can tilt toward the sun for optimum solar energy generation. On-board lithium-ion batteries store extra energy for use later. Propulsion is provided by a single, electric motor-driven, shrouded propeller. The Zep'lin will appear to move like a sailboat in the sky.



Zep'lin general arrangement. Source, both graphics: Inhabit



The crew gondola ("nacelle") suspended under the helium gas envelope.



Renderings of Zep'lines racing. Source, both graphics: Inhabit



Rendering of a Zep'lin flying in the Alps.



*Rendering of a Zep'lin moored on the ground in San Francisco.
Source, both graphics: Inhabit*

For additional information

- Yuka Yoneda, “Flying Sailboat Soars Through the Sky On Solar Power,” Inhabit, 8 March 2010: <https://inhabitat.com/flying-sailboat-soars-through-the-sky-on-solar-power/>

- “Renault Zep’lin explores a new range of electric vehicles,” DesignBuzz, 2010: <https://designbuzz.com/renault-zep-lin-explores-a-new-range-of-electric-vehicles/>

Video

- “The Ultimate Zeppelin by Renault,” (1:30 minutes), Damien Grossemy, posted 26 October 2009: <https://www.youtube.com/watch?v=5JJ6C0Sp76c>

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- *Modern Airships - Part 1*: <https://lynceans.org/all-posts/modern-airships-part-1/>
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