



SolarStratos plane

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SOLAR PLANE ATTEMPTS TO REACH THE STRATOSPHERE

 SUSTAINABILITY

An aeronautical project aims to be the first commercial two-seater solar plane to attempt a flight to reach the stratosphere.

Here at Springwise we have recently covered a number of innovations involving sustainable flight. For example, an autonomous [drone taxi](#) and airplane [biofuel](#) made from old clothes. Now, a Swiss company [SolarStratos](#) is poised to make aviation history with a solar-power aircraft. The SolarStratos aims to be the first solar-powered plane to reach the stratosphere, 25,000 metres high. The project has been underway for four years and is expected to attempt a manned flight to 10,000 meters this fall. Further to this, with a flight to the stratosphere later in the year. The flight will take around two and a half hours to reach 25,000 meters. There, on the edge of space, pilot and SolarStratos founder Raphaël Domjan will spend 15 minutes in the stratosphere before slowly spiralling back down to Earth.

The SolarStratos plane has been developed using a combination of off-the-shelf and custom parts. Austrian battery firm [Kreisel Electric](#) has developed an experimental 20 kilowatt hour lithium-ion battery that can operate safely in the extremely low temperatures of the stratosphere. California-based [SunPower](#) is providing the solar cells. These will power a small electrical engine and charge a 20 kilowatt hour lithium-ion battery. Additionally, the extreme cold and lack of oxygen in the stratosphere means that the pilot will need to wear a pressurised spacesuit. Russian spaceflight specialist [Zvezda](#) has developed a specially adapted, lightweight suit which is being donated to the project.

Domjan's goal is to not just push limits, but to draw attention to the need to tackle climate change. He hopes that taking a solar-powered plane to the edge of space will send the message that clean technology has a vast potential. Once the technology has been proven, SolarStratos plans to build a three-person version. This will include a pressurised cabin and will operate commercial space tourism flights. The company hopes to have these running by 2021, with prices possibly starting at around 60,000 USD. Will SolarStratos help to convince people of the potential of solar power?

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