

Solarcopter: World's First Solar-Powered Helicopter Takes Off on First Flight

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A team of masters students from the U.K. have built what they call the world's first solar copter.

All right, it's just a remote-controlled helicopter. But the SolarCopter is still driving new technology that could add solar power to copters both large and small.

Following projects like the [Solar Impulse](#) and NASA's [Helios wing](#), the idea of propelling aircraft using solar energy isn't as fanciful as it used to be, even if it's still experimental and full of practical holes. Before long, we'll surely see solar power used to aid traditional airplanes, even if it's not used as the main fuel.

To show what's possible, a team of masters students from the U.K. have built what they call the world's first "[solar copter](#)"—a [quadrotor](#) that flies solely on solar power. At the moment, it is capable only of short flights. But the team say it should fly longer soon, once they've added a storage system.

"The SolarCopter is a quadrotor design that incorporates a solar panel providing the power for the propulsion system," the six students say in a joint email. "It is controlled in the same way as a standard battery-powered quadrotor. Optimum thrust-to-weight ratio was mainly achieved through an efficient propulsion system, unique frame design, and an optimized solar panel."

To see Solar Panel video, click <https://youtu.be/2Y7xxlrNkcM>

Future versions could be used for surveillance, search, and rescue, and tracking animal migrations, perhaps in Africa, Australia, Middle East, and Southern Europe, where there is more sun than in England. Its technology could also help increase the range of conventional choppers,

and perhaps give other solar aircraft, such as the Impulse, better maneuverability and control. (At the moment, for all its elegance, the Impulse is quite likely to be blown off course).

At Queen Mary, University of London, Jibrán Ahmed, Shakir Ahmed, Irmantas Burba, Pourshid Jan Fani, George Kowfie, and Kazimierz Wojewoda hope to keep working on the concept as they finish their studies. “When the realization came that there were no solar-powered helicopters in existence, it seemed like a great engineering challenge to take on,” they say. “The team is of multidisciplinary students that are driven by the urge to do something different in the aviation industry.”

About the author

Ben Schiller is a New York staff writer for Fast Company. Previously, he edited a European management magazine and was a reporter in San Francisco, Prague, and Brussels.
