

With battery-powered aeroplanes, the sky's the limit



A battery-powered aircraft with no need for jet fuel is being developed thanks to a team of aerospace engineers, battery chemists, and power train experts who launched US start-up Wright Electric.

At less than a year old, the firm has made headlines by partnering with UK airline easyJet to introduce electric aeroplanes for some of its short haul flights (539 km range) within a decade. These planes will be 50% quieter and 10% cheaper for airlines to

acquire and operate, with positive effects for the environment and passengers.

With 30% of all flights regarded as short haul (under two hours), representing a market worth US\$26 billion, this is a game-changer for the airline sector. And it will set in motion a ripple-effect throughout associated industries over the next 20 years.

In March, Wright Electric revealed it would build a 150-seat aircraft to disrupt the 737 market. The firm has already built a two-seater prototype and will scale up the technology to a 10-seater, with the plan to eventually build a single aisle commercial aircraft.

Jeff Engler, co-founder and CEO of the firm, revealed the challenge was thrown down to the firm's engineers to design a propulsion system to make its aeroplane travel faster and farther than any rivals.

“With input from our senior aerospace advisors, our mechanical engineering team generated several high efficiency fan concepts to be put to the test. The design files for our favourite concept are complete, and we will begin constructing it soon,” Engler said.

Wright Electric is already eyeing off new partners in China's and India's aviation markets. China has 436 million flights annually, followed by India at 100 million. But, the US leads the market with 719 million passenger flights each year.

Carolyn McCall, easyJet CEO, believes the entire aerospace industry will follow the automotive industry and develop electric engines that will cut emissions and noise. With Australia just announcing its own space agency, and with that the promise of jobs and new technology, it's a good time to be an engineer in the aerospace sector.

Image: Wright Electric CEO Jeff Engler.

[Return to the ITEE College Webpage](#)