

Light electric motor spins out

10 September 2009



The prototype lightweight electric motor designed by Dr Malcolm McCulloch and his team

(PhysOrg.com) -- A new Oxford University spin-out company, Oxford Yasa Motors, has been set up to commercialise lightweight electric motors developed at the Department of Engineering Science. The new technology promises to help firms build more efficient electric vehicles.

Isis Innovation, the University's technology transfer company, announced that Oxford Yasa Motors Ltd has closed the £1.45 million funding round with private investor Seven Spires Investments Limited. Oxford Yasa Motors also announced that it has been successful in securing a grant from the UK's Technology Strategy Board as part of a £1.89 million consortium to develop a higher volume version of the [motor](#).

Dr Malcolm McCulloch, head of Oxford's Electronic Power Group and Dr Tim Woolmer, then a PhD student in the group, originally devised the electric motor for the 2008 Morgan Lifecar. The group received £75,000 in funding from the Oxford University Challenge Seed fund, managed by Isis, to build a prototype for use in high performance electronic vehicles.

'We're taking technology which has already been proven in a number of vehicles to a wider market, said Dr McCulloch. 'With Oxford Yasa Motors we'll be able to deliver a range of commercial

products that will help the UK launch itself as a premier destination for electric vehicle development.'

He added: 'We have optimised the materials and design, so that the motor is much lighter and more effective, giving half the volume and twice the torque for the same power output. This electric motor technology will reduce [fuel consumption](#) and also help us move away fossil-based fuels to alternative energies.'

Over the last 8 months the Oxford team has collaborated with engineering firm Delta Motorsports to configure the motor for a new four-seat coupe, which is scheduled for track tests scheduled at the end of 2009.

As well as high performance cars, the motor will be adapted for aerospace, renewable and industrial applications where improved power to weight performance combined with the ability to offer more compact electric drive systems will offer significant commercial advantage to customers.

Ian Page from Seven Spires Investments said: 'This is a great opportunity to participate in world-leading technology at the forefront of a rapidly expanding multi-billion dollar market for electric motors.'

Tom Hockaday, managing director at Isis Innovation said: 'This is the second spin-out company from Dr McCulloch's group after smart-metering spin-out Intelligent Sustainable Energy was incorporated in December last year. Isis is privileged to work with such an entrepreneurial department with a real commitment to clean technologies which have the potential to make a huge difference to the environment.'

The company is aiming to sell a low volume of the motors in its first year, as well as scaling up production and developing new models. Mr Nick Farrant, who has a background in aerospace engineering and spin-out management will be CEO

of Oxford Yasa Motors.

Dr McCulloch said: 'British engineering spurred the original growth of the automotive industry, and we believe engineering excellence can reinvigorate the industry again.'

Provided by Oxford University ([news](#) : [web](#))

APA citation: Light electric motor spins out (2009, September 10) retrieved 16 June 2019 from <https://phys.org/news/2009-09-electric-motor.html>

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