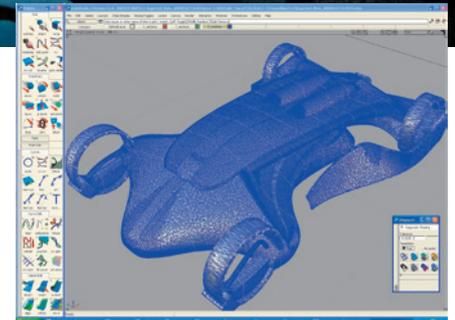




## Coventry University Uses Objet 3-D Printing System in Queen's Award-Winning Industrial Design Education Program



Coventry University's Department of Industrial Design has gained worldwide recognition for its educational leadership, thanks to its use of Objet Geometries' 3-D printing technology and its other educational innovations.

The Department recently won a Queen's Anniversary Prize for Higher and Further Education – an honour that recognizes the university's outstanding achievements, including its work with the Eden250™ 3-D printing system.

For over 30 years, Coventry University's Department of Industrial Design has been pioneering new developments, and many graduates have gone on to hold key positions in the world's foremost automotive companies and have created numerous ground-breaking design concepts. The undergraduate program combines industrial and commercial experience with new models and techniques for computer aided design, including using the most advanced 3-D printing techniques from Objet Geometries. One of the Department's specialties is automotive design, making it a major contributor to the UK's auto industry innovation leadership.

In 2004, the Department became the only "Centre for Excellence in Teaching and Learning in Product and Automotive Design" in the UK. As such, it was charged with developing a range of innovative teaching techniques for the wider benefit of the higher education sector. More recently, in February 2008, the Industrial Design Department was honoured with the



prestigious Queen's Anniversary Prize for Higher and Further Education for its work in automotive design.

One consequence of the "Centre for Excellence" status, and also a major contributing factor in the University being awarded the Queen's Anniversary Prize, was the Department's decision in 2006 to enhance its rapid prototyping capabilities by purchasing the Eden250 3-Dimensional Printing System. The Industrial Design Department had been seeking a rapid prototyping system that could produce high quality parts with fine details. But, until senior faculty saw the Objet system in action, they had not seen anything that fit their high standards and exacting needs.

Among their requirements was a system that would encourage students to think creatively about new ways to design and produce parts, and that could be used for the widest range of students from other departments aside from the Industrial Design Department.

## Objet 3-D Printer Fits the Bill for Design Education

"After seeing a demonstration at an industrial site, I knew the Objet system was the one to have," recalled John Owen, Head of Industrial Design at Coventry University. "It does everything we want it to do."

The Eden250 3-D Printing System was installed in December 2006. With more than 500 students in the department, just under 20 percent of whom are final years students in transport design, the Objet printer is used for a wide range of industrial design applications, including fine arts, jewellery design, product design and transport and automation design. Additionally, it is often used by staff and students from other departments, enabling them to think about and explore different ways to produce parts. One of the advantages of the small-footprint, office-friendly and cost-effective system is that it enables students to create shells of the different components of their part design and see how they fit together on screen, eliminating the extra work involved with tooling.

## Saves Time, Broadens Creative Horizons

Peter Phillips, Design Technician sees the benefits the Eden250 printer brings to the learning process – principally saving time and



promoting creative thinking. "This system has significantly reduced the time needed to produce the students' parts and the parts are of higher quality," he said. "Using the Objet system allows more detailed designs because the conventional ways of production had limitations and they also were slower."

Owen added: "You couldn't make these parts any other way! As the support material is washed away with water, we can now design parts with clearances and print them as one part instead of making many parts and assembling them together. The fine details make the parts themselves seem more realistic."

Furthermore, "Products are constantly being designed differently due to changes in the technology available, and this system makes you think of other ways to manufacture parts."

Looking ahead to life after graduation, Phillips noted: "The Objet system is great for teaching students non-conventional ways of manufacturing. It is pleasing to know what we are teaching current technologies that the students will be using out in industry."

## About Objet Geometries

Objet Geometries, the photopolymer jetting pioneer, develops, manufactures and globally markets ultra-thin-layer, high-resolution 3-dimensional printing solutions for rapid prototyping and rapid manufacturing.

The market-proven Eden line of systems is based on Objet's patented office-friendly PolyJet™ technology. Objet's FullCure® materials create accurate, clean, smooth and highly detailed 3-dimensional models, enabling the most complex 3-D models to be printed with exceptionally high quality, accuracy and speed.

Connex500™, Objet's latest innovation, is based on Objet's PolyJet Matrix™ technology, which offers jetting multiple model materials simultaneously. PolyJet Matrix jets Digital Materials™ creating composite materials which are fabricated on the fly.

Objet's solutions enable manufacturers and industrial designers to reduce cost of product development cycles and dramatically shorten time-to-market of new products. Objet systems are in use by world leaders in many industries, such as automotive, electronics, toy, consumer goods, and footwear industries in North America, Europe, Asia, Australia and Japan.

Founded in 1998, Objet serves its growing worldwide customer base through offices in USA, Europe, China and Hong Kong, and a global network of distribution partners. Objet owns more than 50 patents and patent pending inventions.

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