"The speed of the Objet Eden500V is really amazing. From the moment we installed it in-house it hasn't stopped printing."

Alan Kuo
Vice General Manager

Case Study

Kingstar Speeds up Remote Control Car Development with Objet's 3D Printing

At a Glance

Company: Kingstar
URL: www.ksracing.tw
Location: Taiwan
Industry: Toys

Challenges

- Rapidly produce high-quality remote controlled vehicle prototypes with multiple parts and with multiple parts and in a variety of sizes
- Accelerate design verification and time to market
- Reduce development costs

Solution

- Objet Eden500V™ 3D Printing System

Results

- 10 -15% faster process from R&D stage to OEM and ODM products, due mainly to highly detailed and durable prototypes
- Cost savings on modeling
- Reduced design and production errors
- Faster and easier communication with customers

Based in Taiwan, Kingstar is Asia's largest manufacturer of professional remote control (RC) cars. In a market characterized by very short product life cycles, and with 65% of the competitors located in Taiwan, Kingstar's R&D is under constant pressure to maintain high productivity and respond quickly with new product launches. At the same time, Kingstar must set itself apart from the competition by constantly delivering high-quality RC cars targeted at the mid to upper-level market segments.

To keep up with market demands, Kingstar's R&D department must be able to produce remote control car prototypes rapidly, verify new designs, and quickly get feedback from customers. "We used to go to a service bureau to produce prototypes, but it was far from efficient, and the cost was prohibitive," says Alan Kuo, Vice General Manager at Kingstar. "With our business developing quickly, it was clear to us we had to find a better solution."

Kingstar purchased an Objet Eden500V™ 3D™ printer to handle its diverse requirements – not only for speed, but also for larger car prototypes. With a big build tray of 500 x 400 x 200 mm (19.7 X 15.7 X 7.9 in), the Objet Eden500V enables big parts to be printed in a single build, with no need for gluing, and also enables simultaneous printing of multiple parts on a single build tray. Super-high productivity, with at least 72 hours of non-stop build capacity, allows unattended operation across a entire weekend. Producing models with exceptionally fine details and an outstanding surface finish, the Objet Eden500V perfectly addresses Kingstar's strict quality requirements.

OBJET®

Speedy, High-qualtiy Prototypes with Reduced Costs

"Before we selected Objet, we examined several other rapid prototyping (RP) technologies," says Mr. Kuo. "Strength seemed to be the common limitation. Objet was the only solution that met all of our expectations related to form and material strength. And, equally important, unlike other RP technologies, it produces high-quality models ."

Objet's 3D printer, the Objet Eden500V™, now enables Kingstar's R&D to print many highly detailed, small car parts. Featuring smooth surfaces, these parts are later assembled into full prototypes for modeling and design verification. The material strength allows Kingstar to use prototypes as working samples and collect feedback from customers.

With the Objet Eden500V™, Kingstar has reduced production errors, has significantly enhanced efficiency and delivered valuable time savings. Initially, Kingstar estimated that time to market improved by 10 -15%, and, according to Alan Kuo, "we believe that we will be saving more time in the future with Objet's help."

"We examined several other rapid prototyping solutions. Only Objet delivered the speed, fine details and high quality we needed."

ABOUT OBJET GEOMETRIES

Objet Geometries Ltd., the innovation leader in 3D printing for rapid prototyping and additive manufacturing, provides 3D printing systems that enable manufacturers and industrial designers to reduce cost of product development and dramatically shorten time-to-market of new products.

Objet's ultra-thin-layer, high-resolution 3D printing systems and materials utilize PolyJet™ polymer jetting technology, to print ultra-thin 16-micron layers. The market-proven Objet Eden™ line of 3D Printing Systems and the Objet Alaris™30 3D desktop printer are based on Objet's patented office-friendly PolyJet™ Technology. The Connex™ family is based on Objet's PolyJet Matrix™ Technology, which jets multiple model materials simultaneously and creates composite Digital Materials™ on the fly.

All Objet systems use Objet's FullCure® materials to create accurate, clean, smooth, and highly detailed 3D parts.

Objet systems are in use by world leaders in many industries, such as Education, Medical / Medical Devices & Dental, Consumer Electronics, Automotive, toys, 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, Mexico, Europe, Japan, China and Hong Kong, and a global network of distribution partners. Objet owns more than 50 patents and patent pending inventions. For more information, visit us at www.objet.com.

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