

SMALL TOYS ARE BIG BUSINESS

HOYU Tooling brings prototyping in-house with Objet Printer

"The huge tray size is incredible. We print several models in a single build, which saves us lots of time."

– Lam Suet Fung, HOYU Tooling

The Objet500 Connex™ enables HOYU to evaluate customer designs quickly and cost effectively.



Hong Kong-based HOYU Tooling, with 20 years of experience in the tooling industry, provides a wide range of services, from rapid prototyping to mold manufacturing. HOYU helps companies navigate manufacturing processes efficiently and reliably, while avoiding costly modifications.

HOYU caters to a wide range of industries and products, such as household goods, mechanical robots and premium toys. With specific expertise in the toy industry, HOYU delivers more than 4,000 different molds annually and serves global customers such as Mattel and McDonald's.

HOYU's rapid prototyping services enable customers to evaluate new designs as well as check the form and function for manufacturability. Increased demand for these services meant the company had to outsource large portions of its prototyping business. "This created two major challenges," said Lam Suet Fung, head of the Prototyping Division at HOYU. "First, the high cost of outsourcing reduced our margins. Then, there was the issue of confidentiality, since safeguarding a company's designs is an integral part of our service. Outsourcing significantly increased our risk."

HOYU was looking for an in-house 3D printer that would enable the company to respond quickly to its customers, reduce costs and maintain confidentiality. It also needed to print fine details. "Since we service many toy companies, we often need to prototype small figurines and must be able to print very fine facial details," he said.

At a Glance

Challenges

- Accelerate prototype turnaround time
- Reduce outsourcing costs
- Support multi-material prototypes with fine details
- Maintain confidentiality of customer designs

Solution

- Objet500 Connex 3D Printer

Results

- 90 percent of prototyping now performed in-house
- Reduced costs
- Improved confidentiality of new customer designs

Emulating feel and function

After evaluating several 3D systems, HOYU selected the Objet500 Connex 3D Printer. It provides the ability to print parts and assemblies simultaneously, using multiple materials with different mechanical or physical properties. Now, when the HOYU team prototypes a figurine, they can print the body with rigid materials and the belt with soft materials in a single run to deliver an accurate texture and feel to the end product. The requirements for printing the accurate facial elements of a figurine are met by the Objet500 Connex, as it excels in high resolution, high quality printing, producing exceptionally fine details. Ultra-thin 16-micron layers enable smooth surfaces.

“With the Objet 3D Printer in-house, our designers can quickly verify design concepts, while our engineers perform functional testing and examine moving pieces of the prototype, such as arms and legs,” said Lam. After painting and post-processing, customers approve the models prior to mold manufacturing.

Reaching peak productivity

Since purchasing the Objet500 Connex 3D Printer, HOYU has moved 90 percent of its prototype printing in-house. “In cases where we cannot handle the load and must outsource jobs, we do not outsource the complete product, but print parts of the models in-house to maintain confidentiality,” said Lam.

HOYU is using the Objet500 Connex at full capacity to handle customer demand. The printer runs 10 hours a day, five days a week. “The Objet is so user friendly that almost every staff member within my team is capable of using it,” said Lam. “I am particularly happy with the huge tray size, which saves us a lot of time and enables us to print several models in a single build. The printer works unattended, so I start a print job before I leave the office in the evening and have models ready the next morning.”



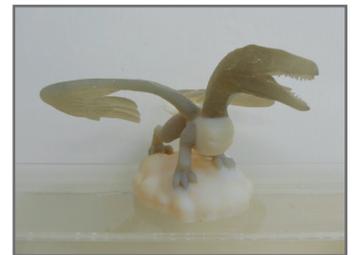
HOYU produces small toys for Mattel and McDonald's.



The Objet's ability to produce fine details for toys like this was an important feature for HOYU.



HOYU selected the Objet500 Connex because of its ability to use multiple materials simultaneously for products.



Ninety percent of prototyping is now performed in-house, enabling HOYU to maintain confidentiality of its proprietary models.

Stratasys | www.stratasys.com | info@stratasys.com

7665 Commerce Way
Eden Prairie, MN 55344
+1 888 480 3548 (US Toll Free)
+1 952 937 3000 (Intl)
+1 952 937 0070 (Fax)

2 Holtzman St.
Science Park, PO Box 2496
Rehovot 76124, Israel
+972 74 745-4000
+972 74 745-5000 (Fax)

ISO 9001:2008 Certified

© 2013 Stratasys Ltd. All rights reserved. Stratasys, Stratasys logo, Objet, For a 3D World, Objet24, Objet30 Pro, Objet Studio, Quadra, QuadraTempo, FullCure, SHR, Eden, Eden250, Eden260, Eden260V, Eden 330, Eden350, Eden350V, Eden500V, Jo Manager, CADMatrix, Connex, Objet260 Connex, Connex350, Connex500, Alaris, Alaris30, PolyLog, TangoBlack, TangoGray, TangoPlus, TangoBlackPlus, VeroBlue, VeroBlack, VeroBlackPlus, VeroClear, VeroDent, VeroGray, VeroWhite, VeroWhitePlus, Durus, Digital Materials, PolyJet, PolyJet Matrix, ABS-like and ObjetGreen are trademarks or registered trademarks of Stratasys Ltd. and/or its subsidiaries or affiliates and may be registered in certain jurisdictions. All other trademarks belong to their respective owners. CS-PJ-Cons-HOYU-04-15-EN

For more information about Stratasys systems, materials and applications, call **888.480.3548** or visit www.stratasys.com

