



## Making Vivid Customized Figurines With the J826

When Jiang Yi-Min and his partners were providing full-color 3D scanning services to their customers, many of them asked: “The model in my phone looks great; can I get a figurine of it?”

Customized figurines are trendy now. Many people are creating miniature figurines as mementos of themselves, their loved ones, or pets. For instance, many parents want to have figurines of their children before they grow up, which happens all too soon. Sometimes a family will order figurines of each family member (including pets) and place them on their mailbox.

Founded by Mr. Jiang and his partners, AIC Technology Co., Ltd. specializes in 3D printing solutions and provides 3D printing services. And when customers started asking about customer figurines, without hesitation, AIC took the order.

“

The Stratasys J826 streamlines the whole process, making everything simpler, easier, faster, and more cost-effective.”

Jiang Yi-Min

**Founder of AIC Technology Co., Ltd**



# Bring Vividness to Customized Figurines

## A Wrong Turn

At first, AIC used a high-end CJP (ColorJet Printing) 3D printer to make the figurines but soon discovered its disadvantages. The biggest problem was the material properties: even after laborious post-processing, the figurine was still too fragile and likely to break during shipping. The quality was also not satisfying, as the fine details were not replicated faithfully, meaning the figurine did not look quite like the real person. The surface was quite rough, and the color was always a little bit off. Furthermore, the printing success rate was only 80%. Mr. Jiang wanted to provide best-in-class products to his customers at a reasonable price. If the customer had a yellow dog, he should not receive an orange one.

But the biggest headache was the post-processing, which was lengthy and laborious. The powder had to be removed from the surface with a brush and air gun. Then the cleaned models would be placed in an oven for hours to dry. After drying, the models had to be cured with special chemicals. From printing to post-processing, it took several days (and considerable human labor) to create a presentable figurine.

In addition, when he applied the CJP printer to this task, Mr. Jiang did not expect the hidden costs: the print head's actual lifespan was only one third as long as advertised. This is to say that only the models printed during the first 30% of the print head's lifespan can meet AIC's high standards. A print head cost 1400TWD, and Mr. Jiang needed to replace all five of them at one go, which meant that he was looking at an additional cost of 7000TWD (around \$230 USD) every week.





### Switching to the Professional

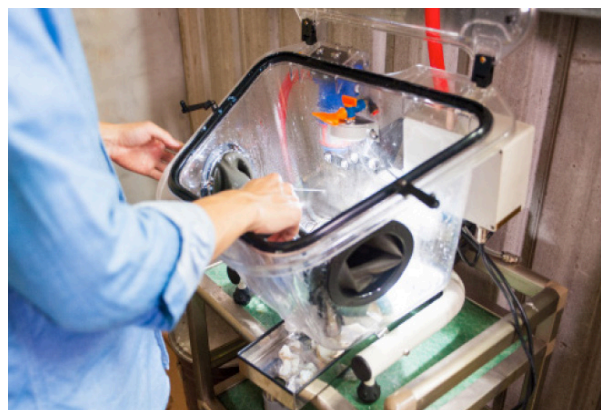
A very frustrated Mr. Jiang started thinking about other 3D printing technologies, and at this time, Randy Huang from 3DP (3DPrinting), a Stratasys partner, approached him with suggestions for a possible solution.

Having heard about Mr. Jiang's concerns, Mr. Huang immediately thought about the Stratasys J8™ Series. Known for hyperrealism, high-speed, full-color, and easy post-processing, the J8 Series served Mr. Jiang's needs perfectly, and Mr. Huang recommended the Stratasys J826™ 3D printer.

From early stage prototypes to high-fidelity models, the J826 is designed for designers. With its large tray size (255 x 252 x 200 mm), the J826 allows multiple figurines to be printed at the same time. It is highly accurate, with deviations as low as 0.1 mm when the model is no larger than 10 cm. Faithfulness to the original image is the key to an accurate customized figurine, and with the J826, every one duplicates the original exactly.

Like other Stratasys PolyJet™ 3D printers, the J826 is PANTONE Validated™ and can produce more than 500,000 distinguishable color combinations. Designers can match Stratasys CMYK colors to more than 1,900 printable PANTONE Colors, Solid Coated and SkinTones™, which means that exact colors of hair, skin and cloth can be reproduced.

The J826 also uses photopolymers that feature properties ranging from rigid to rubber-like and transparent to opaque, with characteristics like high toughness and heat resistance. As a result, the figurines printed by the J826 are not only sturdy and can be mailed to the customers with ease, but also can simulate the soft touch of skin.



Easy and simple post-processing.

# Bring Vividness to Customized Figurines

## Better Quality, Better Service

After switching to the Stratasys J826, Mr. Jiang could finally smile during post-processing. SUP705™ support material can be easily removed with high pressure, and it is also soluble. This means that all the engineer needs to do is place the models into the support removal tank and the support material will dissolve hands-free. There is no need to bother with brushes, air guns, and all the tools and steps required with the previous process.

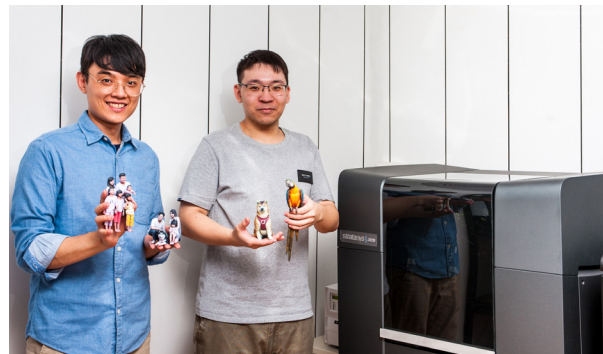
Cost is another factor that convinced Mr. Jiang to introduce the J826. With the savings on material, post-processing, and maintenance, Mr. Jiang estimated that the cost of each figurine was reduced by 74%, if not more. Not only does this mean a higher profit margin, it also means that Mr. Jiang can offer attractive figurines at an attractive price. “The Stratasys J826 streamlines the whole process, making everything simpler, easier, faster, and more cost-effective,” he commented.

## Looking Forward to More Opportunities

AIC adjusted its workflow so that after a quick scan, customers can view their digital models within 1-3 minutes. After they confirm the order, AIC engineers polish the digital files, which takes around 15-30 minutes. The printing time is dependent on the size of the figurine: for one that

is 10 cm tall, the J826 can finish the job within three hours. The post-processing takes another 30 minutes. This means that the customers can receive their true-to-life figure within two days!

The market for customized figurines is burgeoning now. Supported by the J826's high-quality and cost-effective solution, Mr. Jiang and his partners can now take more orders and help more people 3D print their cherished moments.



### Stratasys Headquarters

7665 Commerce Way,  
Eden Prairie, MN 55344  
+1 800 801 6491 (US Toll Free)  
+1 952 937-3000 (Intl)  
+1 952 937-0070 (Fax)

[stratasys.com](http://stratasys.com)  
ISO 9001:2015 Certified

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

