



## Save **Every Moment**

For parents, a child's every first is precious: first footprint, first crawl, first birthday and first day at school. Permanently cherished in their memories, these moments will bring a smile to their faces on any rough day.

But how about the first time they meet their children?



## Love at First Sight

Fan Yuanyuan and Li Tianhao were married in May 2018, and in January the following year they were thrilled to find out that Yuanyuan was pregnant. When Yuanyuan was 24 weeks into her pregnancy, she took the four-dimensional color Doppler ultrasound examination as requested by her doctor. Everything was fantastic with the baby, and tears kept rolling down Yuanyuan's cheeks when the

future mother saw her daughter for the first time in the B-scan. The doctor pointed at the screen. "This is her head, and her left hand is clenched!" The scan picture they received was fuzzy, but the love that poured from the couple's heart was crystal clear.

At this point, the doctor asked, "Do you want a model of your future baby?"

# More Than a Picture

Danhe Medical, a medical device company based in Hangzhou, China, has seen expectant parents' desire to see their child as soon as possible. Yet the scan, which parents still treasure, does not really show the baby clearly. At this point, Mr. Sun, the marketing manager at Danhe Medical, started wondering whether realistic models can be created based on the scans.

But doing is harder than thinking. Making the baby models raises several difficulties. The first involves customization. The uniqueness of each baby means that every model needs to be customized, and creating a model for each case would be extremely time-consuming and expensive, depending on the technology used. Second, the models must be very accurate and realistic, so that the baby's facial features can be reproduced. Third, they need to be very durable. Finding a technology that would solve these problems became the focus, and 3D printing quickly emerged as the best option. "I have heard about

how people are using 3D printing technologies to make customized figurines," remarked Mr. Sun, "So I know this is something that I have to try."

Enter the 3D printer designed for designers: the Stratasys J850™. The models printed by the J850 are defined by their high-fidelity. It can create a multitude of textures including simulated leather, soft-touch materials, and wood grain. Its high-speed mode allows fast iteration, which means that multiple prototypes in different materials can be printed at one go. In addition, the J850 is also PANTONE® Validated and can print over 500,000 colors, which means designers can choose exactly the colors they want. Furthermore, the J850 can print multiple materials that are rigid and flexible, transparent and opaque.

When Mr. Sun found out that LAIKA, the Oscar-winning stop-motion animation studio, has been using J-Series printers to make their hyperrealistic puppets, he had no doubt the system would deliver exactly what he was looking for.



# From 2D to 3D

To create the baby model, the ultrasound scan must first be converted into an STL file. After Mr. Sun receives the STL files from the hospital, it takes one day for the designer to create the models, and the printing can be done within five hours. Post-processing involves only varnishing and glossy finishing. Within a week, the customized baby model is shipped to the excited parents.

When they received the 3D printed model of their future baby, Yuanyuan and Tianhao were filled with joy.

This is the first moment of the long journey that parents will take together with their child, and now, thanks to 3D printing, it can be permanently saved.



## 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)

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