



GÜLHANE MEDİKAL TASARIM VE ÜRETİM
UYGULAMA VE ARAŞTIRMA MERKEZİ



METÜM, Contributes to The Success of Surgery With Stratasys J750 3D Printer

Founded in 2011, Gülhane Medical Design and Production Center (METÜM) is a leading center in Turkey, engaged in the design and production of personalized orthoses, prostheses, implants, and medical models, as well as dental products, R&D, training, and project studies.

To develop their manufacturing processes, METÜM employs a variety of additive manufacturing systems. They recently added a Stratasys J750 to their workflow to meet their need for a versatile 3D Printer with higher dimensional accuracy to print anatomical realism models.



"We've been using the Stratasys J750 3D Printer that infoTRON offered to us, it provides us with a seamless solution for medical and dental modeling. The 3D Printer is the most powerful tool in our arsenal in terms of production capacity, build tray size, and the ability to create models with transparent and flexible materials in a single build. It also has a significant advantage in terms of manufacturing time and consistency of results."

Mehmet Acar

3D Printer Technician Production Manager

Challenge

The Medical Design and Production Center uses realistic plastic models that are used clinically in many medical fields demanded by university departments such as Neurosurgery, Plastic Surgery, Orthopedics, ENT, Dentistry, Cardiology, Cardiac Surgery, and the Faculty of Medicine. These models are difficult to outsource because research departments may have specific requirements for different projects, and they could be extremely expensive and time consuming if not manufactured with 3D Printers due to the constant design revisions.

Solutions

METÜM incorporated the use of the J750 3D Printer into their work process to produce medical models on-demand and gain greater control over their research processes.

"The J750 3D Printer can print plastic models with high resolution as precise as 14-micron layer thickness, as well as ultra-transparency and low Shore A hardness values. These characteristics aid in the attainment of one-to-one models and are of great assistance to preoperative physicians, allowing for a better preparation phase for surgeries. Our physicians serve as a guide to revise the product's design as needed to ensure that the operations are error-free. The Stratasys J750 3D Printer is a must-have for any center in this field to easily make such revisions."

Mehmet Acar

3D Printer Technician Production Manager



Lower Jaw Model



Liver Model



Vein Model

Impact

METÜM used the J750 3D Printer's unique advantages to create anatomical and realistic models that are used in medical research fields. Materials such as Agilus30, Tango, and Vero Family are used to create flexible and transparent models. The use of such models aided psychologists prior to surgeries, improving the preparation phase and assisting experts in saving lives.



Stratasys J750
3D Printer



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