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Engineering

THINK BIG, PRINT BIG: CARIS'S INNOVATIVE OFFICE CHAIR PROTOTYPE TAKES SHAPE



Engineering



From Brainstorm to Boardroom: How ORSA Streamlined Office Chair Design with Omni3D's Large-Format Printing Powerhouse

In the ever-evolving world of product design, efficiency and innovation are the cornerstones of success. This is precisely the challenge **ORSA**, a leading engineering services company with a keen eye for additive manufacturing, faced when tasked by **IDM Industrial Molding and Plastic** with developing a new office chair component for **Caris Chair Company**.



Caris's Innovative Office Chair Prototype Takes Shape



Traditionally, prototyping large parts can be a time-consuming and resource-intensive process: **IDM Industrial Molding and Plastic**, however, saw an opportunity to break the mold (pun intended) by leveraging the power of large-format 3D printing technology.

Enter Omni3D's industrial workhorse, the **Omni TECH**.



"The sheer size of the component presented a significant hurdle" explains Ufuk Cantürk, Designer at **IDM Industrial Molding and Plastic**.

"Producing it through conventional methods would have meant longer lead times and potentially higher costs." However, with the **impressive build volume** of the **Omni TECH**, ORSA could tackle this challenge head-on.

The benefits of embracing large-format 3D printing extended far beyond simply accommodating the component's size. The **ability to utilize two nozzles with different materials** proved invaluable. As Ufuk elaborates, "The **support** structures are crucial for large prints, and having the flexibility to use dedicated support material alongside the primary **ABS filament** was a game-changer."



Caris's Innovative Office Chair Prototype Takes Shape



The impact of this technological leapfrog wasn't limited to technical aspects. "The time saved by using the Omni3D printer was substantial", Ufuk emphasizes. "Printing a single component took over 180 hours, but that's significantly less compared to traditional methods. This allowed us to expedite the prototyping process and deliver results to the Caris Chair Company much faster."

But the story doesn't end there. The ability to 3D print the prototype before finalizing the mold design proved to be a strategic advantage. ***"We were able to identify and address potential issues early on"***, explains Ufuk. *"This proactive approach saved us from potential design flaws that could have resulted in costly mold rework later."*

Looking ahead, **IDM Industrial Molding and Plastic** is confident that 3D printing will continue to revolutionize the design and development landscape. *"The ability to rapidly iterate and test prototypes is a goldmine for innovation"*, Ufuk concludes.

"We're excited to see how Omni3D's technology can further empower us to bring groundbreaking ideas to life."

This case study exemplifies the transformative potential of Omni3D's large-format 3D printing solutions. By enabling companies like **IDM Industrial Molding and Plastic** to streamline workflows, reduce costs, and unlock design freedom, Omni3D is helping businesses across industries push the boundaries of what's possible.



Are you ready to explore how large-format 3D printing can supercharge your design process?

**Contact Omni3D today and unleash
the power of innovation!**

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