

Rapid Prototyping Case Study:

High-Resolution Parts + Flexible Lead Times

Inkbit's platform along with personalized support enabled rapid iteration of production and design iteration stages while keeping a cost-advantage from expedited production.

Overcoming Lead Times for Hundreds of Parts in Days

North Hills Product Development, led by engineer Kyle Woodard, specializes in developing innovative medical and consumer products that often require low to medium-scale production prototyping with highly detailed features.

Frequently when using traditional additive manufacturing services he relied on at times struggled to produce precise, high-resolution parts needed for intricate designs with short, lead times when a higher volume of parts were required.

Faced with a client that had a difficult deadline and hundreds of parts to make, at this point he turned to Inkbit.



"Inkbit has been very flexible to work with. They were able to turn around a 600-part order in one business day for me, while this was a special case, they were willing to accommodate my order when no one else could in that timeframe."

Kyle Woodard, Principle Engineer

North Hills Product Development

Inkbit's Digital Factory - Expedited Needs in Critical Timelines

Kyle found a unique combination of high-quality 3D printing capabilities and personalized service when exploring Inkbit. With its SLS-style surface finish and SLA-level feature resolution, Inkbit's printing technology met the standards he required for diverse prototyping needs.

Printing multi-material parts with integrated seals was also a benefit, helping streamline the development of parts that would later be multi-material injection-molded components.

Inkbit's flexible lead times has let Kyle produce multiple iterations of parts finding the perfect fit in a short time, further accelerating his workflow. The ability to communicate directly with an application engineer throughout the ordering process provided an additional level of confidence in the final product.

CASE STUDY

Key takeaways

Inkbit's cutting-edge 3D printing technology and willingness to accommodate urgent prototyping needs have proven invaluable to North Hills Product Development. Their collaboration has enabled Kyle Woodard to develop intricate components efficiently, reducing turnaround times and allowing for rapid iteration. By offering high-resolution printing, multi-material capabilities, and a personalized approach, Inkbit continues to support innovators like Kyle in bringing advanced products to life.

While a one-day turnaround is outside Inkbit's standard offerings, they were able to accommodate Kyle's urgent request. Typically, Inkbit's production workflow takes about three days for expedited orders, this allows the parts the time they need to reach their final mechanical properties.

In this instance, Kyle prioritized speed over full mechanical strength, opting to receive his parts while they were still in the "green" state to meet his tight deadline. This level of flexibility highlights Inkbit's commitment to meeting the unique needs of its customers.

Learn more at <https://inkbit3d.com/>

North Hills Product Development

600 Expedited Parts

Kyle relies on Inkbit primarily for small to medium scale prototyping across a range of product designs.

Given the highly detailed and intricate nature of his components, Inkbit's precision and reliability have been essential to his work. As an expert designer, Kyle has never been limited by his ability to design, with Inkbit he can iterate and produce parts for his customers faster than ever before.