



A Partnership in Action: Meeting Health-care Needs Amidst the COVID-19 Surge

APRIOS CUSTOM MFG AND NONIN MEDICAL

Introduction

In the face of unprecedented global demand, Aprios and Nonin Medical, Inc. forged a remarkable partnership that exemplifies innovation and collaboration. Their journey began long before the COVID-19 pandemic, showcasing the power of foresight in healthcare solutions.

Project Background

- **THE NEED FOR A SUPPLIER** Nonin Medical sought a reliable partner to manufacture components for its Onyx® Fingertip Pulse Oximeter—an essential device used across various medical settings. With its lightweight design, the Onyx provides critical measurements of arterial oxygen saturation and pulse rate, serving as a lifeline in hospitals, clinics, and homes around the globe.
- **SIGNIFICANCE OF THE ONYX DEVICE** As the first fingertip pulse oximeter on the market, the Onyx is not only functional but also durable, designed to withstand the rigors of medical environments. Available in black, blue, and red, this device is a trusted companion in patient care, making its impact felt in over 125 countries.

Supplier Selection

- **CRITERIA FOR SELECTION** Nonin's team utilized a comprehensive vendor selection matrix, emphasizing quality control, validation processes, and collaboration ease. This thoughtful approach ensured that every potential partner could rise to the occasion.

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We were transitioning from another plastic injection molder. Searching for a new supplier was a big step for Nonin. We needed to be confident that the chosen vendor could meet our needs today and in the future. Aprios came out on top as a great fit.

Kristin Finberg, Project Manager at Nonin



Challenges

1 AGING TOOLS AND DESIGN CHANGES Aprios faced the challenge of outdated tools used for manufacturing the Onyx components, which required replacement. Additionally, Nonin sought to integrate design changes that could enhance product functionality.

2 INCREASED DEMAND DUE TO COVID-19 As Aprios prepared to ramp up production, the COVID-19 pandemic triggered an unexpected surge in demand for pulse oximeters, pressing the company to adapt swiftly.

IMPORTANCE OF PULSE OXIMETERS The Onyx was crucial in helping healthcare providers identify at-risk patients early.

3 SILENT HYPOXIA AWARENESS The COVID-19 pandemic underscored the importance of silent hypoxia, a condition where patients have dangerously low oxygen levels without visible symptoms. The Onyx pulse oximeter became essential for early detection, enabling timely interventions by healthcare providers.

4 ENSURING QUALITY AMID RAPID PRODUCTION With increased production capacity needed urgently, Aprios had to maintain its commitment to quality while scaling up manufacturing processes.

Solutions

1 COLLABORATIVE ACTION PLAN To address the tooling and design challenges, Aprios' engineering manager, Alex Cromett, and sales engineer, Aliza Alverson, developed a comprehensive action plan. This plan included regular status meetings to ensure clear communication between Aprios and Nonin.

2 ADVANCED VALIDATION PROTOCOL Aprios implemented an advanced validation protocol for the new tools. This involved thorough design reviews and prototype testing to ensure the components met Nonin's quality standards before moving into full production.

3 AGILE CAPACITY MANAGEMENT Aprios quickly assessed the surge in demand and formulated a strategic plan to increase production capacity. This included investing in additional tooling and resources to support the higher volume of orders without compromising quality.

4 PROACTIVE COLLABORATION Aprios' ongoing collaboration with Nonin, marked by transparent communication and shared goals, enabled both companies to respond effectively to the challenges posed by the pandemic.

MARKETING STRATEGY Nonin's "All Together Now" campaign emphasized education and thought leadership in the healthcare space. With press coverage from outlets like NPR and the New York Times, the message resonated widely, contributing to the company's success.

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The team at Aprios was able to quickly assess the surge in volume and develop a plan, including tooling, to increase capacity. Aprios has done an amazing job meeting our needs for increased production, and Aprios was in the right place at the right time. Everything is going well.

Kristin Finberg, Project Manager at Nonin



Manufacturing Processes

- **DPI'S ROLE IN PRODUCTION** Aprios took on the responsibility of manufacturing every plastic component of the Onyx, from its durable exterior to the soft-touch material that secures the finger. Their expertise in complex overmolding showcased their dedication to quality.
- **FINAL ASSEMBLY PROCESS** Once assembled, the Onyx components returned to Nonin, where electronics were integrated, and the final product was prepared for the market. This seamless collaboration exemplifies the strength of their partnership.



Results



SUCCESSFUL PRODUCTION AND DELIVERY

Aprios successfully ramped up production, meeting the unprecedented demand for Onyx pulse oximeters during the pandemic. This partnership allowed Nonin to fulfill orders promptly and effectively, supporting healthcare providers in critical times.



QUALITY ASSURANCE

The advanced validation processes implemented by Aprios ensured that all components met rigorous quality standards, which in turn boosted confidence among healthcare providers using the Onyx.



POSITIVE PATIENT OUTCOMES

The timely availability of the Onyx device played a significant role in helping healthcare providers monitor patients at risk of silent hypoxia, leading to early interventions and improved patient care.



MARKET RECOGNITION

The effectiveness of Nonin's marketing strategy, coupled with the availability of the Onyx, resulted in increased brand visibility and recognition in the healthcare market.

Future Outlook

With a potential second wave of COVID-19 on the horizon, Aprios is proactively investing in additional presses to ensure they can continue to meet global demand. Their commitment to being prepared reflects a caring approach to healthcare needs.

Conclusion

The collaboration between Aprios Custom Manufacturing and Nonin Medical stands as a testament to what can be achieved when two forward-thinking companies unite. Together, they've not only addressed urgent healthcare challenges but have also paved the way for future innovations.

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