

INNOVATION = GOING FROM CONCEPT TO PRODUCTION IN ONE YEAR

INNOVATION AT A GLANCE

Client:

Zila (a Tolmar company)

Industry:

Medical device, Consumer

Syncroness services:

- » Concept Design
- » Design for Manufacture
- » Electrical & Mechanical Design
- » Firmware Design

Objectives:

- » Handoff to production in 12 months
- » Meet industry standards for bathroom appliance
- » Maximize battery life and minimize noise

Approach:

- » Provide 3 initial concepts and down select within weeks of start
- » Leverage existing tools where possible
- » Work closely with manufacturing throughout design process

RESULTS

- » Production-ready in 12 months
- » Patented mechanical design features
- » Fresh, ergonomical design
- » Heightened user experience



When faced with the challenge to bring a new electric toothbrush to market in just one year, Zila turned to Syncroness to drive success.

OPTIMIZING THE DESIGN AND DEVELOPMENT PROCESS BY REMAINING REQUIREMENTS-FOCUSED AND SCHEDULE-DRIVEN

Time-to-market is always important in product development. Hitting your target market window can set the tone for the product's success in the long run, and also dictates your development schedule. When we were given one year to take a new electric toothbrush from concept to production, our team worked diligently to ensure requirements were well-defined and no time was wasted in the early stages of development.

To get things started, we provided the client with 3 initial concept mockups within a few weeks of project start and down selected to the final preferred design quickly. From there, we determined which tools and features could be leveraged from existing designs and focused our efforts on the unique design requirements. Working with the manufacturing team directly, we ensured changes in the design would fit within the process and production setup that already existed and used rapid prototyping to confirm the design.

The end product was a hit with the customer and market alike. Featuring 360-degree rotation, the brush provided patentable design features, further extending value to the client. Our electrical and firmware designs optimized battery life and provided end users with a heightened experience where they could take advantage of two brush modes (gentle and clean) and internal timing mechanisms letting them know when to change quadrants and when they've brushed for the recommended two minutes.

The product also met electrical and performance standards for bathroom appliances including specifications on the charging system and an IPX rating for water ingress. To complete the design, the Syncroness team also designed a convenient travel case for the brush with pre-defined component locations for the brush head, body, and charger. The travel case was leveraged for final packaging as well.

By focusing on meeting the established requirements and concentrating efforts on higher-risk features, our team was able to deliver a completely new design in just one year.

LET'S KEEP INNOVATING.