Introduction

Within the emerging business division of Bose, the BOSEbuild team of engineers, operations, finance, and marketing professionals works to create high-quality products that provide invaluable experiences for children. These products allow children to explore the science behind speakers and headphones, with build-it-yourself kits that educate young minds about the speed of sound and how to maintain healthy hearing. As the BOSEbuild team set out to design their BOSEbuild Headphones, they quickly realized that the yokes, which attached to the ear cups, were a vital part of early product testing and required multiple iterations.

Solution

After initially using the Bose prototyping service to create the yoke, the BOSEbuild team saw a need for multiple yokes that would enable product testing across multiple departments. The solution of 3D printing not only saved them about $30 per part, but it also cut down on waiting time. Instead of waiting three days, the BOSEbuild team had a new yoke in three hours. With Ultimaker on hand, they could create essential prototyped parts quickly and efficiently for testing by the acoustics team, the app team, and the firmware team, expediting early development and design processes.

Results

- Rapid iterations for acoustics tuning
- Wearability for immediate feedback
- Product testing across departments
- Savings from in-house 3D printing

“’We needed a way to quickly churn out more parts for prototyping. Our Ultimaker machines easily handled printing half a dozen in different colors, which allowed everyone on the team to test the headphones for design, function, and usability.’”

— Joe Titlow, Head of Sales and Marketing, BOSEbuild

With Ultimaker 3D printers, the BOSEbuild team could achieve extensive testing on a crucial part in the early design stages.

Company
BOSEbuild, a division of Bose Corporation

Industry
Technology

Challenge
BOSEbuild needed a quicker, more cost-efficient way to design and redesign parts for their BOSEbuild headphones, which averaged $35 per part to outsource and required three days to complete.

With Ultimaker 3D printers, the BOSEbuild team could achieve extensive testing on a crucial part in the early design stages.
Challenge
Although they initially used the Bose prototyping service to create their master part, the BOSEbuild team realized they would need more than one yoke to more efficiently test their product. They needed a way to create headphones that looked and felt like the desired end product, with full functionality to work with other parts.

Solution
With the addition of two Ultimaker 3D printers, they were able to create yokes that were flexible enough to survive testing by the app team, firmware team, and acoustics team. With the time saved by incorporating Ultimaker into their workflow, the BOSEbuild team could focus on results while creating the best products possible.

Results
According to Joe Titlow, Head of Sales and Marketing at BOSEbuild, “We needed a way to quickly churn out more parts for prototyping. Our Ultimaker machines easily handled printing half a dozen in different colors, which allowed everyone on the team to test the headphones for design, function, and usability.”

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<thead>
<tr>
<th></th>
<th>In-house Ultimaker 3D printers</th>
<th>Outsourcing</th>
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<tbody>
<tr>
<td>Costs per iteration</td>
<td>$1-2</td>
<td>$30-$40</td>
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<tr>
<td>Time per iteration</td>
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<td>3 days</td>
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About 3D GB IRE
The UK and Ireland’s premier professional 3D printing experts. We sell, service and support market-leading products and share our knowledge through professional training programs. Our mission is to help companies to integrate 3D printing into their business with ease and efficiency. Our 360-degree service takes you from implementation to training and on to providing only the best local aftercare, we want to ensure our customers believe in our products like we do.

For all your technical support or Ultimaker warranty questions please reach out and we will be happy to help. enquiries@3dgbire.com