

3D printing prototypes to save money and minimize risk



"If we didn't use 3D printing on Ultimaker to assist our product development, we'd either take 10 times longer to test the product—which opens the door for a competitor—or we'd roll the dice by going to a manufacturer with less testing under our belt."

— **Garrett Dobbs,**
Head of Product at NoiseAware

NoiseAware uses Ultimaker to reduce production time and cost, improving efficiency when creating prototypes.



Company

NoiseAware

Industry

Vacation Rental/Technology

Challenge

Facing costs upwards of \$20,000 for outsourcing their initial prototyping process, NoiseAware needed a solution for quickly creating functional prototypes that would allow field testing to improve design.

Solution

With the Ultimaker 3, NoiseAware is able to sufficiently test their products before manufacturing final parts, saving over \$700 for each prototype and reducing wait time from days to hours.

Results

- Functional prototypes for testing
- Reliability for steady production
- Design flexibility for alterations
- Enhanced startup productivity

NoiseAware - Introduction

NoiseAware is a startup company that provides a noise monitoring and management solution for high-risk, short-term rental properties like Airbnb. With their product installed in rental homes, property management is efficiently alerted when noise levels exceed community guidelines for quiet hours, diminishing the likelihood that neighbors will complain or call the authorities. Having sold their product for over a year with the next generation in development, design and testing remains a critical phase for the NoiseAware team.

3D printing their prototypes on Ultimaker has allowed them to ensure that the overall design, performance, and architecture features are perfected before parts are sent off for final production. Without the ability to rapidly prototype in-house, they would have spent upwards of \$20,000 on the initial prototyping phase for their first product and about \$800 per part if they outsourced to a vendor. With reliability as the most important factor in their decision to go with the Ultimaker 3, NoiseAware now has the ability to 3D print for hours at a time and ensure that their products are ready for the final manufacturing stage.

Challenge

Outsourcing their prototyping phases would cost NoiseAware about \$800 per prototype and reduce their ability to validate, test, and iterate ideas quickly. The team realized how essential it was to find a way to produce functional prototypes for field testing, improving design functionality without hurting their startup budget.

Solution

With rapid prototyping on the Ultimaker 3, NoiseAware has the ability to test and redesign their products ahead of final production, reducing the risk of future alterations. They effectively cut outsourcing costs from \$800 to less than \$10 per part, and minimized overall production time from days to hours with 3D printing.

Results

Head of Product Garrett Dobbs states, "The cost of completing our required prototyping with a vendor would have covered the cost of the Ultimaker four times over by now." Their Ultimaker 3 saves money and provides the ability to create prototypes for mere dollars per part at a fraction of the time it would take to outsource.

	Ultimaker 3D printer	External vendor
Costs	\$10 per product	\$800 per product
Time	2 to 55 hours	5 to 15 days



Unlimited product iterations means the NoiseAware team can design and redesign their products to suit customer needs for the best results during end production.



Functional prototypes created with the Ultimaker 3 allow NoiseAware to test features like design, acoustic performance, and RF transmission for immediate feedback.



Enhanced productivity with functional prototypes in a startup environment enables NoiseAware to discover possible production barriers through design iterations.

About Ultimaker

Since 2011, Ultimaker has grown to become a leading brand, creating accessible, professional desktop 3D printers. The company has offices in the Netherlands, New York and Boston, with production facilities in both the U.S. and Europe. With a growing team of over 200 employees, plus over 24,000 active community members, Ultimaker strives to deliver the highest-quality 3D printers, software and materials, without compromise.

General inquiries: info@ultimaker.com
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