10xBeta is an international team of designers and engineers who together have initiated, accelerated, and commercialized a diverse range of venture-backed and self-funded products. As a fast-moving hardware product design firm, 10xBeta builds products within a broad spectrum of categories—from consumer infant products to medical devices and lifestyle technology.

Company
10xBeta

Industry
Product design, Mechanical/Industrial engineering

Challenge
10xBeta sought an onsite desktop 3D printing solution capable of tightly integrating with its design, CAD, and research activities, to allow for day-to-day prototyping and client communication.

Solution
The Ultimaker 2+ desktop 3D printer offers a level of precision, a range of materials, and ease of use that sets it apart from its peers and makes the process of adapting to Ultimaker solutions a smooth integration for the 10xBeta team.

Results
• Product development schedule optimization
• Expanded product development usage
• Easy onboarding for new staff

10xBeta - Introduction
10xBeta is an international team of designers and engineers who together have initiated, accelerated, and commercialized a diverse range of venture-backed and self-funded products. Noteworthy accomplishments from their considerable output include:

• Spuni, a patented spoon design made possible by additive manufacturing, encourages babies to latch onto, suck, and swallow food from a spoon tailored to suit tiny mouths.

• Products for healthcare created in collaboration with medical school students in the JeffSOLVES program in Philadelphia, as well as with General Sensing (formerly SnifLabs), Timesulin, and The Gynius.

• Custom robotics such as PUMA's BeatBot, "raceable tech," a programmable custom RC smart car powerful enough to match pace with eight-time Olympic gold medalist sprinter Usain Bolt and capable of being tuned via smartphone to act as a pace marker to help other athletes improve their own training.

• Custom LED-illuminated leg bands for the 2,000 pigeons featured in Creative Time's 2016 presentation of Duke Riley's massive public artwork "Fly by Night" in the Navy Yard in Brooklyn, a challenge for both low-cost electronics miniaturization (the bands weighed in at only five grams and had to function for up to three performances) and humane design practices.

“Ultimaker as a device manufacturer has reached the inflection point where its desktop units are perfectly sized to fabricate relevant-sized objects, and their resolution is superior to machines that cost many multiples more.”

— Marcel Botha, 10xBeta Co-Founder and CEO
**Challenge**

A fast-moving hardware product design firm like 10xBeta serves clients working in a broad spectrum of product categories—from consumer infant products to medical devices and lifestyle technology. Given the tough, diverse challenges that arise with each project, selecting an in-house digital fabrication technology that can keep pace with day-to-day prototyping and client communication needs can be like trying to hit a moving target.

**Solution**

10xBeta has experimented with desktop 3D printers for almost a decade now, taking advantage of many technologies and vendors. When they added a cluster of Ultimaker desktop 3D printers to their offices in 2014, the concept of additive manufacturing was not new to them. However, the machines’ level of precision, range of materials, and ease of use set Ultimaker apart from its peers and made the process of adapting to Ultimaker solutions a smooth integration for the team.

**Results**

As CEO Marcel Botha points out, “The industrial additive manufacturing companies missed the point as far as providing what is critical for prototyping. With our Ultimakers, we can finally use 3D printers for experimentation on the fly. The original aim of iterating and rapid prototyping was, at the end of the day, ‘to prototype’—not to produce costly artifacts at each stage. When I print using SLS or high-end FDM solutions, I feel the parts that cost so much to produce are precious—but at the end of the day, the only requirement for the printed parts is that they are something my team and I can look at for five minutes and then throw away. Ultimaker understands and addresses our actual prototyping needs, and we find ourselves eager to continue to invest in their evolving product ecosystem... And we’d rather buy three more Ultimakers than one $9k entry-level ‘industrial’ grade machine.”

<table>
<thead>
<tr>
<th></th>
<th>Traditional model making</th>
<th>Machining/CNC</th>
<th>External suppliers</th>
<th>Ultimaker 3D printers</th>
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</thead>
<tbody>
<tr>
<td><strong>Iterations per project</strong></td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td><strong>Costs</strong></td>
<td>$500 – $1,000</td>
<td>$80 – $10,000</td>
<td>$80 – $500</td>
<td>$10 – $100</td>
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<tr>
<td><strong>(including materials, initial outlay)</strong></td>
<td></td>
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<tr>
<td><strong>Delivery time</strong></td>
<td>3 – 4 weeks</td>
<td>3 days to 4 weeks</td>
<td>2 – 5 days</td>
<td>3 – 24 hours</td>
</tr>
</tbody>
</table>

**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 United States and Europe. With a growing team of over 200 employees, plus over 25,000 active community members, Ultimaker strives to deliver the highest-quality 3D printers, software, and materials, without compromise.

General inquiries: info@ultimaker.com
Find a local reseller: https://ultimaker.com/en/resellers