



OPTITEX

USING 3D TO MAKE ALL ATHLETES BETTER



AT A GLANCE

COMPANY: UNDER ARMOUR
LOCATION: BALTIMORE, MD
WWW.UnderARMOUR.COM

Founded in 1996 by former University of Maryland football player Kevin Plank, Under Armour is the originator of performance apparel and gear engineered to keep athletes cool, dry, and light throughout the course of a game, practice, or workout. Under Armour's mission is to make all athletes better through passion, design, and the relentless pursuit of innovation.

FASTER DECISIONS & BETTER PRODUCTS

Digitization enables the fashion industry to not only do things better and easier, but also to envision completely new things that have never been done before. By redesigning an entire collection at the last minute, there was no time to have enough samples before a FW15 women's sales meeting. With 3D technology, in a few weeks, Under Armour was able to replace physical samples with hundreds of virtual samples - resulting in significant savings, and a reduction of product development time by about 50%. Designers and vendor partners were also able collaborate much earlier to identify problems, improve fit, and make faster decisions to create better products.

REDESIGNING AN ENTIRE COLLECTION WITH VIRTUAL, TRUE-TO-LIFE SAMPLES

Before Under Armour began using 3D, the product development team were limited into how quickly they could see product. They would get a sketch from a designer, build a tech pack, and within a couple of days send that off to a factory, and wait another 3 weeks for a physical sample. As they were re-defining their women's line, Under Armour decided this was the opportunity to try out 3D and see how they could capitalize on its other uses as a development team.

"With 3D, we are able to immediately create a virtual prototype, send that back and forth to a designer, and have immediate conversations about whether or not we like the style of if it should be changed," says Lisa Struble, VP, Apparel Development & Quality. *"We're essentially eliminating the need for a couple of rounds of protos by using 3D. So it's very fast and it's very efficient."*

In less than 8 weeks, the product development team turned up to the sales meeting with hundreds of virtual prototypes that allowed the sales team to visualize the color and print on an innovative, interactive screen. *"You could really see what the product was going to look like even though we had very few physical samples,"* says Struble. *"The time savings really just allowed us to have a sales meeting with beautiful product, when actually most of it was virtual."*



JAMI DUNBAR
VP TECHNICAL DESIGN

"We want to fully utilize 3D. Our purpose isn't to replace the physical garment, but to enhance and bring that opportunity to look at garments sooner, to make decisions faster, and to be able to create product better. ,,"



3D AS AN END-TO-END TOOL

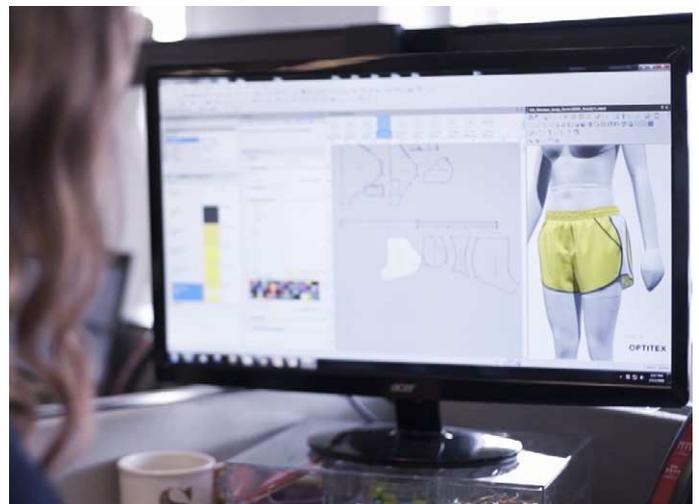
As Under Armour continues to grow and open more global offices, teammates are dispersed. One of the huge benefits of 3D is that it creates additional opportunities for team members to collaborate and work together despite being in different locations. *"We see using 3D as a very holistic end-to-end tool,"* says Jami Dunbar, VP Technical Design. *"A lot of our designers are in NY so this tool is very useful for us to collaborate and work together to be able to bring those designs to life in a really beautiful, aesthetic and directional way."*

Another benefit of working in 3D is the ability to collaborate with designers at an earlier stage in the development process. *The teams can share 3D virtual prototypes and have immediate conversations without having to wait weeks to get a physical sample.*

"We can work together to really understand the proportions, the style, line placements, and overall what we're trying to achieve with the style," says Shannon Moulden, Tech Design Manager. *"We can do all that before we commit to fabrics, or request a proto, or wait for a sample to come back from a factory. So it really just, it makes the whole process more organic."*

MAKING ATHLETES BETTER THROUGH FIT AND CUSTOMIZATION

3D has also allowed Under Armour to make their athletes better with the ability to customize product and fit. By body scanning their high profile assets, they can build a digital avatar and create product that fits them the first time, without having to bring athletes for garment fitting four to five times in their season. Before, it could take almost a year to get a physical fit form made. *"Our athletes want to spend their time training and competing and thinking about their game not standing for hours fitting garments"* says Struble. *"And being able to body scan them and do virtual fittings is a way that we can really help our athletes be better."* Today, there is a much higher approval rate of the first prototype as there is no need to re-design the concept from scratch because the physical sample didn't come in the way they envisioned it would look.



PASSION, DESIGN AND THE PURSUIT OF INNOVATION WITH 3D

Currently, Under Armour are using 3D for product development and design, but are always thinking about how to stay advanced, innovative and grow with 3D. *"Our vision is to build product one time, utilizing our technical designer and our creative designer to work together as one team to ideate, visualize and create product in a very beautiful and realistic way,"* says Dunbar. *"We can then continue to reuse that digital asset for our sales team, e-commerce site, and*

we can take that same digital file and use it in our manufacturing process." Under Armour's brand mission is to make athletes better through passion, design, and the pursuit of innovation, and 3D is the tool that allows them to push forward and make the best product possible. *"The better the technology gets, the faster that it gets, and the more people that adapt to it, the more we're going to be able to use it to make us better, faster and stronger,"* says Moulden.



LISA STRUBLE
VP APPAREL DEVELOPMENT & QUALITY

"3D will change how we develop product in the future. We will be able to have prototypes at our fingertips, to have immediate decisions and discussions with our designers, our line managers, our accounts, and someday maybe even our customers. ५