





## FAST FACTS: ADVANCED AND REALISTIC SIMULATION FOR CONSUMER PRODUCTS

Consumer goods manufacturers must continuously refine and redesign products to improve performance and durability, cut down on parts and reduce manufacturing costs—and ultimately satisfy consumers. By including advanced simulation capabilities in your product development process, you can simulate how new designs will operate in the context of product usage, gauge durability, identify manufacturing constraints and determine the best possible design. Here are the benefits you can expect from adding **3D**EXPERIENCE® Works and SOLIDWORKS® Simulation to your product development toolbox:

- **Adapted to Consumer Goods Specificities:** Whether your company creates bikes, watches, DIY products, helmets or appliances, you have access to multi-domain simulations such as the structural, fluid-flow, plastic injection and electromagnetic analyses required during your design process to meet high expectations from the consumer market.
- 2 Make Better-Performing Products: Advanced analysis capabilities powered by Abaqus® technology allow you to solve engineering and manufacturing constraints, such as working with large deformation generated by rubber or plastics materials or using general contact defined inside a given consumer good, like a watch. Leveraging advanced tool meshing improves results accuracy. Performing durability simulations enables you to develop long-lasting products while enhancing quality.
- **Experience Your Products in Consumers' Hands:** Simulation provides insight into how consumers will use and interact with your products in real-world situations. Some examples are testing a running experience in footwear, simulating bike and helmet impacts or analyzing fluid flow in a food blender. Simulation gives you confidence in your ability to meet consumer expectations.
- **Optimize Resources and Costs:** You can reduce investments in hardware and IT infrastructure thanks to flexible and scalable cloud computing, adapted to consumer businesses of all sizes. Access, visualize, save and manage 3D simulation results from anywhere on any device.
- **5 Capture Knowledge and Know-How:** Many small and medium consumer goods companies rely on physical testing because of a lack of internal expertise in simulation. The cloud-based **3D**EXPERIENCE platform enables you to capture and capitalize on know-how, either from internal or external resources, in order to build standard simulation workflows that are sharable and usable across multiple use cases and product development projects.

## Hear from Consumer Product Companies Succeeding in Simulation:



"SOLIDWORKS saves us time and money because we can iterate quickly on a design, helping us to shorten time to market, meet firm deadlines, and ensure product durability and performance."

– Jeff Davies, Principal Engineer, CamelBak



"Now that we use simulation, by the time that we do go to run a physical test of a finished redesign, we are confident that it is going to work."

– Mathew Weglarz, Lead Engineer and Structural Analyst, Ariens Company

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Ready to make the jump? Contact your reseller today and visit: **SOLIDWORKS.com/Consumer-Sim**