



Levant Power Develops Green Shock Absorber With Autodesk Simulation Software

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Autodesk Clean Tech Partner Program Helps Firm Improve Fuel Economy and Ride Quality

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Levant Power, an innovative developer of energy-harvesting technology, is using [simulation software](#) from [Autodesk, Inc.](#) (NASDAQ: ADSK), to design and develop its regenerative adaptive suspension technology.

Founded in 2008 by a team of MIT engineers, Levant is commercializing its breakthrough GenShock technology that recovers waste energy from a suspension to produce continuous electrical energy to vehicles, boosting fuel economy by one to six percent and simultaneously delivering improved ride handling and comfort. The regenerative valve and control technology is being applied to a range of vehicles including military, trucking, transit bus, rail and passenger cars.

While refining GenShock technology over the past year, Levant obtained [Autodesk Simulation CFD](#) and [Autodesk Simulation Mechanical](#) software as part of its membership in the [Autodesk Clean Tech Partner Program](#) to improve the efficiency of its technology while reducing production costs.

With Autodesk Simulation CFD software, Levant studied their innovative shock absorber earlier, more often and in greater detail -- allowing the company to optimize and validate designs throughout the product development process.

"We previously relied on classical analysis and physical testing, and it resulted in rework and inaccuracies," said Clive Tucker, Levant chief design engineer. "With Autodesk Simulation CFD, we can set up more reliable digital prototypes and obtain more accurate results. The package enables us to seamlessly import and simulate a geometry, allowing us to test various design iterations before the prototyping stage and leading to a more optimal design."

In addition to using Autodesk simulation software for engineering analysis, Levant also uses [Autodesk 3ds Max Design](#) software to accurately show customers how its products perform.

"By utilizing the suite of Autodesk simulation and visualization tools, Levant Power is making rapid progress developing and commercializing its regenerative technology for leading global automotive suppliers and vehicle manufacturers," said Colin O'Shea, Levant modeling & simulation engineer.

Digital Prototyping with Autodesk Simulation Provides Key Insight

Autodesk Simulation CFD software provides comprehensive fluid flow and thermal simulation, extending [Digital Prototyping](#) to applications ranging from electronics cooling to valve design, LED thermal management, thermal comfort and product packaging. In Levant's case, Simulation CFD software allowed them to accurately track metrics such as torque and leakage loss.

Autodesk Simulation Mechanical software also provides Levant with the ability to better and more quickly study complex assemblies with the software's finite element analysis tools for mechanical simulation. The software is particularly helpful for analyzing issues such as deformed parts, according to Levant.

"Autodesk Simulation software offers fast, accurate, and innovative simulation capabilities -- including during upfront stages of the product development process when decision-making is most critical," said [Robert "Buzz" Kross](#), senior vice president, Manufacturing Industry Group at Autodesk. "Companies like Levant Power are taking advantage of these capabilities and developing game-changing technology that can have implications on society for generations to come."

About the Clean Tech Partner Program

The Autodesk Clean Tech Partner Program supports the efforts, innovations and environmental advancements of clean technology pioneers, providing world-class software to design, visualize and simulate their ideas through [Digital Prototyping](#). Clean tech companies in North America, Europe and Japan are invited to apply to receive up to \$150,000* worth of software for only \$50. Access to a collection of Autodesk industry-leading software includes up to five licenses of [Autodesk Product Design Suite Ultimate](#), [AutoCAD Revit Architecture Suite](#), [Autodesk Simulation Mechanical](#), [Autodesk Inventor Publisher](#) and [Autodesk Vault Professional](#) software. Get [more information](#).

About Levant Power

Levant Power is a pioneer in the global automotive ride control business. The company is producing a breakthrough valve and ECU technology, GenShock, which has simultaneous semi-active/actuated ride control with onboard electrical generation. Founded out of MIT by a team of engineers in 2008, the company is growing rapidly and is now working with leading domestic and international manufacturers. GenShock valves significantly improve vehicle handling and ride comfort. Get [more information](#).

About Autodesk

Autodesk, Inc., is a leader in [3D design](#), engineering and entertainment software. Customers across the manufacturing, architecture, building, construction, and media and entertainment industries -- including the last 16 Academy Award winners for Best Visual Effects -- use Autodesk software to design, visualize and simulate their ideas. Since its introduction of AutoCAD software in 1982, Autodesk continues to develop the broadest portfolio of state-of-the-art software for global markets. For additional information about Autodesk, visit www.autodesk.com.

**Value is based on a package of up to five commercial licenses of each application.*

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Stacy Doyle, 503-707-3861

stacy.doyle@autodesk.com