

# Autodesk<sup>®</sup> Inventor<sup>®</sup> Open | Connected | Professional grade



## Make product development with Autodesk Inventor your competitive advantage

Autodesk Inventor is the center of an open and connected product development ecosystem that enables you to make great products with professional grade engineering

#### Facing these issues?

• Product design teams need to increase innovation in existing and new designs while reducing the time to market.

 Designers are interested in moving to a 3D design and engineering solution, but are worried about losing investments in existing DWG<sup>™</sup> design data.

• Designers need to optimize product performance and make accurate design decisions without building physical prototypes.

• Downstream users require rapid creation of production-ready drawings.

• Designers can't easily find and reuse designs.

• Piping and wiring designs take too long to develop.

• Need to design complex parts and assemblies and the tooling required to manufacture them in a single integrated solution.

Learn how Inventor can help you take advantage of professional grade product development workflows to design and build better products in less time.

#### Deliver innovative products faster

Autodesk® Inventor® products provide professional grade engineering solutions for 3D mechanical design, simulation, tooling creation, and design communication that help you take advantage of a professional grade product development workflow to make great products, cost-effectively, in less time.

Autodesk Inventor software is the foundation of the Autodesk® solution for product development. The Inventor model is an accurate 3D digital model that enables you to validate the form, fit, and function of a design as you work, minimizing the need to test the design with physical prototypes.

By enabling you to design, visualize, and simulate your products digitally, Inventor software helps you connect more effectively, reduce errors, and deliver great product designs faster.

#### Design and validate products digitally

With an intuitive design environment for developing initial concept sketches and models of parts and assemblies. Inventor software provides powerful parametric modeling, robust direct editing tools and advanced surfacing modeling capabilities with T-splines. You can automate the

advanced geometry creation of intelligent components, such as plastic parts, steel frames, rotating machinery, tube and pipe runs, and electrical cable and wire harnesses. Inventor software also helps reduce the geometry burden so you can rapidly build and refine digital models that validate design functions and help minimize manufacturing costs.

Traditionally, validating the operating characteristics of a design before it was built meant hiring expensive specialists. But with Inventor, you don't need to be a simulation expert to effectively simulate and optimize designs digitally. Inventor products include easy-to-use and tightly integrated part and assembly-level motion simulation and stress analysis functionality. By simulating stress, deflection, and motion, you can optimize and validate your design under real-world conditions, before the product or part is ever built.





Image courtesy of Briggs Automotive Company Ltd.

#### AutoCAD users: move to professional grade product development with Inventor

With Autodesk Inventor software, you can easily integrate AutoCAD® and 3D data into a single digital model to create a virtual representation of the final product. Inventor software helps you realize the benefits of 3D product development by providing an associative connection to native DWG files so there's no risk of inaccurate translations. Utilizing valuable DWG data with Inventor can help you compete more effectively, service your clients better, and make great products.

#### Create the best design possible

Autodesk Inventor includes shape generator tools that work directly inside of Inventor for the optimization and lightweighting of components. Shape generator allows you to specify loads and conditions components will face and provides an optimized design based on your target weight reduction and geometry requirement.

### Improve design collaboration and communication

Reduce errors and associated engineering change orders before manufacturing by generating manufacturing documentation directly from your validated 3D digital model.

Inventor offers rapid and accurate output of production-ready drawings directly from the 3D model. Inventor product bundles also include Autodesk<sup>®</sup> AutoCAD<sup>®</sup> Mechanical software for designs that require a highproductivity 2D mechanical drafting tool.

Inventor is tightly integrated with Autodesk<sup>®</sup> Vault, enabling the efficient and secure exchange of design data and promoting earlier collaboration between design and manufacturing workgroups.

Different workgroups can manage and track all components of a digital prototype with free\* Autodesk® Design Review softwarethe all-digital way to review, measure, mark up, and track changes to designs enabling better reuse of crucial design data, management of bills of materials (BOMs), and collaboration with other teams and partners.

AnyCAD technology provides an associative connection with STEP, Catia, Solidworks®, NX, PTC® CREO®, Wildfire, Autodesk® Alias® software, and AutoCAD directly to Inventor without file translation. AnyCAD technology enables collaboration in a multiCAD design environment.



Image courtesy of Vimek AB



Image courtesy of Joy Global Inc.

Autodesk Inventor provides professional grade product development workfows enabling you to explore your ideas before they're even built. It's a way for team members to connect and collaborate across disciplines. And it's a way for individuals and companies of all sizes to get great products to market faster than ever before. From concept through design, manufacturing, marketing, and beyond, Autodesk Inventor streamlines the product development process from start to finish.

#### Learn more or purchase

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