Autodesk® Manufacturing Digital Prototyping

Experience It Before It’s Real
Autodesk Digital Prototyping Takes You Beyond 3D Design

The Autodesk Digital Prototyping Solution brings together design data from all phases of the product development process to create a single digital model. This single digital model simulates the complete product and gives engineers the ability to better visualize, optimize and manage their design before producing a physical prototype.

Evolve the Way You Think About Your Design Process
The Autodesk Digital Prototyping Solution enables manufacturing workgroups to create a single digital model that can be used in every stage of production, bridging the gaps that usually exist between conceptual design, engineering, and manufacturing teams. It provides the technology to help manufacturers build fewer physical prototypes, reducing design and production costs.
Best-in-class manufacturers use Digital Prototyping to:

• Build half the number of physical prototypes
• Get to market 58 days faster
• Achieve 48 percent lower prototyping costs
• Drive greater innovation into their products*

Learn more about how the Autodesk Digital Prototyping Solution helps mainstream manufacturers become best-in-class.

Best-In-Class Conceptual Design
Optimize your design process and work digitally from project outset using best-in-class conceptual design tools from Autodesk. Capture ideas digitally—from initial sketches to 3D concept models using Autodesk® AliasStudio™ software—then share those designs with the engineering team using a common file format. Autodesk® Maya® software is a natural partner to Autodesk AliasStudio because it allows designers to easily move their AliasStudio data into Maya. The advanced animation, effects and rendering capabilities of Autodesk Maya help designers create the highest quality photo-real and stylistic still visualizations of their digital prototype.

Facilitate informed and streamlined decision-making with realistic representations of the product created from 3D design data with Autodesk® Showcase™ software. Easily present a range of design options to help reduce the time, cost, and the need for building physical prototypes.

Connect All to the Digital Prototype
Connecting all the workgroups to the digital prototype is the Autodesk® Productstream® family of product data management applications. These modular, scalable, and practical tools enable design workgroups to manage and track all the design components for a digital prototype, access critical design information, and make smarter business decisions. These tools automate the design revision and release processes and manage engineering bills of materials. This shortens production times, increases the ability to leverage standardized design processes, and facilitates better collaboration among design, manufacturing, and vendors.

Integrated 2D and 3D Mechanical and Electrical
Autodesk® Inventor™ software is the foundation for Digital Prototyping. The Inventor model is an accurate 3D digital prototype that enables users to validate design and engineering data as they work, minimize the need for physical prototypes, and reduce costly engineering changes discovered after the design is sent to manufacturing.

Designers can import their Inventor data into Autodesk® 3ds Max® software for advanced rendering and animated visualization of digital prototypes to complement design reviews. These visualizations quickly communicate how the end product will look, behave and function in any context.

The Autodesk Digital Prototyping Solution includes AutoCAD® Electrical software for electrical control system design. The sharing of electrical design information from AutoCAD Electrical with the cable and harness functionality of Autodesk Inventor allows mechanical and electrical teams to work collaboratively on the digital prototype.

*Source: Aberdeen Group, Independent Study conducted in 2006
Autodesk Manufacturing

Autodesk is wholly focused on simplifying the product development process for manufactured products. Autodesk provides a complete, interoperable line of industry-leading software for Digital Prototyping supported by a worldwide network of services and partners. Gain access to technical expertise for implementation, and utilize training and support programs direct from Autodesk to help use your Digital Prototyping software more effectively. Software maintenance programs help you to stay up-to-date with the latest product releases and upgrades for your software. Designed to be deployed incrementally for minimal business disruption, Autodesk tools for Digital Prototyping provide the most effective way to stay ahead of the competition and achieve maximum return on your software investment.