DS SOLIDWORKS

3DEXPERIENCE

SOLIDWORKS® 3D CAD

KEY CAPABILITIES	SOLIDWORKS Standard	MOST POPULAR SOLIDWORKS Professional	SOLIDWORKS Premium
3D CAD DESIGN			
Part and Assembly Modeling Handle all aspects of your part and assembly modeling and transform ideas and concepts into virtual 3D models, regardless of design complexity and size. Leverage specialized tools for sheet metal, weldment, mold, and parametric surfacing.	●	●	●
2D Drawings Create production-ready 2D drawings that are always current, and clearly communicate how to manufacture and assemble your designs.	●	●	●
Productivity Tools Easily analyze, compare, check, and report on your designs.	●	●	●
Design Reuse and Automation Simplify the reuse of existing design data with search, automation, and configuration tools that help you speed up the creation of new designs.	●	●	●
Interference and Clearance Check Before going into production, verify in 2D and 3D that your parts and assemblies will fit, assemble, and operate correctly.	●	●	●
Manufacturability Checks Review your designs for Draft, Undercut, Thickness, and Hole Alignments early in the development process to ensure manufacturability.	●	●	●
Advanced CAD File Import/Export Convert incoming CAD data into the SOLIDWORKS 3D CAD format and export SOLIDWORKS data to other CAD applications using 30+ translators. Share native data with users of older versions of SOLIDWORKS*. Leverage time-saving features such as 3D Interconnect.	●	●	●
Xtended Reality (XR) Exporter Export CAD data for AR, VR, and web-viewing experiences while retaining geometry, appearance, motion studies, display states, and more.	●	●	●
Graphics Performance Utilize the full power of your GPU hardware to speed up viewing and manipulation of your largest designs.	●	●	●

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3D CAD DESIGN

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CAM Programming* Leverage integrated 2.5-axis milling programming capabilities to improve communication, reduce errors and cycle times, and increase product quality.	●	●	●
CAD Libraries Easily find, customize, and share hundreds of thousands of prebuilt industry-standard fastener models and commonly reused CAD data.		●	●
CAD Standards Checking Establish design standards and check drawings (or models) against them to create uniform designs and documentation.		●	●
Automated Tolerance Stack-up Analysis Automatically check the effects of tolerances on parts and assemblies to ensure the consistent fit of components and verify tolerancing schemes before manufacturing your designs.		●	●
Design for Cost Continuously check your designs against cost targets with automatic cost estimation tools fully integrated within SOLIDWORKS 3D CAD.		●	●
Reverse Engineering Recreate designs with the ability to import, edit, evaluate, and create solid geometry from scanned point-cloud and mesh data.		●	●
ECAD/MCAD Collaboration Share, compare, update, and track electrical design data so users can quickly resolve electrical-mechanical integration and collaboration issues.		●	●
SOLIDWORKS File Management Manage project data, control design revisions, and control access to files with SOLIDWORKS PDM Standard.		●	●
Sharing of 2D Drawings and Models Get the power to create, view, share, and control the access to 3D models and 2D drawings in an email-ready format.		●	●
Advanced Surface Flattening Flatten complex, nondevelopable surfaces typically encountered in products made from textiles (like clothing), or sheet metal (like metal stampings).			●
Pipe and Tube Routing Simplify the design and documentation of piping and tubing for a wide range of systems and applications, including machinery, skid systems, and process plant piping.			●
Electrical Cable and Wiring Harness Routing Quickly add cables, wires, and harnesses to your design. Create flattened drawing representations of your 3D cables and harnesses with wire lists, connection information, and bills of materials.			●
Routing of Custom Cross-Section Shapes Route rectangular and round sections that include ducting, cable trays, conveyors, material-handling chutes, and other systems.			●

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RENDERING*			
GPU Rendering — Accelerate the generation of lifelike renderings by harnessing the power of your GPU hardware.		●	●
Artificial Intelligence (AI) Denoiser — Leverage artificial intelligence to eliminate noise from your renders with a single checkbox, dramatically boosting your render speed.		●	●
SIMULATION			
Linear Static Analysis for Parts and Assemblies — Calculate the stresses and deformations of geometry using Finite Element Analysis (FEA) methods, and running linear stress analysis to determine the response of parts and assemblies.			●
Time-Based Motion Analysis — Realistically visualize your product moving throughout its operational cycle world, measure the forces and loads on your design, and use the data to correctly size motors and ensure product performance, quality, and safety.			●
DATA MANAGEMENT AND COLLABORATION IN THE CLOUD*			
Share and Markup in the Cloud — Invite anyone—inside or outside your organization—to view and mark up your 3D designs in the cloud. Getting real-time feedback and iterating on your work is as easy as sharing a link from within SOLIDWORKS, with no download required.	●	●	●
Store and Revise in the Cloud — Utilize secure cloud storage that's purpose-built with CAD relationships and collaboration in mind. You simply save your data to the cloud right from SOLIDWORKS. If you need to work with other designers, you can lock designs to ensure no one overwrites your work, easily manage revisions, and create detailed markups with redline, measurements, and annotations.	●	●	●
Manage and Control in the Cloud — Manage the life cycle of any type of content, such as CAD files, simulation models, and documentation, across disciplines and CAD solutions. Assign tasks, track issues, communicate and coordinate design changes, manage reviews and approvals, and capture decisions.	●	●	●
Collaboration in the Cloud — Collaborate in real time using configurable dashboards; communicate on social communities through comment threads and persistent chat; track progress with Kanban-style task management. Easily search, visualize, and explore SOLIDWORKS and other files directly in your browser, from any device.	●	●	●
Governance in the Cloud — Monitor license usage, manage members, and assign and remove licenses from a single administrative dashboard, lowering administrative overhead.	●	●	●

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TRAINING AND SUPPORT*

Training and Support Get up to speed fast using online training content, a vibrant community, and support from your local reseller.	●	●	●

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Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating virtual twin experiences of the real world with our **3D**EXPERIENCE platform and applications, our customers can redefine the creation, production, and life-cycle-management processes of their offer and thus have a meaningful impact to make the world more sustainable. The beauty of the Experience Economy is that it is a human-centered economy for the benefit of all—consumers, patients, and citizens. Dassault Systèmes brings value to more than 300,000 customers of all sizes, in all industries, in more than 150 countries. For more information, **visit www.3ds.com**.

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