

Cloud Collaboration

Real-Time Collaboration

Collaborate seamlessly with your team using configurable dashboards, social communities, Kanban-style task management, and activity streams. Engage in persistent chat, video calls, and effortlessly search, visualize, and mark up SOLIDWORKS and other files from any device.



Share and Markup

Invite anyone inside or outside your organization to view, share, and mark up your 3D designs in the cloud directly within SOLIDWORKS. Real-time feedback and iteration are as simple as sharing a link, with no downloads required.



Project and Resource Management

Accelerate your time to market with collaborative project planning, monitoring, and execution, connecting your design data with all project members, tasks, deliverables, and communications.



Lean Teamwork

Implement lean principles to reduce operational waste, variability, and enhance meeting efficiency with visual tools to plan, facilitate, and complete objectives.



Cloud Data Management

Secure Storage and Revision Management

Utilize secure cloud storage designed specifically for CAD relationships and collaboration. Save data directly from SOLIDWORKS, lock designs to prevent overwriting, manage revisions, and create detailed markups with redlines, measurements, and annotations.



Lifecycle Management

Manage the lifecycle of all content types, including CAD files, simulation models, and documentation. Assign tasks, track issues, coordinate design changes, manage reviews and approvals, and capture decisions.



Administration Dashboard

Monitor license usage, manage members, and assign or remove licenses from a single dashboard. Stay updated with the latest enhancements easily.



Release Management

Ensure consistent product quality by providing a shared product definition, maximizing data reuse, and reducing product structure complexity.



Product Structure Management

Reduce development time with tools to create, modify, and explore multi-CAD product structures in a single context, making design reviews and changes accessible to all stakeholders.



Advanced 3D Design and Modeling

Parametric Modeling

Create, review, and evaluate 3D models with an intuitive parametric modeling solution integrated with SOLIDWORKS.



2D Drawings and 3D Documentation

Define, organize, and communicate key manufacturing information, such as dimensions, tolerances, and notes, directly from a web browser with combined 2D and model-based solutions.



Freeform and Subdivision Modeling Quickly create organic shapes with an intuitive modeling solution integrated with SOLIDWORKS.	●	●	●
Sheet Metal Design Design components, assemblies, and enclosures using associative parametric sheet metal design capabilities.			●
Mold Design Utilize automated, easy-to-use capabilities for designing mold cores, cavities, and inserts.			●
Weldments Design Create structural members, add plates, gussets, and end caps, and generate a manufacturing cut list with associative, feature-based frame design capabilities.			●

Comprehensive 3D Design and Modeling

Part and Assembly Modeling Transform ideas into virtual 3D models by handling all aspects of part and assembly modeling.	●	●	●	●
Specialized Design Tools Accelerate the design process for sheet metal, plastic, cast parts, weldments, molds, tools, and dies.	●	●	●	●
Production-Ready Documentation Create 2D drawings or utilize automated 3D dimensioning and tolerancing capabilities without drawings.	●	●	●	●
Productivity Enhancements Analyze, compare, check, and report on your designs with ease.	●	●	●	●
3D Component Catalog Access over 50 million components from manufacturers worldwide through our online catalog.	●	●	●	●
Interference Check Ensure parts and assemblies fit, assemble, and operate correctly before production with 2D and 3D verification.	●	●	●	●
Design Reuse and Automation Simplify the reuse of existing design data with tools for search, automation, and configuration, speeding up new design creation.	●	●	●	●
Manufacturability Checks Review designs for draft, undercut, thickness, and hole alignments early in the development process to ensure manufacturability.	●	●	●	●
CAD File Import/Export Convert CAD data to SOLIDWORKS format and export to other CAD applications using over 30 translators.	●	●	●	●
Linked CAD Models Use models saved in other CAD formats directly in SOLIDWORKS assemblies, parts, and drawings while maintaining associativity with the original CAD model.	●	●	●	●
AR/VR Exporter Export CAD data for AR, VR, and web viewing experiences, retaining geometry, appearance, motion studies, display states, and more.	●	●	●	●

ECAD/MCAD Collaboration Share, compare, update, and track electrical design data to resolve electrical-mechanical integration and collaboration issues quickly.	●	●	●	●
Intelligent CAD Libraries Find, customize, and share hundreds of thousands of prebuilt industry-standard fasteners that configure on the fly and assemble automatically in your design.		●	●	●
Design Standards Checking Establish design standards and check drawings or models against them to ensure uniform designs and documentation.		●	●	●
Automated Tolerance Analysis Automatically check the effects of tolerances on parts and assemblies to ensure consistent component fit and verify tolerancing schemes before manufacturing.		●	●	●
Costing and Estimation Monitor designs against cost targets with automatic cost estimation tools integrated within the 3D CAD solution.		●	●	●
Reverse Engineering Recreate designs by importing, editing, evaluating, and creating solid geometry from scanned point-cloud and mesh data.		●	●	●
Advanced Surface Flattening Flatten complex, non-developable surfaces typically found in products made from textiles or sheet metal.			●	●
Pipe and Tube Routing Simplify the design and documentation of piping and tubing for various systems and applications.			●	●
Electrical Cable and Wiring Harness Routing Add cables, wires, and harnesses to designs quickly, and create flattened drawing representations with wire lists and bills of materials.			●	●
Section Routing Route rectangular and round sections for ducting, cable trays, conveyors, and other systems.			●	●

Cloud Immersive Experiences

Training and User Guides Create stunning digital content, including interactive product presentations and technical illustrations, to showcase product values, enable partners, guide use, and win customers.				●
Virtual Experiences Engage customers with 3D experiences, from virtual reality to the web, by leveraging virtual twins.				●
Photorealistic Rendering Easily create and share photorealistic renderings of your product to promote designs and deliver stunning content for customer engagements.				●

Advanced Rendering and Visualization

<p>Basic Animation and Visualization Move assemblies by dragging components or using motors, create CAD videos, and generate basic CAD renderings and 3D walk-throughs.</p>	
<p>GPU Rendering Utilize the full power of your hardware with GPU rendering capabilities.</p>	
<p>AI Denoising Leverage artificial intelligence to eliminate noise from your renders with a single checkbox, dramatically boosting render speed.</p>	
<p>Full Animation Suite Create compelling stories with your CAD data using the full animation suite. Easily animate exploded views, appearance properties, cameras, and more to produce photo-quality videos.</p>	
<p>Immersive Virtual Reality Create immersive virtual reality experiences with 360-degree cameras and interactive output.</p>	
<p>Advanced Lighting Techniques Simulate lighting at specific locations and times, and create sun study animations.</p>	
<p>Physics Simulation Create realistic and immersive content with rigid-body and vehicle-driving physics simulations.</p>	
<p>Simulation</p>	
<p>Linear Static Analysis Calculate stresses and deformations using Finite Element Analysis (FEA) and run linear stress analysis to determine part and assembly responses.</p>	
<p>Motion Analysis Visualize your product's movement throughout its operational cycle, measure forces and loads, and use the data to size motors correctly and ensure product performance, quality, and safety.</p>	
<p>Structural Analysis in the Cloud Explore the impact of structural and thermal loads on parts and assemblies using cloud-based Finite Element Analysis (FEA).</p>	
<p>Motion Analysis in the Cloud Understand the impact of assembly motion on your design with cloud-based motion simulation. Study kinematics and dynamic behavior to check the range of motion, component interference, and performance.</p>	