SOLIDWORKS 3D CAD
PRODUCT MATRIX

	SOLIDWORKS Premium	SOLIDWORKS Professional	SOLIDWORKS Standard
Ease of Use	X	X	X
Learn Fast: In-Context and Toolbar Menus, Command Search, Built-In Tutorials, Searchable Help Documentation	X	X	X
Work Fast: Hot Keys, Customizable Commands, APIs	X	X	X
Get Help Fast: Local and Worldwide Support Services	X	X	X
Part and Assembly Modeling	X	X	X
3D Solid Modeling	X	X	X
Conceptual Design	X	X	X
Assembly Structure Planning: SOLIDWORKS Treehouse	X	X	X
Direct Model Geometry Modification	X	X	X
Large Assembly Design	X	X	X
Advanced Surface Design	X	X	X
Sheet Metal Design	X	X	X
Weldments	X	X	X
Plastic Part Design	X	X	X
Mold Design	X	X	X
2D Drawings	X	X	X
Automatic Drawing View Creation	X	X	X
Automatic Drawing View Updates	X	X	X
Drafting Standards: ANSI, ISO, DIN, JIS, BSI, GOST, GB	X	X	X
Manual and Automated Dimensioning and Tolerancing	X	X	X
Annotations and Symbols	X	X	X
Automatic Bill of Materials (BOM), Exploded Views, Balloon Notes	X	X	X
Hole Tables, Weld Tables, Pipe Bend Tables, Cut Lists	X	X	X
Sheet Metal Bend Notes	X	X	X
Automated Creation of Radial/Cylindrical Exploded Views	X	X	X
Design Reuse and Automation	X	X	X
Find Your Data (SOLIDWORKS Search)	X	X	X
Design Automation (DriveWorksXpress)	X	X	X
Part and Assembly Configurations	X	X	X
Reuse 2D and 3D CAD Data	X	X	X
3D CAD Models from Suppliers (3DContentCentral.com)	X	X	X

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Animation and Visualization	X	X	X
Move Assembly by Dragging Components	X	X	X
Move Assembly with Motors	X	X	X
CAD Videos	X	X	X
Basic CAD Rendering (RealView)	X	X	X
3D Walk Through/Fly Through	X	X	X
Interference Check	X	X	X
Collision and Interference Detection	X	X	X
Hole Alignment and Thread Checks	X	X	X
Collaborate and Share CAD Data	X	X	X
Read Printed Circuit Board Data as 3D Parts (IFC)	X	X	X
Import/Export Over 30 CAD Formats	X	X	X
Print directly to 3D printers: AMF and 3MF formats	X	X	X
MCAD to AEC: Prepare and export to AEC applications	X	X	X
3D Models for CAD/CAM Integration with CAM Partners	X	X	X
View eDrawings® Files	X	X	X
3D Dimensioning and Tolerancing (Model Based Definition)	X	X	X
2D DXF®/DWG® Data	X	X	X
Maintain and Update Existing 2D Drawings - edit and view DWG® files in DraftSight	X	X	X
2D to 3D CAD Conversion Tools	X	X	X
Convert 3D Solid Parts to Sheet Metal	X	X	X
Intellectual Property Protection (Defeature)	X	X	X
Design Review Markup and Viewing (Large Design Review)	X	X	X
Advanced CAD File Import	X	X	X
Interactive Feature Recognition and Conversion	X	X	X
Automatic Feature Recognition and Conversion	X	X	X
Basic Analysis Tools	X	X	X
Part Environmental Impact Analysis	X	X	X
Part Structural Analysis	X	X	X
Basic Flow Analysis	X	X	X
Productivity Tools	X	X	X
Power Selection Tools	X	X	X
Symmetry Check	X	X	X

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Copy Feature Info into Other Features (Feature Paint)	X	X	X
Find and Replace in Drawing	X	X	X
Design for Manufacturing	X	X	X
Thickness Analysis	X	X	X
Geometry Check for CAM	X	X	X
Compare Parts and Drawings for Changes	X	X	X
Rules-based Manufacturability Checks (DFMXpress)	X	X	X
Draft and Undercut Analysis	X	X	X
Sheet Metal Checks and Flat Pattern	X	X	X
SOLIDWORKS Visualize Standard	X	X	
Must be on Active Subscription	X	X	
CAD Libraries	X	X	
Over One Million Standard Fasteners and Components (Toolbox)	X	X	
Beam, Bearing, and Cam Design Wizard	X	X	
Automatic Assembly of Fasteners and Components	X	X	
Automatic Task Scheduling and Batch Processing	X	X	
Design for Cost & Cost Estimation	X	X	
Compare Manufacturing Costs	X	X	
Automated Manufacturing Cost Estimation	X	X	
Customizable Manufacturing Settings	X	X	
Output Cost Report	X	X	
ECAD/MCAD Collaboration (CircuitWorks)	X	X	
Import/Export of Printed Circuit Board (PCB) Designs	X	X	
Automatic Electrical Component Assembly	X	X	
Two-Way Data Exchange: ECAD to MCAD - MCAD to ECAD	X	X	
IDF, ProStep (IDX) or PADS (*.ASC)	X	X	
PCB Outlines, Keep-Out Areas, Maximum Heights	X	X	
Filter Display for Clarification	X	X	
Compare Board Designs for Differences	X	X	
Design Change Notes	X	X	
Advanced Photorealistic Rendering (PhotoView 360)	X	X	
Photo Quality Images and Animations	X	X	
Control Camera View, Lighting, Materials, Textures	X	X	
CAD Standards Checking	X	X	
Verify Designs against Company Standards	X	X	
Automatically Correct Non-Conforming Issues	X	X	

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Customize Design Check Rules	X	X	
Automated Tolerance Stack-Up Analysis (TolAnalyst)	X	X	
Worst Case and RSS Maximum/Minimum	X	X	
Identify Highest Contributing Tolerances	X	X	
Automatic Update of Analysis when Design Changes	X	X	
SOLIDWORKS File Management	X	X	
User and Group Access Rights	X	X	
File Vaulting	X	X	
Secure Check-in and Check-out	X	X	
Automated Revision Control	X	X	
Reverse Engineering (ScanTo3D)	X	X	
Import, Edit, Evaluate, and Create Solid Geometry from Point Cloud and Mesh Data	X	X	
Import Adobe® Illustrator® Files	X	X	
Import Image Files and Convert Raster to Vector Data	X	X	
eDrawings® Professional	X	X	
Create and Publish eDrawings Files	X	X	
Allow Measurement in eDrawings Files	X	X	
Enable Markup of eDrawings Files	X	X	
Exploded Views Support for eDrawings Files	X	X	
View Assembly Animations	X	X	
Password Protect Intellectual Property	X	X	
Motion Analysis	X		
Kinematic and Dynamic Analysis	X		
Inputs: Forces, Springs, Dampers, Gravity, Contact, Bushings	X		
Outputs: Displacement, Velocities, Accelerations, Body Loads, Joint Forces	X		
View/Publish Animations, Graphs, Reports	X		
Structural Part and Assembly Analysis	X		
Inputs: Variable Forces/Pressures, Full Restraint Sets, Connectors, Gravity, Contact, Materials	X		
Outputs: Factor of Safety, Stress, Displacement, Strain	X		
View/Publish Animations, Graphs, Reports	X		
Life-Cycle Assessment (LCA) for Environmental Impact: SOLIDWORKS Sustainability	X		

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Routing of Pipes and Tubes	X		
Create Detailed Piping Systems	X		
Create Flexible or Rigid Tubing Lines	X		
Customizable Library of Piping Components	X		
Automatic Assembly of Hangers and Supports	X		
Output Tube Bend Data for Manufacturing	X		
Cut Length Calculations Automated for BOM	X		
Automatic Routing Option for Pipes and Tubes	X		
Minimum Bend Radius Check for Tubes	X		
Output of PCF files for ISOGEN® piping software	X		
Routing of Electrical Cabling and Wiring Harnesses	X		
Create Detailed Electrical Cable and Wiring Harnesses	X		
Run Rigid or Flexible Electrical Conduit Segments	X		
Conduit	X		
Ribbon Cable	X		
Wire Lengths Automatically Calculated	X		
Automated Harness Flattening for Manufacturing	X		
BOM and Wire Cut Lists	X		
Automatic Routing Using Imported "From-To" Connection Data	X		
Mounting Hardware, Splices, Connectors, Insulation, Looms, Heat-Shrink Tubing, Cable Ties	X		
Routing of Rectangular and Other Sections	X		
Advanced Surface Flattening	X		
Assembly Level Cost Roll Up	X		