SolidWorks 3D CAD Product Matrix

	Feature	Standard	Professional	Premium
	SOLIDWORKS 3D CAD Create sophisticated part and assembly designs quickly and efficiently with SOLIDWORKS 3D design software. Powerful, easy-to-use design capabilities combined with a range of tools for drawing creation. Create Parts of Sheetmetal Bend components, Weldment structures, Surface models and Core and Cavities for Molds.	✓	✓	✓
1	**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	✓	✓	✓
2	**2D Drawings** Create production-ready 2D drawings that are always current, and clearly communicate how to manufacture and assemble your designs.	✓	✓	✓
3	**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.	✓	✓	✓
4	**Interference Check** Before going into production, verify in 2D and 3D that your parts and assemblies will fit, assemble, and operate correctly.	✓	✓	✓
5	**Design for Manufacturing (DFM)** To ensure your product can be manufactured, SOLIDWORKS provides 3D tools for reviewing your design early in the development process. It is much easier and less costly to correct issues found during the design stage than correcting them during manufacturing planning or after your design is in production.	✓	✓	✓
6	**Productivity Tools** Easily analyze, compare, check, and report on your designs.	✓	✓	✓
7	**Advanced CAD File Import/Export and 3D Interconnect** 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.	✓	✓	✓

8	**Xtended Reality (XR) Exporter** Export CAD data for AR, VR, and web-viewing experiences while retaining geometry, appearance, motion studies, display states, and more.	✓	✓	✓
9	**CAD Libraries (SOLIDWORKS Toolbox)** Easily find, customize, and share hundreds of thousands of prebuilt industry-standard fastener models and commonly reused CAD data.		✓	✓
10	**Design for Cost (SOLIDWORKS Costing)** Continuously check your designs against cost targets with automatic cost estimation tools fully integrated within SOLIDWORKS 3D CAD.		✓	✓
11	**ECAD/MCAD Collaboration (CircuitWorks)** Share, compare, update, and track electrical design data so users can quickly resolve electrical-mechanical integration and collaboration issues.		✓	✓
12	**CAD Standards Checking (Design Checker)** Establish design standards and check drawings (or models) against them to create uniform designs and documentation.		✓	✓
13	**Collaboration with eDrawings Professional** Use eDrawings® software to increase collaboration, accelerate your design process, and increase productivity by viewing SOLIDWORKS 3D models and 2D drawings in an email-ready format. eDrawings Professional allows users to quickly and accurately view, measure, and mark-up designs which improves communication between designers, manufacturers, and customers		✓	✓
14	**Automated Tolerance Stack-Up Analysis (Tol Analyst)** 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.		✓	✓
15	**SOLIDWORKS File Management** Manage project data, control design revisions, and control access to files with SOLIDWORKS PDM Standard.		✓	✓
16	**Reverse Engineering (ScanTo3D)** Recreate designs with the ability to import, edit, evaluate, and create solid geometry from scanned point-cloud and mesh data.		✓	✓
17	**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.			✓

18	**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.			✓
19	**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.			✓
20	**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.			✓
21	**Advanced Surface Flattening** Flatten complex, nondevelopable surfaces typically encountered in products made from textiles (like clothing), or sheet metal (like metal stampings).			✓
22	**Rectangular and Other Section Routing** Route rectangular and round sections that include ducting, cable trays, conveyors, material-handling chutes, and other systems.			✓