

# SOLIDWORKS AND AUTOMATION

## SOLIDWORKS ENHANCEMENTS THROUGH THE YEARS

For over a quarter of a century, **SOLIDWORKS®** has been committed to providing the best design solutions for designers and engineers. Since the beginning, every software enhancement was designed to do one thing: make life easier for users so they can focus on what they do best.

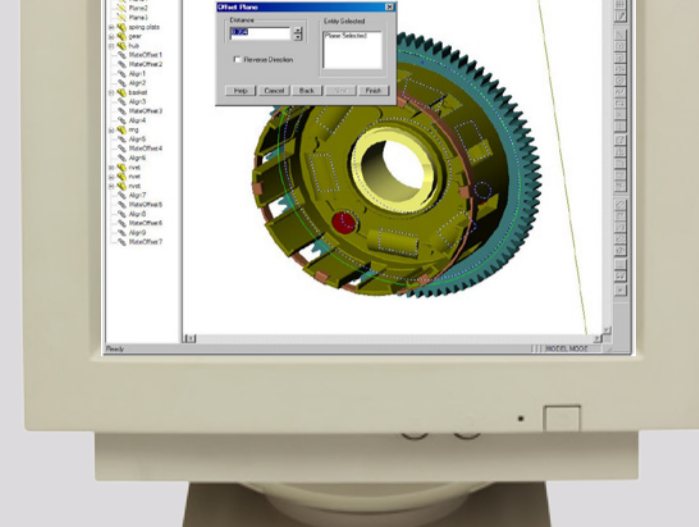
Here's a snapshot of how **SOLIDWORKS** design solutions have evolved over the years, and a glimpse at what the future holds thanks to AI, machine learning, and feedback from users like you.



**1996**

**SOLIDWORKS begins** an annual tradition of introducing massive enhancements. It started with in-context assembly modeling, dynamic assembly modeling, the ability to drag and drop parts between assemblies, and more.

**SOLIDWORKS 95** hits the market. The familiar interface, built on Microsoft Windows, cuts software training time from three months to three days. From day one, SOLIDWORKS 3D CAD enhancements have been driven by user feedback.



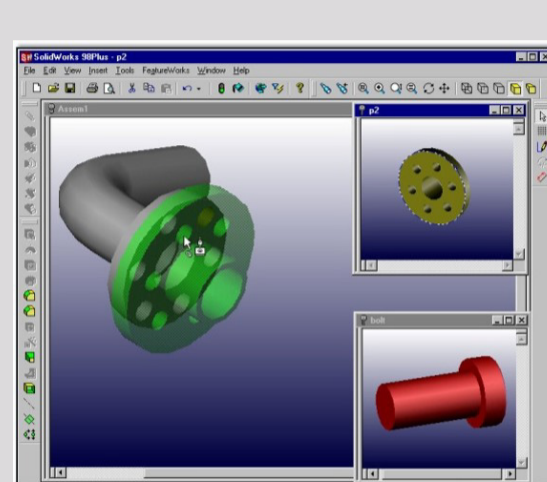
**1997**



**SOLIDWORKS is acquired by Dassault Systèmes**, opening the door to future software enhancements powered by its sister brands' technologies.

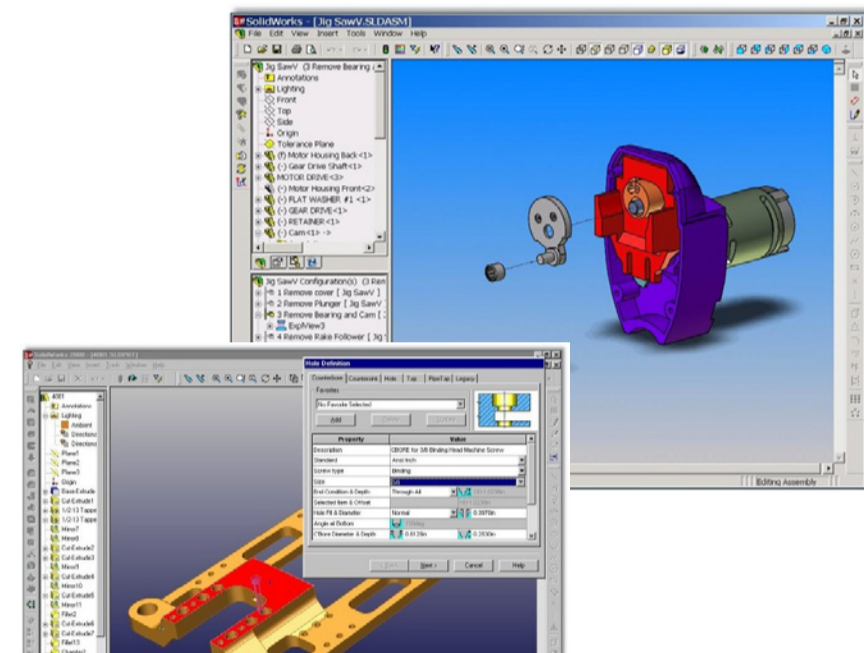
**A new, snappy mating method—Smart Mates**—is added to SOLIDWORKS 3D CAD. Now users can automatically add one or more mates to a component while it's being added to an assembly.

**1998**



**2000**

**SOLIDWORKS introduces the Hole Wizard**, allowing users to create and customize various types of holes.



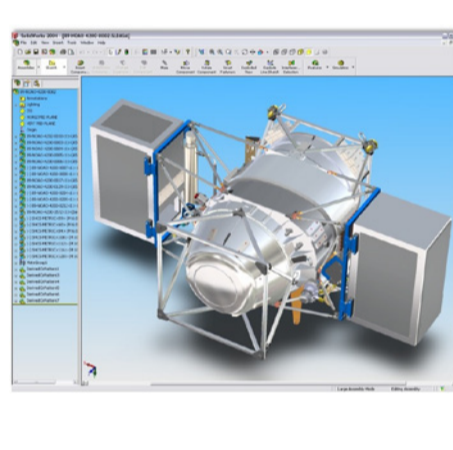
**2002**

**3D ContentCentral** launches as a free online directory of downloadable, supplier-provided 3D CAD parts for SOLIDWORKS (and other CAD) users.



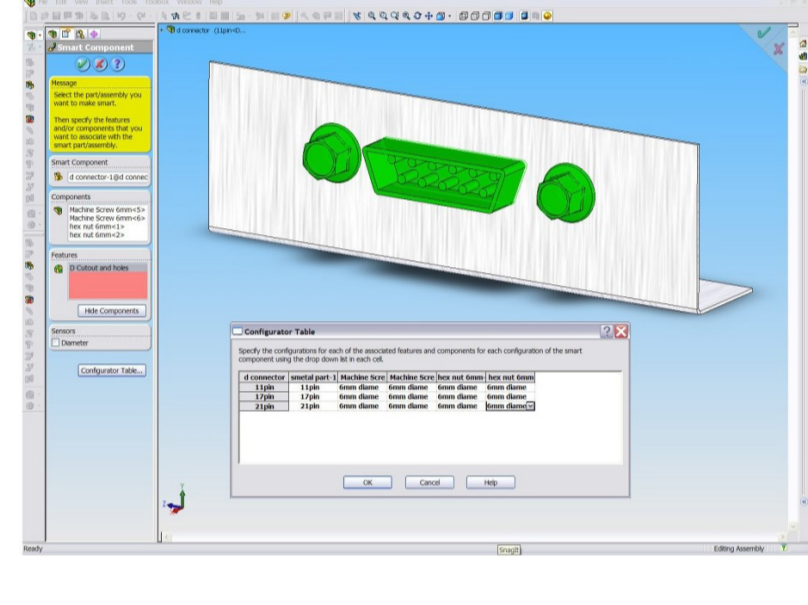
**2003**

**Multi-Body Part Modeling** debuts, bringing the concept of body manipulation, such as patterning and mirroring bodies, to all SOLIDWORKS users.



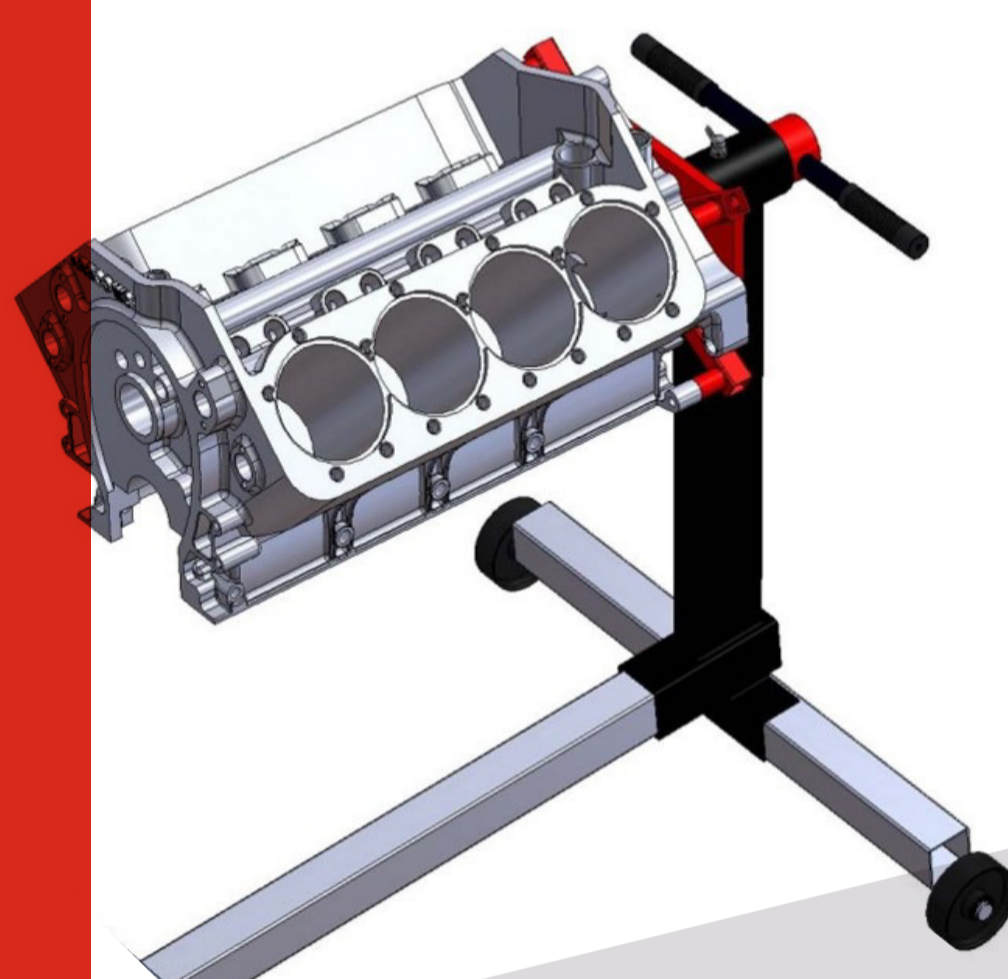
**2007**

**The Fully Defined Sketch** tool provides the ability to calculate which dimensions and relations are required to fully define sketches, or selected sketch entities.



**2009**

**Direct Editing** allows for point and click adjustments to 3D model geometry.



**2011**

Reviewing large assemblies gets a big upgrade from **Large Design Review**.



**2012**

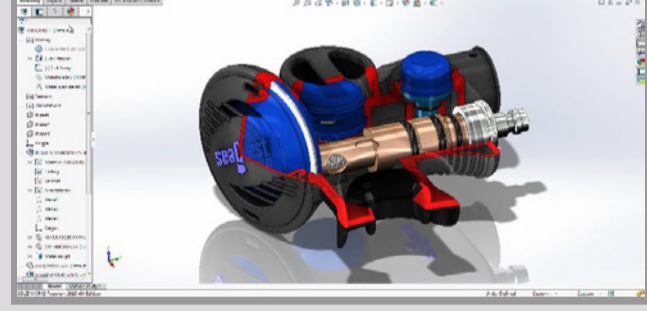
**Dassault Systèmes launches the 3DEXPERIENCE platform**, a cloud-based business and innovation platform to provide organizations with a holistic, real-time vision of their business activity and ecosystem.



**New UI** speeds up the design process and emphasizes streamlined workflows between SOLIDWORKS products.

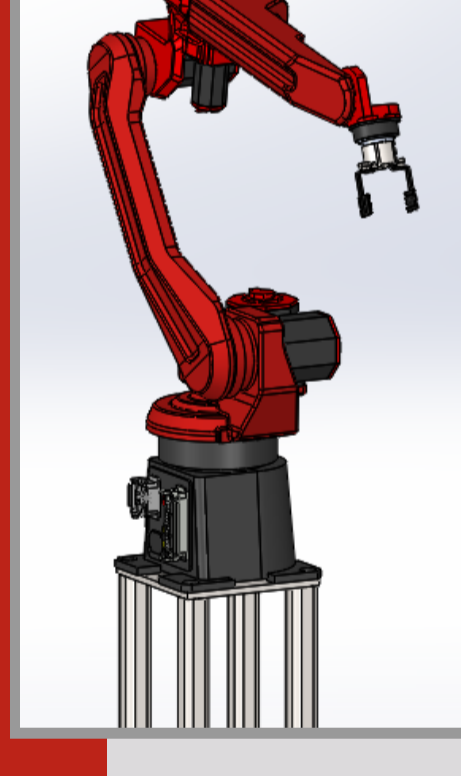
**2015**

**UI enhancements** saves users 20% of their time on mouse gestures and clicks.



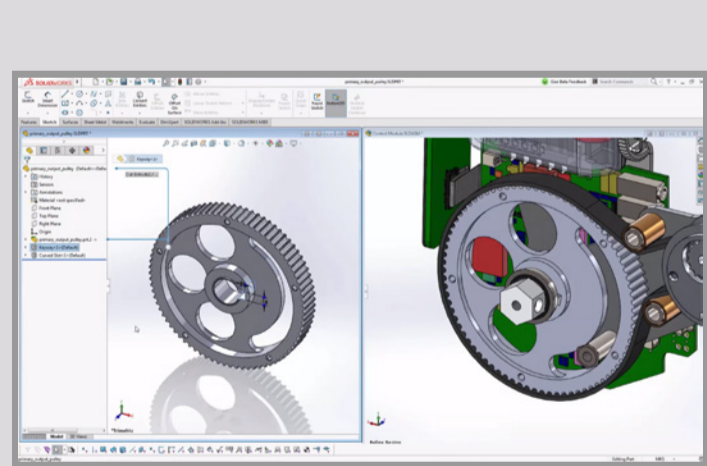
**2016**

**Mate Controller** enables manipulation of specific mates that control degrees of freedom for a design, making it much easier to align components.



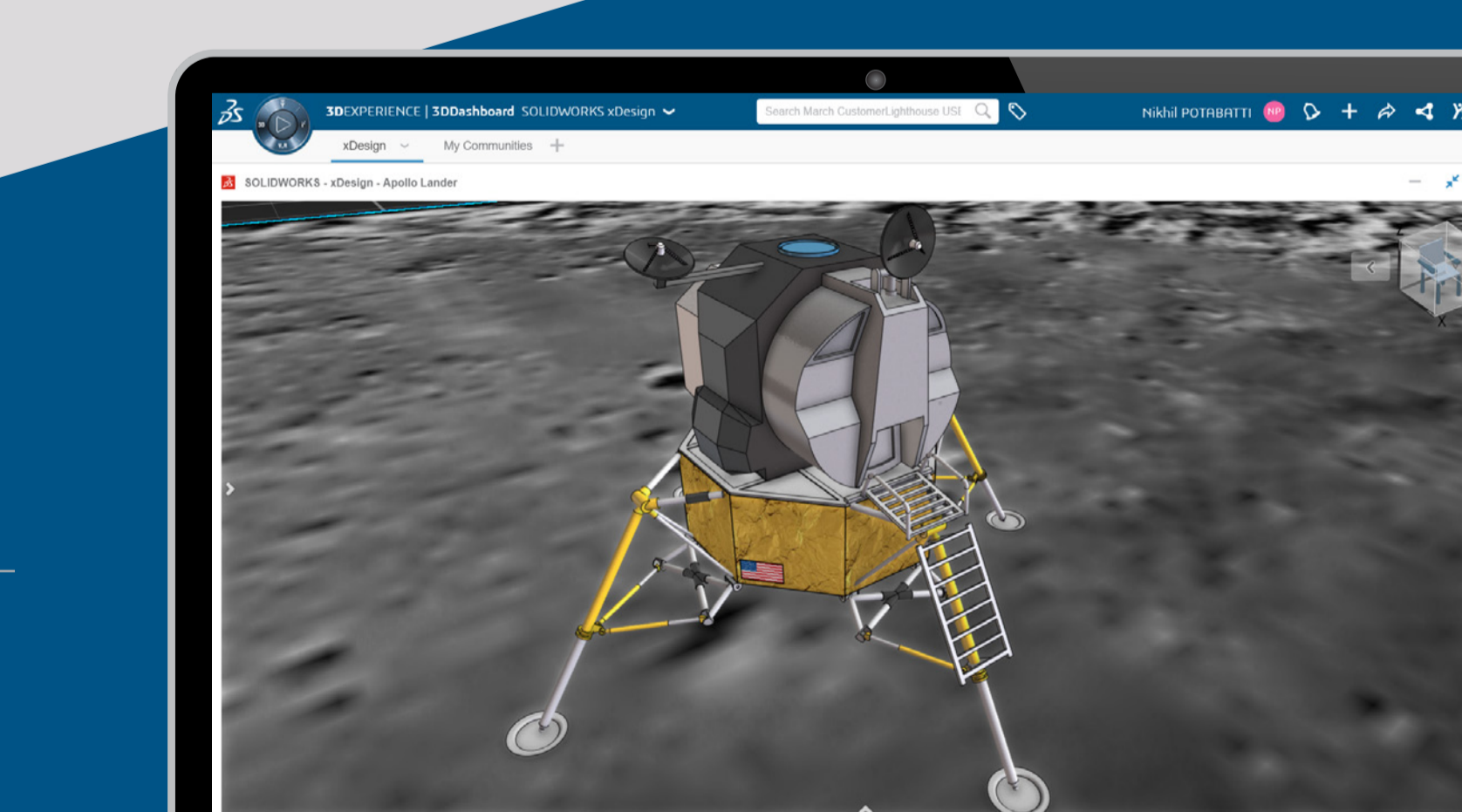
**2017**

**3D Interconnect** lets SOLIDWORKS 3D CAD users work directly with CAD from other software without importing—saving time and reducing manual processes.



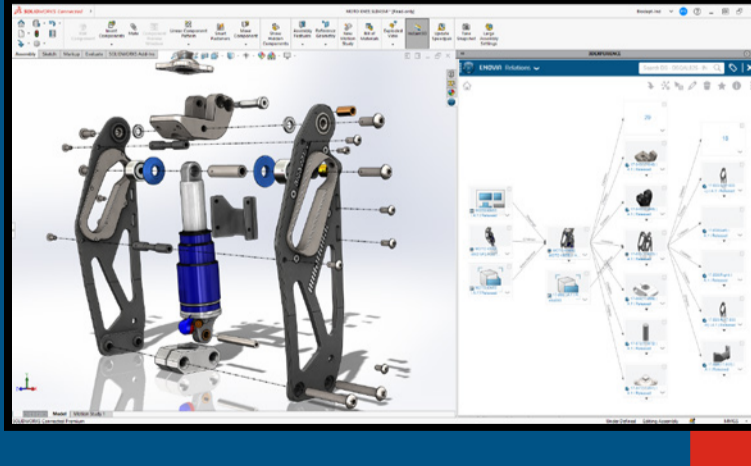
**2018**

**SOLIDWORKS officially releases xDesign**, an entirely online, browser-based parametric design tool created with many popular UI enhancements found in SOLIDWORKS 3D CAD and constantly evolving AI and machine learning technologies found in the Design Assistant.



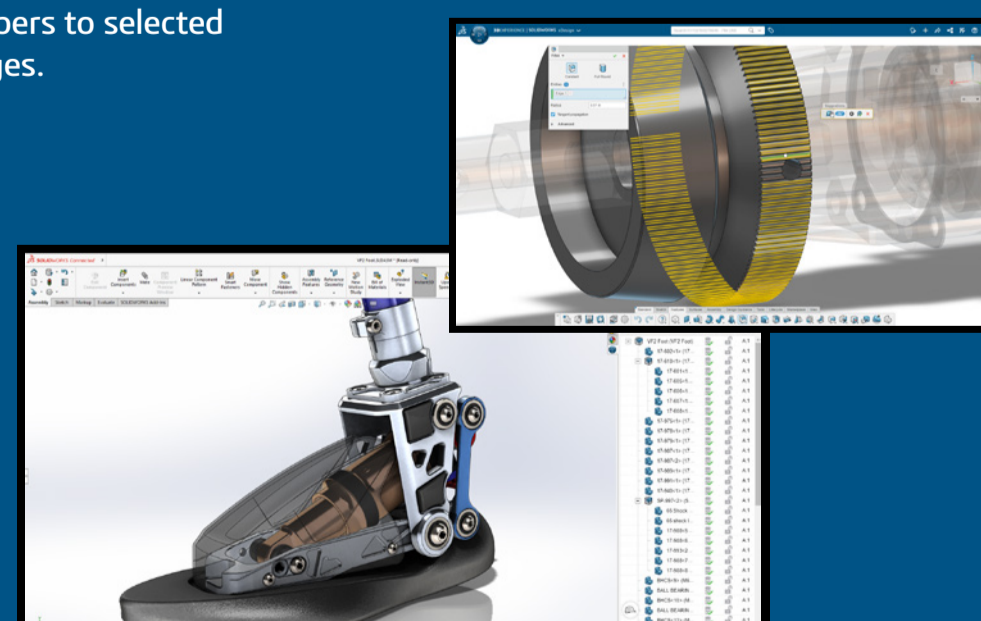
**2020**

**SOLIDWORKS 3D CAD** becomes fully integrated into the 3DEXPERIENCE platform with the release of 3DEXPERIENCE SOLIDWORKS.



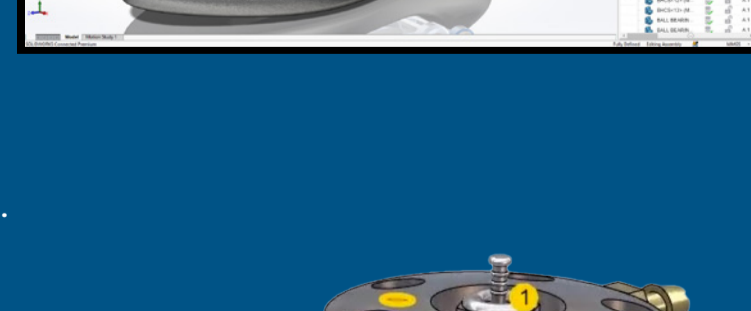
**2020**

**Selection Helper** is added to xDesign, and the new browser-based design tools xFrame and xSheetMetal. Selection Helper allows users to quickly select edges with similar characteristics for fillet, chamfer, and other corner operations, greatly reducing time and missed selections during the selection process. For frame design, it provides similar members to selected segments, curves, or model edges.



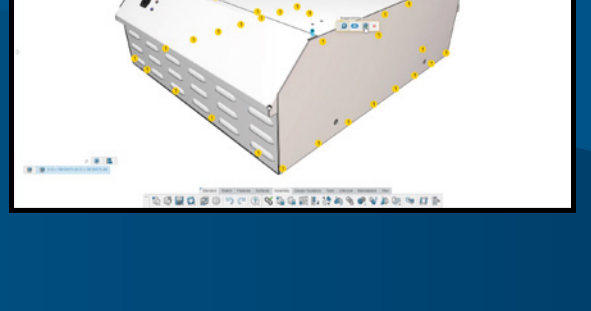
**2021**

**Mate Helper** is added to xDesign. It suggests similar locations to replicate selected components with similar mates.



**2022**

**Smart Mates** is added to xDesign. An AI-enhanced upgrade from 1998, Smart Mates automatically mates components, creating fully restrained mates by dragging and dropping a selected component.



**2023**

**AND BEYOND:**

**SOLIDWORKS and the 3DEXPERIENCE**

platform will continue to evolve. With new enhancements merging the UX and features users love with new AI and machine learning technologies, SOLIDWORKS design tools will continue to increase efficiencies and allow users the freedom to create however they choose.

