



THE ENGINEER'S CAD PERFORMANCE CHECKLIST

Evaluate how your CAD tool supports real-world design work.



Relying on a CAD system is a big commitment — one that shapes how you think, create, and collaborate every single day. It has to keep pace not only with your products, but with your growth as an engineer or designer.

This checklist helps you step back from the day-to-day and examine whether your current or potential CAD tool truly supports your process, both in the quick decisions you make today and the long arc of development ahead.

1. CORE MODELING PERFORMANCE

Ask yourself: Does your CAD system keep up with your designs or slow them down?

- Robust parametric, direct, and hybrid modeling functionality

- Efficient design, management, and performance of large, complex assemblies

- Fast rebuilds and feature updates, efficient sketching and constraint styling

- Easy drafting and documentation, including BOM and assembly instructions from 3D

- Reusable design libraries and templates

2. SPECIALIZED DESIGN CAPABILITIES

Consider your design environment: Can your CAD tool handle your industry-specific needs?

- Sheet metal, weldments, surfacing, electrical, and mechatronic design tools

- Comprehensive DFM toolkit, including manufacturability checks and feedback

- Convenient configuration, design table, and automation options

- Support for generative design and/or simulation-driven workflows

- High performance with complex assemblies and interactions



3. INTEROPERABILITY & COLLABORATION

Great design doesn't happen in isolation.

- Secure, web-based 3D design review and data sharing
- PDM & data storage options that suit your local/cloud/hybrid needs
- Change management, revision tracking, version control, and design reuse tools
- Seamless collaboration with downstream manufacturing & simulation teams
- Common tools & formats (error-free import/export) with supplier and customers
- Powerful & well-documented API for business systems integrations

4. PRODUCTIVITY & USER EXPERIENCE

Your CAD environment should feel intuitive, not like a workaround.

- Customizable UI and shortcuts
- Context-sensitive tools and design assistants (incl. AI)
- Powerful macros and scripting
- Built-in learning tools and command search

5. COMMUNITY & SUPPORT

A strong professional ecosystem helps you grow beyond the model.

- Wide adoption and availability in your industry
- Active user community and learning resources
- Reliable technical support & added reseller value (if applicable)
- Training paths and certifications for skill advancement
- Rich marketplace of certified third-party add-ons



CAD SOLUTION SCORING

Rate each category from 1-5 and note where your current or potential CAD system excels or holds you back.

CATEGORY	SCORE	NOTES
Core Modeling Performance	___ / 5	
Specialized Design Capabilities	___ / 5	
Interoperability & Collaboration	___ / 6	
Productivity & User Experience	___ / 4	
Ecosystem & Support	___ / 5	

TIP: The best CAD solution combines strong performance and stability with a broad, connected ecosystem. Tools that evolve with you — not against you — deliver the most value long-term.

WHY THIS MATTERS

Engineering time is expensive. Every minute lost to slow rebuilds, broken references, or poor collaboration impacts delivery, innovation, and competitiveness.

The right CAD tool isn't just "good enough". It empowers your team to create faster, with fewer barriers, and with more confidence in every design decision. Tools that are mature, well-supported, and integrated across the engineering ecosystem provide both reliability and long-term scalability.

To learn more about our product development solutions, visit www.goengineer.com.

