



Top reasons machine design companies choose Autodesk



Create breakthrough innovations with CAD for machine design

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Current state

Today, machine design companies are struggling to bring new designs to market in a competitive timescale, against headwinds of disruption in the supply of materials and components and the hiring (and retaining) of skilled labor.

In our recent report “[2023 State of Design & Make](#)”, 76% of Autodesk design and manufacturing respondents agreed that the future growth of their companies will depend on digital tools.

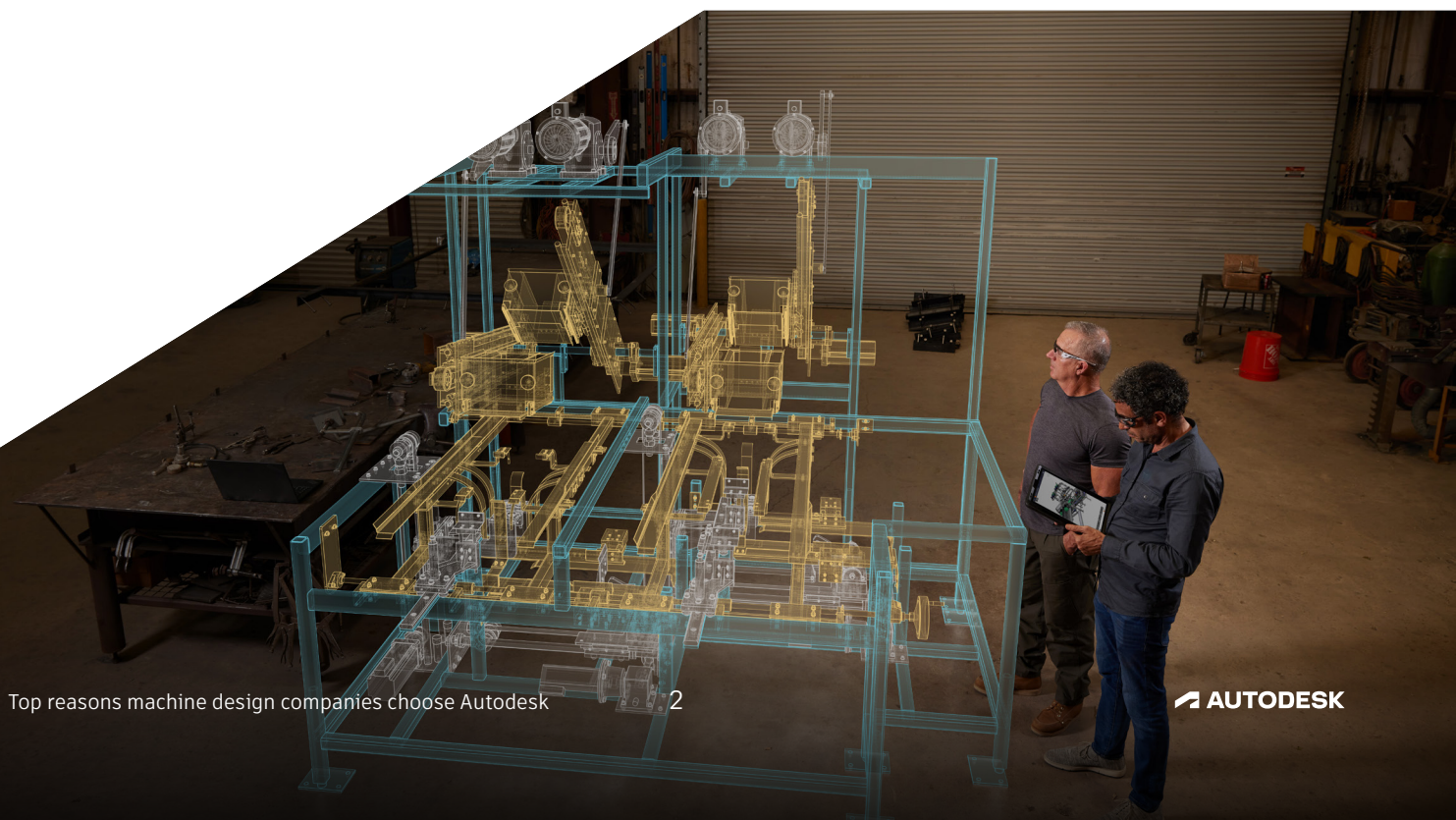
Using connected and integrated software tools, machine design companies can become more agile to better respond to the fluctuating market. Digital transformation includes automating processes to release capacity for innovation—so companies can focus on providing higher quality products and services to their end customers in a reduced timescale.

Respondents from design and manufacturing said the top benefits of digital transformation are:

- Reduced costs
- Launching of products or services more quickly
- Simplifying planning and making better business decisions

The value of Autodesk

Only Autodesk offers a subscription-based collaboration solution for machine design, with access to your data on any device at any location, and a collection of desktop and cloud applications that cover the entire design, validate, and manufacture lifecycle from concept to customer.



Top reasons machine design companies choose Autodesk

Improve time to market

Investing time to comprehend your market, evaluate concepts, and streamline designs for manufacturing efficiency is time well spent. In fact, skipping these steps could result in products coming to market without a good expectation of their commercial success.

But spending too long evaluating ideas can add cost to the development process and could lead to your competition beating you to market, allowing them to grab market share and gain a foothold as the leading brand.

Balancing the quality and speed of the design engineering process is hard and has been exacerbated by disruption in the supply chain and a difficult labor market.

Autodesk design automation tools help reduce the time your team spends on repetitive or non-value-add workflows. This frees up time for the tasks that really add value—to create innovative products that exceed your customers' expectations while minimizing design cycle time.

71% of design and manufacturing respondents plan to invest in technology to improve project outcomes.

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“Using iLogic results in more time for engineers and designers to think about new product development and innovation. We’ve shown our internal departments that they can create a new model in two hours instead of three weeks—depending on the complexity of the system, they can cut engineering time anywhere from 30% to 80%. That makes it much easier to meet customers’ needs.”

Dutt Thakar, Senior Design Engineer, GEA

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Increase product development agility

Today, product design companies using a disconnected combination of spreadsheets, email, and paper-based workflows are struggling to scale their operations and deliver successful products to market.

As data becomes increasingly siloed, companies experience a loss of productivity and an increase in waste as the data moves between silos. Crucial decision makers lack insight into the health of the company and its projects because data is too difficult to collate.

Autodesk's solutions for data and process management can significantly reduce the amount of time your team spends on non-value-added tasks, such as reporting or documenting the handover between processes. This reduction in workload can help increase trust within the team and improve agility by freeing up team members to focus on more important work. As a result, your team's overall capacity can be greatly improved, allowing them to work more efficiently and effectively.

Having insights into project data enables management to stay up to date on the project's progress without impeding work. This, in turn, helps management make better-informed decisions earlier in the process when they are most impactful.

72% of design and manufacturing respondents plan to invest in data management and analytics.

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“I think what Autodesk did was open our eyes to how we design and how we can link design and manufacturing. Where we had ‘silos’ of activity going forward, we now actually have a combined operation.”

Iain Crosley, Managing Director, Hosokawa Micron
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Expand product offerings

More than 25% of total revenue within design and manufacturing organizations comes from the launch of new products. The market trend is toward connected or “smart” products that use cloud services to deliver enhanced value to the customer.

By continuously collecting and communicating data throughout their entire lifecycle, smart products can provide valuable insight into customer activities. This enables organizations to better understand their customers’ requirements to make informed decisions on how to improve existing offerings or when to establish new product lines.

Furthermore, smart products can also offer support services that can lead to increased revenue and customer satisfaction.

Autodesk design and engineering solutions support design automation and collaboration to build on customer insights, develop product strategy, and design smarter products.

72% of design and manufacturing respondents plan to invest in new product development over the next three years.

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“Using integrated solutions like the Product Design & Manufacturing Collection allows us to reduce our design time by half.”

Assaad Hani, Business Analyst, Technica International

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Expand and diversify services

A product's success is not determined entirely on launch. Successful product lines are backed by data and insight to determine viability in the market.

To monitor viability throughout design development and maintain the trajectory toward a successful outcome, design data needs to be current, correct, and available across the organization.

After launch, data availability, transparency, and trust can help service and after-sales departments solve customer issues, provide servicing or spare part strategies, and ensure customer success with training and consultancy.

The design data created during product development is at the beating heart of successful companies, providing the foundation data needed to populate business systems such as PLM, MRP, and ERP.

Autodesk supports the secure, permission-controlled sharing of data via the cloud allowing access anywhere, and on any device. Autodesk Platform Services is a collection of cloud-hosted API's allowing data to be synchronized across business systems for insight and evaluation.

73% of design and manufacturing respondents plan to invest in product and/or service innovation over the next three years.

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“The flexibility provided by the Product Design & Manufacturing Collection, with the use of virtual reality, allows verifying the assembly on the field, taking advantage of the exploded information and components integrated in the ERP. The process becomes more practical, easy to assemble and simple to transport in standard containers.”

Carlos Torregrosa, Senior Vice President, Frumecar

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Reduce environmental impact

Autodesk design and manufacturing customers are leading the way in some sustainability actions. These include the proportion of respondents whose organizations have:

41% Decreased waste from production and/or used more recycled materials.

35% Designed products considering environmental impact.

33% Developed or invested in more energy-efficient processes or machines.

Incorporating environmental considerations into your design process can be beneficial in terms of sustainability and cost savings, as well as improving customer satisfaction. It's important to gather information on the potential impact of your designs early on to make informed decisions.

Gathering input on the environmental impact of your designs can assist you in integrating sustainability into your decision-making process right from the beginning stages of design development. Decreasing the impact of your product can enhance customer satisfaction and decrease both product and operating expenses.

When considering the environmental impact of a product, it is important to assess its entire lifecycle, from the sourcing of raw materials to production, usage, and eventual disposal. Today, more and more companies are recognizing

“Simulations are essential for the development process. The feedback we get from them is invaluable for optimization. If we were to put out a turbine that broke down in normal weather conditions, our prospects as a venture company would vanish in an instant. At the same time, we can't wait 10 years to see if our specifications hold up long-term.”

Atsushi Shimizu, Founder and CEO, Challengeenergy
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the importance of sustainability and are investing in it throughout the entire lifecycle of their products, rather than just aligning with sustainability policies as a way to reduce costs.

Autodesk's advanced technologies for generative design, manufacturing design, and simulation help reduce material usage and make sustainable choices. And through collaborations with partners such as [Makersite](#), Autodesk customers can evaluate risk from cost, carbon, and material selection to make more sustainable design choices earlier.

Autodesk's Design and Make Platform

Companies worldwide are facing a rapid evolution in business trends and practices, from the way people work to the way supply chains operate. Demographic pressures, shifting consumer priorities, and demand for sustainable solutions are creating challenges across every industry. Traditional siloed tools and ways of working are no longer sufficient to meet these needs. Therefore, we are witnessing a shift towards cloud-connected and integrated software solutions and data-driven approaches to address today's challenges.

Autodesk brings the cross-industry and cross-discipline expertise to help you embrace and thrive in this new world. We've shown that we set the precedent in solutions and ecosystems that transform processes and deliver value.

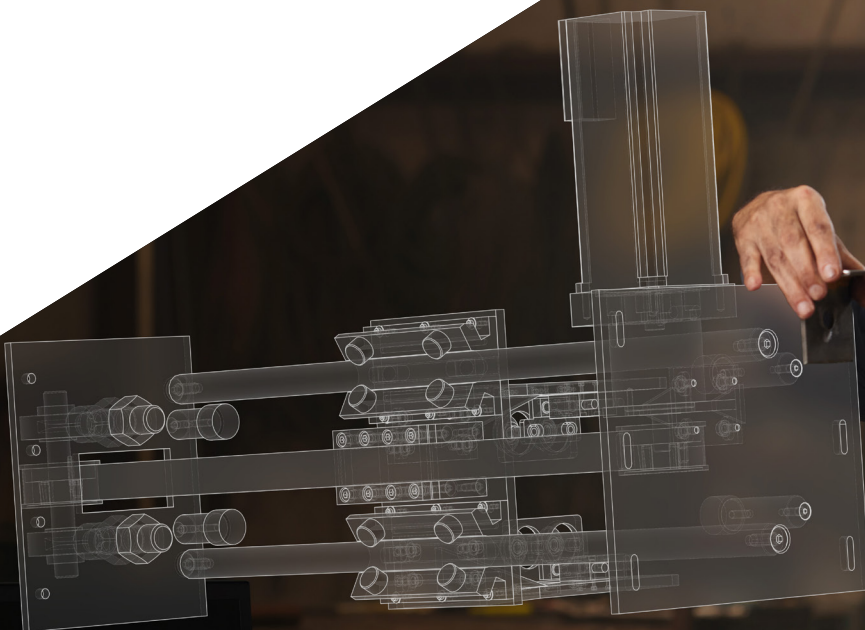
The Autodesk design and make platform connects teams, tools, and workflows throughout the project lifecycle. We unlock the value of data, guiding our customers through their digital transformation and providing real-time insights and automation so they can work faster, make better decisions, and deliver better outcomes.

The result? New and better ways of designing and making, and a better world designed and made for all—a world that is more equitable, accessible, and sustainable.

Ready to get started?

To learn more about machine design with Autodesk, visit our solution center.

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