



YOUR ESSENTIAL GUIDE TO LAUNCHING A HARDWARE STARTUP

Get your product development right from the start with
the SOLIDWORKS for Startups program



IT STARTS WITH YOU

Every startup begins with an idea. An idea that could disrupt industries and redefine experiences we took for granted. But there's nothing simple about taking that idea and growing it into a successful business.

Developing a successful product means solving design issues, building a team, prototyping, and testing. But there's also so much more: getting investors on board, keeping them excited about your product's potential, and finding your first clients. And sometimes there are bumps in the road that threaten to derail the whole process—unexpected failures, prototypes that don't work the way they should, or friction with teams working in different places on complex design challenges.

What can you do to boost your chances of success? Face these challenges head-on with technologies that speed up and improve your design process—as well as help you secure funding at every stage. You can vastly reduce your reliance on expensive physical tests to get to market faster, and create gorgeous, persuasive investor presentations to get the money rolling in from those very first trade shows. And you can adopt the tools to work seamlessly with global talent on sophisticated designs.

Getting to a launch, and beyond, starts with setting yourself up for success. This is your guide to the solutions you need to do just that.

SOLIDWORKS AND STARTUPS

SOLIDWORKS, once a tech startup itself, has a long history of supporting hardware startups. It started by providing free **SOLIDWORKS® 3D CAD to qualifying startups**. Over the years, its portfolio offering has expanded, and today, the SOLIDWORKS for Startups program delivers **industry-leading engineering software a startup founder may need to turn their napkin sketches into physical products**.

At SOLIDWORKS, we love and understand startups. We get that “Hardware is hard!” and we aim to help early- to mid-stage hardware startups that are working on creating a physical product to get to market faster.

“*SOLIDWORKS is doing a great job of helping people in grassroots, helping people get in early and build a company, like I did.*”

—Josh Shires, CTO, MOUS



GET STARTED FAST

Add new apps and capabilities on the go

SOLIDWORKS allows you to **deploy and start designing within hours**. And the cloud-based **3DEXPERIENCE** platform provides easy access to 3D design sharing, markup, storage, and collaboration tools that save you valuable time and allow you to focus on what matters—innovating and running your startup!

We scale with you. You can't outgrow the **3DEXPERIENCE** Works solutions as they scale with your needs and business. Quickly add new apps, configure, and train as you go. Easily add capabilities like simulation and rendering to keep pace with your business development.

*“The **SOLIDWORKS** for Startups program does two incredible things to help accelerate the growth of early-stage companies. First, they remove barriers by providing access to world-class design and collaboration software. Second, they give us a venue to network and share resources with other founders who understand the unique challenges of launching hardware products.”*

*—Lia Winter, CEO and Co-founder, Winter Innovations
Inventor of EasyWhip™*

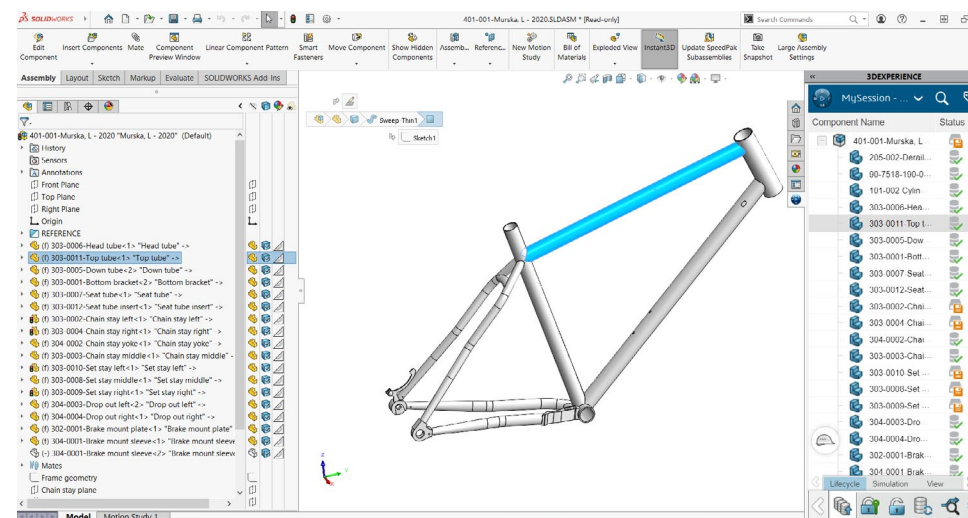
GETTING TO MVP

The minimum viable product—or first mock-up—is an essential achievement for every hardware startup, but the initial design and engineering steps can take months or sometimes years.

SOLIDWORKS and the **3DEXPERIENCE** platform can speed up these early development phases to provide early proof of concept. Steps that typically take months can be accomplished in weeks. You can test concepts earlier on and get early feedback with capabilities like integrated design and simulation. They also allow you to show investors something persuasive with credible, compelling simulations and visual mock-ups with more advanced styling and engineering.

Pässilä Bicycles is a growing cycling company based in Nopankylä, Finland. With the **3DEXPERIENCE** Works solutions, Pässilä Bicycles has cut the time required to take a design to prototype from three months to three weeks, despite the fact that the company was constantly adding new aesthetic features and frame components. “The key to eliminating so much time from our development cycle is having a more efficient and productive method to collaborate,” CEO Markku Hautamäki stresses. “Whenever our designer finishes

a design, others on our team, including me, add features and suggest changes before we release the design to prototype,” Hautamäki continues. “In the past, we reviewed 2D drawings, made markups, passed the drawings, and updated the design for further collaborative review, a process that took about three months. With the **3DEXPERIENCE** platform, we can now fetch the 3D design from the cloud and collaborate instantaneously, enabling us to finalize a design for prototyping in three weeks instead of three months.”



STAY LEAN

Stay in control of your budget

- Cut down on early hardware expenses. Shift resources to cloud computing and add more when you need them.
- Hire only the people you can't do without. Shift a big part of the burden of server maintenance, upgrades, platform operation, and cybersecurity off your shoulders.

NASKA robotics is leveraging the 3DEXPERIENCE platform to complete research and development of its RockFarm robotic system for the mineralization of carbon dioxide to fight the effects of climate change.

“Because our design tool operates in a browser and our data infrastructure is in the cloud, we’ve avoided the heavy upfront capital investment in hardware that startups have historically faced.”

—Dr. Tobias Brett, CEO, NASKA



SCALE YOUR PROCESSES

Get stronger as you grow

- Set up scalable processes to stay on top of each phase of business development. Build in project management, schedules, and end-to-end visibility.
- Add seats and licenses quickly for new team members.
- Start small, think big. Adopt a solution that grows with your business, with scalable industry-leading tools and applications for every aspect of product development.

“When we started the company, it was just four of us working out of the Greentown Labs technology incubator using SOLIDWORKS design software. But as we grew and continued to advance the technology, we realized that we would need product data management and product lifecycle management tools to continue to support growth.”

—Dave Johnson, Co-founder and CEO, Dexai Robotics

Dexai Robotics is revolutionizing the food industry through the development of Alfred, a robotic sous-chef that helps restaurants and commercial kitchens boost productivity while addressing many operational challenges specific to food service businesses.

“As we started growing the hardware team, we needed reliable CAD storage, and the traditional data management solutions are built around expensive IT paradigms with server rooms and yearly software updates. After thoroughly researching potential solutions, I discovered the 3DEXPERIENCE platform. I was specifically attracted to the 3DEXPERIENCE platform because it does not require servers or IT staff, and it integrates so well with SOLIDWORKS.”

—Justin Rooney, Hardware Engineering Team Lead, Dexai Robotics



SOURCE GLOBAL TALENT

Work with anyone, anywhere

- Hire the best people for the job. Remove barriers to collaboration.
- Keep designers, engineers, marketing, sales, and management on the same page. Keep all project data and models up-to-date with a single source of truth.
- Take presentations and CAD models with you. Show clients and investors up-to-date content on a tablet or mobile device.
- Add freelancers and external suppliers to your team with global cloud access. Stay in control of access rights so you can securely share content with internal and external collaborators.

These days we're not all working in the same office. Your design team might be in California, your engineering team in Korea, and your web design team in Poland.

The new normal is the flexibility to work from anywhere without skipping a beat. You can't afford downtime if you're working remotely, and you can access mission-critical data securely in an investor meeting or on the factory floor.



GET INVESTORS AND CUSTOMERS ON YOUR SIDE

3DEXPERIENCE Works solutions include a suite of rendering applications that are fully integrated with your CAD. These are a simple way to create stunning visuals for events and investor presentations, including detailed digital mock-ups and photorealistic product views.

Feature Highlights

- Photorealistic mock-ups
- Interactive storytelling
- Interactive 360° views
- Explosions to display product layers

- Detailed technical illustrations
- Persuasive product staging

Urban Farms design indoor vertical farming systems that are fully automated and aspire to make high-quality, low-cost produce affordable to everyone.

“With **3DEXPERIENCE Works**, we can develop these systems, prototype them, and then scale them into our full-scale models. This helps us present really effectively so the investors know exactly what we’re designing and to what they’d be putting their money towards.”

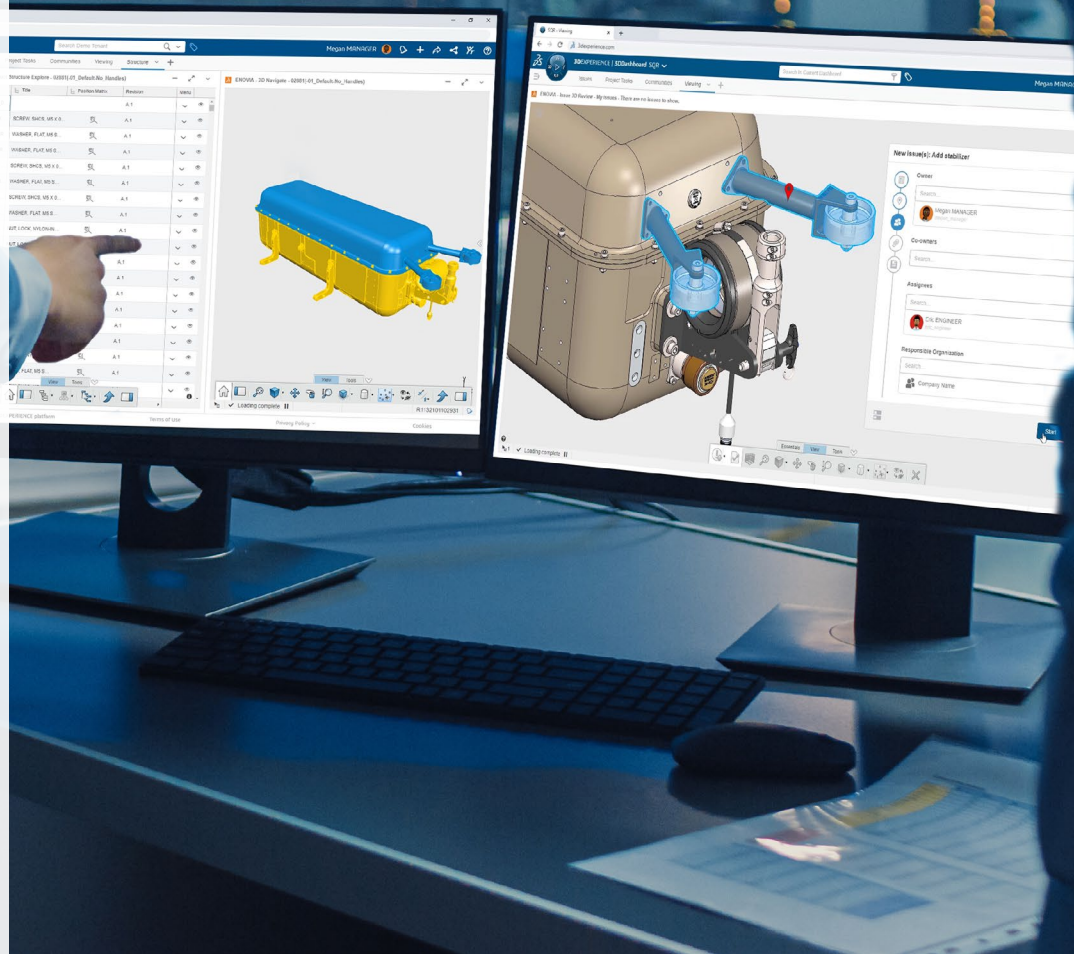
—Christian Malijan, Mechanical Design Engineer, Urban Farms

AGILE PRODUCT DEVELOPMENT

Lean and agile product development is vital for startups that want to deliver truly innovative products and experiences. You need a product innovation process that balances the layers of complexity involved in developing a new transformative experience with your need to minimize risks and maximize resources. To get it to market successfully, on time, the first time. Without a unified system to seamlessly move a concept from design to engineering and beyond, unnecessary friction is introduced at each stage of the development life cycle. Sometimes all it takes is a small bit of resistance—an omission of input, a versioning error, or a manual hurdle—to stop even the best idea in its tracks.

“If no one ever broke the rules, then we'd never advance.”

—Simon Sinek, Author and Founder of The Optimism Company





THE PLATFORM APPROACH

The new industry gold standard is a platform approach that lets you build and customize your product development ecosystem. The **3DEXPERIENCE** platform lets you easily connect your team, your clients, and any external collaborators, like suppliers, marketing, or design agencies.

A key benefit of the platform approach is the ability to integrate design, simulation, data management, manufacturing, and marketing in a single ecosystem. **Digital continuity saves time and eliminates costly mistakes.** Team members can work on the same CAD model handoffs in parallel or one after another, no handoffs required. Keep your data up-to-the-minute and ensure usability across applications without file conversions or versioning errors.

SIMULATION-DRIVEN DESIGN WITH MODSIM

Integrated modeling and simulation (ModSim) allows engineers to fully experience the product and its behavior in the early design phases, relying on technologies that can accurately predict, compare, and simulate multiple product behaviors. Instead of relying on extensive physical prototyping and testing, designers can optimize their concepts virtually, before the first prototype. Cross-disciplinary teams can work together more efficiently to contribute their expertise to each aspect of the design. Conditions of operation, manufacturing materials, and processes are taken into account from the beginning. It's a paradigm shift in design optimization, **allowing startups to shave months to years off their time to market.**



TACKLE ANY DESIGN CHALLENGE WITH SOLIDWORKS

SOLIDWORKS provides powerful, yet easy-to-use 2D and 3D product development solutions accessible to any business. SOLIDWORKS solutions are trusted by leading engineers and designers to create, collaborate, and deliver innovative product experiences.

Focused on enabling users with powerful design workflows, the next generation of SOLIDWORKS browser-based and mobile-ready applications also brings leading-edge capabilities, such as artificial intelligence, machine learning, and generative design, to every designer. True to its mission to democratize 3D design, SOLIDWORKS continues to empower its passionate community: millions of students, educators, makers, professionals, and lifelong

learners who create cutting-edge products and develop countless world-changing innovations.

3DEXPERIENCE Works extends the value of SOLIDWORKS by leveraging the cloud-based **3DEXPERIENCE** platform to provide a single, unified, collaborative environment, enabling everyone involved in product development to contribute to the innovation process.

When every stakeholder has real-time access to the right tools and information, business can increase collaboration, improve productivity, and accelerate innovation.



SCALABLE GROWTH

You already know scalability is key: You have to create processes and structures that can grow with you. Doing more means hiring more people, building new servers, buying new software licenses. All these steps can cause bumps in the road at critical stages of growth.

How do you build scalability when it comes to your team, your IT, and your workflow? We built the SOLIDWORKS for Startups program with the goal of offering agility and scalability across domains.



Start Small

Set up with minimal hardware and software costs



Move Forward

Switch capabilities on and off for each product development phase



Hire Talent

Easily add seats when you add new team members



Think Global

Source the best talent and work with anyone, anywhere



Keep Growing

Add servers without needing to build or maintain them yourself



Power Up

Easily purchase new applications and cloud credits

HOW TO APPLY

For early- to mid-stage hardware startups, that meet the acceptance criteria, the SOLIDWORKS for Startups program provides easy access to SOLIDWORKS solutions and apps on the cloud for three years at nominal cost. Design, develop, and deploy faster with SOLIDWORKS for Startups.



***Your startup needs to meet the following acceptance criteria to qualify:**

- Designing and building a physical product with an aim to sell it in the market
- Less than \$1M in revenue
- Not more than five years old

The program is **not** open to current SOLIDWORKS customers, service providers, engineering or design firms, consultants, and contract manufacturers. Each application is carefully evaluated prior to approval.

APPLY NOW

Get started with the SOLIDWORKS for Startups program today.
Visit www.solidworks.com/startups to apply and learn more.

Our **3DEXPERIENCE®** platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3DEXPERIENCE** Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating 'virtual experience twins' of the real world with our **3DEXPERIENCE** platform and applications, our customers push the boundaries of innovation, learning and production.

Dassault Systèmes' 20,000 employees are bringing value to more than 270,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit www.3ds.com.



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