



**3DEXPERIENCE®**

# SOLIDWORKS EDUCATION

INNOVATIVE LEARNING FOR DESIGN  
AND PRODUCT DEVELOPMENT



# POWERFUL, EASY-TO-USE, INTUITIVE EXPERIENCE

## 3D DESIGN AND MORE WITH SOLIDWORKS EDUCATION PROGRAM

In today's competitive job market, CAD professionals don't just design—they simulate, innovate, visualize, and communicate—to advance new ideas and their careers. The SOLIDWORKS® Education Program provides powerful, engaging, hands-on software to understand and develop designs for the real world. The integrated 3D software, curriculum, and lessons make design development easy to learn, easy to teach, and exciting to use.

### **Give your students a career advantage**

SOLIDWORKS Education Program offers an extensive suite of proven tools—engineering design, mechanical and flow simulation, sustainable design, electrical, documentation, visualization—in one, integrated, easy-to-learn software package.

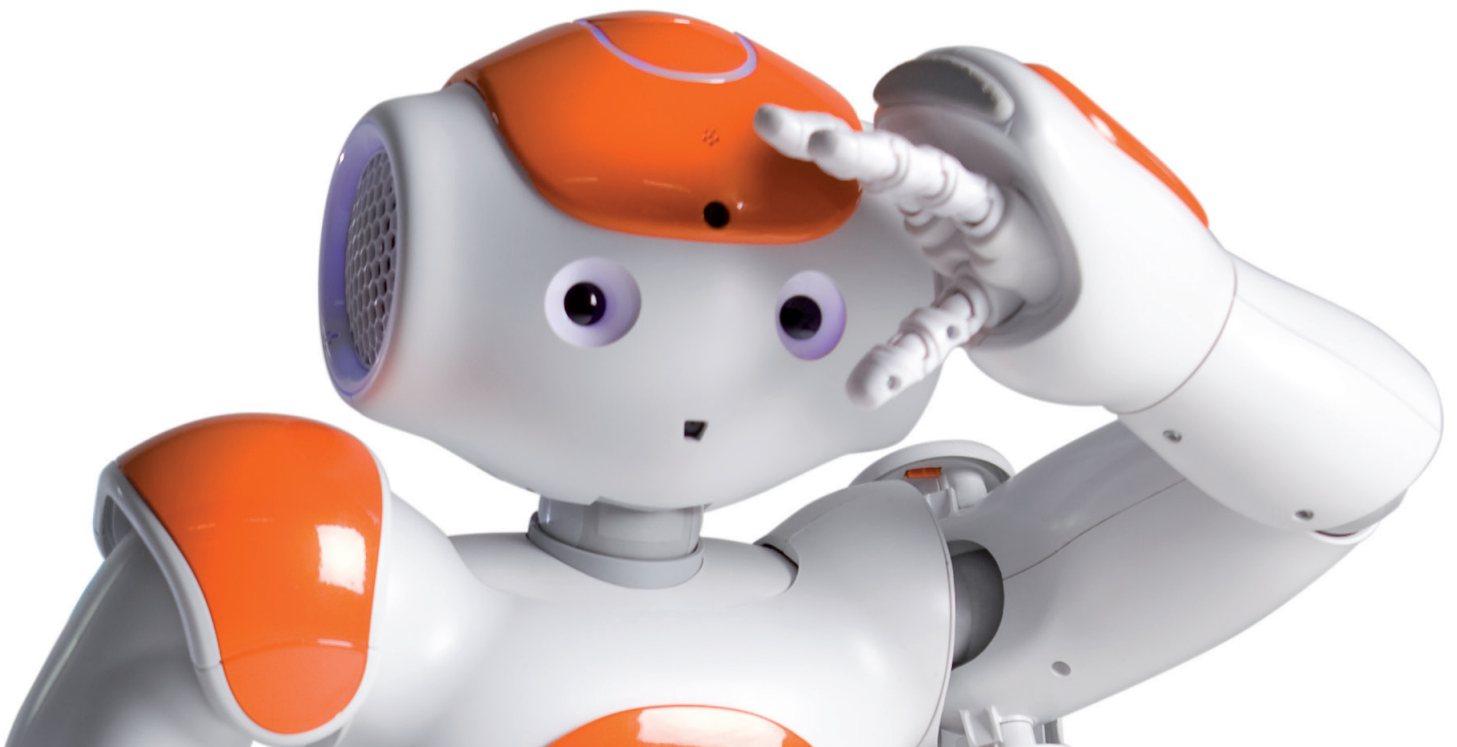
**For Educators** – Enhance student learning with tailored curriculums and study aids

**For Students** – See how SOLIDWORKS speeds up design projects

**For Researchers** – Rely on SOLIDWORKS to accelerate discovery and new levels of performance

With SOLIDWORKS Education Program, you have access to 3D development tools used by millions of engineering and design professionals around the world. SOLIDWORKS helps engineers and designers in any industry meet the demand to create innovative, high quality products—in less time and at lower cost.

- Conceptualize detailed designs
- Document designs and parts lists with precision
- Run design analysis and verification
- Create dynamic technical illustrations and visualizations for project presentation
- Use product data management to track project files





# SOLIDWORKS EDUCATION

This sweeping CAD and engineering development teaching tool features 3D software plus a broad curriculum of exercises and interactive courseware. SOLIDWORKS Education is an inclusive resource for teaching 3D mechanical CAD, design validation, and data management. SOLIDWORKS educational products are utilized at over 80% of the world's top engineering schools, giving students and researchers the functionality and ease-of-use to become productive almost immediately.

## **SOLIDWORKS Education Program Offerings**

- SOLIDWORKS 3D Design
- SOLIDWORKS Simulation
- SOLIDWORKS Plastics
- SOLIDWORKS Electrical
- SOLIDWORKS MBD
- SOLIDWORKS Composer
- SOLIDWORKS Visualize
- SOLIDWORKS Apps for Kids
- Curriculum
- Student Edition
- Draftsight
- Student Access
- Certification
- Student Sponsorship
- MySolidWorks for Students

**With SOLIDWORKS Education Program, students and instructors can focus on what's really important—fostering new ideas, solving problems, teamwork, and innovation.**

## SOLIDWORKS 3D DESIGN

**SOLIDWORKS Premium** provides extensive 3D solutions with powerful capabilities for design, simulation, motion, and design validation, advanced wire and pipe routing, reverse engineering, and much more.

### Experience all the benefits of a complete 3D design solution with **SOLIDWORKS Premium**:

- Create fully detailed parts, assemblies, and production-level drawings
- Test product performance with rich simulation capabilities, including Time-based Motion and Linear Static analysis
- Resolve complex assembly issues and help ensure manufacturability with Tolerance Stack-up analysis and Cost Analysis
- Simplify design tasks with tools like Advanced Surface Flattening
- Reverse engineer to analyze and identify key features
- Quickly incorporate printed circuit board (PCB) data into your 3D model
- Document layouts for electrical wiring, piping, and tubing
- Work with 3D scanned data





SOLIDWORKS Simulation solutions include:

DROP TEST ANALYSIS

FREQUENCY ANALYSIS

FINITE ELEMENT ANALYSIS

STRUCTURAL ANALYSIS

THERMAL STRUCTURAL ANALYSIS

VIBRATION ANALYSIS

LINEAR STRESS ANALYSIS

PLASTIC AND RUBBER  
PART ANALYSIS

FATIGUE ANALYSIS

## SOLIDWORKS SIMULATION

Every engineer and designer can simulate and analyze design performance with fast, easy-to-use **SOLIDWORKS Simulation** CAD-embedded analysis solutions. You can quickly and easily employ advanced simulation techniques to test performance while you design.

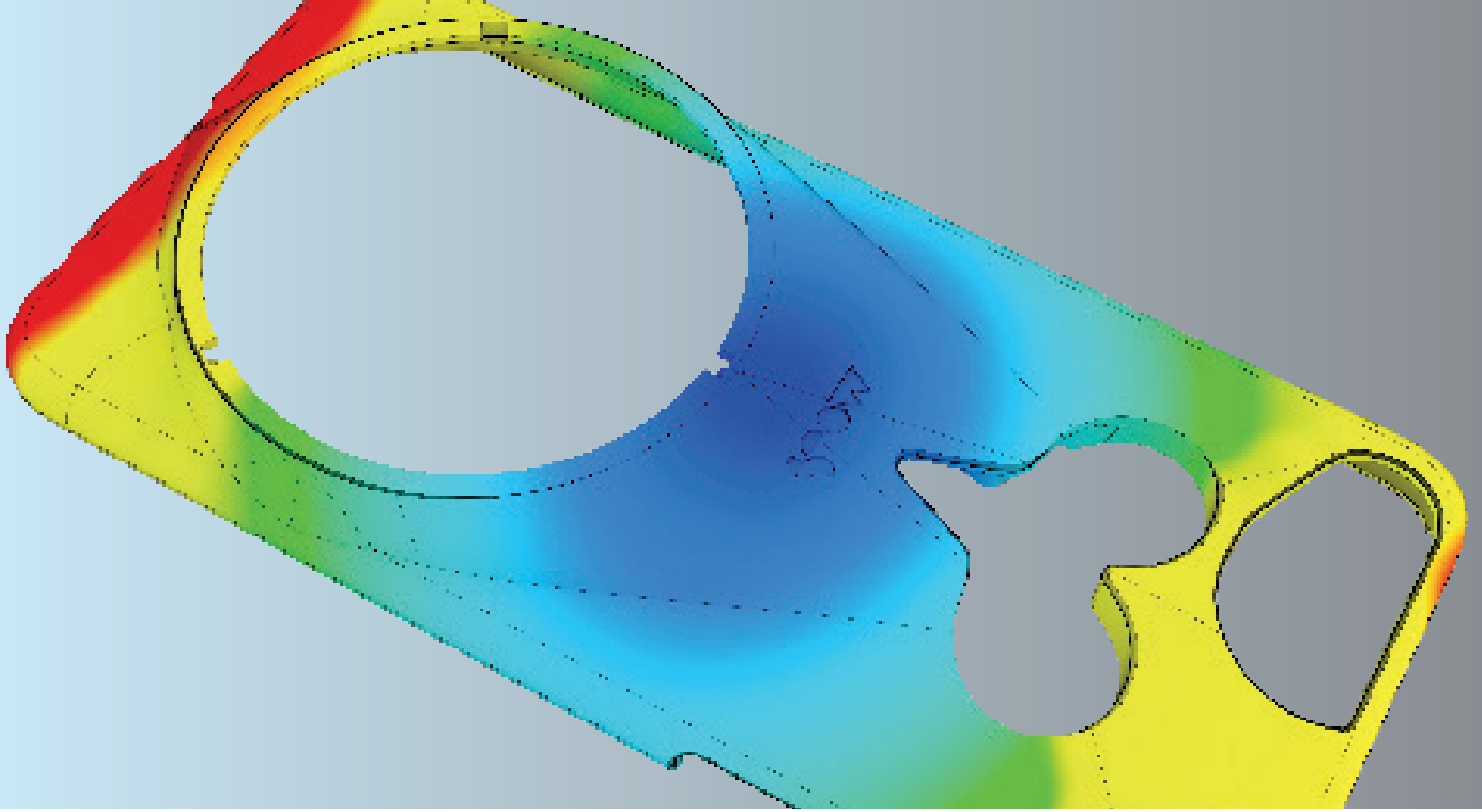
The powerful tools of SOLIDWORKS Simulation Premium provide valuable insights to help engineers and designers improve reliability cost-effectively, no matter the material or use environment involved. You can efficiently evaluate designs for nonlinear and dynamic response, dynamic loading, and composite materials.

SOLIDWORKS Sustainability provides screening-level life cycle assessment (LCA) of environmental impacts of the full design, with seamless integration with your design process. Conduct LCA directly within the SOLIDWORKS 3D design window. The diverse tools include:

- Parts assessment
- Alternative materials search
- Environmental impact dashboard
- Capability to assess both parts and assemblies

Use parameters such as transportation mode and distance, assembly energy, and use-phase energy consumption. Flexible inputs, such as recycled content level and end-of-life scenarios, enable more detailed assessments. You can even perform time-dependent environmental comparisons using varying lifetimes of different design solutions.





## SOLIDWORKS PLASTICS

**SOLIDWORKS Plastics** brings easy-to-use simulation of injection molding directly to the design of plastic parts and injection molds, as well as advanced CAE analysis. It simulates the flow of melted plastic during injection molding to predict manufacturing-related defects on parts and molds. You can quickly evaluate manufacturability while you design, to eliminate costly mold rework, improve part quality, and accelerate time-to-market. A Results Adviser provides troubleshooting steps and practical design advice that helps users diagnose potential problems and find ways to avoid them.

Easy to learn and use, SOLIDWORKS Plastics is fully embedded within the SOLIDWORKS CAD environment so you can analyze and modify designs while you optimize for form, fit, and function.

## SOLIDWORKS ELECTRICAL

**SOLIDWORKS Electrical** solutions are integral parts of the SOLIDWORKS design and simulation portfolio. A consistent, powerful, intuitive set of electrical design capabilities, are fully integrated with SOLIDWORKS. Engineers and designers can establish integrated, embedded electrical systems design early in the design process and avoid costly rework throughout.

**SOLIDWORKS Electrical Professional** combines electrical schematic functionality with a powerful, stress-free, easy-to-use suite of collaborative schematic design tools and 3D modeling capabilities. You can integrate electrical schematic design data with the SOLIDWORKS 3D model of a machine or other product—bidirectionally and in real time—supporting both the electrical and the mechanical design in one package.

Easily share data between electrical CAD (ECAD) and mechanical CAD (MCAD) designers using the **CircuitWorks™** tool in SOLIDWORKS. CircuitWorks enables users to share, compare, update, and track electrical design data so they can more quickly resolve electrical-mechanical integration problems.

## SOLIDWORKS MBD

**SOLIDWORKS MBD (Model Based Definition)** is an integrated drawing-less manufacturing solution for SOLIDWORKS, guiding the manufacturing process directly in 3D instead of using traditional 2D drawings.

SOLIDWORKS MBD helps you define, organize, and publish 3D product manufacturing information (PMI), including 3D model data in industry-standard file formats (such as SOLIDWORKS files, eDrawings®, and 3D PDF). It guides the manufacturing process directly in 3D, helping to streamline production, cut cycle time, reduce errors, and comply with industry standards.

- Define 3D PMI, such as dimensions, tolerances, model data, surface finish, weld symbols, bill of materials (BOMs), tables, notes, and other annotations
- Organize 3D PMI along with 3D models in a clean, structured, and easy-to-search fashion
- Customize 3D output templates for multiple deliverables, such as engineering drawings and requests for quote (RFQ), and groups, such as Operations, Manufacturing, QA, and Procurement
- Publish 3D data and PMI in industry-standard file formats, such as 3D PDF and eDrawings
- Support industry standards, such as Military Standard
- Share and archive 3D data directly to free up time

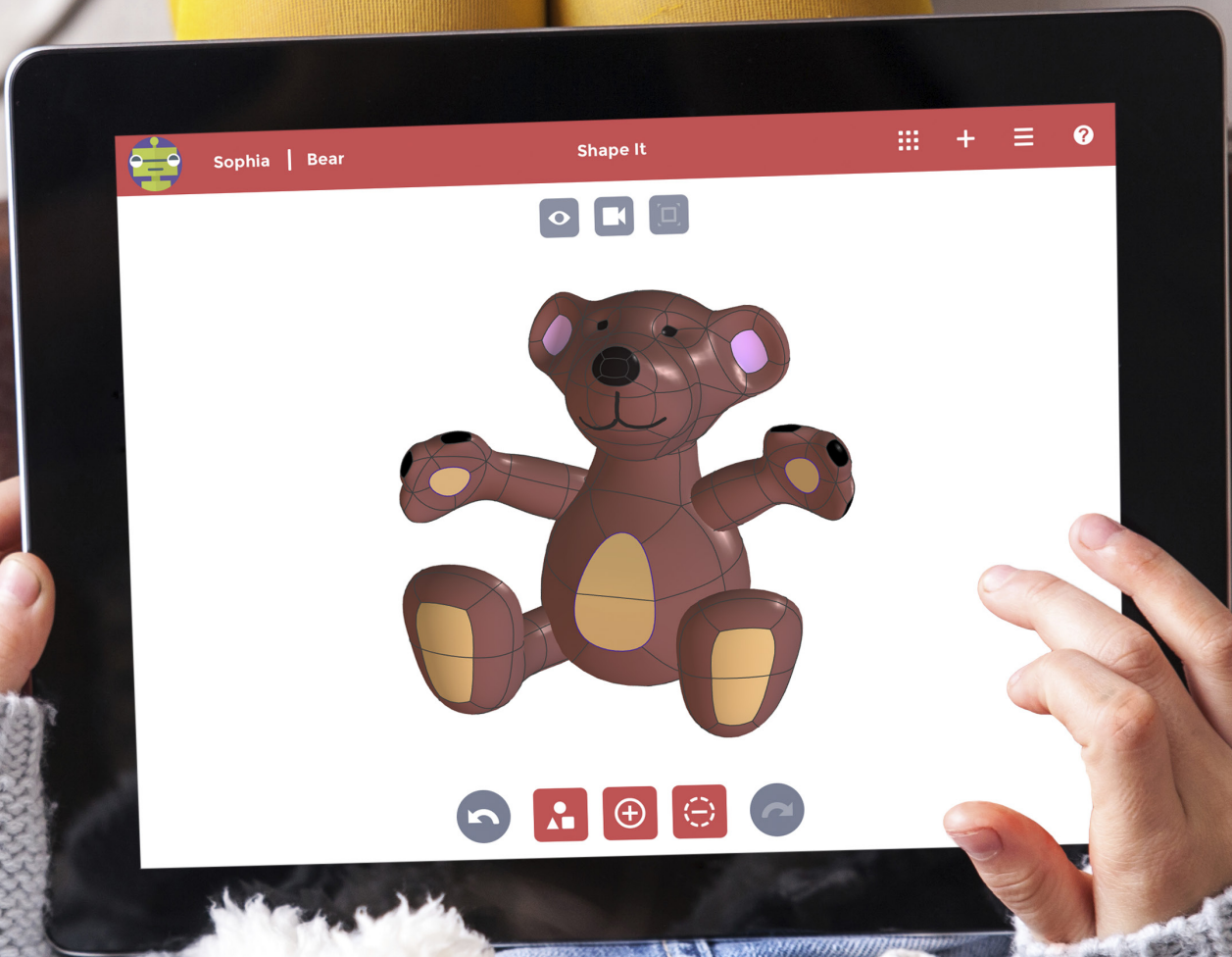




## SOLIDWORKS COMPOSER

**SOLIDWORKS Composer™** enables you to easily use existing 3D design data to rapidly create and update high quality graphical assets that are fully associated with the 3D design. Users can routinely create 2D and 3D graphical content for product communication and technical illustrations in parallel with product development, simplifying the documentation process and accelerating time-to-market.

- Synchronize technical communication with your design process so graphic elements update automatically when there are changes
- Develop your technical communication deliverables earlier and keep them current, instead of having to wait until the design is complete
- Show your product before it's built using 2D and 3D illustrations and interactive animations
- Make technical communication more visual and effective for manufacturing and service teams, suppliers, and customers, regardless of language and culture, reducing translation



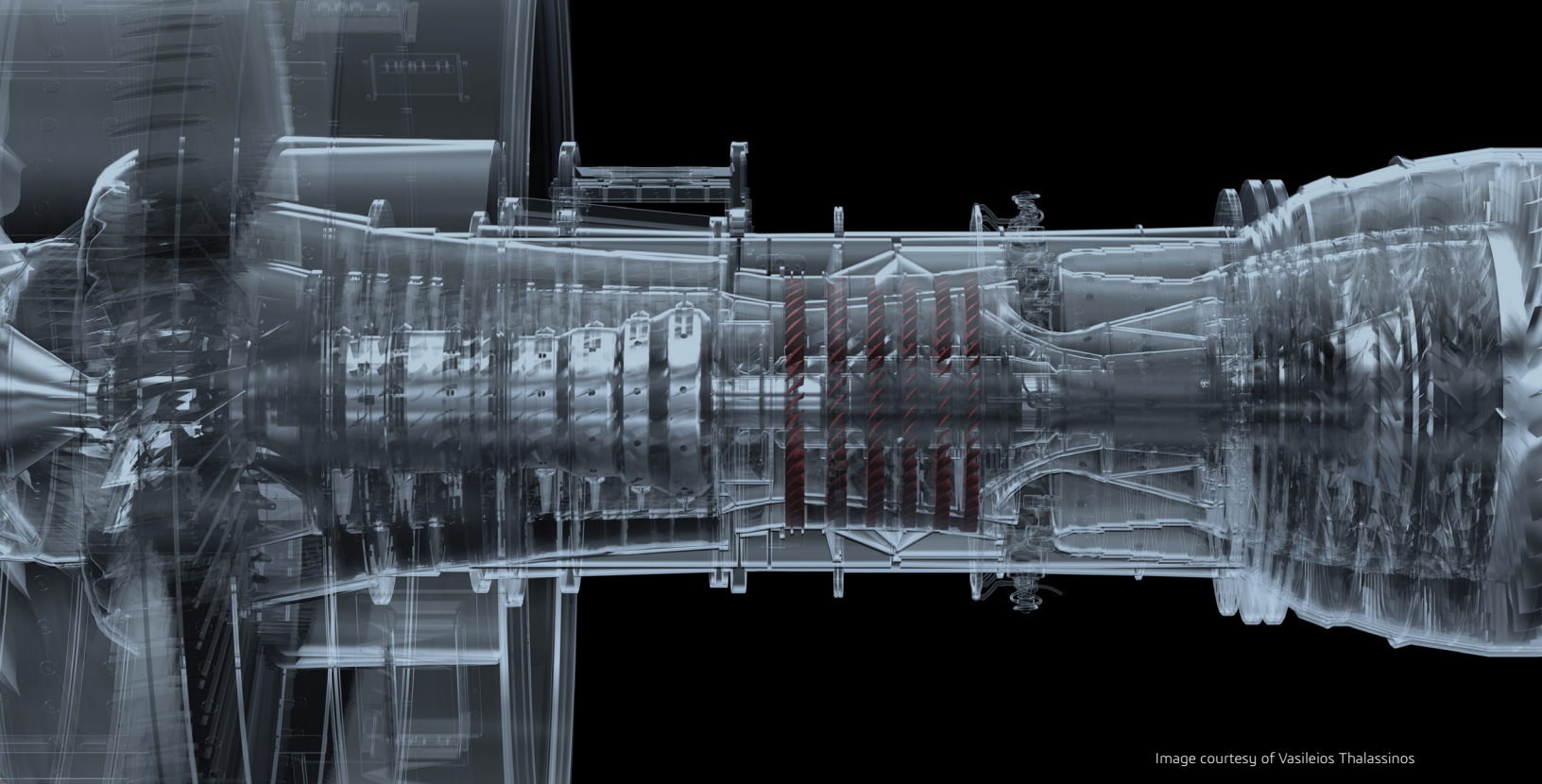


Image courtesy of Vasileios Thalassinou

## SOLIDWORKS VISUALIZE

**SOLIDWORKS Visualize** products combine industry-leading rendering capabilities with design-oriented features and workflows for easy, fast creation of visual content. A simple, intuitive interface enables users of any skill level to easily develop rich, photo-quality content for enhanced 3D decision making. Import SOLIDWORKS, Autodesk® Alias®, Rhino®, SketchUp®, and many other CAD formats. Then create compelling scenes and the most realistic content possible.

You can create convincing, lifelike movies and images, show your product in multiple visual backgrounds, and accurately simulate real-world lighting and advanced materials, while scaling rendering performance to meet the highest demands. Easily add movement, create 360-degree spins, or animate cameras, materials, models, or even the sun. Changes are displayed in real time for maximum flexibility and speed. With SOLIDWORKS Visualize connected directly with SOLIDWORKS CAD, you can automatically update your models using the “Live CAD Update” feature for a truly seamless workflow.

## SOLIDWORKS APPS FOR KIDS

**SOLIDWORKS Apps for Kids** introduces children from ages 4 to 14 to the excitement that comes when you imagine and design your own creations. A collection of apps breaks down the design process into bite-sized tools to create, style, design, and engineer a concept and then present and share it with others.

A web-based app, available on tablets and other mobile devices, SOLIDWORKS Apps for Kids—like Shape It, Style It, Mech It, Capture It, Show it, Print It—help children get inspired and learn about design in a fun, exciting way.



# SOLIDWORKS LICENSING

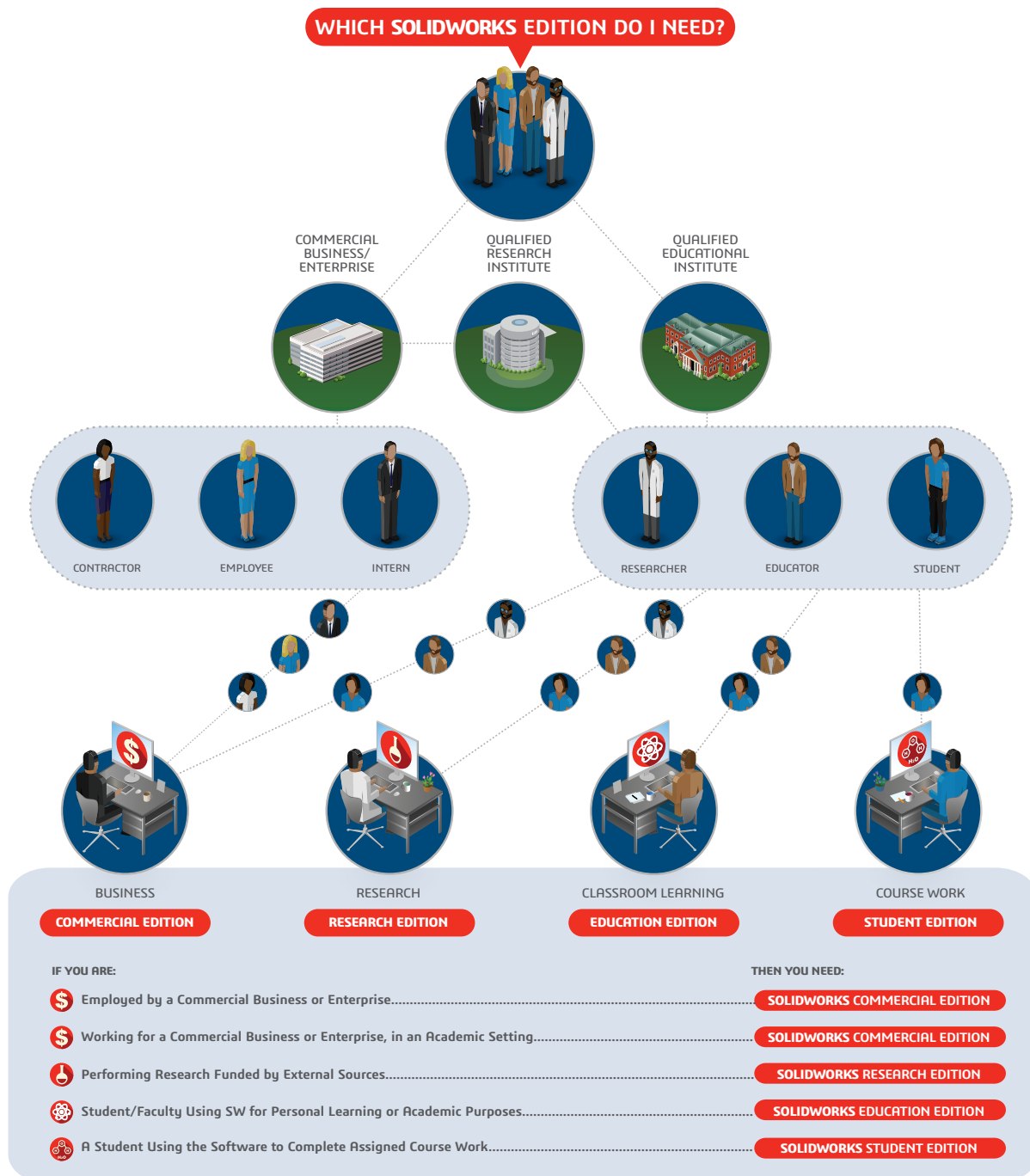
Use the latest in SOLIDWORKS to solve the world's most complex design problems

SOLIDWORKS licenses efficiently and cost-effectively meet the needs of educational institutions, researchers, and commercial businesses.

SOLIDWORKS Research License gives researchers access to the latest SOLIDWORKS technology, while communicating with users around the world. There are no restrictions for use in publications, industry-funded projects, intellectual property transfer, and patent applications, and no educational watermark

(allowing you to clearly present your work). The SOLIDWORKS Research Edition follows the commercial release time frame, keeping tools and designs always up-to-date.

The infographic shows licensing requirements and software editions for Education, Student, Research, and Commercial use. SOLIDWORKS Education Edition licensing applies only for classroom or laboratory instructional educational purposes, but not research purposes.



## CURRICULUM

Educators play a vital role in developing the next generation of engineering and design innovators, and SOLIDWORKS wants to provide all the help we can. Our aim is a complete CAD teaching tool, with software and lessons. The SOLIDWORKS Education Edition Fundamentals of 3D Design and Simulation guide gives students a basic understanding of the engineering design process. Materials are available in a range of languages (depending on the lesson). Also included are hundreds of brief, online tutorials in SOLIDWORKS, SOLIDWORKS Simulation, SOLIDWORKS Motion, and SOLIDWORKS Flow Simulation.

For more  
information visit  
[www.solidworks.com/  
educurriculum](http://www.solidworks.com/educurriculum)

## STUDENT EDITION

With SOLIDWORKS skills, students have a clear advantage in engineering and industrial design job markets. The easy-to-use **SOLIDWORKS Student Edition** lets students sharpen their skills outside the classroom as they learn to design better products.

- SOLIDWORKS Student Edition includes SOLIDWORKS CAD, SOLIDWORKS Simulation, SOLIDWORKS Plastics, Animation capability, Standards Library, Photorealistic rendering, and eDrawings
- Extensive online documentation and tutorials
- Language options for specific software, including English, French, German, Spanish, Italian, Japanese, Traditional Chinese, Simplified Chinese, Polish, Korean, Czech, Brazilian, Portuguese, and Russian
- 12-month term-of-use license

For more  
information visit  
[www.solidworks.com/  
studentedition](http://www.solidworks.com/studentedition)

### Purchase eligibility

SOLIDWORKS Student Edition is available to high school and degree-seeking students (who can confirm enrollment in a degree-granting program or full-time enrollment in a certificate-granting program) or full-time faculty members using the software for personal learning or academic purposes. Commercial and institutional use is prohibited.

## DRAFTSIGHT

**DraftSight®** is a free\*, standalone, professional-grade 2D CAD product that lets professional CAD users, students, and educators create, edit, and view DWG files. This version runs on Windows®, Mac®, and Linux, and includes access to online community support and an abundance of learning resources.

To download  
DraftSight go to  
[www.DraftSight.com](http://www.DraftSight.com)

\*Internet and activation required.

SOLIDWORKS Student Edition may not be resold, transferred, rented, modified, or copied. Any misuse of the terms of the software license agreement will terminate the right to use this software.

For more  
information visit  
[www.solidworks.com/  
studentaccess](http://www.solidworks.com/studentaccess)

## STUDENT ACCESS BEYOND THE CLASSROOM

### Design anytime, anywhere with SOLIDWORKS Student Access

The **SOLIDWORKS Student Access Initiative** connects students to SOLIDWORKS software outside the classroom or laboratory anytime from anywhere. With innovative licensing for SOLIDWORKS Education Edition, students can log on from anywhere on campus, from home, even away from home.

Schools that participate in the Student Access Initiative give students the ability to work on assignments remotely or off-hours, which increases student usage, facilitates distance learning, and enables off-site collaboration and independent study.

Student Access licenses are FREE. Any qualifying institution can provide licenses to students for off-campus use, freeing up lab resources and allowing students to work from anywhere. Student Access licenses can be used to support independent study courses, distance learning programs, and articulation agreements. Some do not even require connecting to the school server.

**Instructors:** Instructors can assign homework, prepare remotely, use licenses for distance learning or independent study students, prepare for their own certification exams, and practice SOLIDWORKS skills during school breaks.

**Students:** Students can work from anywhere, complete assignments during off-hours, use licenses for independent study or distance learning courses, articulate with college programs, prepare for certification exams, build personal portfolios, and participate in student competitions.

## CERTIFICATION

For more  
information visit  
[www.solidworks.com/  
educertification](http://www.solidworks.com/educertification)

**SOLIDWORKS Certification** lets students demonstrate their expertise with SOLIDWORKS 3D solid modeling, design concepts, and sustainable design, and their commitment to professional development. The SOLIDWORKS Certification Program gives students a proven edge in today's competitive job market.

**CSWA-Academic:** *Certified SOLIDWORKS Associate Academic* certification for students with at least six to nine months of SOLIDWORKS experience and basic knowledge of engineering, fundamentals, and practices.

**CSWP-Academic:** *Certified SOLIDWORKS Professional Academic* successfully passes our advanced skills examination.

**CSDA:** *Certified Sustainable Design Associate* demonstrates understanding of the principles of environmental assessment and sustainable design.

**CSWSA-FEA:** *Certified SOLIDWORKS Simulation Associate Finite Element Analysis* shows a foundation in apprentice knowledge demonstrating an understanding of the principles of stress analysis and the Finite Element Method (FEM).

**SOLIDWORKS Accredited Educator Certification:** *SOLIDWORKS Accredited Educator* certification provides educators the professional development credential demonstrating technical proficiency and skill in the classroom.

**TECE:** *Technology Educator Competency Exam* is for educators who teach using SOLIDWORKS software and demonstrate technical proficiency in classroom instruction for 3D CAD, simulation, and sustainable design.

Students may take these exams for free if their school is a SOLIDWORKS Academic Certification Provider and on subscription.



## STUDENT SPONSORSHIP

Employers look for designers with SOLIDWORKS skills, and want engineers who think creatively, collaborate easily, solve problems fast, and respond quickly to changes. Design contests can help students sharpen these skills, and prepare them for the workplace.

Dassault Systèmes SolidWorks Corp. can sponsor your team and give you access to resources, like SOLIDWORKS 3D CAD, SOLIDWORKS Electrical, and SOLIDWORKS Composer. Teams sponsored by SOLIDWORKS compete in leading programs, including:

**AUVSI:** Association for Unmanned Vehicle Systems International

**FIRST:** For Inspiration and Recognition of Science and Technology. SOLIDWORKS will sponsor any FIRST Robotics Regional Competition team.

**Formula SAE/Formula Student:** Collegiate automotive competitions

**MATE ROV:** Marine Advanced Technology Education—mission is to use marine technology to create interest in and improve STEM education.

For more  
information visit  
[www.solidworks.com/  
studentsponsorship](http://www.solidworks.com/studentsponsorship)

## MYSOLIDWORKS FOR STUDENTS

**MySolidWorks** helps students gain the skills to work faster and smarter with SOLIDWORKS. Students can access over 400 training videos and learn SOLIDWORKS on their own schedule, at their own pace—anytime, anywhere, on any device. With MySolidWorks students can:

- Access individual learning modules with explanations, videos, and quizzes
- Search for and get answers to questions
- Download free 3D and 2D CAD models of user-contributed and supplier-certified parts, assemblies, and more
- Share designs with online storage services
- Access reliable, nearby manufacturers

To join  
MySolidWorks visit  
[www.my.solidworks.com](http://www.my.solidworks.com)

# YOUR SOLIDWORKS EDU TEAM

The SOLIDWORKS EDU team works with you and your local Value Added Reseller to craft programs that help advance your education goals while optimizing your investment.

For more information about SOLIDWORKS Education, visit us on the web at [www.solidworks.com/swedu\\_team](http://www.solidworks.com/swedu_team)

## Online resources

**goEDU** is the place to find materials to help you be successful with your SOLIDWORKS education products. View the appropriate websites to access installation guides, product descriptions, support information, and much more.

## Student Access license support

[www.solidworks.com/goEDU](http://www.solidworks.com/goEDU)

## Other questions

[www.solidworks.com/studentsupport](http://www.solidworks.com/studentsupport)

## Student help

[studentsupport@3ds.com](mailto:studentsupport@3ds.com)

## Q&A forums

<http://forum.solidworks.com>

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

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit [www.3ds.com](http://www.3ds.com).



**3DEXPERIENCE®**