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# Introduction Solid Modeling Using Solidworks

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Parametric Modeling with SOLIDWORKS 2021  
Mastering Surface Modeling with SOLIDWORKS 2020  
Introduction to Solid Modeling Using SolidWorks 2008  
The Computer Aided Engineering Design Series  
Mastering Surface Modeling with SOLIDWORKS 2021  
Machining Simulation Using SOLIDWORKS CAM 2020  
Introduction to Solid Modeling Using Solidworks 2018 14e  
Introduction to Solid Modeling Using SolidWorks 2015  
Introduction to Solid Modeling Using SOLIDWORKS 2020  
SOLIDWORKS 2018 Tutorial with Video Instruction  
Parametric Modeling with SOLIDWORKS 2017  
Principles and Practice An Integrated Approach to Engineering Graphics and AutoCAD 2020  
Explicit, Parametric, Free-Form CAD and Re-engineering  
Parametric Modeling with SolidWorks 2013  
Introduction to Finite Element Analysis Using SOLIDWORKS Simulation 2015  
Introduction to Solid Modeling Using SolidWorks 2016  
A hands-on guide to becoming an accomplished SOLIDWORKS Associate and Professional  
ISE Introduction to Solid Modeling Using SOLIDWORKS 2021  
Introduction to Solid Modeling Using SolidWorks  
Introduction to Solid Modeling Using SOLIDWORKS 2019  
Cad/cam With Creo Parametric: Step-by-step Tutorial For Versions 4.0, 5.0, And 6.0  
Introduction to Static Analysis Using SolidWorks Simulation  
Product Design Modeling using CAD/CAE  
Introduction to Solid Modeling Using SolidWorks 2007  
SolidWorks 2014 Tutorial with Video Instruction  
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## **QUINTIN ERICK**

SDC Publications  
Introduction to Solid Modeling using SolidWorks primarily consists of chapter-long tutorials, which introduce both basic concepts in solid modeling (such as part modeling, drawing creation, and assembly modeling) and more advanced applications of solid modeling in engineering analysis and design (such as mechanism modeling, mold creation, sheet metal bending, and rapid prototyping). Each tutorial is organized as "keystroke-level" instructions, designed to teach the use of the software. This new edition has been fully updated for the SolidWorks 2018 software package. All tutorials and figures have been modified for the new version of the software. Additional resources are available online at [www.mhhe.com/howard2018](http://www.mhhe.com/howard2018). Included on the website are tutorials for three popular SolidWorks Add-Ins, SolidWorks® Simulation, SolidWorks® Motion™ and PhotoView360. Instructors can also access

PowerPoint files for each chapter, the book figures in PowerPoint format, model files for all tutorials, and end-of-chapter problems, as well as a teaching guide. What's New: -Video tutorials accompany several chapters and introduce the chapter's content by showing visual examples -Fully updated text to reflect newest version of SOLIDWORKS -Tutorials and figures have been updated for the new version of the software Parametric Modeling with SOLIDWORKS 2021 World Scientific  
Introduction to Solid Modeling Using SolidWorks® 2011 presents "keystroke-level" tutorials, providing users new to the SolidWorks® program with all the detail they need to become confident using the software. Topics are illustrated and infused with examples from the real world such as flanges, brackets, helical springs, and more. Additionally, this easy-to-use guide has modular chapters, allowing for flexible organization of a course or self-study. Accessible and updated for the newest version of software, Introduction to Solid Modeling Using SolidWorks® 2011 by

Howard and Musto relates solid modeling exercises to engineering concepts in a way that introduces the engineering design process while simultaneously building student proficiency with a state-of-the-art software tool.

### Mastering Surface Modeling with

SOLIDWORKS 2020 SDC Publications

The complete SolidWorks reference-tutorial for beginner to advanced techniques Mastering SolidWorks is the reference-tutorial for all users. Packed with step-by-step instructions, video tutorials for over 40 chapters, and coverage of little-known techniques, this book takes you from novice to power user with clear instruction that goes beyond the basics. Fundamental techniques are detailed with real-world examples for hands-on learning, and the companion website provides tutorial files for all exercises. Even veteran users will find value in new techniques that make familiar tasks faster, easier, and more organized, including advanced file management tools that simplify and streamline pre-flight checks. SolidWorks is the leading

3D CAD program, and is an essential tool for engineers, mechanical designers, industrial designers, and drafters around the world. User friendly features such as drag-and-drop, point-and-click, and cut-and-paste tools belie the software's powerful capabilities that can help you create cleaner, more precise, more polished designs in a fraction of the time. This book is the comprehensive reference every SolidWorks user needs, with tutorials, background, and more for beginner to advanced techniques. Get a grasp on fundamental SolidWorks 2D and 3D tasks using realistic examples with text-based tutorials. Delve into advanced functionality and capabilities not commonly covered by how-to guides. Incorporate improved search, Pack-and-Go and other file management tools into your workflow. Adopt best practices and exclusive techniques you won't find anywhere else. Work through this book beginning-to-end as a complete SolidWorks course, or dip in as needed to learn new techniques and time-saving tricks on-demand. Organized for efficiency

and designed for practicality, these tips will remain useful at any stage of expertise. With exclusive coverage and informative detail, *Mastering SolidWorks* is the tutorial-reference for users at every level of expertise.

**Introduction to Solid Modeling Using SolidWorks 2008** SDC

Publications  
Introduction to Solid Modeling Using SolidWorks McGraw-Hill College  
*The Computer Aided Engineering Design Series* McGraw-Hill Education  
SolidWorks 2014 Tutorial with video instruction is targeted towards a technical school, two year college, four year university or industry professional that is a beginner or intermediate CAD user. The text provides a student who is looking for a step-by-step project based approach to learning SolidWorks with video instruction, SolidWorks model files, and preparation for the Certified Associate - Mechanical Design (CSWA) exam. The book is divided into two sections. Chapters 1 - 5 explore the SolidWorks User Interface and CommandManager, Document and System properties, simple

machine parts, simple and complex assemblies, proper design intent, design tables, configurations, multi-sheet, multi-view drawings, BOMs, Revision tables using basic and advanced features. Chapters 6 - 9 prepare you for the Certified Associate - Mechanical Design (CSWA) exam. The certification indicates a foundation in and apprentice knowledge of 3D CAD and engineering practices and principles. Follow the step-by-step instructions and develop multiple assemblies that combine over 100 extruded machined parts and components. Formulate the skills to create, modify and edit sketches and solid features. Learn the techniques to reuse features, parts and assemblies through symmetry, patterns, copied components, apply proper design intent, design tables and configurations. Learn by doing, not just by reading. Desired outcomes and usage competencies are listed for each chapter. Know your objective up front. Follow the steps in each chapter to achieve your design goals. Work between multiple documents, features,

commands, custom properties and document properties that represent how engineers and designers utilize SolidWorks in industry. *Mastering Surface Modeling with SOLIDWORKS 2021* SDC Publications Introduction to Solid Modeling Using SolidWorks® 2012 presents "keystroke-level" tutorials, providing users new to the SolidWorks® program with all the detail they need to become confident using the software. Topics are illustrated and infused with examples from the real world such as flanges, brackets, helical springs, and more. Additionally, this easy-to-use guide has modular chapters, allowing for flexible organization of a course or self-study. Accessible and updated for the newest version of software, Introduction to Solid Modeling Using SolidWorks® 2012 by Howard and Musto relates solid modeling exercises to engineering concepts in a way that introduces the engineering design process while simultaneously building student proficiency with a state-of-the-art software tool. The Student Design Kit is no longer available

as a download. Instructors can receive free 1 year copies of SolidWorks for their students by going to [www.solidworks.com/studentaccess](http://www.solidworks.com/studentaccess). Schools must be on subscription to receive free student software.

[Machining Simulation Using SOLIDWORKS CAM 2020](#) SDC Publications This book will teach you all the important concepts and steps used to conduct machining simulations using SOLIDWORKS CAM. SOLIDWORKS CAM is a parametric, feature-based machining simulation software offered as an add-in to SOLIDWORKS. It integrates design and manufacturing in one application, connecting design and manufacturing teams through a common software tool that facilitates product design using 3D solid models. By carrying out machining simulation, the machining process can be defined and verified early in the product design stage.

Some, if not all, of the less desirable design features of part manufacturing can be detected and addressed while the product design is still being finalized. In addition, machining-related problems can be detected and eliminated before mounting a stock

on a CNC machine, and manufacturing cost can be estimated using the machining time estimated in the machining simulation. This book is intentionally kept simple. It's written to help you become familiar with the practical applications of conducting machining simulations in SOLIDWORKS CAM. This book provides you with the basic concepts and steps needed to use the software, as well as a discussion of the G-codes generated. After completing this book, you should have a clear understanding of how to use SOLIDWORKS CAM for machining simulations and should be able to apply this knowledge to carry out machining assignments on your own product designs. In order to provide you with a more comprehensive understanding of machining simulations, the book discusses NC (numerical control) part programming and verification, as well as introduces applications that involve bringing the G-code post processed by SOLIDWORKS CAM to a HAAS CNC mill and lathe to physically cut parts. This book points out important, practical factors when transitioning

from virtual to physical machining. Since the machining capabilities offered in the 2020 version of SOLIDWORKS CAM are somewhat limited, this book introduces third-party CAM modules that are seamlessly integrated into SOLIDWORKS, including CAMWorks, HSMWorks, and Mastercam for SOLIDWORKS. This book covers basic concepts, frequently used commands and options required for you to advance from a novice to an intermediate level SOLIDWORKS CAM user. Basic concepts and commands introduced include extracting machinable features (such as 2.5 axis features), selecting a machine and cutting tools, defining machining parameters (such as feed rate, spindle speed, depth of cut, and so on), generating and simulating toolpaths, and post processing CL data to output G-code for support of physical machining. The concepts and commands are introduced in a tutorial style presentation using simple but realistic examples. Both milling and turning operations are included. One of the unique features of this book is the incorporation of the

CL data verification by reviewing the G-code generated from the toolpaths. This helps you understand how the G-code is generated by using the respective post processors, which is an important step and an excellent way to confirm that the toolpaths and G-code generated are accurate and useful. *Introduction to Solid Modeling Using Solidworks 2018 14e* SDC Publications  
Young engineers are often required to utilize commercial finite element software without having had a course on finite element theory. That can lead to computer-aided design errors. This book outlines the basic theory, with a minimum of mathematics, and how its phases are structured within a typical software. The importance of estimating a solution, or verifying the results, by other means is emphasized and illustrated. The book also demonstrates the common processes for utilizing the typical graphical icon interfaces in commercial codes. In particular, the book uses and covers the widely utilized SolidWorks solid modeling and simulation system to demonstrate

applications in heat transfer, stress analysis, vibrations, buckling, and other fields. The book, with its detailed applications, will appeal to upper-level undergraduates as well as engineers new to industry.

*Introduction to Solid Modeling Using SolidWorks 2015* John Wiley & Sons

"Introduction to Solid Modeling Using SolidWorks 2008 is the latest edition of this text, revised for the 2008 version of the SolidWorks solid modeling program. Howard and Musto's approach of relating solid modeling exercises to engineering concepts has been embraced by engineering and technology programs as an ideal method for introducing the engineering design process while building student proficiency with a state-of-the-art software tool." --Book Jacket.

*Introduction to Solid Modeling Using SOLIDWORKS 2020* Packt Publishing Ltd

The primary goal of *Introduction to Finite Element Analysis Using SOLIDWORKS Simulation 2015* is to introduce the aspects of Finite Element Analysis (FEA) that are

important to engineers and designers. Theoretical aspects of FEA are also introduced as they are needed to help better understand the operation. The primary emphasis of the text is placed on the practical concepts and procedures needed to use SOLIDWORKS Simulation in performing Linear Static Stress Analysis and basic Modal Analysis. This text covers SOLIDWORKS Simulation and the lessons proceed in a pedagogical fashion to guide you from constructing basic truss elements to generating three-dimensional solid elements from solid models. This text takes a hands-on, exercise-intensive approach to all the important FEA techniques and concepts. This textbook contains a series of fourteen tutorial style lessons designed to introduce beginning FEA users to SOLIDWORKS Simulation. The basic premise of this book is that the more designs you create using SOLIDWORKS Simulation, the better you learn the software. With this in mind, each lesson introduces a new set of commands and concepts, building on previous lessons.

[SOLIDWORKS 2018 Tutorial with Video](#)

[Instruction SDC Publications](#)  
 Parametric Modeling with SOLIDWORKS 2017 contains a series of seventeen tutorial style lessons designed to introduce SOLIDWORKS 2017, solid modeling and parametric modeling techniques and concepts. This book introduces SOLIDWORKS 2017 on a step-by-step basis, starting with constructing basic shapes, all the way through to the creation of assembly drawings and motion analysis. This book takes a hands on, exercise intensive approach to all the important parametric modeling techniques and concepts. Each lesson introduces a new set of commands and concepts, building on previous lessons. The lessons guide the user from constructing basic shapes to building intelligent solid models, assemblies and creating multi-view drawings. This book also covers some of the more advanced features of SOLIDWORKS 2017, including how to use the SOLIDWORKS Design Library, basic motion analysis, collision detection and analysis with SimulationXpress. The exercises in this book cover the performance

tasks that are included on the Certified SOLIDWORKS Associate (CSWA) Examination. Reference guides located at the front of the book and in each chapter show where these performance tasks are covered. This book also introduces you to the general principles of 3D printing including a brief history of 3D printing, the types of 3D printing technologies, commonly used filaments, and the basic procedure for printing a 3D model. 3D printing makes it easier than ever for anyone to start turning their designs into physical objects and by the end of this book you will be ready to start printing out your own designs.

### **Parametric Modeling with SOLIDWORKS**

**2017** McGraw-Hill Education

Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2020 combines an introduction to AutoCAD 2020 with a comprehensive coverage of engineering graphics principles. By adopting this textbook, you will no longer need to adopt separate CAD and engineering graphics books for your course. Not only will this unified approach give your course

a smoother flow, your students will also save money on their textbooks. What's more, the tutorial exercises in this text have been expanded to cover the performance tasks found on the AutoCAD 2020 Certified User Examination. The primary goal of *Principles and Practices An Integrated Approach to Engineering Graphics and AutoCAD 2020* is to introduce the aspects of engineering graphics with the use of modern Computer Aided Design/Drafting software - AutoCAD 2020. This text is intended to be used as a training guide for students and professionals. The chapters in the text proceed in a pedagogical fashion to guide you from constructing basic shapes to making complete sets of engineering drawings. This text takes a hands-on, exercise-intensive approach to all the important concepts of Engineering Graphics, as well as in depth discussions of CAD techniques. This textbook contains a series of thirteen chapters, with detailed step-by-step tutorial-style lessons designed to introduce beginning CAD users to the graphic language used in all branches of

technical industry. The CAD techniques and concepts discussed in the text are also designed to serve as the foundation to the more advanced parametric feature-based CAD packages, such as Autodesk Inventor. After completing this text your students will be prepared to pass the AutoCAD Certified User Examination. Certified User Reference Guides located at the front of the book and in each chapter show where these performance tasks are covered.

*Principles and Practice An Integrated Approach to Engineering Graphics and AutoCAD 2020* SDC Publications

- Uses step-by-step, project based tutorials designed for beginning or intermediate users
- Will prepare you for the Certified SOLIDWORKS Associate Exam
- Includes a chapter introducing you to 3D printing

SOLIDWORKS 2020 Tutorial is written to assist students, designers, engineers and professionals who are new to SOLIDWORKS. The text provides a step-by-step, project based learning approach. It also contains information and examples on the five categories in the CSWA exam. The book

is divided into four sections. Chapters 1 - 5 explore the SOLIDWORKS User Interface and CommandManager, Document and System properties, simple and complex parts and assemblies, proper design intent, design tables, configurations, multi-sheet, multi-view drawings, BOMs, and Revision tables using basic and advanced features. In chapter 6 you will create the final robot assembly. The physical components and corresponding Science, Technology, Engineering and Math (STEM) curriculum are available from Gears Educational Systems. All assemblies and components for the final robot assembly are provided. Chapters 7 - 10 prepare you for the Certified Associate - Mechanical Design (CSWA) exam. The certification indicates a foundation in and apprentice knowledge of 3D CAD and engineering practices and principles. Chapter 11 covers the benefits of additive manufacturing (3D printing), how it differs from subtractive manufacturing, and its features. You will also learn the terms and technology used in low

cost 3D printers. Follow the step-by-step instructions and develop multiple assemblies that combine over 100 extruded machined parts and components. Formulate the skills to create, modify and edit sketches and solid features. Learn the techniques to reuse features, parts and assemblies through symmetry, patterns, copied components, apply proper design intent, design tables and configurations. Learn by doing, not just by reading. Desired outcomes and usage competencies are listed for each chapter. Know your objective up front. Follow the steps in each chapter to achieve your design goals. Work between multiple documents, features, commands, custom properties and document properties that represent how engineers and designers utilize SOLIDWORKS in industry. Explicit, Parametric, Free-Form CAD and Re-engineering SDC Publications

The purpose of this book is to introduce the reader to 3D CAD/CAM modelling using Creo™ Parametric (Creo) software. This concise textbook consists of ten lessons covering

the basics in Part and Assembly Modelling, Mould Design, NC Simulation, and Engineering Drawings. Each lesson provides essential knowledge and guides the user through the process of performing a practical exercise or task. The modelling philosophy, implementation of corresponding features, and commands behind each exercise are explained and presented in a step-by-step manner. The material is richly illustrated with screenshots and icons from the software interface to facilitate the learning process. Suitable for beginners and intermediate users, CAD/CAM with Creo Parametric enables the reader to make a quick start in learning how to use complex 3D CAD/CAM software such as Creo in engineering design and manufacturing. The aim is to develop an understanding of the main modelling principles and software tools as a basis for independent learning and solving more complex engineering problems.

**Parametric Modeling with SolidWorks 2013**  
Introduction to Solid Modeling Using SolidWorks

SOLIDWORKS 2019 Tutorial is written to assist students, designers, engineers and professionals who are new to SOLIDWORKS. The text provides a step-by-step, project based learning approach. It also contains information and examples on the five categories in the CSWA exam. The book is divided into four sections. Chapters 1 - 5 explore the SOLIDWORKS User Interface and CommandManager, Document and System properties, simple and complex parts and assemblies, proper design intent, design tables, configurations, multi-sheet, multi-view drawings, BOMs, and Revision tables using basic and advanced features. In chapter 6 you will create the final robot assembly. The physical components and corresponding Science, Technology, Engineering and Math (STEM) curriculum are available from Gears Educational Systems. All assemblies and components for the final robot assembly are provided. Chapters 7 - 10 prepare you for the Certified Associate - Mechanical Design (CSWA) exam. The certification indicates a foundation in and



apprentice knowledge of 3D CAD and engineering practices and principles. Chapter 11 covers the benefits of additive manufacturing (3D printing), how it differs from subtractive manufacturing, and its features. You will also learn the terms and technology used in low cost 3D printers. Follow the step-by-step instructions and develop multiple assemblies that combine over 100 extruded machined parts and components. Formulate the skills to create, modify and edit sketches and solid features. Learn the techniques to reuse features, parts and assemblies through symmetry, patterns, copied components, apply proper design intent, design tables and configurations. Learn by doing, not just by reading. Desired outcomes and usage competencies are listed for each chapter. Know your objective up front. Follow the steps in each chapter to achieve your design goals. Work between multiple documents, features, commands, custom properties and document properties that represent how engineers and designers utilize

SOLIDWORKS in industry.  
**Introduction to Finite Element Analysis Using SOLIDWORKS Simulation 2015**

Springer  
 Parametric Modeling with SolidWorks 2013 contains a series of sixteen tutorial style lessons designed to introduce SolidWorks 2013, solid modeling and parametric modeling techniques and concepts. This book introduces SolidWorks 2013 on a step-by-step basis, starting with constructing basic shapes, all the way through to the creation of assembly drawings and motion analysis. This book takes a hands-on, exercise-intensive approach to all the important Parametric Modeling techniques and concepts. Each lesson introduces a new set of commands and concepts, building on previous lessons. The lessons guide the user from constructing basic shapes to building intelligent solid models, assemblies and creating multi-view drawings. This book also covers some of the more advanced features of SolidWorks 2013 including how to use the SolidWorks Design Library, basic motion analysis, collision detection and analysis with SimulationXpress.

The exercises in this book cover the performance tasks that are included on the Certified SolidWorks Associate (CSWA) Examination. Reference guides located at the front of the book and in each chapter show where these performance tasks are covered.

[Introduction to Solid Modeling Using SolidWorks 2016](#) McGraw-Hill Education

- Teaches SOLIDWORKS users advanced surface modeling skills
- Includes tips and techniques for hybrid modeling
- Uses clear, step-by-step instructions to help you create real-world projects
- Covers how to make molded parts and repair and patch surfaces

Mastering Surface Modeling with SOLIDWORKS 2020 focuses on surfacing tools, an important aspect of SOLIDWORKS' design capabilities that fills in the gaps that might be left by using solid modeling alone. If you are a SOLIDWORKS user currently relying on solid modeling for designs, or are just not familiar with surface modeling techniques, this book will add these skills to your repertoire to help you create the highest-quality models. For instructors

teaching this advanced skillset, this book's proven techniques, practical examples and training files will give students a broad understanding of the procedures needed to build freeform shapes and place them well on their way to creating sophisticated surface designs of their own. This manual is one of only a few on the market completely dedicated to mastering surfacing tools. Each of the ten chapters has clean, clear instructions with plentiful diagrams to lead you through carefully selected exercises based on the author's own work experience and techniques. You are guided from a review of surfacing basics, to advanced surface modeling of real-world objects, to an explanation and example of hybrid modeling, to surface repairs and patches. Peruse the table of contents and pick and choose the chapters you are interested in or complete all chapters consecutively to give you an in-depth understanding of all the tools and procedures needed to create surface designs. The projects you will work on in this book include a shoehorn, computer

mouse, phone case, a modem housing, and stents. Woven into each of these are procedures, approaches and solutions for possible issues that might arise when you are using surfacing tools. These can be applied to any project you create. Each project touches on a variety of frequently used commands such as extrude, loft, boundary, and sweep; surface revolved, filled, split, and knit; using deform and configurations; mirroring bodies; creating an axis, curve driven and circular patterns, fillets, and molded parts. Look for the post-it notes next to commands for helpful tips and definitions. Throughout the book, you will learn techniques of hybrid modeling, the combination of surface and solid modeling. The last part of the book takes it one step further. Chapter 8 examines hybrid modeling in-depth, guiding you step-by-step from a 2D sketch to the final product, a handle housing. The last two chapters focus on molded parts, creating and saving visual properties of models and how to repair faulty surfaces. The advanced surfacing tools and techniques in this book give you the

confidence to tackle projects using hybrid modeling. It is the best method to take full advantage of SOLIDWORKS' modeling power and create more complex designs. [A hands-on guide to becoming an accomplished SOLIDWORKS Associate and Professional](#) McGraw-Hill Science/Engineering/Math The book discusses the theoretical fundamentals of CAD graphics to enhance readers' understanding of surface modeling and free-form design by demonstrating how to use mathematical equations to define curves and surfaces in CAD modelers. Additionally, it explains and describes the main approaches to creating CAD models out of 3D scans of physical objects. All CAD approaches are demonstrated with guided examples and supported with comprehensive engineering explanations. Furthermore, each approach includes exercises for independent consolidation of advanced CAD skills. This book is intended for engineers and designers who are already familiar with the basics of modern CAD tools, e.g. feature based

and solid based modeling in 3D space, and would like to improve and expand their knowledge and experience. It is also an easy-to use guide and excellent teaching and research aid for academics and practitioners alike.

**ISE Introduction to Solid Modeling Using SOLIDWORKS 2021**

McGraw-Hill Higher Education

Explore a practical and example-driven approach to understanding SOLIDWORKS 2020 and achieving CSWA and CSWP certification Key Features Gain comprehensive insights into the core aspects of mechanical part modeling Get up to speed with generating assembly designs with both standard and advanced mates Focus on design practices for both 2D as well as 3D modeling and prepare to achieve CWSP and CWSA certification Book Description SOLIDWORKS is the leading choice for 3D engineering and product design applications across industries such as aviation, automobiles, and consumer product design. This book takes a practical approach to getting you up and running with

SOLIDWORKS 2020. You'll start with the basics, exploring the software interface and working with drawing files. The book then guides you through topics such as sketching, building complex 3D models, generating dynamic and static assemblies, and generating 2D engineering drawings to equip you for mechanical design projects. You'll also do practical exercises to get hands-on with creating sketches, 3D part models, assemblies, and drawings. To reinforce your understanding of SOLIDWORKS, the book is supplemented by downloadable files that will help you follow up with the concepts and exercises found in the book. By the end of this book, you'll have gained the skills you need to create professional 3D mechanical models using SOLIDWORKS, and you'll be able to prepare effectively for the Certified SOLIDWORKS Associate (CSWA) and Certified SOLIDWORKS Professional (CSWP) exams. What you will learn Understand the fundamentals of SOLIDWORKS and parametric modeling Create professional 2D sketches as bases for 3D

models using simple and advanced modeling techniques Use SOLIDWORKS drawing tools to generate standard engineering drawings Evaluate mass properties and materials for designing parts and assemblies Understand the objectives and the formats of the CSWA and CSWP exams Discover expert tips and tricks to generate different part and assembly configurations for your mechanical designs Who this book is for This book is for aspiring engineers, designers, drafting technicians, or anyone looking to get started with the latest version of SOLIDWORKS. Anyone interested in becoming a Certified SOLIDWORKS Associate (CSWA) or Certified SOLIDWORKS Professional (CSWP) will also find this book useful. **Introduction to Solid Modeling Using SolidWorks** SDC Publications Through a series of step-by-step tutorials and numerous hands-on exercises, this book aims to equip the reader with both a good understanding of the importance of space in the abstract world of engineers and the ability to create a model of a

product in virtual space – a skill essential for any designer or engineer who needs to present ideas concerning a particular product within a professional environment. The exercises progress logically from the simple to the more complex; while Solid Works or NX is the software used, the underlying philosophy is applicable to all modeling software. In each case, the explanation covers the entire procedure from the basic idea and

production capabilities through to the real model; the conversion from 3D model to 2D manufacturing drawing is also clearly explained. Topics covered include modeling of prism, axisymmetric, symmetric and sophisticated shapes; digitization of physical models using modeling software; creation of a CAD model starting from a physical model; free form surface modeling; modeling of product

assemblies following bottom-up and top-down principles; and the presentation of a product in accordance with the rules of technical documentation. This book, which includes more than 500 figures, will be ideal for students wishing to gain a sound grasp of space modeling techniques. Academics and professionals will find it to be an excellent teaching and research aid, and an easy-to-use guide.

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