

Autodesk® Inventor® 2020

A Tutorial Introduction

Includes video instruction



L. Scott Hansen, Ph.D.



Better Textbooks. Lower Prices.
www.SDCpublications.com



ACCESS CODE
UNIQUE CODE INSIDE

Visit the following websites to learn more about this book:



Table of Contents

Chapter 1 Getting Started.....	1-1
Create a simple sketch using the Sketch Panel	1-4
Dimension a sketch using the General Dimension command	1-8
Extrude a sketch in the Part Features Panel using the Extrude command	1-19
Create a fillet in the Part Features Panel using the Fillet command	1-20
Create a hole in the 3D Model Part Panel using the Extrude cut command	1-25
Create a counter bore in the 3D Model Panel using the Hole command.....	1-28
Chapter Problems.....	1-39
Chapter 2 Learning More Basics.....	2-1
Revolve a sketch in the Part Features Panel using the Revolve command.....	2-3
Use the Revolve Cut command to create a groove.....	2-10
Create a hole in the Part Features Panel using the Extrude command.....	2-20
Create a series of holes using the Circular Pattern command.....	2-39
Chapter Problems.....	2-43
Chapter 3 Learning to Create a Detail Drawing.....	3-1
Create an Orthographic view using the Drawing Views Panel.....	3-6
Create a Solid Model using the Edit Views command	3-14
Chapter Problems.....	3-17
Chapter 4 Advanced Detail Drawing Procedures.....	4-1
Create an Auxiliary View using the Drawing Views Panel.....	4-5
Create a Section View using the Drawing Views Panel	4-10
Create a broken view using the Break command.....	4-15
Dimension views using the Drawing Annotation Panel	4-18
Create Text using the Drawing Annotation Panel	4-20
Chapter Problems.....	4-25
Chapter 5 Learning to Edit Existing Solid Models.....	5-1
Edit the part using the Sketch Panel	5-6
Edit the part using the Extrude command.....	5-12
Edit the part using the Circular Pattern command	5-20
Edit the part using the Fillet command	5-23
Chapter Problems.....	5-28

Chapter 6 Designing Part Models for Assembly.....	6-1
Learn to use the X, Y, and Z Planes	6-3
Learn to use the Wireframe viewing command	6-5
Learn to project geometry to a new sketch	6-7
Learn to use the Shell command.....	6-12
Chapter 7 Introduction to Assembly View Procedures.....	7-1
Learn to import existing solid models into the Assemble Panel.....	7-3
Learn to constrain all parts in the Assemble Panel	7-9
Learn to edit/modify parts while in the Assemble Panel	7-31
Learn to assign colors to different parts in the Assemble Panel	7-41
Learn to drive constraints to simulate motion.....	7-45
Learn to create an .avi or .wmv file while in the Assemble Panel.....	7-49
Chapter Problems.....	7-53
Chapter 8 Introduction to the Presentation Panel.....	8-1
Learn to import existing assembly models into the Presentation Panel.....	8-9
Learn to Tweak Components in the Presentation Panel	8-11
Chapter Problems.....	8-17
Chapter 9 Introduction to Advanced Commands	9-1
Learn to create a sweep using the Sweep command.....	9-2
Learn to use the Rectangular Pattern command	9-8
Learn to create a loft using the Loft command	9-10
Learn to create a coil using the Coil command.....	9-21
Chapter Problems.....	9-24
Chapter 10 Introduction to Creating Threads.....	10-1
Learn to create Threads.....	10-6
Chapter 11 Advanced Work Plane Procedures	11-1
Learn to create points on multiple sketches	11-5
Learn to use these points to create an offset work plane	11-8
Chapter Problems.....	11-13

Chapter 12 Introduction to Stress Analysis	12-1
Learn to create a simple part.....	12-2
Learn to apply material to a simple part	12-3
Learn to apply a fixture to a simple part	12-6
Learn to perform a stress analysis on a simple part.....	12-8
Learn to interpret results of a stress analysis	12-8
Chapter Problems.....	12-11
Chapter 13 Introduction to the Design Accelerator	13-1
Learn to create a Disc Cam.....	13-10
Learn to edit a Disc Cam	13-13
Learn to animate the assembly.....	13-23
Chapter Problems.....	13-27
Chapter 14 Introduction to Sheet Metal.....	14-1
Learn to create a sheet metal bend.....	14-6
Chapter Problems.....	14-20
Chapter 15 Introduction to Weldment	15-1
Learn to create a Weldment	15-6
Chapter 16 Introduction to the Content Center	16-1