

SOLIDWORKS ASSEMBLY MODELING

Pre-Requisites: SOLIDWORKS Essentials

Daily Schedule: 8:30 a.m. - 4:30 p.m.

Length: 2 Days

This is the course to take to learn production assembly modeling in SOLIDWORKS. Learn how to troubleshoot assemblies and make your them as efficient as possible. See how SmartMates and assembly configurations can make your life easier as you work with your production assemblies.

Advanced techniques like top-down modeling, in-context features, and assembly structure editing are explained in detail as you learn how to make some of the most powerful SOLIDWORKS features work for you.

Introduction

- » About This Course
- » Use of Color

Lesson 1: Top-Down Assembly Modeling

- » Top-Down Assembly Modeling
- » Stages in the Process
- » Building Virtual Parts
- » Building Parts in an Assembly
- » In-Context Features
- » Propagating Changes
- » Saving Virtual Parts as External
- » External References
- » Breaking External References
- » Removing External References

Lesson 2: Assembly Features and Smart Fasteners

- » Assembly Features and Smart Fasteners
- » Stages in the Process
- » Assembly Features
- » Smart Fasteners

Lesson 3: Advanced Mate Techniques

- » Advanced Mates
- » Adding Mate References
- » Design Library Parts
- » Capture Mate References
- » Smart Components
- » Advanced and Mechanical Mate Types
- » Summary: Inserting and Mating Components
- » Multiple Mate Mode
- » Using Copy with Mates
- » Mate Options

Lesson 4: Using Configurations with Assemblies

- » Using Configurations with Assemblies
- » Stages in the Process
- » Component Patterns
- » Configuration Properties
- » Using Configure Component
- » Creating Configurations Manually
- » Configuration Publisher

Lesson 5: Display States and Appearances

- » Display States
- » Bulk Selection Tools
- » Advanced Select
- » Envelopes
- » Appearances, Materials and Scenes



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Lesson 6: Assembly Editing

- » Assembly Editing
- » Key Topics
- » Editing Activities
- » Replacing and Modifying Components
- » Troubleshooting an Assembly
- » Replacing Components Using Save As
- » Mirroring Components
- » Hole Alignment
- » Controlling Dimensions in an Assembly
- » Sensors

Lesson 7: Layout-Based Assembly Design

- » Layout-based Assembly Design
- » Key Topics
- » Blocks
- » Inserting Blocks
- » Creating a Part from a Block

Lesson 8: Large Assemblies

- » Large Assemblies
- » Key Topics
- » Lightweight Components
- » Large Assembly Mode
- » Selective Open with Hide
- » Using Quick View / Selective Open
- » Using SpeedPak
- » Defeature
- » Using Configurations with Large Assemblies
- » Modifying the Structure of an Assembly
- » Assembly Visualization
- » Tips for Faster Assemblies
- » Drawing Considerations



These courses are taught from the official course curriculum from SOLIDWORKS Corporation, with additional information from GSC instructors.