



MLC CAD Systems

SolidWorks Mold Design 2010

Atlanta, GA

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Austin, TX

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Birmingham, AL

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New Orleans, LA

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Orlando, FL

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Stillwater, OK

866-364-4652 Toll Free
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Length: 1 day

Prerequisites: SolidWorks Essentials, Advanced Part Modeling

Description: Mold Design Using SolidWorks teaches you several manual mold creation techniques and how to use the Mold Tools in SolidWorks mechanical design automation software.

Lesson 1: Core and Cavity

- Core and Cavity Mold Design
- SolidWorks Mold Tools
- Problematic File Translations
- Mold Analysis Tools
- Analyzing Draft on a Model
- Draft Analysis Colors
- Adding Draft
- Scale the Part to Allow for Shrinkage
- Determine the Parting Lines
- Manual Selection Of Parting Lines
- Automation
- Modeling the Parting Surfaces
- Smoothing the Parting Surface
- Surface Bodies
- Interlocking the Mold Tooling
- Creating the Mold Tooling

Lesson 2: Multiple Parting Directions

- Multiple Parting Directions
- Trapped Molding Areas
- Side Cores
- Lifters
- Core Pins
- Case Study: Electrode Design
- Electrode Clearances
- Keeping the Sharp Edges

Lesson 3: Importing and Repairing Geometry

- Beyond the Basics
- Importing Data
- 3D Model Types
- Geometry vs. Topology
- What is a Solid?
- Creating Solids from Surfaces
- Decomposing a Solid into Surfaces
- Surface Types
- Terminology
- File Translators
- Modeling Systems
- File Translation
- Why Do Imports Fail?
- Diagnosis and Repair
- Checking Solid Bodies
- Making Copies of Faces
- Repairing Gaps
- Repairing Faces

Lesson 4: Parting Lines and Shut-Off Surfaces

- Parting Lines and Shut-Off Surfaces
- Draft Analysis Options
- Parting Line
- Core and Cavity Surfaces
- Shut-Off Surfaces
- Parting Surface
- Tooling Split
- Seeing Inside the Mold
- Undercut Analysis
- Cores
- Ejector Pins

Lesson 5: Repairs and Surfaces

- Creating New Drafted Faces
- Interlock Surfaces

Lesson 6: Using Surfaces

- Surfaces in Mold Making
- Creating Surface Bodies from Faces
- Organizing Surfaces
- Review
- Manual Shut-off Surface
- Side Cores
- Partial Parting Lines

Lesson 7: Reusable Data

- Reusing Data
- Library Features
- Smart Components
- 3D ContentCentral
- Design Library
- Task Pane
- Library Features
- Smart Components

Lesson 8: Alternate Methods for Mold Design

- Alternate Methods for Mold Design
- Using Combine and Split
- Creating a Cavity
- Using Surfaces
- Using the Up To Surface Method
- Using the Split Method
- Manually Creating Shut-off Surfaces





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Lesson 9: Making a Complete Mold

Developing a Plan
Modeling Repairs
Mold Split Folders
Runners and Gates
Side Cores
Ejector Pins
Core Pins
Creating Individual Parts
Moldbase
Organizing the Assembly
Ejector Pins
Cooling the Mold
Making the Drawing
Making Changes
Completing the Process

