



# Educational Services



# IronCAD Self-Paced Training Media



### Our commitment to your education

IRONCAD features unparalleled ease of use with catalog-based design, efficient complex assembly creation, and pro-active positioning of components to give professionals an advantage against the world of software. With that said, rest assured your not left alone when it's time to learn IRONCAD in more detail. Magnacad's training and educational solutions are custom fitted to you time and budget. In the past we had provided fully structured formal classroom training, however we have abandoned this approach in lieu of "bite-sized" solutions as per customers feedback. We also realized that long intense training courses were wasting both time and money due to overburdening the human brain.

### **Visual Education Tools**

The self-paced training program is a video training course whereby users can watch a video and then follow along using the software. The goal is to take users from a complete novice to a competent users in 4 days. The system comes pre-packaged for customers on a branded USB drive. This is a favorite to many users since the media can be referred to as required. The program comes complete with a fully printed hard copy "Getting Started" user guide.



### First Day FREE!

As a primer, we offer the first day of training from this media to you for FREE! It is web-based and therefore can be accessed anytime or anywhere with an internet connection. Get a hard start on your productivity increase and skill enhancement.





### **Educational Services**

### IronCAD Self Paced Training Media - 4 Day Syllabus

Section 1 - 3D Scene

General guide for User Interface of the 3D Scene. Use Catalogs to drag and drop shapes. Edit shapes by using Handles. Show content of parts in the Scene Browser Use Camera tools to Orbit, Pan, and Zoom.

Section 2 - Drag and Drop Modeling Part 1

Create parts using Drag and Drop Modeling. Explore General Options.

Use SmartSnap to shape parts accurately

Section 3 - Drag and Drop Modeling Part 2

Explore Advanced Drag and Drop Modeling. Learn how to Blend (Fillet) Edges. Learn how to Chamfer Edges.

Section 4 - Toy Car

Use the Shell tool to shell out parts. Use the TriBall to position parts.

Section 5 - TriBall Tutorial Part 1

Use Advanced TriBall options to position parts correctly

Move, Rotate, Copy and Align parts using the TriBall. Use The TriBall to Orientate Parts.

Section 6 - TriBall Tutorial Part 2

Explore more TriBall Orientation Options. Learn how to use TriBall Mouse Shortcuts, Radial Patterns, and Mirror Features. Learn how to create Linked Features.

Section 7 - TriBall Tutorial Part 3

Explore Advanced TriBall Orientation Options using the Orientation Handles.

Exercise using the TriBall to align To Point, To Center Point, Parallel to Edge, and Perpendicular to Face.

Section 8 - Stirling Engine 8

Section 8 - Wooden Table Part 1

Exercise using Drag and Drop Modeling and the TriBall Positioning Tool.

Save Camera Views to view parts from specific angle. Use SmartPaint to color parts.

Use Assemble to assemble individual parts into Assembly Models.

Section 9 - Wooden Table Part 2

Exercise creating TriBall Radial Patterns.

Drop Shapes as individual parts.

Section 10 - Wooden Table Part 3

Explore how to Name Parts.

Exercise duplicating a Pattern Option. Edit SizeBoxes by using Math Functions

Section 11 - Wooden Table Part 4

Exercise Linear Pattern Features with Linked Copies

Exercise Repositioning the TriBall.

Combine multiple parts into an Assembly

Section 12 - Wooden Table Part 5

Exercise dropping SmartPaint on Assemblies. Exercise using the TriBall to Mirror Linked Copies.

Section 13 - Cross-Section Sketch

Edit Cross Sections to change Dimensions of shapes View the Cross Section Display Modes.

Use Look At Tool to look directly at surfaces

Edit 2D curves by dragging, or entering dimensions.

Delete unwanted curves with Trim. Use the Offset command to create offset curves

Section 14 - Sweep Wizard - Tube

Use the Sweep Wizard to sweep a cross section along a guide curve. Use Polylines to quickly create curves.

Fillet corners of sketches.

Create 3D Curves with the 3D curve command. Explore how to Sweep along 3D curves.

Troubleshoot a failed Sweep.

Use the TriBall to create an accurate 3D Guide Curve

Section 15 - Spin Wizard - Shaft

Use Spin Wizard to Spin Sketches along an axis. Edit Cross Sections of sketches.

Use Profile Handles to edit the spun sketch.

Handle Edit Distance from Center Point and from Point.

Section 16 - Bend Tube

Use Spin Wizard to create a Bend Tube.
Use Profile Handles to edit the Dimensions of the Bend Tube.

Use the Shell Feature to shell out the Part.

Section 17 - Loft Use the Loft Wizard to create lofted parts

Edit the Profile Locator Curve to relocate the loft. Edit Cross Sections of the loft sections. Create a Loft feature Between Shapes. Switch the Cross Section Directio Switch between Parasolid and ACIS Modeling Kernels Associate loft feature with a face of another shape.

Section 1 - Stirling Engine 1

Create a Conceptual Layout of a Stirling engine.
Use Drag and Drop Modeling to create the basic parts of the engine.

Section 1 - 2D Drawing Part 1

Create and customize a Bill of Materials.

Section 2 - 2D Drawing Part 2

Section 3 - 2D Drawing Part 3

Section 4 - 2D Drawing Part 4

Section 5 - 2D Drawing Part 5

Section 6 - 2D Drawing Part 6

Section 7 - 2D Drawing Part 7

Use Item Bubbles to label parts in the drawings

Assemble created parts together using the Assemble tool. Create Drawings of Parts and Assemblies.

Create Drawings of Individual Parts.
Use the Center Mark command to create center marks on circles.

Explore how to use Text Format options such as Flip Inside/Outside Arrow

Create broken-out sections with the Broken -out Section command.

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Use Select Part/Assembly To Project tool to project certain part/as sembly from a saved file. Exercise using Broken -out sections, Centerline and Center Marks.

Use the Centerline command to create centerlines on Parts.
Use the Section command to create sectioned views of parts.

Use Smart Dimension to Quickly create Dimensions Use Align to Align Dimensions up with one another

Use Shift-Select to use Smart Dimension and Align

Exercise changing the View Quality of the drawing.

Use Move to another View command to move dimension

Rotate drawings using the View Rotate command. Align Drawings using the View Alignment command.

Exercise using the Smart Dimension and Text Formatting tools.

Section 8 - 2D Drawing - Bill of Materials Part 1

Section 9 - 2D Drawing - Bill of Materials Part 2

Section 10 - Assembly Instructions Drawing Part 1

Section 11 - Assembly Instructions Drawing Part 2 Use the Crop View command to Crop out parts of the Drawing view

Create text boxes to explain how to assemble the Sterling Engine

Create more views by copying and pasting views

Section 12 - Customize 2D Drawing Part 1

Explore the Styles and Layers options.
Create sketches using the Sketch commands.

Create descriptions using part properties Create and save custom line types.

Explore how to create title and description boxes

Section 13 - Customize 2D Drawing Part 2

Add Styles for views and layers. Explore how to add a logotype to the Drawing. Explore how to create and save custom Templates.

Use IronPRO XT Tools to add material to parts.

Section 14 - Exploded View Part 1

Section 15 - Exploded View Part 2

Use Configurations to make exploded views Use the TriBall to easily position parts in the exploded view

Exercise using the TriBall to move multiple parts.

Create explode lines in the scene by using the 3D Curve command. Create explode line on the drawing by using the Sketch commands.

Use the Edit Curves command to edit curves in the drawing vi

Use the Split command to split lines to trim away unwanted seq ments from the exploded lines.

Use Configurations to create assembly instructions.

Explore Configurations options to help create assembly instructions

Change the configuration of each view to show the different steps in the drawings

Explore how to edit the Layout of the Bill of Materials.

Create and Save custom Bill of Materials

Explore options to change the properties for one or all bubbles. Explore options to edit the Bill of Materials.

Create rendered drawings by using the Rendered Shading com mand. Explore how to create and add parts into subassemblies.

Exercise using SizeBox Handle SmartSnap.

Section 2 - Stirling Engine 2

Use SmartSnap to snap to features of other parts. Change Snap Increments when using the handles Exercise using the TriBall Copy/Link shap

Section 3 - Stirling Engine 3

Use Suppress to supress parts or shapes from being generated. Use the Hide Selected tool to hide selected parts. Edit the Part User Name, Part Number and Description

Section 4 - Stirling Engine 4

Use Forward and Backward End Conditions to Extend shapes to features of shapes. Exercise using advanced options to orient the TriBall to position shapes.

Section 5 - Stirling Engine 5

Reverse the extrude direction using the Flip Extrude Direction tool. Hide Unselected parts to only view selected parts

Use the Show All command to view all parts.

Section 6 - Stirling Engine 6

Shift-snap parts to center upon drag and drop. Use Edit Feature Options to edit existing part features.

Exercise using the TriBall to position shapes

Section 7 - Stirling Engine 7 Edit Cross Section Camera Look At Options Edit Cross Section Display Modes.

Position the TriBall by 2D Plane Handle. Toggle the Perspective Camera option.

Edit Surface Smoothness and its Default Setting.
Use Section Part/Assembly to view sections of a part/assembly.
Use Precise Mode on the Section to toggle between Precise and Graphics.

Section 9 - Stirling Engine 9

Exercise editing cross sections and moving curves. Explore Command Browser Tips.

Explore Cursor "Entity Feedback" options. Section 10 - Stirling Engine 10

Use the IronPRO XT and other Add -ins from the Catalog Browser, or the Common Tab.
Use the Tools Catalog to access a variety of useful tools.

Create IronPRO XT Threaded holes.

Section 11 - Stirling Engine 11

Section 12 - Stirling Engine 12

Exercise using the Shell Feature, Editing Individual Face Thickness. Focus on Selected Parts by using the Hide Unselected option Exercise creating Threaded holes using the IronPRO XT tools.

Section 13 - Stirling Engine 13

Exercise Projecting 3D Edges.
Use S-Key "Floaty" menus to quickly access common tools.

Exercise using Two Tangent and One Point Circle tool to create circles.

Section 14 - Stirling Engine 14

Use the Draft Faces tool to draft faces of a part.
Use Feature Reordering to reorder the features of a part.

Shift-drag TriBall center handle to find a holes center point.

Section 15 - Stirling Engine 15

Exercise using the Spin Wizard along selected surfaces. Exercise offsetting and shelling parts
Use SmartPaint Transparency to see through parts.

Section 16 - Stirling Engine 16

Create L3 Circles Loft Shape by dragging and dropping from the catalog. Practice Individual Blend Radii edits by editing the blend feature.

Use the Eyedropper to copy colors on parts and apply it to other parts.

Section 17 - Stirling Engine 17

Exercise repositioning the TriBall.
Execise using the TriBall to reposition parts.

Use Alt-Left Click to select a Feature/Shape

Section 18 - Stirling Engine 18

Use the TriBall to create right -click linked copies.
Use the IronPRO XT Fasteners Assembly from the Catalog to create Fasteners.

Explore the difference between BOM Expand vs. Treat as Part.

Section 19 - Stirling Engine 19

Use IronPRO XT to create Fastener Assemblies with washers and nuts.
Use IronPRO XT to create threaded and simple holes.

Use IronPRO XT to create countersunk holes

Exercise using the TriBall to align screws to holes.

Section 20 - Stirling Engine 20

Create TriBall Radial Linked Copies. Snap SizeBox handles from one part to another. Exercise creating threaded holes and screws.

Section 21 - Stirling Engine 21

Extract 3D Curve from edges to create parts with existing curves. Exercise using the Sweep Wizard to create parts from 3D and 2D curves. Exercise mirroring parts using the TriBall.

Section 1 - Catalogs Part 1 Create a new Catalog by using the New command under the Common ribbon.
Snap the Catalogs to the Top, Bottom or sides by dragging and dropping the Catalog tab.
Save custom parts and IntelliShapes into custom catalogs by drag ging and dropping. Explore the differences between IntelliShapes and parts Section 2 - Catalogs Part 2 Explore the behavior of anchors and its uses. Explore options that change the anchors behaviour Section 3 - Catalogs Part 3

Explore the uses of the anchor. Drag and drop parts into catalog Edit the anchor to manipulate part behavior

Section 4 - Catalogs Part 4 Replace parts in an assembly by dragging and dropping from the catalog. Create duplicates or parts of assemblies by dragging and dropping into the catalog.

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Section 5 - Catalogs Part 5

Add materials and colors to the catalog.

Edit parts and IntelliShapes in the catalog.
Use IntelliShape properties to edit the behavior of the shapes.

Section 6 - Import Part 1 Import Parts into IronCad using the Import Part command.

Explore using the control and alt key to edit the behavior of the parts.

Use the Add-in Applications command to add in applications Section 7 - Import Part 2

Unfold parts using the Solid/Surface Flat Pattern from Faces com Use Faces to IntelliShape to create IntelliShapes from faces. Use Smart Dimension to measure and edit distances of features of parts

Section 8 - Import Part 3 Use import options to import parts as reference geometry. Explore the Behavior of reference geometry.

Use the Visualization tab to Edit and play the Animation.

Section 9 - Animation Part 1

Create Animations by dragging and dropping from the animation catalog.

Section 10 - Animation Part 2

Apply animation options onto linked parts.

Explore the Rehavior between the Anchor and Amination effects.

Section 11 - Animation Part 3

Delay parts from moving by using the SmartMotion Editor. Exercise moving parts using the Animation Catalog. Use the Export Animation command to save and export the anima tion.

Section 12 - Render Part 1

Mentions that there are 3 videos, but there are only 2 Create render views by using the Render Now comma

Edit the image size, lighting and image quality using the Advanced Rendering Properties. Explore the options in the Scene Properties under the Rendering Command.

Move the Camera with the Edit Camera Command. Section 13 - Render Part 2

Add Material to Parts using the AdvMaterial Catalog. Explore how to use Shaders from the SmartPaint option Create light using the Insert Light command.

Section 14 - Sheet Metal Part 1

Create Sheet Metal by dragging and dropping from the SheetMtl Catalog. Change the Stock of sheet metal by using the part properties tools. Create Chamfers and Fillets by dragging and dropping from the catalog. Create Hems and Seams by dragging and dropping from the cata log onto edges. Create Dimples by Dragging and Dropping from the catalog.

Drag and Drop a variety of Punch shapes, and Embosses.

Section 15 - Sheet Metal Part 2 Explore Sheet Metal Option Change the Default stock.

Section 16 - Sheet Metal Part 3

Add Bends to sheet metal by dragging and dropping the Bend command from the catalog. Use Handles to change the length, width, angle and radius of the bend. Explore the differences between In Bend and Out Bend.

Use Edit Bend Alianment to edit Bends. Section 17 - Sheet Metal Part 4

Exercise creating Bends, Editing Cross -Sections. Create and edit Bend Reliefs on Bends. Exercise using the TriBall to mirror features

Section 18 - Sheet Metal Part 5

Unfold and fold sheet metal by using the Unfold Command. Use the Export option to save a drawing to multiple file types.



# Advanced IronCAD Training Course with Josh



# Our commitment to your education

Learn how to make the most of the power of IronCAD you have at your fingertips. Easy to watch individual training segments.

Learn to make SmartModels with parameters.

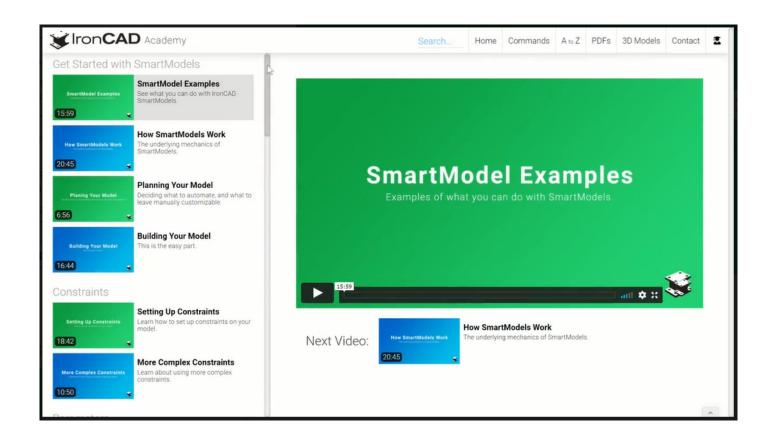
Learn to create magnetic snapping catalogs.

Learn to add pricing information to use models for quoting and sales.

Learn to constrain parts together.

Learn the different types of parameters and how to apply them.

Learn design variations to toggle between different versions of the same model.





# **Virtual Training**



### Our commitment to your education

Because of its effectiveness, ease of use, and cost-effectiveness, our IronCAD™ Virtual Training solutions are implemented by many small to large companies.

Today, companies depend on highly skilled employees. Magnacad's virtual classrooms adds a new alternative to education by eliminating all the wasteful costs traditionally associated with sending staff to off-site training providers. Participants experience a new level of engagement in a visually appealing and interactive on-line environment. Because students can study live with an on-line instructor, or when it fits their schedule, the result is a more confident and highly skilled workforce.

### Rich Interactive Experience.

Virtual classrooms are powered by stateof-the-art web conferencing solutions that provide a rich set of educational engagement tools for enhanced student comprehension.

#### Benefits.

- Increased productivity
- Higher training effectiveness
- Reduced cost per employee
- Higher attendee satisfaction
- Instructor led or self paced
- Reduced or zero travel time
- Consistent content

### Focused Learning.

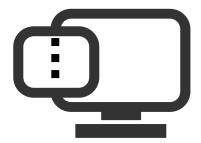
Our virtual classrooms offer the easiest way to on-line training possible. Students learn within a few minutes of their first session how to navigate the controls. Students can focus on learning and not the burden of traveling, forgetting materials, being late and missing lectures.

#### Cost.

\$95.00 per Slot per Student (1-hour)

### Schedule a Session.

Simply email us at support@magnacad.com or call (631) 974.0677 to schedule a date and time.



Powered by





# Night Owl - Virtual Traininig



# Our commitment to your education

Today, companies and self-employed engineers depend on highly skilled technologial prowess. Magnacad's Night Owl program adds a unique alternative to education by eliminating all the wasteful costs traditionally associated with attending off-site training providers. Participants experience a new level of engagement in a visually appealing and interactive on-line environment. Because students can study live with an on-line instructor, or when it fits their schedule, the result is a more confident and highly skilled workforce.

Magnacad has instituted the "Night Owl Training Program" specifically designed for our IronCAD clientele who are either new or seasoned users. These Night Owl sessions are evening-based training classes.

### Time Slots.

The courses are structured into evening courses and slots are available Monday thru Thursday starting at 6:30pmEST. Night Owl Sessions are divided into 1-hour slots and customer can attend up to 3 slots a night maximum.

#### Cost.

\$95.00 per Slot (1-hour) \$250.00 Full Night (3-hours)

All night owl training is FREE to currently unemployed engineering professionals and US military vets both active and retired.

#### Schedule a Session.

Simply email us at support@magnacad.com or call (631) 974.0677 to schedule a date and time.



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