

WIREFRAME MILLING MODULE SYLLABUS

This two day class of lecture & hands-on exercises shows you how to create 2D, 2.5D wireframe and simple 3-axis geometry and toolpath in GibbsCAM Milling

<p><u>DOCUMENT BOX</u> Setting up a filing structure Creating and naming new folders & files Selecting Machine type & material Selecting alloys & hardness Programming using inch or millimeter Opening & closing existing files Saving files Saving as older versions Describing Part stock an origin Tool change position Setting a clearance plane Inserting comments at beginning of prog.</p> <p><u>DRAWING</u> <i>Points</i> Center point & Mid point Point on an Arc, Mouse Point <i>Lines</i> Between two points, Point Angle Parallel, Angle and Tangent Circle Parallel, Perpendicular Axis line & horizontal or vertical Mouse line <i>Circles</i> Radius and Center point, Point and Center point, Radius and two point, Point and Center point , Radius and two points, Three features <i>Shapes</i> Engraving, Offset, Box, Polygon, Ellipse, Gear, Cam <i>Curves</i> Polyline, Spline Fit, Spline control point <i>Chamfer</i> Fillet, Side Chamfer, Depth &Length Chamfer. <i>Connect</i> Connecting and disconnecting <i>Geometry Expert</i> Drawing Square, using fillets and Chamfers, angles & radius, short cut Keys, Reloading, Modify dimensions.</p> <p><u>TOOLS</u> Selecting & Describing Tools Selecting Tool Material Selecting Spindle Direction Setting Tool Offsets Using Multiple tool Offsets Inserting Tool Comments Finding and moving tools Creating form tools</p> <p><u>CAM</u> Holes FI-RO Feed in Rapid Out FI-FO Feed in Feed out Tap Rigid tap Peck, Full out Peck, Chip Breaker Rough Mill bore Finish Mill bore Fine bore Back Bore Pre-Mill Entry hole Corner holes</p>	<p><u>Cont. CAM</u> Selecting Locations by: Clicking each location Dragging a window Selecting all</p> <p><u>CONTOUR</u> For inside and outside For rough & finish Pre-Mill Entry holes Straight walls, Tapered walls & Fillets Swept shapes Patterns Engraving Tapered Thread milling Toggle single cut feature Setting Machining markers Direction of cut Side of line Starting & Ending feature Starting & Ending point</p> <p><u>ROUGHING</u> Face milling Stock Shape Pocketing Offsetting ZigZag For Inside and outside Pre-Mill Entry holes Corner holes Straight & Tapered walls with Fillet swept shapes Patterns Material only cutting Using air walls Selecting Geometry Pockets & Islands</p> <p><u>TREADMILL</u> Internal & External threads Other uses (spiral bore) Selecting Location</p> <p><u>ENGRAVING</u> Single & Double line Standard or Raised</p> <p><u>DIMENSIONING</u> <i>Check dimensions by:</i> Annotation Palette, Mouse position, Workgroup summary, Show\Hide Dimension, Printing dimensions</p> <p><u>MATERIALS</u> Creating New Family of materials New Alloys Entering SFM vs. RPM Entering IPT vs. IPM Modify in Existing Material Data Base</p> <p><u>COMMUNICATIONS</u> Setting up & Selecting Machine Sending VNC & TXT Files Receiving VNC & TXT Files</p>	<p><u>FILE MENU</u> Preferences Communication set-up Changing file extensions Setting up AutoSave Changing Graphics setting, Interface level Changing Machining & Window pref. Post Processor settings Printing Setting font directory Hole Wizard settings Hole data Bolt table Tap table Importing or opening DXF Files Exporting or opening IGES Files</p> <p><u>EDIT MENU</u> Undo Cut Coy Paste Select All Selecting by Points Lines Circle Curves</p> <p><u>VIEWS</u> View Palette Drop down menu Short cut keys Trackball Dynamic rotation</p> <p><u>MODIFY</u> Duplicate & Duplicate All Force Depth Mirror 2D Rotate Scale Translate Segment Spline Sort Shrinkage Reverse Arc Toggle Feed Status Toggle Wall air Move part origin</p> <p><u>PROCESSES</u> Saving & loading Processes Setting up folders & Directories</p> <p><u>WIZARDS</u> Hole & Stock Wizard</p> <p><u>PLUG INS</u> Cleanup & Create D Hole Setup Post Editor Reporter 97 &2000 Show Position Create Spiral, Tapered Thread Transform toolpath</p> <p><u>HELP</u> Balloons, Prompting, tool tips, shortcuts About Virtual Gibbs</p>
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