

ShopBot Basic Training

Day One

- A. Introduction
 - a. Welcome to ShopBot
 - b. Explanation of Weekends Training
 - c. Who are you and what do you do
 - d. Facility Tour
- B. Safety
 - a. ShopBot Safety
- C. What Is
 - a. Terminology
 - b. CAD/CAM
 - c. V-Carve Pro
 - d. ShopBot 3
- D. Machine Orientation(held out in shop at machine)
 - a. Machine Overview
 - b. Starting Up Machine
 - c. Starting Software
 - d. Basic Commands
 - e. Axes Orientation
 - f. Moving the Axes
 - g. Load, run and cut a Part File
 - h. Table Surfacers

--BREAK--

- E. Intro V-Carve Pro
 - a. Vectric website and Tutorials
 - b. File Types .crv and .sbp
 - c. Help Menu Options
 - d. Job Setup
 - e. PartWorks Overview
 - f. Material Setup
 - g. Create Vectors
 - h. 2D View Control

--LUNCH--

F. ShopBot Vision

- a. Digital Fabrication in Your World

G. ShopBot Accessories

- a. Probe
- b. WidgetWorks
 - i. Diamond Drag
 - ii. Vinyl Cutter
 - iii. Plotter Pen
- c. Air Drill
- d. Vector Art Collections
- e. Donek Drag Knife
- f. Indexer
- g. Custom Tools

H. Techniques and Troubleshooting

- a. Goals
- b. Hold Down
- c. Part Verification
- d. Tolerance Build-Up
- e. Bit, Collet, Nut Wear and Tear
- f. Maintenance
- g. CAD to CAM

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I. Chipload

- a. Compression, Up-Spiral, Down-Spiral
- b. Purchasing Bits (Onsrud)
- c. Chipload Calculator
- d. Adding bits to Tool Database

--QUICK BREAK--

J. Importing/Exporting

- a. Bitmap
- b. Vectors

K. Intro. V-Carve Pro Toolpathing

- a. Profile
- b. Pocket
- c. V Carve
- d. Drilling
- e. Texture
- f. Fluting

L. Questions and Wrap-Up

ShopBot Basic Training

Day Two

- A. Introduction
 - a. Day 1 Review
 - b. Explanation of Day 2 Training
- B. Drawing Exercise
 - a. V-Carve Pro Worksheet
- C. V-Carve Pro Drawing
 - a. Edit Objects
 - b. Align Objects
 - c. Nesting
 - d. Guidelines
 - e. Snap Grid
 - f. Offset
 - g. Array

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- D. From Idea to Cutting with PartWorks (this will be designed and cut during this session)
 - a. Material Setup
 - i. Measuring
 - ii. Z zero location
 - b. Create PartWorks (.crv) file
 - i. Saving Files
 - 1. Labeling Folders
 - c. Design
 - i. Create Vectors
 - ii. Edit Objects
 - d. Toolpath
 - i. Ordering
 - ii. Hole vs Wheel
 - iii. Tabs
 - iv. Ramps
 - e. Generate ShopBot (.sbp) file
 - i. Load File
 - ii. Preview
 - f. Cut Part
 - i. Daily Maintenance

- ii. C5, C3, C2

--LUNCH--

E. PartWorks 3D

- a. Intro PartWorks 3D, setup Toolpath (.v3d)
- b. Import Model
- c. Combine 3D with V-Carve Pro
- d. Toolpath with PartWorks drawing
- e. Cut 3D Model

F. Layers

- a. How to use Layers

G. Toolpath Templates

- a. Saving Templates
- b. Using Templates

H. Review

- a. Both Days Reviewed
- b. Question and Answer

I. Individual Assistance if Requested