

CAD with spectraCAD Engraver (M)

Catalogue Number	77-3004-0002
Category	Design
Duration	15 Hours

Activity 1: Getting Started

Overview

LearnMate and spectraCAD Engraver

Task: Running spectraCAD

spectraCAD Window Components Optional Toolbars

Task: Displaying the Drawing Toolbar Cursor Appearance

Project and Display Specifications

Task: Setting the Units of Measurement

Task: Specifying the Workpiece Size

Task: Specifying the Grid Spacing

Task: Setting a Zoom Level

Task: Exiting spectraCAD

Activity 2: Using spectraCAD

Learning CAD Commands

Selecting Commands

Task: Using the Mouse to Select Commands

Task: Using the Keyboard to Select Commands

Drawing Entities

Task: Specifying the Project Settings

Task: Picking Points

Task: Creating Drawing Entities

Task: Selecting Entities Using the Entity Box

Task: Using a Selection Box

Online Help

Activity 3: Managing Files

File Management Overview

Task: Saving a Drawing

Task: Opening an Existing Drawing

Task: Creating a New Drawing

Task: Saving Your New Drawing

Task: Opening a Recently Used Drawing

Task: Importing a DXF File

Task: Printing a Drawing

Activity 4: Creating the LMC Project

Designing a Part

Task: Specifying the Project Settings

Task: Drawing the Outer Boundary

Task: Drawing the Inner Boundary

Task: Saving the Drawing

Task: Filleting the Corners

Task: Drawing the L Island

Task: Switching to the Relative Coordinate System

Task: Drawing Six Continuous Lines

Activity 5: Drawing the M Task:

Open the LMC Drawing Task: Draw

Left Half of the M Task: Mirror the
Lines

Activity 6: Drawing the C

Overview

Task: Drawing Line 1

Task: Copying Line 1

Task: Drawing Arc 1

Task: Offsetting an Entity

Task: Zooming In on the Drawing

Task: Extending a Line

Task: Trimming a Line

Task: Zooming In on the Drawing

Task: Extending Line 2 to Arc 2

Task: Trimming Arc 2 to Line 2

Activity 7: Speaker Design Project

Creating the Speaker Drawing

Task: Setting up the Drawing

Task: Drawing the Contour Boundary

Task: Filleting Corners

Activity 8: Creating the Speaker Cone

Overview

Task: Drawing the Outer Circle

Task: Drawing the Inner Circle

Task: Drawing the Volume Control Knob

Task: Layering

Task: Assigning an Entity to a Layer

Activity 9: Completing the Speaker Project

New CAD Operations

Task: Drawing the On/Off Switch

Task: Drawing the Nameplate

Task: Adding Text

Task: Moving Text

Task: Exploding an Entity

Task: Rotating the Text

Activity 10: spectraCAD Engraver

Engraving Overview

Task: Creating an Engraver File

Task: Drawing the Text

Activity 11: Generating an NC File

Generating the NC Code File

Task: Selecting the Geometry

Task: Selecting the Cutting Parameters

Task: Viewing the Engraving Job Summary

Task: Generating an NC File

Activity 12: NC Files and Coding

What is NC Programming?

Task: Viewing the NC Part Program

Activity 13: Pocketing

Task: Toolpaths for Pocketing

Task: Drawing the Rectangle

Task: Rotating an Entity

Task: Drawing the Circle

Task: Offsetting the Entities

Activity 14: Pocket Toolpaths and SpectraCAM

Toolpaths

Task: Engraving Setup

Task: Selecting Toolpaths and Generating NC Code

Task: Viewing the NC File

CAM and SpectraCAM