

# Lab-Volt Systems Announces Acceptance by



Lab-Volt Systems, Inc. is a worldwide, leading developer of hands-on training and courseware for computer-integrated manufacturing and many other technical fields. Our mission is to provide the most up-to-date, effective training at the most competitive prices in order to enable instructors to help students achieve every educational goal within any budget parameters.

We have been achieving this mission for more than 45 years; a success rate that has earned us the honor of being an approved supplier for Project Lead the Way partner schools. We look forward to helping you develop the best engineers and engineering technologists that existing and future employers could ever hope to hire.

## Complete Robot System Includes State-of-the-Art Software and Teach Pendant

Durable, steel and aluminum construction

High-torque servo motors with industrial-grade optical encoders.

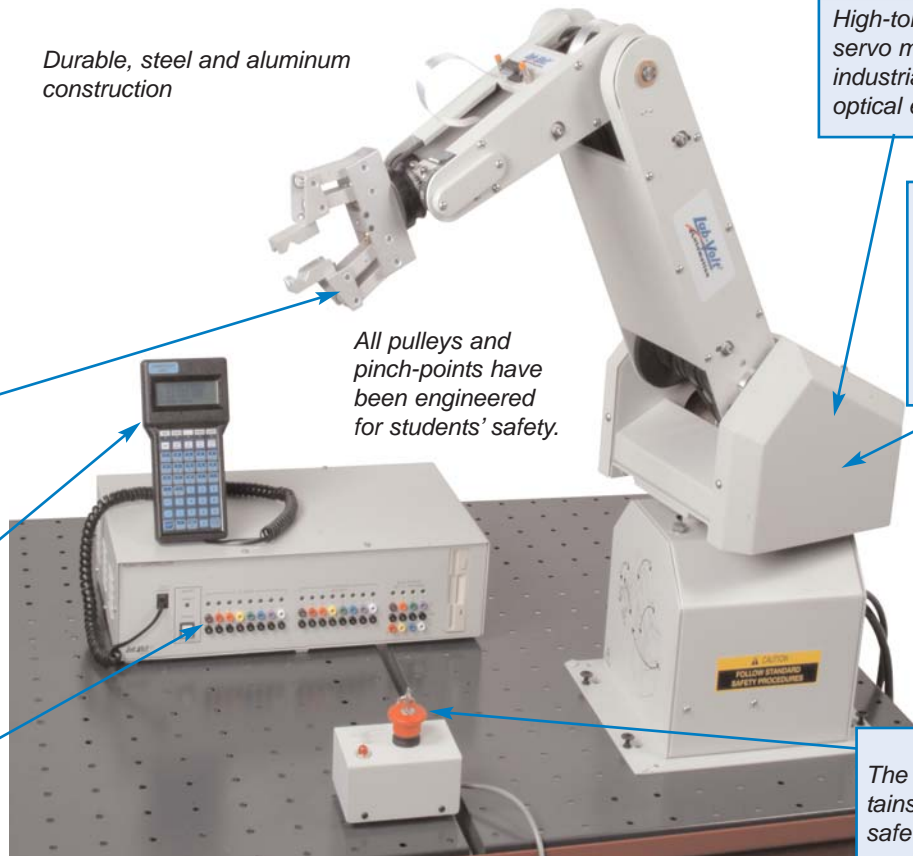
Easily-adjustable belt tension pulleys; Safety-enclosed HTD drive belts for power transfer.

Oilite bushing to support heavy loads and minimum maintenance.

All pulleys and pinch-points have been engineered for students' safety.

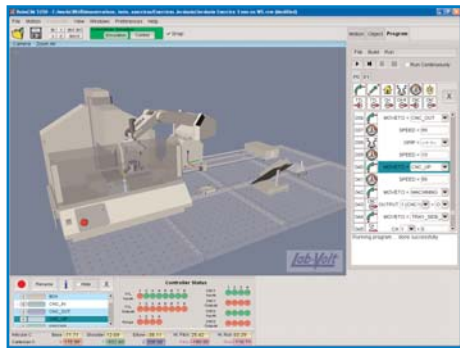
The hand-held Teach Pendant has a four-line, 20-character LCD display and a 40-key membrane keypad for manual control.

Input and output connection ports are color-coded for ease of setup.

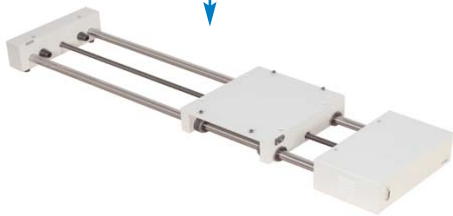


The 5250 Robot contains a key-operated safety stop button.

The 5250 Robot moves along the Linear Slide (5209-A0) to perform programmed tasks. This slide is driven by a DC servo motor, is direct-coupled to the precision ballscrew, and has a limit switch feedback.



The 5250 Robot also can be controlled by software, which is compatible with Windows® XP.



The Gravity Feeder is used in exercises that require flat stock. It has sensor switches and feedback cables for connection to the 5250 Robot.

**The 5250 Robot can be linked with the 5600 CNC Mill. Turn the page for details on the Mill, Quick Change Tooling, and other accessories.**



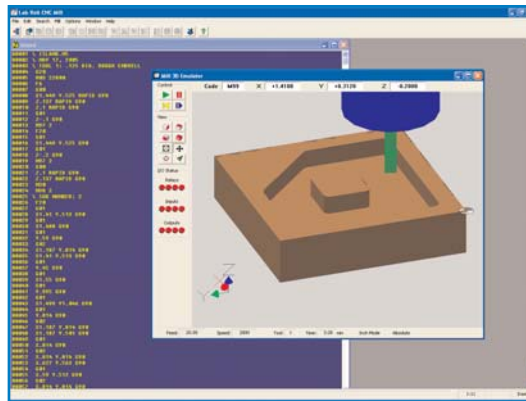
# 5600 CNC Mill and Accessories Provide Cost-Effective Training in Basic and Advanced Skills



The 5600 CNC Mill provides complete, safe, and affordable training in CAM and milling with industry-standard, state-of-the-art software. It features an on-board microprocessor that stores downloaded part programs, thereby eliminating the need for a dedicated computer for operation.

The mill supports low-voltage communications with robotic units and devices to create automated cells ideal for computer-integrated manufacturing. Interface cards are not required. The mill can also be used in stand-alone, manual-mode operation, or batch mode for independent operation or operation of CIM cells.

## State-of-the-Art Software



### Lab-Volt CNC Development and Control Software

- Parametric-based graphical tool editor
- 3D Tool Path Emulator with user-definable views and an easy-to-use graphical interface
- Direct compatibility with other CAM programs that support the EIA standard G and M codes
- Up to 10 separate G and M programs can be opened at the same time
- 3D solid modeling with shading and lighting simulation
- 3D simulator options including grid overlay, tool path display, camera tracking, and rendering material selection.
- Full tool and holder conflict visualization in the simulator.
- GIBBSCAM and EDGECAM posts

### Quick Change Tooling (5601-10)

- One Quick Change tool body for R8 spindle mounted on the CNC Mill
- Tool holder quantities and sizes: one 1/8"; one 1/4"; two 3/8"; one 1/2"
- Hex key set

### End Mill Package (5612-10)

- Ten in HSS -- two each in the following sizes: 1/8", 1/4", 3/16", 5/16" and 3/8"
- Four in Carbide -- two 1/8" and two 1/4"

### Engraver Tool Set (5613-10)

- One 1/32" end mill, 1/8" shank, 4 flute, carbide
- One 1/16" end mill, 1/8" shank, 4 flute, carbide
- One 60° conical engraving tool, 1/8" shank, carbide

### Pneumatic Vise (5616)

- Cylinder-operated vise used to achieve automatic clamping and unclamping of the stock
- Supplied with a pneumatic controller that connects to the solenoid driver port of the CNC Mill, permitting M-code control of the extension and retraction of the vise cylinder in the part program.

### Air Conditioning System and Compressor (6410-A0)

- Portable
- 120V
- Maximum pressure range: 100 psi
- Tank capacity 462 in<sup>3</sup>
- Flow: 0.7 SCFM at 90 psi

### Name Plate Stock (5407)

- 8" x 2" x 1/8"

**For details, contact  
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