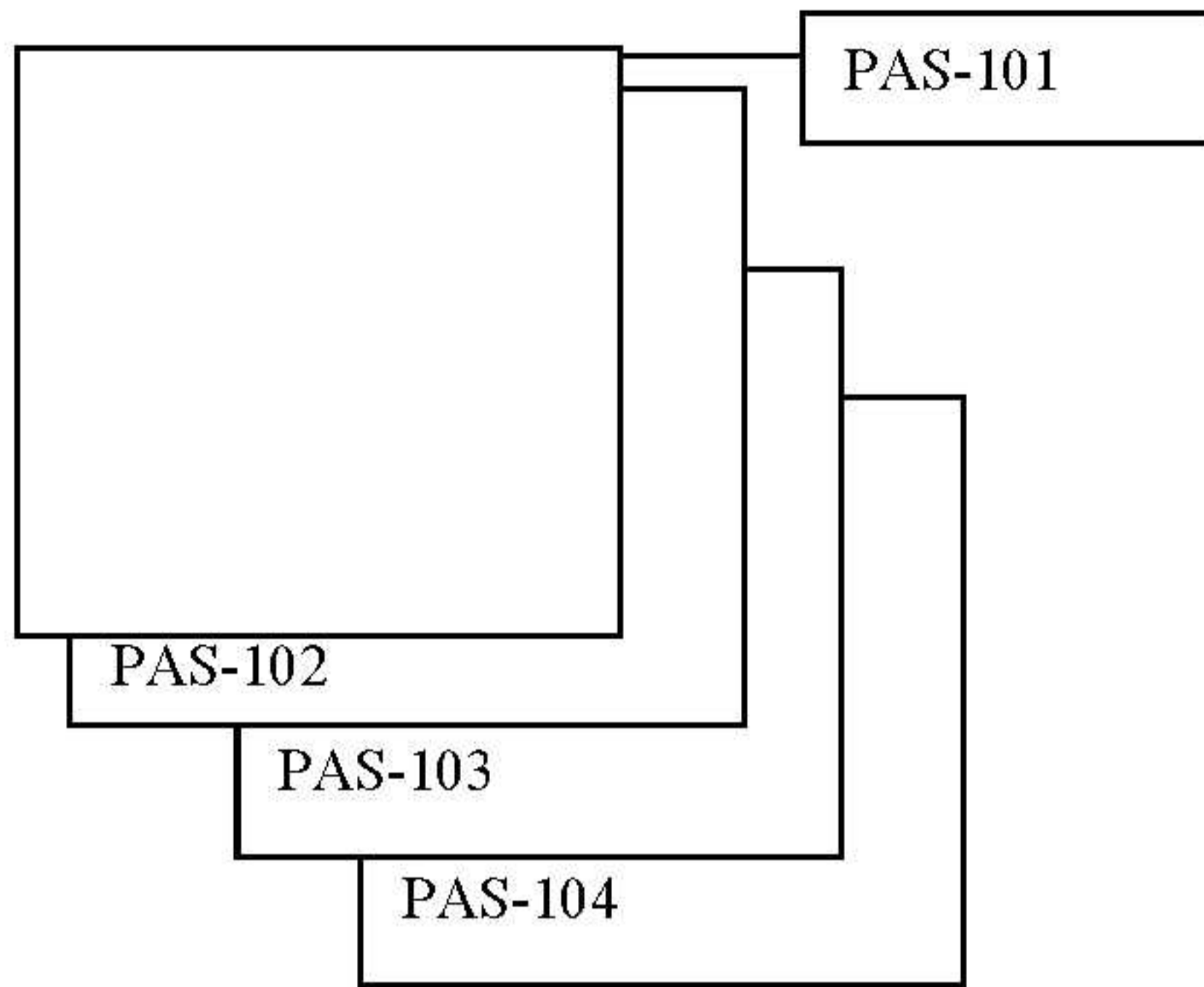


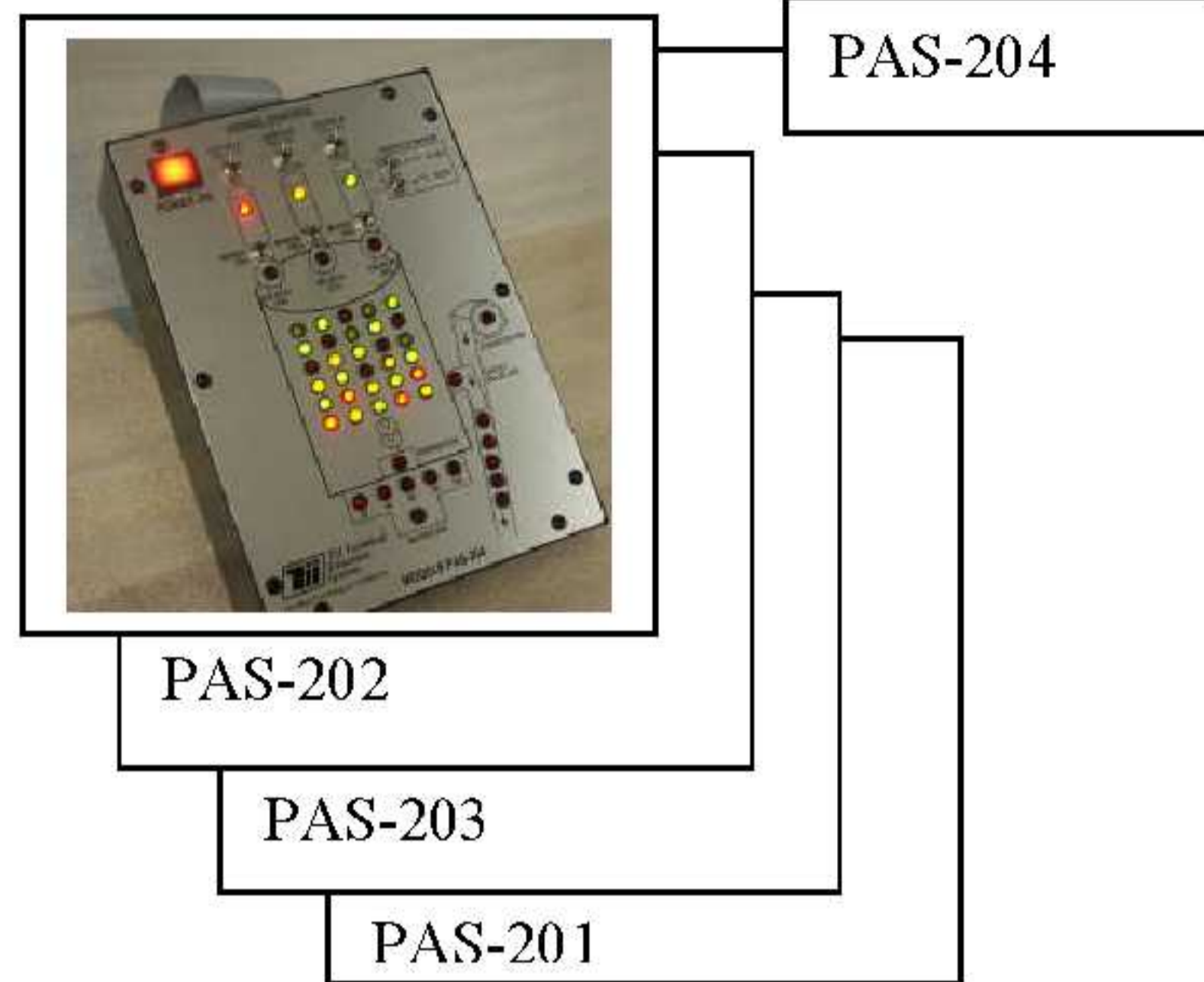
PLC Application Simulation Modules

PAS Series

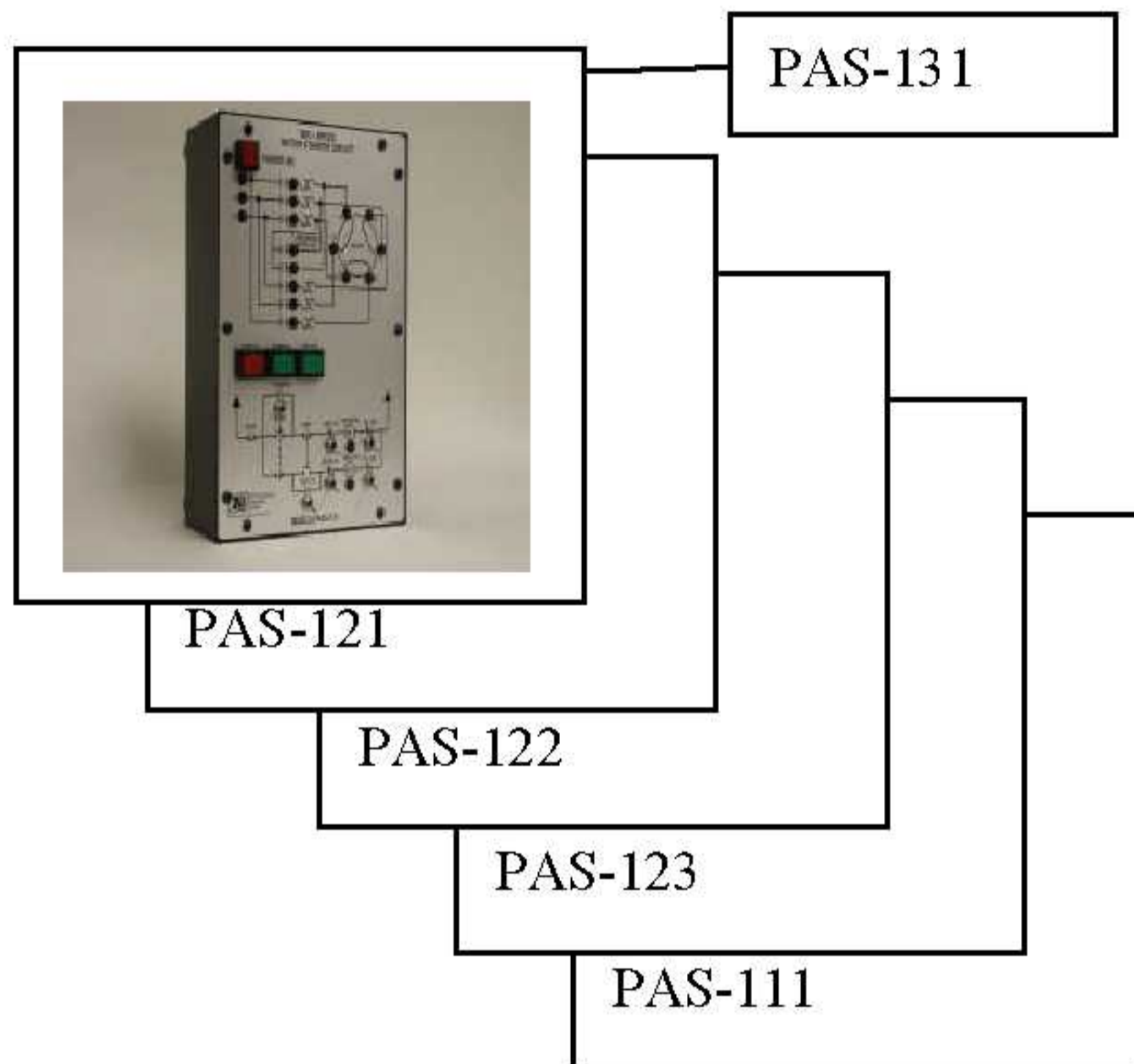
Motor Control Basics-PAS100B



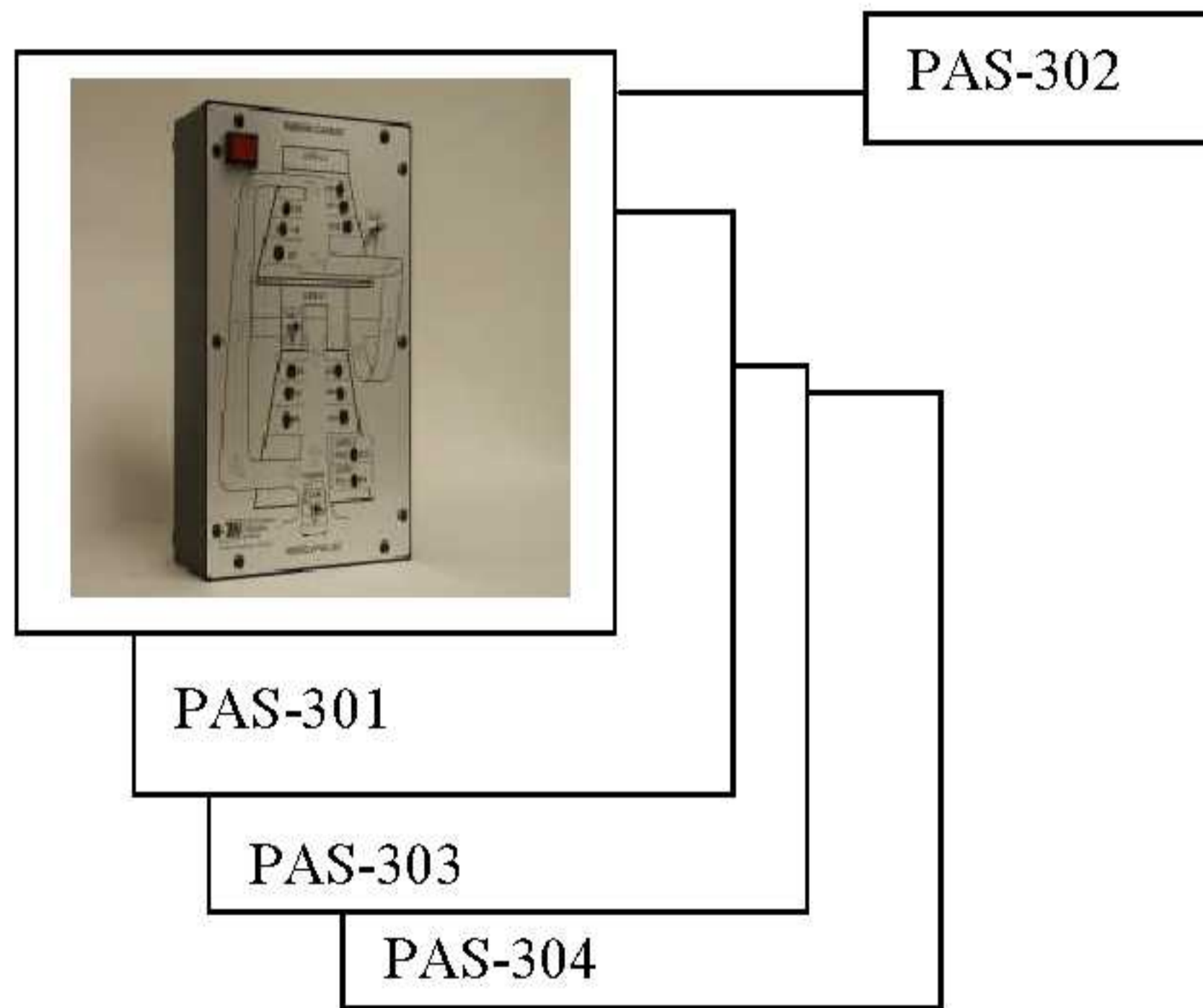
Process Control-PAS200



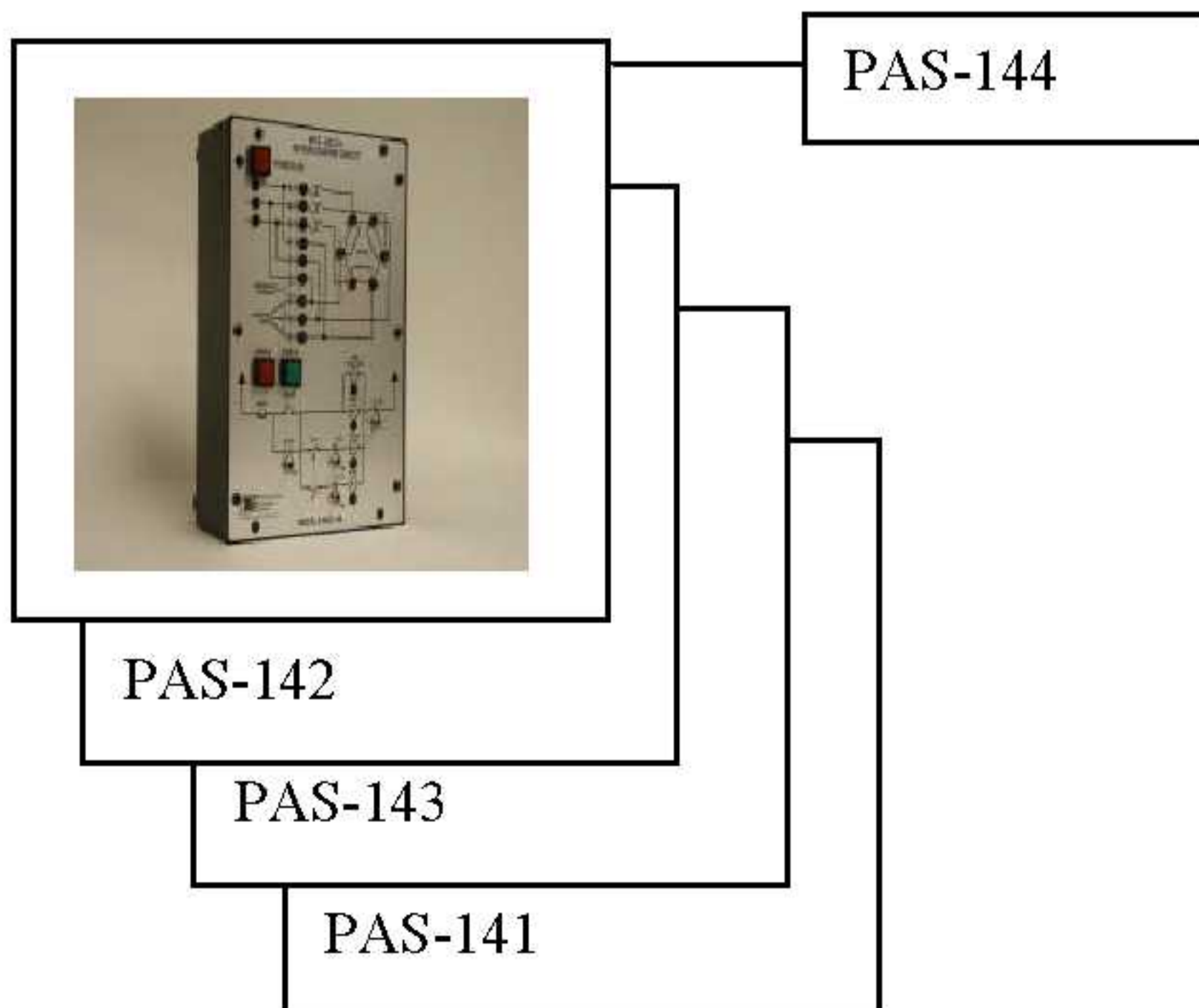
Motor Control Motion -PAS100M



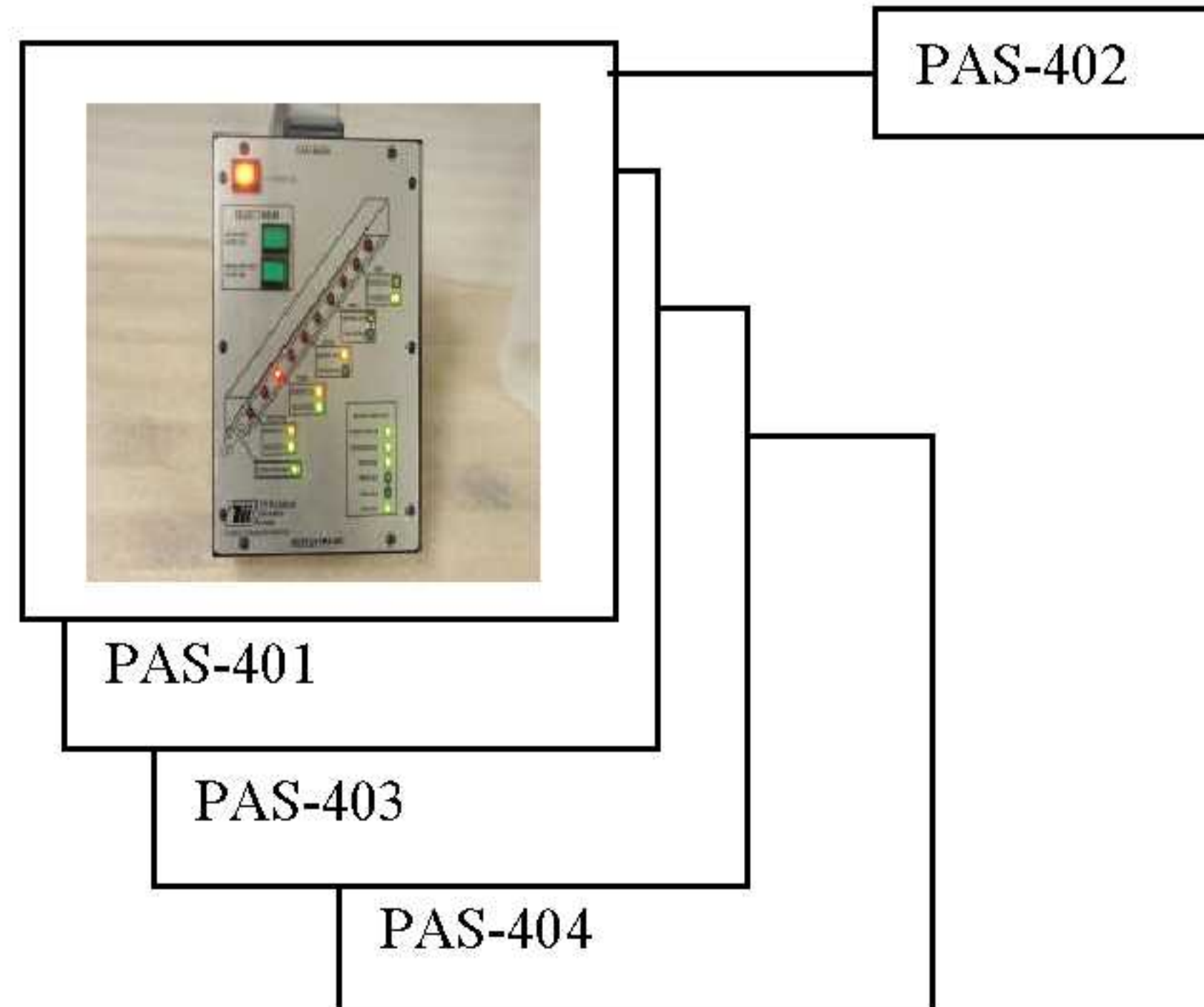
Device Control -PAS300



Motor Control Starting -PAS100S



Machine Control- PAS400



PLC Application Simulation Modules

TII's series of PLC Application Simulation Modules (PAS-SIM) are designed for students to learn about PLC programming and control in an application environment that simulates real-world processes without the cost of actually using or purchasing the real-world hardware.

Instead of using computer simulations or expensive models to replicate real-world processes, TII has created miniaturized hardware versions of each process' control functions along with a graphical representation of the process. This approach enables the students to actually connect and control the PLC I/O to the replicated processes and visually monitor the PLC to process interaction. The results are a dynamic simulation of real-world processes, which respond accurately and in real-time to the input and output states of the PLC.

Each module is designed to replicate a single process. The module consists of a powder coated scratch resistant black painted metal box with printed top panel. Box dimensions are 10 in. L x 7 in. W x 3 in. D. The top panel is printed with a graphical representation of the process. In addition to the graphics, the top panel has a series of switches and LEDs (lights) strategically located throughout the panel. The switches are used as inputs to the PLC, while the LEDs are used as PLC outputs. The user can simulate the process operation via the switch activations and control the simulated process by activating the various LEDs at the appropriate sequence and time through PLC programming.

Some modules have additional panel switches used to induce simulated faults into the process. These fault conditions can aid the student in understanding how the process would respond to such circumstances and assist the student in troubleshooting the process. A 37 pin connector and/or banana jacks are located at one side of the black box for easy PLC I/O and power interfacing.

FEATURES

- Replicate Real-World Processes
- Learn System Logic and Control
- Control System I/O Through PLC
- Interface With Any PLC (24 VDC enabled)
- Investigate "What-IF" Scenarios
- See Real-Time PLC to Process Interaction

TII TECHNICAL EDUCATION SYSTEMS

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PLC Application Simulations

PAS-100 Motor Control Series (13)

BASICS (4):	Module Title
PAS-101	Basic Start / Stop Control Motor Circuit
PAS-102	Two-Wire Control Motor Circuit
PAS-103	Overload Protection Motor Circuit
PAS-104	Three-Wire Control Motor Circuit

MOTION (5): **Module Title**

PAS-111	Sequence Starting Motor Circuit
PAS-121	Reversing Motion Motor Circuit
PAS-122	Plug-Stop Reversing Motor Circuit
PAS-123	Anti-Plug Stop Reversing Motor Circuit
PAS-131	Two Speed Control Motor Circuit

STARTING (4): **Module Title**

PAS-141	Primary Resistance Starting Motor Circuit
PAS-142	Autotransformer Starting Motor Circuit
PAS-143	Part Winding Starting Motor Circuit
PAS-144	Wye-Delta Starting Motor Circuit

PAS-200 Process Control Series (4)

PAS-200	Module Title
PAS-201	Silo Station
PAS-202	Tank Level Control
PAS-203	Liquid Mixer
PAS-204	Vessel Control

PAS-300 Device Control Series (4)

PAS-300	Module Title
PAS-301	Traffic Light
PAS-302	Parking Ramp
PAS-303	Light Sequencer
PAS-304	Conveyor System

PAS-400 Machine Control Series (4)

PAS-400	Module Title
PAS-401	Elevator
PAS-402	Car Wash
PAS-403	Washing Machine
PAS-404	Garage Door

For more information, customer service, or technical assistance, please call (800) 451-2169.

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PLC Application Simulations

PAS-500 Basic Applications Series (4)

PAS-501	Coolant Application
PAS-502	Batch Processing Application
PAS-511	Conveyor Application
PAS-512	Test Station Application

Package Price TBD

PAS-600 Advanced Applications Series (4)

PAS-601	Palletizer Application
PAS-611	Production Line Application
PAS-621	Automated Paint Booth Application
PAS-631	Pick and Place Robot Application

Package Price TBD

- Note: (1) Some modules are still in development.
(2) The Basic and Advanced Application Series are planned for development.