

Distributed by Learning Labs, Inc. www.LLI.com

Contact Liz Myhre - Office: 1-800-334-4943 Cell: (919) 623-1969

WELDING & CONTROLS EDUCATION SOLUTIONS



FANUC



**Rockwell
Automation**



Miller®



APT

MANUFACTURINGsolutions

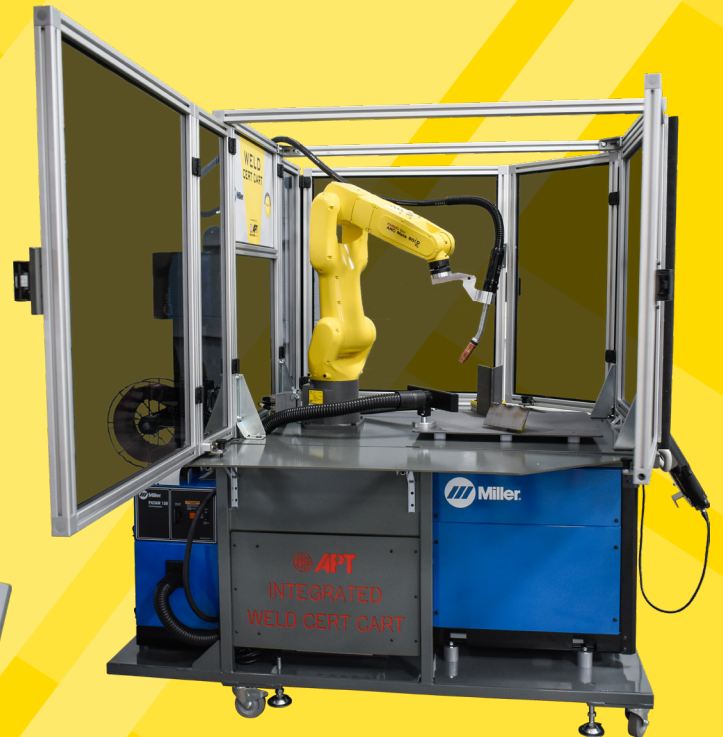
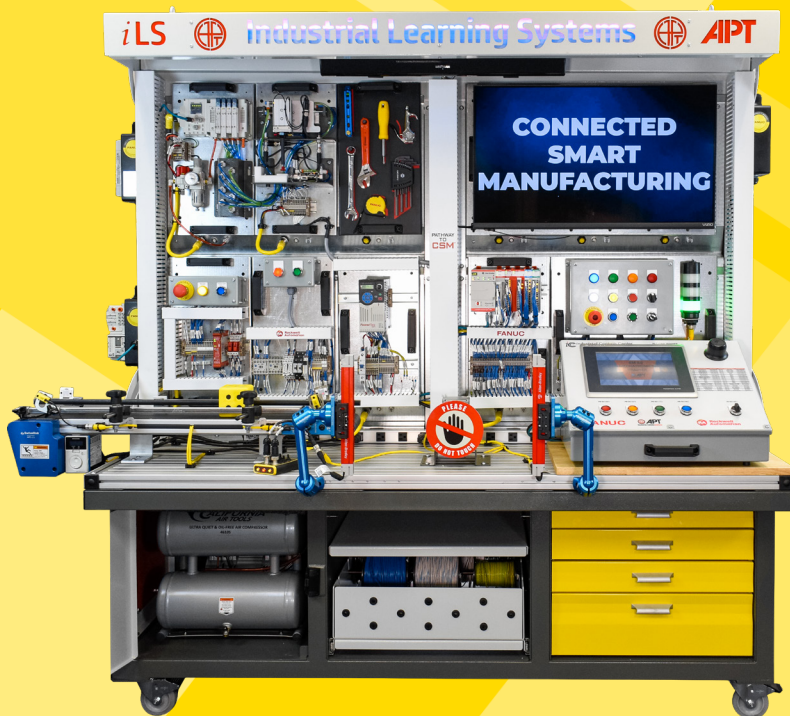


TABLE OF CONTENTS

CERTIFICATIONS, CURRICULUM, & SOFTWARE 2

USE OUR ONLINE TOOL TO NAVIGATE EQUIPMENT AND PROGRAMS 4

INDUSTRIAL TRAINING CLASSROOM 6

WE BELIEVE IN EDUCATION..... 8

MECHATRONICS

iCC INDUSTRIAL CONTROLS CENTER - PLC/HMI TRAINER 10

iLS - INDUSTRIAL LEARNING SYSTEM 12

WELDING


Weld CERT Cart - ROBOTIC WELDING TRAINER 14

CLASSROOM DESIGN SERVICES..... 20

For most current information, see aptmfg.com/education


“This system was developed to bring alignment between Industry and Education to directly tie into the FANUC CERT program, foundational skills in robotics, vision, and integrated solutions.”

- Paul Aiello
Director of Education
FANUC America Corporation



“The success of our training programs has allowed us the opportunity to share the best practices to help other training programs develop the same student outcomes.”

- Anthony Nighswander
President
APT Manufacturing Solutions



“Our goal is to integrate Rockwell products with robots to bridge the learning gap. We piece parts together into one great learning system where students can not only learn the technology, but can also understand how to apply it as a system and understand the steps. That’s what our customers really want!”

- Michael Cook
Director
University Partnership Rockwell Automation



“At ITW Welding/Miller Electric we are proud to work with industry partners pairing industrial welding solutions in the educational arena to develop the workforce of tomorrow that is prepared to adapt to the demands of the marketplace.”

- Dave Lambert
Group President - North American Sales & Marketing
ITW Welding




CERTIFICATIONS, CURRICULUM, & SOFTWARE



FANUC America Corporation
3900 W. Hamlin Road
Rochester Hills, MI 48309-3253

Telephone: (248) 377-7000
Customer Service Center: (888)-FANUC-US
www.fanucamerica.com

FANUC EDUCATION GRANT

The FANUC America Corporation Certified Education Training (CERT) Program certifies instructors at educational institutions to train their students to program FANUC robots. To accompany the FANUC CERT Program, new school locations receive (1) CERT Instructor Training and Tool Kit and (1) CERT School Comprehensive Educational Package.

All CERT Program Robots include the Advanced CERT Software Configuration for education, which includes: **MH** - Advanced Ethernet I/P Scanner, Advanced Dual Check Safety (DCS), 4D Graphics, Motion Package, PC Remote iPendant, Collision Guard Pack, Interface Panel, Maintenance Package, Menu Utility, Remote iPendant, ROBODRILL Interface. **AT** – Torch Guard, Torch Mate, Collision Guard, 4D Graphics, Payload ID, Touch Sensing and TAST (Through Arm Seam Tracking). Auto Error Recovery, Bump Box, Constant Path, Password Protection, Panel Wizard, KAREL, Menu Utility, Lincoln or Miller Weld Library.

The Industry Value of the Advanced CERT Software Configuration is \$15,240

The (MH or AT) CERT Instructor Training and Tool Kit provides your designated instructor training materials and includes the following deliverables:

- (1) online seat to take CERT Cart Safety Features web course
- (1) online seat to take Robot Operations web course
- (1) online seat to take HandlingTool or ArcTool Operation and Programming web course
- (1) online seat to take HandlingPRO or WeldPRO web course
- (1) seat to take a live HandlingTool or ArcTool Operation and Programming class at a FANUC facility
- (1) ROBOGUIDE Simulation Software license
- (1) FANUC Robot Operations Manual
- (1) FANUC HandlingTool or ArcTool Operations and Programming Manual
- (1) FANUC HandlingPRO (ROBOGUIDE Simulation) Manual

The Industry Value of the CERT Instructor Training and Tool Kit is \$15,500.

The (MH or AT) CERT School Comprehensive Educational Package provides students training tools and ensures your instructor has the necessary tools to effectively teach their students. This package includes the following deliverables:

- (25) concurrent-user seat to take Robot Operations web course
- (25) concurrent-user seat to take HandlingTool or ArcTool Operation and Programming web course
- (25) concurrent-user seat to take HandlingPRO or WeldPRO web course
- (25) ROBOGUIDE Simulation Software license

Industry Value of the CERT School Comprehensive Educational Package is \$290,610(MH) / \$403,240(AT)

To become a certified (MH or AT) CERT instructor, the designated instructor must:

1. Successfully complete the CERT Cart Safety Features web course
2. Successfully complete the Robot Operations web course
3. Successfully complete the HandlingTool or ArcTool Operation and Programming web course
4. Successfully complete the HandlingPRO or WeldPRO web course
5. Attend the live HandlingTool or ArcTool Operation and Programming class at a FANUC facility
6. Pass the online Certified Education Robot Training Test via FANUC eLearn
7. **PASS the NOCTI FANUC (FCR-01) EXAM - Test Fee required through NOCTI (MH only)**
8. Provide an outline of their robotic syllabus/curriculum
9. Provide a video to FANUC of a module/chapter being presented to an audience or faculty staff



SOFTWARE

INCLUDED

- 1 year subscription of
Rockwell Automation EDU Toolkit Bundle**
- Studio 5000 Logix Designer®
 - Studio 5000 View Designer,
 - plus over 100 more pieces of Rockwell software

Renewable each year through your local distributor.

CURRICULUM

OPTIONAL

(10) seats of Learning+ course content

Renewable each year through your local distributor.



OpenBook™
learning management software



Integration Project-Based Learning (PBL) Curriculum

- Daily lesson plans
- Assessment and grade charts

USE OUR ONLINE TOOL TO NAVIGATE EQUIPMENT AND PROGRAMS

aptmfg.com/education


FANUC Robotics Courses


Rockwell Automation Courses









Miller Welding Courses

APT Integration Courses

Industry Recognized Certifications

 Recognized industry certification issued by an independent credentialing authority.

 Training Certificate upon successful completion of e-learning.

Learning Level	Career Path	Description	Cert. Type	Weld CERT Card	iCC (PLC/HMI)	
Level 1	FANUC Robot Operator - Material Handling	I FANUC Certification administered by NOCTI: FCR-01 - Written		✓		
		I FANUC Certification administered by NOCTI: FCR-02 - Performance		✓		
	FANUC Robot Operator - Arc Welding	F FANUC: ArcTool Operation and Programming		✓		
		F FANUC: WeldPRO		✓		
		M Miller OpenBook: Robotic Welding Fundamentals		✓		
		M Miller OpenBook: Gas Metal Arc Welding (MIG)		✓		
	PLC / Controls Operator	A Schematic Reading Fundamentals				✓
		A Panel Building Lab				✓
		R Rockwell CCP 183: Ethernet / IP Configuration & Troubleshooting				✓
		R Rockwell CCP 146: Logix 5000 System Fundamentals				✓
		A Introduction to Integration - Labs and Exercises				✓

LEVEL 1














This coursework will train entry level operators and provide a basic understanding of industrial equipment. This is perfect for a high school, vocational school, or school starting up industrial training.

LEVEL 2

This coursework will train technician level employees with troubleshooting fundamentals. This could be used in an advanced vocational school, but is best suited for a community college or school programs that is trying to grow from the operator level training and begin teaching troubleshooting and integration.

LEVEL 3

This coursework will train system integration in areas for robotics, PLC, process engineering, controls architecture, and machine design. This is perfect for an advanced technical school training students to apply theoretical knowledge of industrial systems, or a university that is looking to teach engineering and integration of industrial components and equipment.

Learning Level	Career Path	Description	Cert. Type	Weld CERT Card	iCC (PLC/HMI)	
Level 2	FANUC Robot Technician	F FANUC: Advanced TPP		✓		
		F FANUC: DCS		✓		
		I FANUC Certification administered by NOCTI: FCR-T1		✓		
	Robotic Welding Technician	M Miller OpenBook: Applied Knowledge - Robotic Welding Labs		✓		
		I American Welding Society: CRAW Certification		✓		
	Maintenance Technician	R Rockwell CCP153: Maintenance and Troubleshooting				✓
		A Intermediate Concepts: Maintenance and Troubleshooting of Industrial Equipment			✓	✓
	PLC / Controls Technician	A Introduction to Industrial Automation and Integration				✓
		R Rockwell CCP 151: Basic Ladder Logic Programming				✓
		R Rockwell CCP 143: Ladder Logic Project Development				✓
		R Rockwell CCV 204-A: FactoryTalk View ME & PanelView Plus Programming				✓
		R Rockwell INA 201: Industrial Network Architecture Foundation				✓
R Rockwell INA 202: Industrial Network Architecture Intermediate					✓	
R Rockwell CCP 251: Advanced Logix 5000 Programmer					✓	
R Rockwell CCP 154: Studio Logix Designer Level 4 ST & SFC					✓	
A Basic Integration Labs: PLC, HMI, Robot, Ancillary Components				✓		
Level 3		Industrial Controls Integrator	A Safety Systems, Standards Design, and Application		✓	
	Applied Engineering of Robotics, Automation, and Industrial Systems	A Integration: Advanced Integration of Industrial Equipment			✓	
		A Integration: Advanced Part Tracking and Messaging			✓	
		A Integration: Industrial 4.0 and IIoT			✓	

For the most current information, see aptmfg.com/education

INDUSTRIAL TRAINING CLASSROOM



Advantages of Our Industrial Training Equipment

	OUR TRAINERS	OTHER TRAINERS
Trainers built for manufacturing training	✓	✓
Equipment built with exact same standards as industrial equipment	✓	
Curriculum with labs to apply knowledge	✓	✓
Curriculum comes directly from manufacturer; not rewritten	✓	
Labs are derived from industry practices, like live panel building utilizing industry standard wiring practices	✓	
Certificates upon completion of classwork or modules	✓	✓
Certifications directly from industry leaders like FANUC, Rockwell, and Miller Welding that carry over to the first day on the job	✓	
Rockwell MicroLogix basic PLC	✓	✓
Rockwell CompactLogix advanced PLC integration with Studio 5000	✓	
Advanced courses in FANUC TPP, iRVision, Advanced TPP, DCS	✓	
Advanced courses in integration of area scan, RFID, wireless I/O	✓	

WE BELIEVE IN EDUCATION....

APT Manufacturing Solutions is an automated equipment builder and precision machine shop equipped with over 30 manual and CNC machines, laser cutting and fabrication equipment, mechanical engineering with 3D solid modeling, and controls engineering with PLC and robot programming. At APT, education and training is weaved into the core of our every move. We recognized years ago that educating the next generation is vital to our success, and the success of manufacturing in America, we have made it one of our primary strategic objectives.

“Our passion is to equip and teach the next generation of workforce to advance manufacturing, technology, innovation, and leadership.”

High School Training: Years ago, we founded a state-of-the-art high school training center where we opened our doors to high school students from surrounding schools to learn the nuts and bolts of manufacturing. We lead them through coursework and hands-on learning designed to open their eyes to the opportunities they have in industry after school. Courses include:

- OSHA safety 10 hour
- Tools of the trade
- Drafting and 3D Modeling
- Machining
- Welding and Fabrication
- Industrial Wiring and Panel Building
- Basic PLC logic and Control Systems
- Robot handling and programming

Apprenticeship Program: Students who graduate from these programs must enroll in apprenticeship program to continue employment, where they go through a two- or four-year program, fully paid, working during the day and continuing school at a community college at night. This has proven to be a phenomenal approach to education, developed over time based on need for workforce development. The key to this is the partnership that has come between industry and education. We believe this partnership is vital to changing industry and solving the workforce development problem as America moves forward.

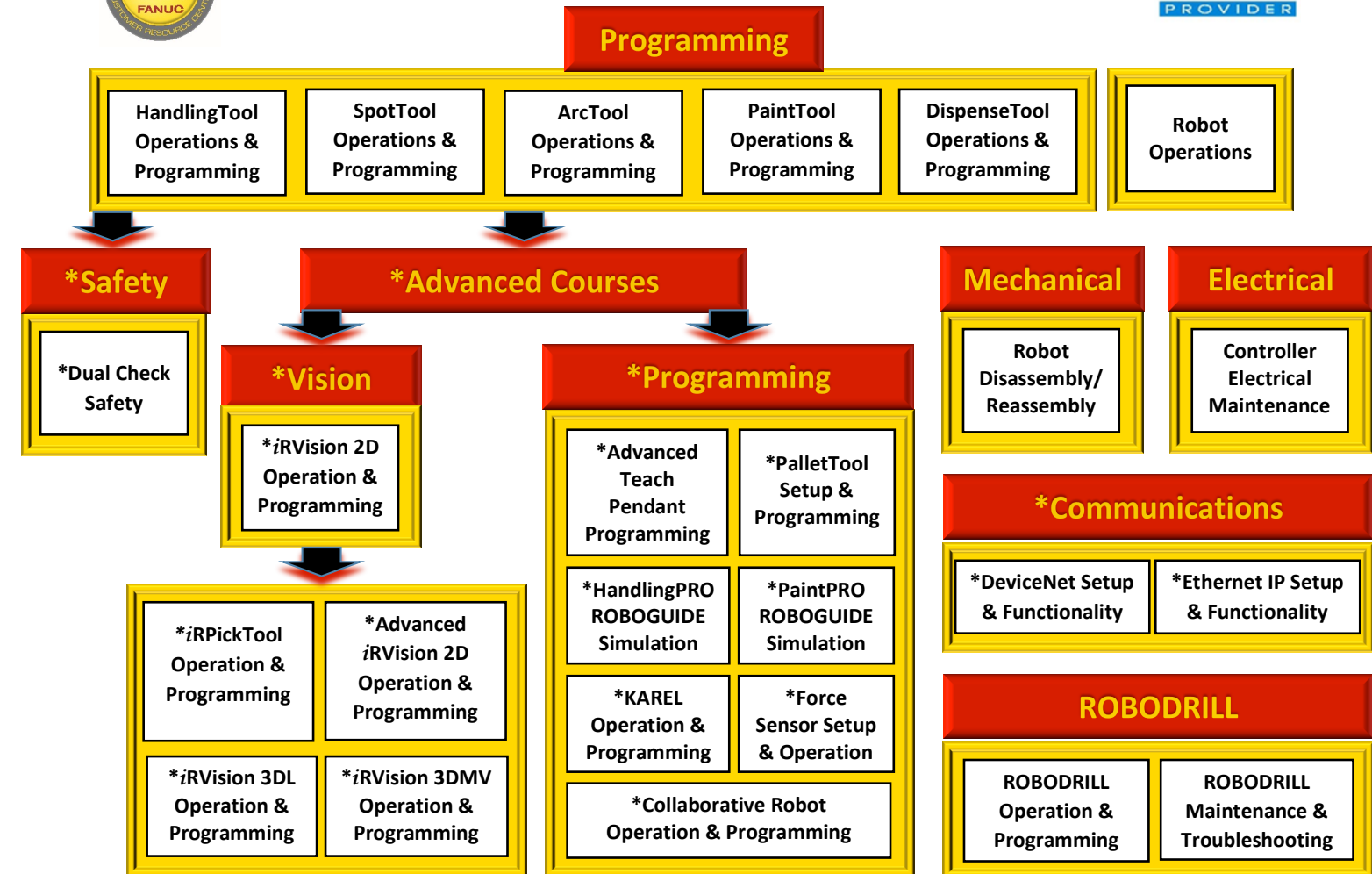
“We don’t build education trainers...we build industrial equipment with industrial curriculum for the education market.”

It was through our passion for education that APT became a FANUC Education Solutions Provider, and this equipment is sold exclusively through the FANUC Education Solutions Provider Network. They carry the industry training curriculum of key manufacturers like FANUC America, Rockwell Automation, and Miller Welding. These partnerships are critical to maintaining high-caliber trainers that model industry standards.



FANUC

Recommended Training Curriculum Path



Please note: All courses marked * require completion of all prerequisites. Please view prerequisite requirements within individual course descriptions.



PLC/HMI TRAINER

Rockwell Automation (Allen Bradley) CompactLogix control panel electrical project kit



- Rockwell CompactLogix 5380 controller with Integrated Motion (5069-L306ERM) with 16 24VDC digital inputs & 16 24VDC digital outputs
- Rockwell AB 10" PanelView 5000 Graphic Terminal (PanelView 5310)
- 5 Port Stratix Ethernet Switch
- Dual Ethernet Access Ports and Cable Glands for external device connections
- Pre-loaded with structured program template
- Also sold in kit form along with Rockwell curriculum
- Endless possibilities - can connect to almost any device!
- PLC robot integration program template installed

Includes 1-year subscription to Rockwell software

PLC/HMI Trainer ready to use as standalone OR integrate to any FANUC robot



Ready to interface with your FANUC CERT robot over Ethernet IP protocol or optional discrete I/O

Ask about your custom needs. Prices may vary.

INCLUDES:

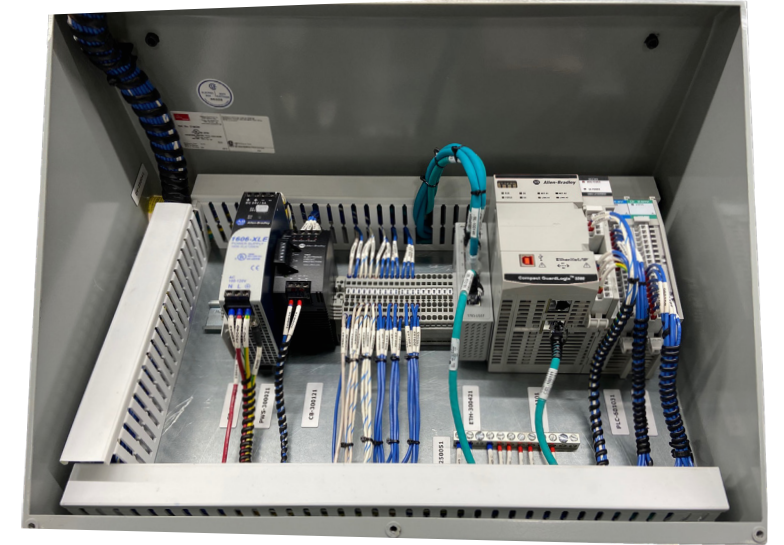
- NEMA 12 steel industrial enclosure
- 120V, 24 VDC power supply
- 120V 10' power cord
- 5 port ethernet switch
- Wireless ethernet bolt
- 4 pushbuttons
- 1 selector switch

PLC: Compact Logix 5000 Series

- 32 task
- Dual IP mode (2 diff network connections)
- DLR, start and linear topologies supported
- 16 ethernet node connections max
- 32 socket connections max
- 2 CIP drive axis connections (position loop/servo control)
- Ladder structured text, function block diagram
- Sequential function chart programming interfaces
- 0.6 MB user memory
- 8 local I/O Modules max

HMI: Panelview 5000

- 10.4" SVGA TFT color touch display
- 4:3 aspect ratio
- 800 x 600 pixel resolution
- 1GB RAM / 1 GB user memory



OPTIONS:

- » Student build kit
- » Discrete I/O kit to FANUC LR Mate peripheral I/O board for robots without ethernet
- » Mobile workbench - adjustable height with power
- » Replenishment parts kit
- » Panel rebuild master kit

INDUSTRIAL LEARNING SYSTEM



Start with the base...

- Overhead work light
- 110VAC 24v power strip
- On-board air compressor
- Programmable LED lighting
- Ample storage space
- Wire drawer
- Welded cart w/ casters for mobility

...then add modules



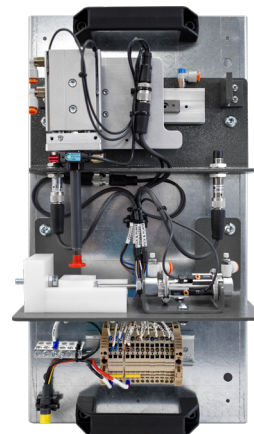
PLC



SAFETY

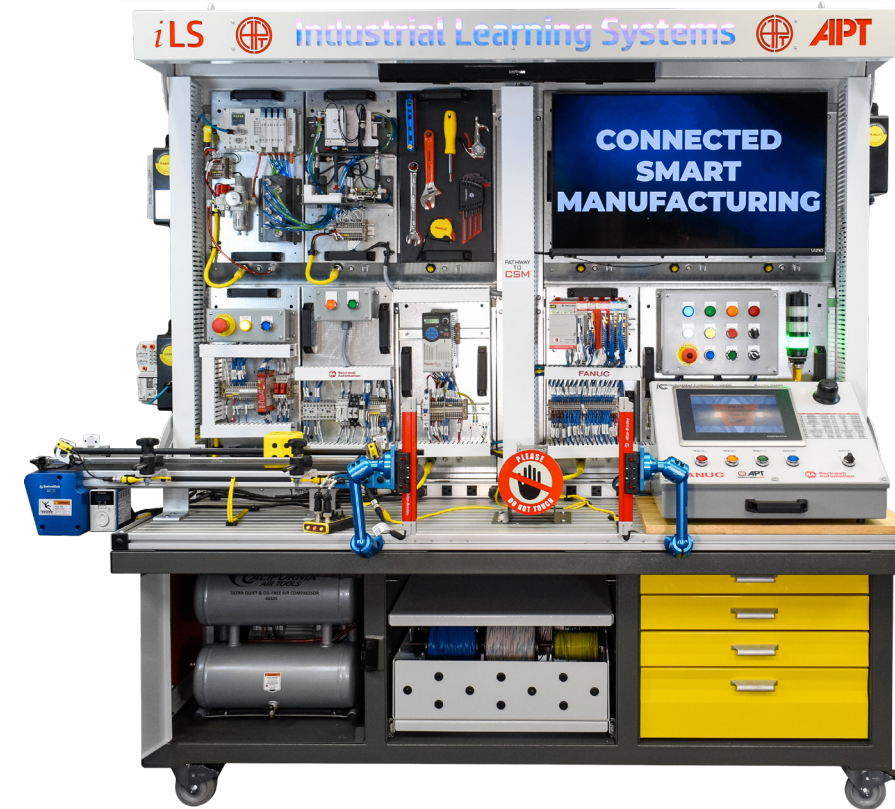


MOTION CONTROL

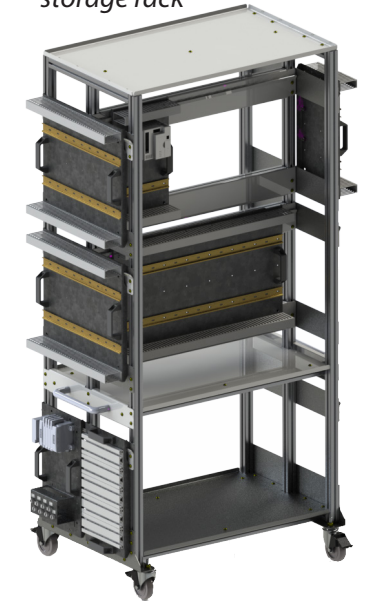


FLUID POWER

iLS Features



Optional module storage rack



Fully Configurable Learning Modules

PATHWAY	CATEGORY	MODULE	DESCRIPTION
Controls	Electrical	AB Relay Start/Stop	The AB Relay Start/Stop module teaches relay logic with start/stop circuit board.
	Motion Control	AB PowerFlex 525	The AB PowerFlex 525 module will allow labwork with variable frequency drive and motor control.
	Safety	AB E-stop Safety Circuit (hard-wired)	AB E-stop Safety Circuit (hard-wired) - can be paired with other modules to learn the integration of an E-stop circuit.
	PLC & IO	Compact GuardLogix PLC	This board teaches beginning, intermediate, and advanced PLC programming and troubleshooting.
	Switches, Buttons, Lights	Operator Interface	The operator interface can be wired into the PLC and programmed for various input and output devices.
	PBL (Project-Based Learning) Kits	AC Motor Kit	This AC Motor Kit is a bench-mounted motor that works with VFD and relay board. This is a base kit for additional labs and exercises.
	Miscellaneous	32" Display	This display allows connection of laptop or desktop computer for easy viewing of LMS, curriculum, or videos.
iCC (Industrial Controls Center)		The iCC Trainer can be integrated to allow additional functionality of PLC, step sequence logic, and additional i/o.	
Industrial	Industrial	5S Drawer Tools	This allows students to learn the importance of organization when storing tools and equipment.
	Mounting Solutions	Swivellink®	Swivellink allows for easy manipulation of sensors, lights, & cameras on any of the modules.
	PBL (Project-Based Learning) Kits	Swivellink® Conveyor	The conveyor teaches part movement, sequencing, and motor control.
Fluid Power	Fluid Power	SMC Manifold	This module allows students to learn pneumatic control in conjunction with projects and labs.
Robotics	PBL (Project-Based Learning) Kits	Pneumatic Pick & Place	The FANUC robot project guides students through pick and place of parts in conjunction with fluid power, conveyor, PLC, safety, and other modules.

ROBOTIC WELDING TRAINER

ArcMate Cart Features:

- Tinted sides to protect classroom (helmet required for viewing)
- FANUC Arc Mate 50iD/7L
- FANUC R30iB Mate plus controller
- Robot work area guarded for student safety

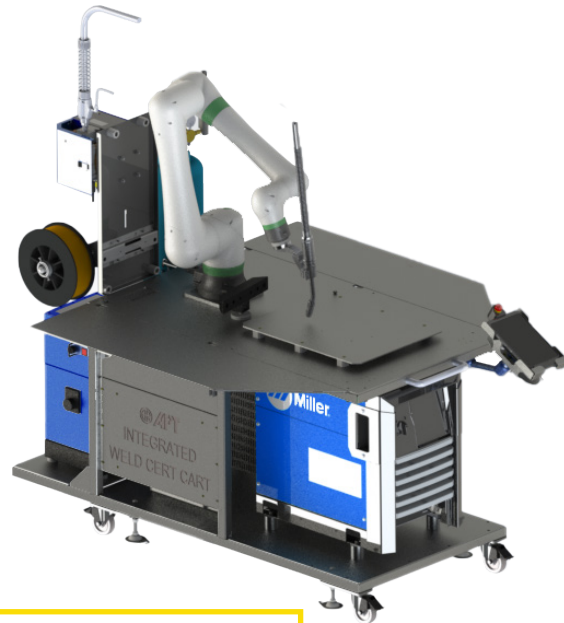
FANUC ARC CERT:

- FANUC ARC CERT Gift in Kind Package for qualified schools (Ask education solutions provider for details)
- FANUC Advanced Academic Software/ARC Bundle
- FANUC ARCTool Student Certificate Program



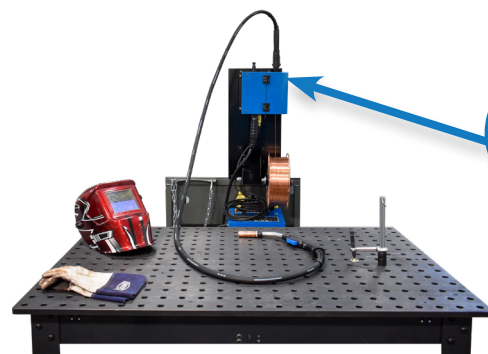
CRX Cart Features:

- Fenceless (helmet required for viewing)
- FANUC CRX 10iA
- FANUC R30iB Plus Mini controller



Both versions include:

- Welded construction
- Fully integrated collapsible mobile cart design that fits through standard 36" door
- Miller Welding Power Supply Training Program (brand-specific; see program details)



Plug the optional 15' handgun into the existing Miller power source to get 2 ways to weld!

Optional Miller all-in-one manual to robotic MIG wire weld gun designed for versatility and ease-of-use. Can be used with either cart's welding supply

Miller WELD CERT CART Features

Integrated Weld Educational Cart



Education & Software

OpenBook™

OpenBook™ is Miller's learning management software. It's designed to help you plan, offer, and assess student learning. It provides welding instructors, learners, and management with an easy tool to teach welding concepts and techniques to a variety of students - from those just starting out to professionals in the field who'd like to learn new skills or refresh their current techniques.



Insight Core™ (Standard)

Simplified, internet-based welding information solution that reports cell productivity and weld parameter verification.

- Provides basic production metrics such as amps, volts, wire feed speed, arc on time and arc on time percentage

Transform data into actionable information that drives continuous improvement.

Learn more at MillerWelds.com/insight

Features

Auto-Continuum™ Systems

Take your welding to the next level.

The adaptive arcs of Versa-Pulse™ and Accu-Pulse instantly make adjustments to handle weld tacks, large gaps and inconsistent parts. The result is higher quality welds and fewer weld defects.



Better weld quality

Versa-Pulse™

- Fast, low-heat, low-spatter process
- Great for gap filling
- Shortest arc length/lowest pulse voltage

Accu-Pulse®

- The most popular process for majority of industrial welding applications
- Most adaptive arc on 16+ gauge
- Designed for all weld positions

RMD®

- Lowest heat process, best for gap handling
- Limited travel speed



More power, better reliability

Auto-Continuum 350
11,000 watts



Easy to add capabilities

- Easily add new processes and custom programs
- Parameter flexibility

Best for	Standard Spray	High-Deposition MIG	Accu-Pulse	Versa-Pulse	MIG Short Circuit	RMD
Deposition	A	A	A	B	D	D
Gap Filling	D	D	B	B	A	A
Low Heat Input	D	C	B	A	A	A
Out-of-Position Welds			A	B	B	B
Low Spatter	A	A	A	A	C	B
Thick Metals	A	A	A	C	D	D
Thin Metals			B	A	A	A
Increased Travel Speed	A	A	A	A	B	C

HOT ————— ————— COLD

Manufacturing Equipment



FILTAR® 130

- High-efficiency filter designed to capture weld fume
- FiTek™ XL cleanable filters last longer
- Lightweight and portable
- Quieter for a safer, more productive work area

Included: Work Holding Kit (APT88001132)

6" x 1.5" x 6"



(1) Pivot Angle 150 Mini

3.6" x 1.7" x 3.4"



(1) Mini Multi Angle

2.3" x 1.3" x 2.1"



(1) Mini Angle

Optional: PPE Kit (APTWELDPPE)



Optional: 15' Industrial MIG Gun with 15' ground cable



10% Graduate Discount at Mag Tools
Use APTWELDCCELL at mag-tools.com

ROBOT ACCESSORIES

Mobile Cart



- 27 1/2" wide x 47 1/4" long
- Optional wings fold to fit through standard 36" door
- Out-of-the box solution for FANUC CRX as a mobile training system.



Add wings to expand work area to
57" wide x 47 1/4" long

Mobile Pedestal

Kit includes:

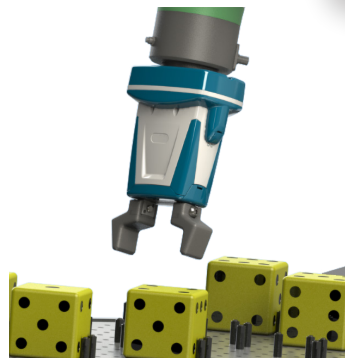
- 24" CRX pedestal
- Mobile base
- Controller bracket
- Teach tablet holder.

- Heavy duty welded steel construction
- Standard gray powder coated finish
- Total locking swivel and wheel brakes
- Industrial swivel leveling feet for stability
- Non-slip pads on each leveling foot
- Large footprint for stability



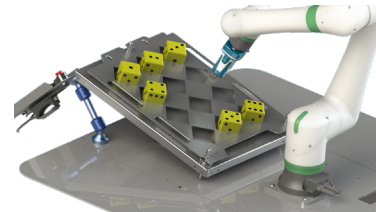
Parts Presentation Kit sold separately

Mobile Cart Optional Add-ons



Parts Presentation Kit with 3" Foam Dice Blocks

- Fixed grid, 12 location diamond template with six (6) 3" foam dice cubes
- Pegboard reconfigurable template with 50 locator pegs and six(6) 3" foam dice cubes



Robot End-of-Arm Tool

- Schunk CoAct collaborative EOAT
- Parallel gripper kit with 2 jaws for 3" blocks
- Ready to connect to FANUC CRX

Pedestals

We stock pedestals for the CRX and LR Mate robots.

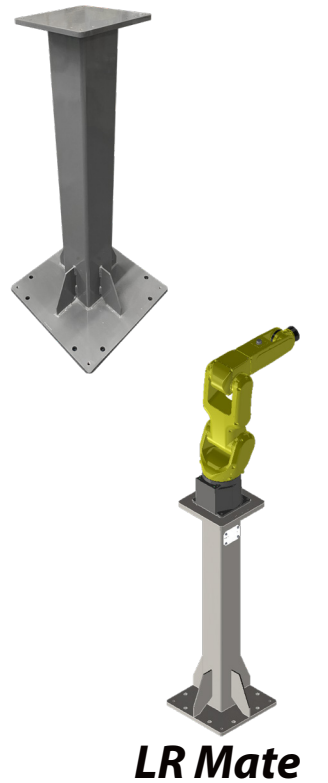
- Range from 24" to 48" tall in 6" increments
- Holes for leveling and anchoring
- Steel welded construction
- Powder coat finish

When mounting these robots we recommend guarding (see next page).

Always be safe when operating a robot.



CRX



LR Mate

ROBOT ACCESSORIES

Swivellink® 4-1/2"W X 36"L Variable Speed Conveyor

- Swivellink® belt conveyor with variable speed capability (conveyor mounted speed control)
- 4-1/2" wide bed, 4-1/4" wide belt, 36" overall length conveyor
- Hard stop each end of conveyor
- Optical sensor at idle end of conveyor on adjustable mount
- Optical sensor at drive end of conveyor on adjustable mount
- Sensor cables and motor control forward / reverse terminated in small junction box
- 120 VAC Power cable



Free Standing Conveyor

- Free standing conveyor base with adjustable height stands
- Locking swivel casters for portability
- Adjustable side rails

Magnetically Mounted Tabletop Conveyor

- Conveyor base with switchable magnetic mounts
- Side rails, one side fixed, opposite side adjustable



Safety Fencing

Create a "Lab Environment Work Cell" for Robots

This is industrial guarding "STRONGUARD®" used in industry for perimeter guarding around robot cells. We offer this to education for students to safely run the robot and additional students see over the top of the guarding for instructional purposes. All the standard guarding is 53" tall for visibility, we offer a few kits that we feel would be best used for these robots:

- 5' x 5' for SCARA or FANUC LR Mate
- 7' x 7' for FANUC M10
- 10' x 10' for FANUC M20
- Additional sizes also available

The safety mesh is 2" x 2" black coated, the post and frames are made of steel and are powder coated Safety Yellow. We offer several safety options that include:

- Gated entry with latch and interlock switch.
- Light curtain, three-sided guarding with one open side.
- Area scanner kit with narrower side panels.

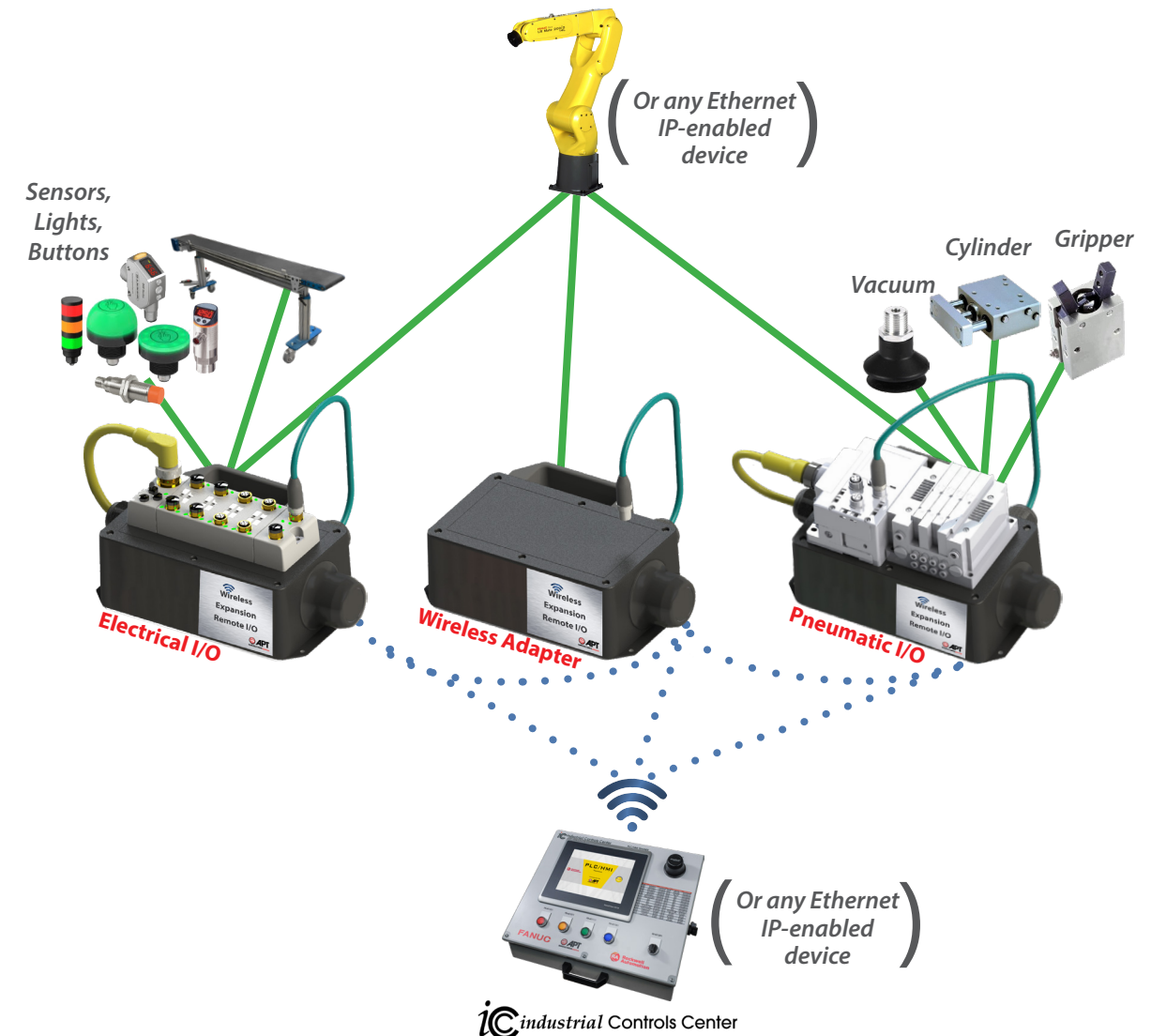


Ask about your custom needs. Prices may vary.

Wireless Expansion Remote I/O

Add a wireless network to your robot or other training equipment.

Configure with remote modules and untether!



Wireless

- » WEP, WPA, and WPA2 security protocols
- » Anybus wireless bolt
- » Add network communication to your FANUC robot

Electrical

- » Configurable 16 points of input/output (using splitters on 8 access ports)
- » Industry standard M12 5-pin port

Pneumatic

- » Four individually controllable valves
 - ♦ Double solenoid, 2 position, blocked center ports
 - ♦ Double solenoid, 2 position, open center ports
 - ♦ Double solenoid, 2 position, detent
 - ♦ Single solenoid, 2 position, spring return
- » Great for testing and understanding fluid power
- » Use for temporary setups and testing or permanent installation
- » Valves are triggered over Ethernet

CLASSROOM DESIGN SERVICES

Let us design your classroom
with industry-recognized equipment and curriculum

APT's Design Team is comprised of field experts with years of experience.
Engineering • Automation • Management • Material Handling • Mechanical • Design

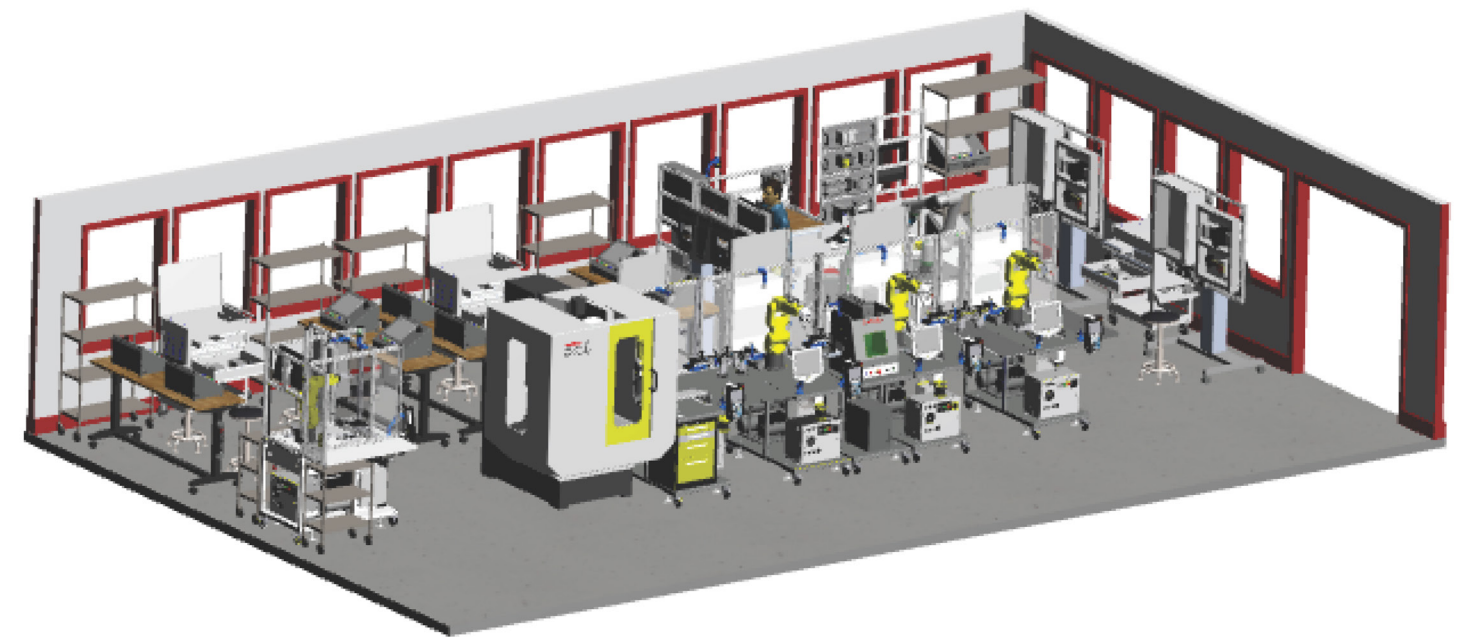
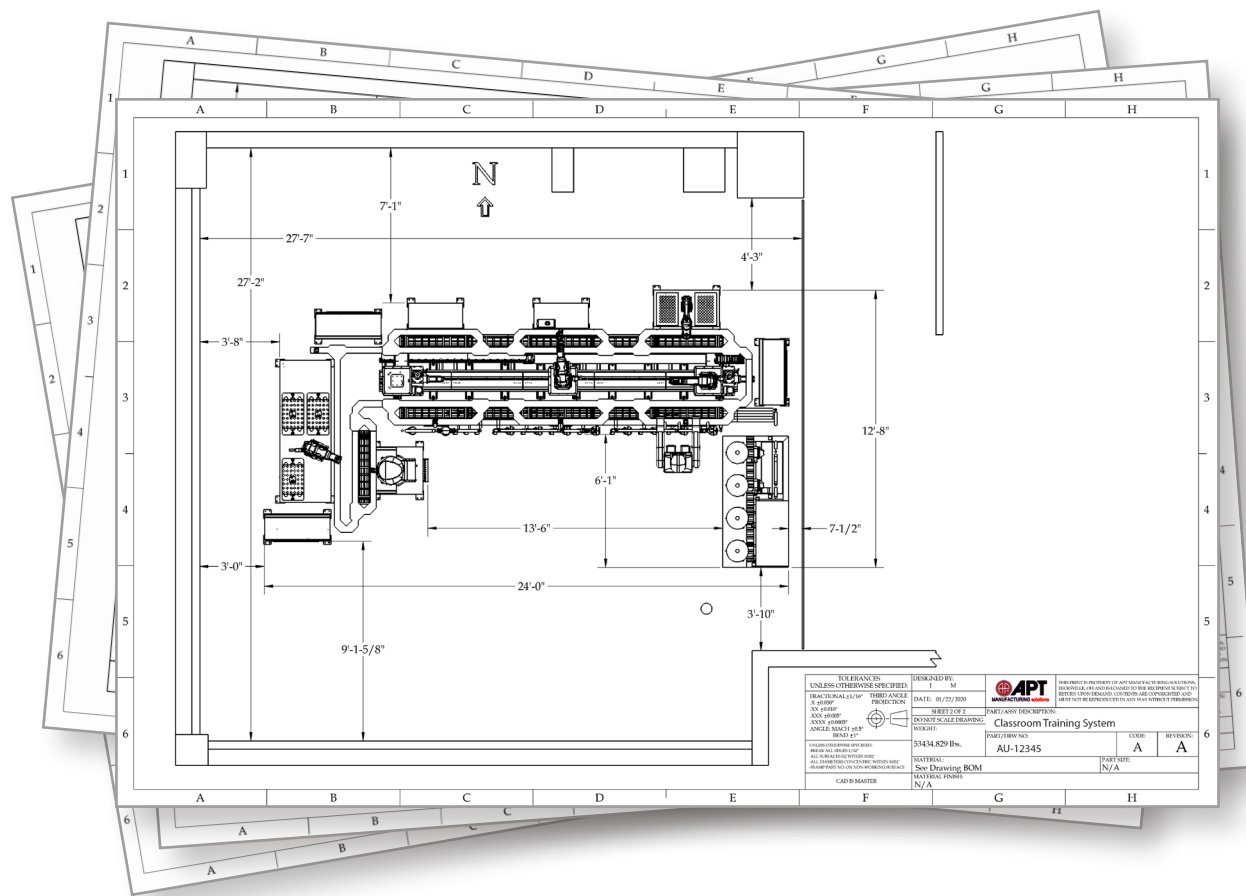
Our design team will talk to you to get an understanding of your initiatives and goals.

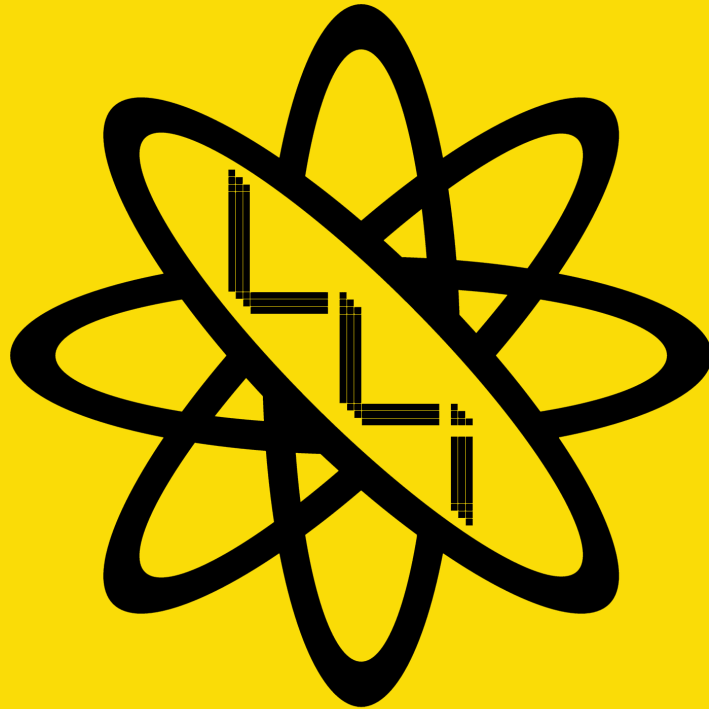
We will then design a classroom with automation and robotics equipment and curriculum to make your students a valuable candidate to employers.

We will align education solutions with your budget requirements, with consideration for local industry reliability, software licensing requirements and maintenance costs.

Considerations

- Long-term plan
- Variety of learning options
- Environmental and lighting requirements
- Utility requirements and locations
- Enough space for equipment and collaboration
- Plan for future growth
- Understanding local industry needs





Learning Labs, Inc

Published February 2023

Distributed by Learning Labs, Inc.
1-800-334-4943 www.LLI.com