FANUC

CNC | ROBOT | iRVISION

FANUC

CERTIFIED EDUCATION

EDUCATION SOLUTIONS CATALOG

TESTIMONIALS

"Manufacturing is becoming more and more automated every day. Everything is being done by machines, creating a need for a higher educated workforce. The students that are coming here and learning about robotics are getting those higher paying jobs."

— Bob DuCharme
Instructor
Oakland Schools Technical Campus

Clarkston, MI

"Our two-year robotics training program is based on STEM initiatives that have prepared students to go directly to work in high-paying careers. In fact, since we began the program in the 1980s, we've achieved nearly 100% placement for our graduates, all accepting starting positions with average salaries exceeding $60K."

— John Sefcovic
Oakland Community College Faculty
Robotics & Automation Program

Auburn Hills, MI

"FANUC has the most common control platform, which is the one that students will see when they enter the job market."

— Adam Handler
Engineering Teacher
Nova High School

Davie, FL

TABLE OF CONTENTS

The contents of this brochure are organized by the product categories seen below. To easily navigate to each solutions' descriptions, certifications and general information, follow the grey, yellow, or blue correlating color to page footers.

FANUC EDUCATION MISSION

The mission of the FANUC Certified Education Robot Training (CERT) Program is to create Certified Education Advanced Automation Training that promotes an understanding of FANUC's robotic automation solutions through the development and implementation of integrated classroom instruction and student projects.

Educational initiatives at all levels of academic focus are invited to partner with FANUC in meeting the human and organizational needs necessary to thrive in today's digital age.

FANUC's products are utilized in many industry segments and are applicable for many academic purposes. With this in mind, each Academic Partner individually determines how to implement FANUC CERT into their program(s) or initiatives. Some of the successful approaches used by educational institutions worldwide are:

- Integration of robotic automation to help teach manufacturing concepts within current curriculum.

  Typical degrees and programs that are currently integrating Robotics within the curriculum are:

  - Industrial, Mechanical, and Manufacturing Engineering or Technology degrees
  - Digital Manufacturing, Lean Manufacturing and Manufacturing Management programs
  - Robotic Technology
  - CNC (Computer Numerical Control) Technology
  - Inspection and Quality Control Technology
  - Operations Management programs
  - CAD Design / Virtual Prototyping programs
- Creation of new courses and project-based activities to prepare students for a workplace that will find a pervasive use of robotic automation.

FANUC's Role

Advanced automation is on the leading edge of manufacturing today and FANUC is the industry leader. Sharing these tools is part of our commitment to the development of the engineering knowledge base and attracting young people to the advanced automation community.

To make this approach available to the educational community, FANUC offers special pricing for robots, software, support, upgrades and training as well as the willingness to support our partners in implementation and industry relationships.

The robustness of the FANUC product range dictates that our partners be assisted in selecting which solution set is the best fit for their usage. Therefore, FANUC will work with each partner to develop a quote especially suited to that end.

Certified Education Robot Training Role

Each educational endeavor is unique, and as such, partners must create a plan that describes their objectives and the resources they will commit to support them. The objective must be stated initially whether FANUC products are to be utilized for research or classroom purposes. This is meant to both provide a means to clarify expectations for deliverables and as a way to communicate information that might solicit additional support or leverage related efforts throughout FANUC's network. The plan should address the following elements as appropriate:

Academic Intention and Commitment:

- Intended usage (curriculum, research, etc.)
- Identifying supporting personnel specifically Professors/Dept. Heads
- Long term relationship planning including support of FANUC products integration into multiple courses/programs
- Development of a training plan for each product point of contact

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, Fronius or Miller Weld Library.

The Industry Value of the Advanced CERT Software Configuration is $17,100.

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.

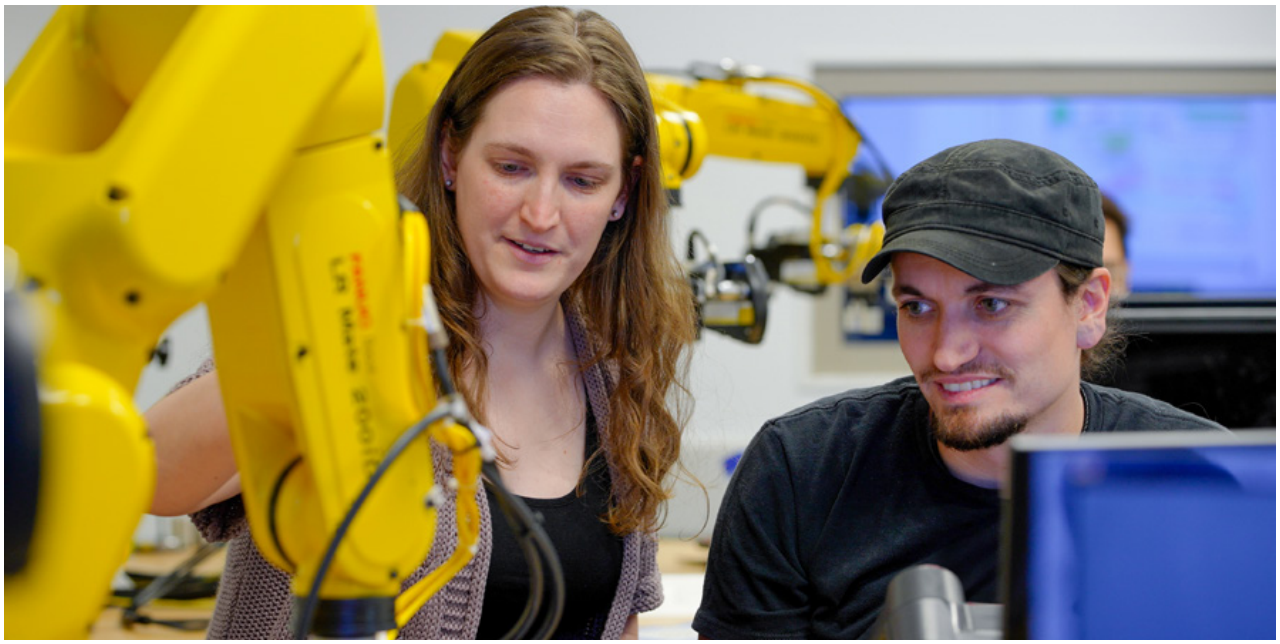
The (MH or AT) CERT School Comprehensive Educational Package provides students training tools and ensures your instructor has the necessary tools to effectively teach their students. This package includes the following deliverables:

- (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 $382,900 (MH) / $383,700 (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 FANUC Operator Exam administered through NOCTI - Test Fee required through NOCTI (MH only)
7. Provide an outline of their robotic syllabus/curriculum
8. Provide a 15-20 min. video to FANUC of a module/chapter being presented to an audience or faculty staff



Students at this level will attain a basic understanding of robot operations and programming, material handling and its components, as well as get introduction to preventative maintenance with troubleshooting. These training solutions and programs are aligned to the FANUC Certified Robot Operator & Certified Robot Technician (2D *i*RVision) National Certification offered through NOCTI -- https://www.nocti.org/about/partner-network/

This level focuses on the core Robot Operator skills needed by employers at an entry level or incumbent workers skills development. The FANUC Certified Robot Operator & Certified Robot Technician (2D *i*RVision) are national assessments based on FANUC's industry recognized Education Program, inclusive of FANUC's Robot Operations, HandlingPRO, HandlingTool Operations and Programming curriculum, ROBOGUIDE simulation software and hands-on FANUC robot labs, provided by a FANUC certified academic instructor.

Specific Standards and Competencies Included in this Certification Assessment:

- Robot Safety and Safety Devices
- Demonstrate knowledge of internal robot safety devices and functions
- Demonstrate knowledge of external safety devices, robot systems and components
- Identify teach pendant features and functions
- Knowledge of robot controller function
- Knowledge of end-of-arm tool (EOAT) functions
- Functions, initial installation and start up
- Prepare robot for installation and start up
- Determine and perform various start up methods
- Perform software setup

ENCLOSED ER-4*i*A CERT CART

Cart Dimensions:

47 ¼" L x 32 ½" W x 72" H

Details:

ER-4*i*A Robot with R-30*i*B Mate Plus Controller –

- Six Axis Mechanical Robot
- R-30*i*B Mate Plus Controller
- LR Handling Tool Software – Advanced CERT Configuration
- MH iPendant with Touch Screen for R-30*i*B Mate Plus Controller
- eDocumentation

Enclosed Education Training Cart

- Six Axis Mechanical Robot
- Mobile Training Safety Enclosure (fits through a standard 36" doorway)
- Double Side Door with 2 interlock switches
- Education EOAT Tooling Package
- 120V Transformer
- 4.6 Gal. Ultra Quiet Air Compressor
- Large easy rolling lockable (all direction casters

(1) Set of the following Manuals

- FANUC Robot Operations
- FANUC HandlingTool Operation & Programming
- FANUC HandlingPRO (ROBOGUIDE Simulation)

ER-4*i*A
Payload: 4 kg
Reach: 550 mm

LR Mate 200*i*D
Payload: 7 kg
Reach: 717 mm

* **UPGRADE** from ER-4*i*A (550mm reach) to LR Mate 200*i*D Robot (717mm reach)
* Special order robot

FENCELESS ER-4*i*A CERT CART

Cart Dimensions:

47 ¼" L x 29 ½" W x 72" H (Closed)
47 ¼" L x 61" W x 72" H (Open)

ER-4*i*A
Payload: 4 kg
Reach: 550 mm

LR Mate 200*i*D
Payload: 7 kg
Reach: 717 mm

Laser Scanner

Details:

ER-4*i*A Robot with R-30*i*B Mate Plus Controller –

- Six Axis Mechanical Robot
- R-30*i*B Mate Plus Controller
- LR Handling Tool Software – Advanced CERT Configuration
- MH iPendant with Touch Screen for R-30*i*B Mate Plus Controller
- eDocumentation

FENCELESS Education Training Cart

- DCS / AB SafeZone Scanner - Collaborative Open CERT cart
- 180+ Degree Work Envelope
- Enhanced EOAT Tooling Package with embedded Laser Pointer
- SafeZone Safety Laser Scanner
- Auditable Safety Stack Light
- 4.6 Gal. Ultra Quiet Air Compressor
- Large easy rolling lockable (All Direction) casters

(1) Set of the following Manuals

- FANUC Robot Operations
- FANUC HandlingTool Operation & Programming
- FANUC HandlingPRO (ROBOGUIDE Simulation)

* **UPGRADE** from ER-4*i*A (550mm reach) to LR Mate 200*i*D Robot (717mm reach)
* Special order robot

FENCELESS CRX-5*i*A CERT CART

STANDARD CART:
Aluminum structure with steel table

OPTION:
Powder-coated steel

Cart Dimensions:

48" L x 28" W (Both Carts)

Details:

Fenceless CRX-5*i*A Collaborative Robot Training Cart –

- Six Axis Mechanical Robot – P-CRX5A-RAPVT-X
- R-30*i*B Plus mini Controller
- LR HandlingTool Software – Adv DCS, motion pkg & EIP
- FANUC Tablet Pendant and holder
- Standard Power is 110v (220v available upon request)
- STANDARD w/Large easy rolling lockable (all direction) casters
- Collaborative Actuated Gripper with connector cable affixed
- eDocumentation

(1) Set of the following Manuals

- FANUC Robot Operations
- FANUC HandlingTool Operation & Programming
- FANUC HandlingPRO (ROBOGUIDE Simulation)

Options:

- UPGRADE to a CRX10*i*A Robot
- UPGRADE to a powder-coated steel cart

CRX-5*i*A
Payload: 5 kg
Reach: 994 mm

CRX-10*i*A
Payload: 10 kg
Reach: 1,249 mm

Tablet Teach Pendant

FENCELESS ARCMATE 50*i*D/7L CERT CART

Cart Dimensions:

47 ¼" L x 29 ½" W x 72" H (Closed)
47 ¼" L x 61" W x 72" H (Open)

ArcMate 50*i*D/7L
Payload: 7 kg
Reach: 911 mm

EOAT - ArcTorch with Embedded Laser Pointer

Details:

ArcMate 50*i*D/7L Robot with R30*i*B Mate Plus Controller –

- Six Axis Mechanical Robot
- R-30*i*B Mate Plus Controller
- LR ArcTool Software – Advanced CERT Configuration for ARCTool
- AT *i*Pendant with Touch Screen for R-30*i*B Mate Plus Controller
- eDocumentation

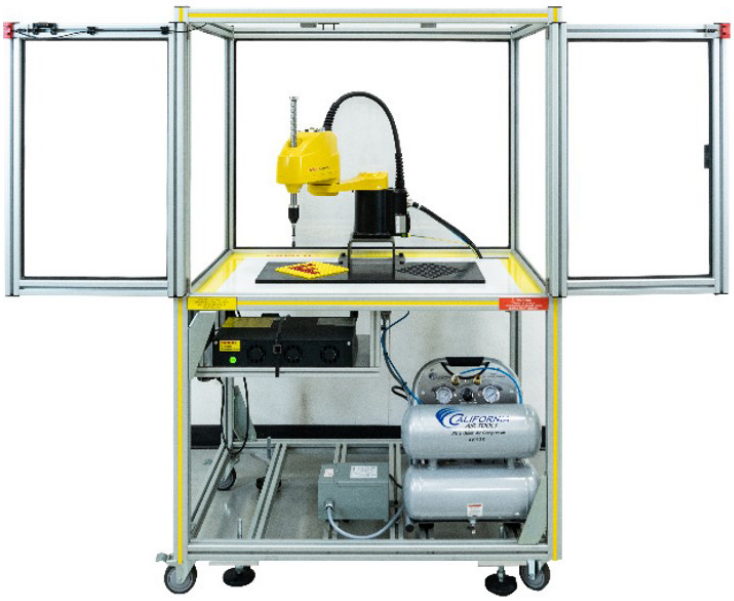
FENCELESS Education Training Cart

- DCS / AB SafeZone Scanner - Collaborative Open CERT cart
- 180+ Degree Work Envelope
- ArcTorch with embedded Laser Pointer
- SafeZone Safety Laser Scanner
- Auditable Safety Stack Light
- Large easy rolling lockable (All Direction) casters

(1) Set of the following Manuals

- FANUC Robot Operations
- FANUC HandlingTool Operation & Programming
- FANUC HandlingPRO (ROBOGUIDE Simulation)

SR-3*i*A SCARA CERT CART



Cart Dimensions:

47 ¼" L x 32 ½ "W x 72" H

SR-3*i*A
Payload: 3 kg
Reach: 400 mm

Details:

SR-3*i*A SCARA Robot with R-30*i*B Compact Plus Controller –

- Four Axis Mechanical Robot
- R-30*i*B Compact Plus Controller
- LR Handling Tool Software – Advanced CERT Configuration
- eDocumentation

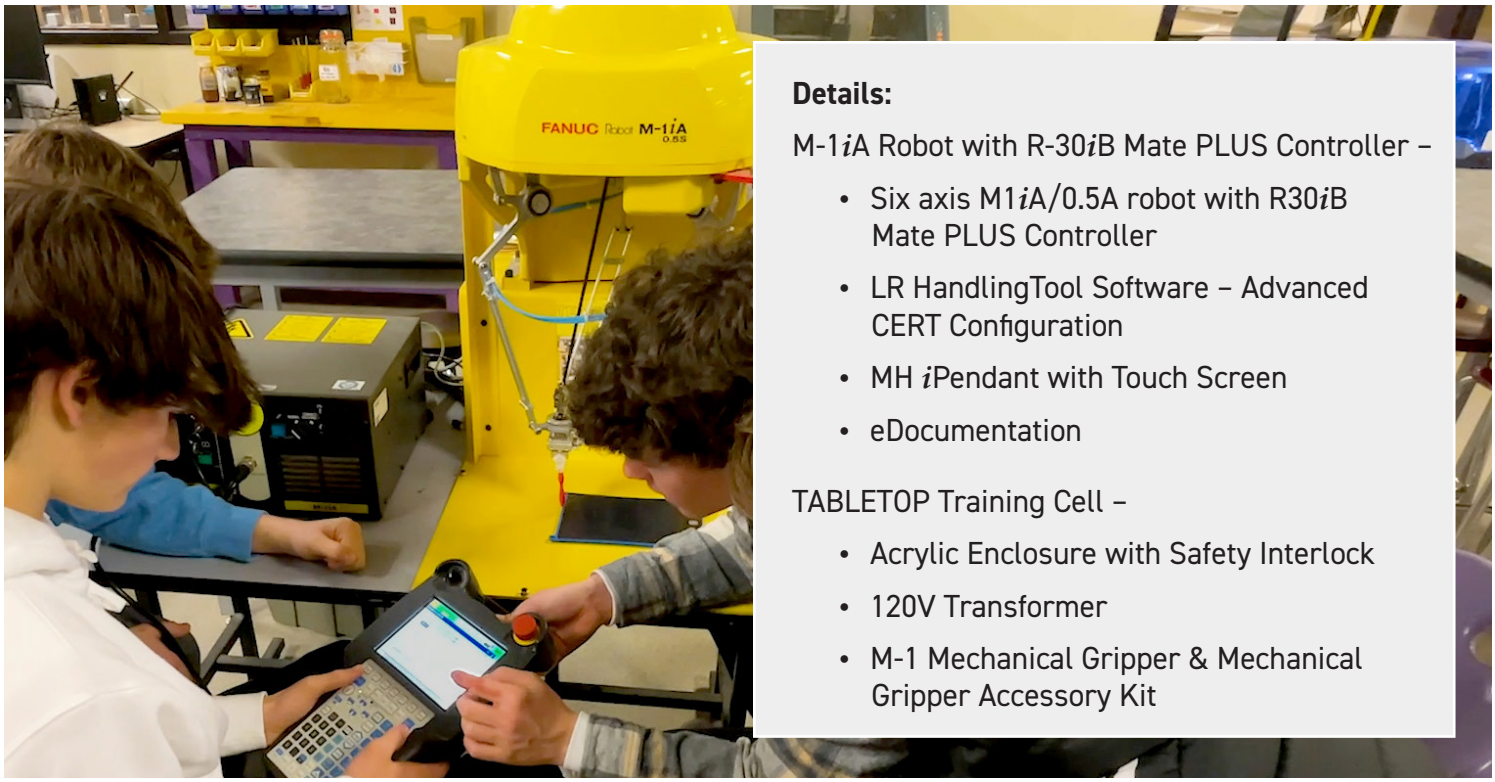
SCARA Education Training Cart

- Mobile Training Safety Enclosure (fits through a standard 36" door)
- 180 Degree Work Envelope
- 4.6 Gal. Ultra Quiet Air Compressor
- 120VAC Transformer
- Robot Riser Mount
- Controller Shelf
- Vacuum EOAT & valves
- Heavy Duty Stabilizing Feet
- Large easy rolling lockable (All Direction) casters
- Project Based Learning – MINI MARBLE (2) marble trays / (10) marbles / Demo Program

(1) Set of the following Manuals

- FANUC Robot Operations
- FANUC HandlingTool Operation & Programming
- FANUC HandlingPRO (ROBOGUIDE Simulation)

M-1*i*A TABLETOP



Details:

M-1*i*A Robot with R-30*i*B Mate PLUS Controller –

- Six axis M1*i*A/0.5A robot with R30*i*B Mate PLUS Controller
- LR HandlingTool Software – Advanced CERT Configuration
- MH *i*Pendant with Touch Screen
- eDocumentation

TABLETOP Training Cell –

- Acrylic Enclosure with Safety Interlock
- 120V Transformer
- M-1 Mechanical Gripper & Mechanical Gripper Accessory Kit

M-1*i*A/0.5A
Payload: 0.5 (1) kg
Reach: 280 mm

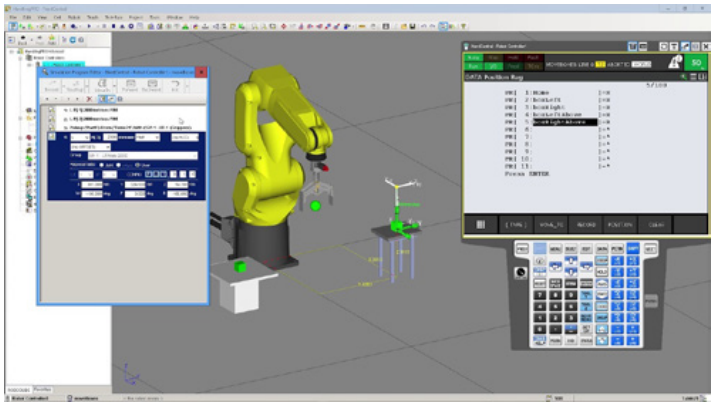
M-1iA 6-axis shown with Tabletop

K-12 INTRODUCTORY ROBOTICS PACKAGE

Details:

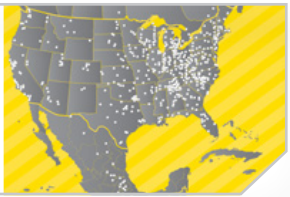
K-12 Introductory Robotics Package (MH ONLY)
Available ONLY to Non-Profit K-12 Schools –

- (1) Material Handling Teach Pendant
- (1) 1.5M Cable Conversion Kit
- (1) Instructor eLearn seat
  (no renewal required)
- Robot Ops / HandlingTool / HandlingPRO
- (1) HandlingTool Operation & Programming
  and (1) HandlingPRO manual
- (6) ROBOGUIDE Academic Licenses
  (10yr license) RTL-1CERT-EDU2
- CERT Cart Simulation model (SHAPES)



DID YOU KNOW?

CERT WORKS WITH OVER **1,600** EDUCATION PROVIDERS



STANDALONE ROBOTS

SR-3iA SCARA Robot with R-30*i*B Compact Plus Controller

- Four Axis Mechanical Robot
- R-30*i*B Compact Plus Controller – 208V
- LR Handling Tool Software – Advanced CERT Configuration
- Vacuum EOAT

Does Not include Optional Teach Pendant, TP Cable
120V Transformer not available through FANUC on a Stand-alone unit

SR-6*i*A SCARA Robot with R-30iB Compact Plus Controller

- Four Axis Mechanical Robot
- R-30*i*B Compact Plus Controller – 208V
- LR Handling Tool Software – Advanced CERT Configuration
- Vacuum EOAT

Does Not include Optional Teach Pendant, TP Cable
120V Transformer not available through FANUC on a Stand-alone unit

ER-4*i*A Robot with R-30*i*B Mate Plus Controller

- Six Axis Mechanical Robot
- R-30*i*B Mate Plus Controller
- LR Handling Tool Software – Advanced CERT Configuration
- MH *i*Pendant with Touch Screen for R-30*i*B Mate Plus Controller
- eDocumentation
- 120V Transformer
- Mechanical Gripper & LR Mate Gripper Accessory Kit

LR Mate 200*i*D/4S Robot with R-30*i*B Mate Plus Controller

- Six Axis Mechanical Robot
- R-30*i*B Mate Plus Controller
- LR Handling Tool Software – Advanced CERT Configuration
- MH *i*Pendant with Touch Screen - R-30*i*B Mate Plus
- 120V Transformer
- Mechanical Gripper & LR Mate Gripper Accessory Kit

UPGRADE from LR Mate 200*i*D/4S to LR Mate 200*i*D Robot (717mm reach)
***Includes 120V Transformer, Mechanical Gripper, and LR Mate Gripper Accessory Kit*

UPGRADE from LR Mate 200*i*D/4S to LR Mate 200*i*D/7L Robot (911mm reach)
***Includes 120V Transformer, Mechanical Gripper, and LR Mate Gripper Accessory Kit*

STANDALONE ROBOTS

ArcMate 50*i*D/7L Robot with R-30*i*B Mate Plus Controller

- Six Axis Mechanical Robot
- R-30*i*B Mate Plus Controller
- LR ArcTool Software – Advanced CERT Configuration for ARCTool
- AT *i*Pendant with Touch Screen - R-30*i*B Mate Plus
- 120V Transformer
- ArcTorch with embedded Laser Pointer

M-10*i*D/12 Robot with Mate R-30*i*B Plus Controller

- Six Axis Mechanical Robot
- Mate R-30*i*B Plus Controller – Basic Cable/Single Phase
- MH *i*Pendant with Touch Screen
- HandlingTool Software – Advanced CERT Configuration

Collaborative Robot with R-30*i*B Mate Plus Controller for Material Handling (MH)

- Six Axis Mechanical Robot (717mm reach)
- R-30*i*B Mate Plus Controller
- LR HandlingTool Software – Advanced CERT Configuration
- MH *i*Pendant with Touch Screen - R-30*i*B Mate Plus
- 120V Transformer
- Vacuum EOAT

**Baseplate or Riser required - sold separately*

UPGRADE from CR-7*i*A to CR-7*i*A/L Long Arm Robot (911mm reach)

***Includes 120V Transformer, Mechanical Gripper, and LR Mate Gripper Accessory Kit*

CRX-5*i*A Collaborative Robot for Material Handling (MH)

- Six Axis Mechanical Robot
- R-30*i*B Plus Mini Controller
- LR HandlingTool Software – Adv DCS, motion pkg & EIP
- FANUC Tablet Pendant
- Standard Power is 110v or 220v (no transformer required)

***NO EOAT*

CRX-10*i*A Collaborative Robot for Material Handling (MH)

- Six Axis Mechanical Robot
- R-30*i*B Plus Controller
- LR HandlingTool Software – Adv DCS, motion pkg & EIP
- FANUC Tablet Pendant
- Standard Power is 110v or 220v (no transformer required)

***NO EOAT*

CRX-10*i*A/L Collaborative Robot for Material Handling (MH)

- Six Axis Mechanical Robot
- R-30*i*B Plus Controller
- LR HandlingTool Software – Adv DCS, motion pkg & EIP
- FANUC Tablet Pendant
- Standard Power is 110v or 220v (no transformer required)

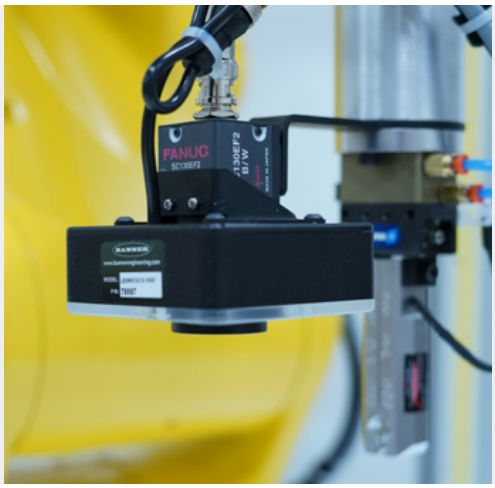
***NO EOAT*

ADD-ONS

Vision

2D *i*RVision - *i*RVision finds parts and their precise position and orientation (X,Y and R). As a result, production flexibility increases because expensive positioning fixtures are not required. 2D vision is suited for any material handling application including palletizing and depalletizing, as well as vision inspection.

- Fixed Mount & Robot Mounted (Dependent on Robot Model)
- Vision Light Kit (Optional)



Grippers

Vacuum Suction Cup - MO-1800-699 **-** The FANUC Vacuum Suction Cup EOAT allows students to simulate a pick and place application. Vacuum-based air valve is robust and reliable.

- Manually interchangeable with the Mechanical Gripper

Mechanical Gripper (for Stand Alone Unit) - does not include accessory kit.

M-1*i*A Mechanical Gripper Accessory Kit - (Fingers, Fittings & Tubing, Valve, Relay Connector, Muffler).

LR Mate Mechanical Gripper Accessory Kit - (Fingers, Fittings & Tubing).

LR Mate Multi-EOAT Gripper Kit – (One single gripper, one vacuum suction cup).

Collaborative Actuated Gripper with Connector Cable - Electric 2-finger parallel gripper certified for collaborative operation with actuation via 24 V and digital I/O.

- must specify CR series robot when ordering - no adapter kit required / no laser

ADD-ONS

Project Based Learning Packages

SHAPES with standard (included with standard CERT Cart) -

- (1) Set of the following FANUC Manuals:
  - o FANUC Robot Operations
  - o FANUC HandlingTool or ArcTool Operation & Programming
  - o FANUC HandlingPRO (ROBOGUIDE Simulation)

Battery Package with Basic *i*RVision 2D & Error Proofing (using existing Gripper fingers on robot) -

- Includes:
  - o Machined 'AA" Battery Magazine
  - o Machined Loading Trays with iRVision target for teaching Vertical, Horizontal, and Diagonal load and unload programming.
  - o (8) "AA" Batteries Included
  - o (1) FANUC *i*Rvision 2D Manual

* Includes Demo Program with *i*RVision when purchased w/ a CERT cart
*Requires *i*RVision 2D Guidance Hardware & Software
*Requires *i*RVision CERT Instructor Program

Pill Sorting Package with Basic *i*RVision 2D & Contrasting Colors

- Includes:
  - o Pneumatic Dual Position Vacuum Gripper **SHOP AIR Required
  - o Fixed position - Loading Tray / Sorting Surface
  - o (2) Pill Bottles
  - o (16) Plastic Pills
  - o (1) FANUC *i*Rvision 2D Manual

* Includes Demo Program with *i*RVision when purchased w/ a CERT cart
*Requires *i*RVision 2D Guidance Hardware & Software
*Requires *i*RVision CERT Instructor Program

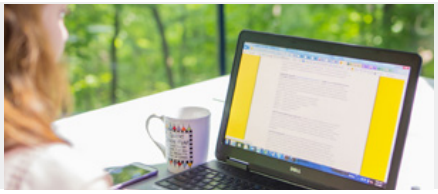
Software, eLearn, & Manuals

ROBOGUIDE -ROBOGUIDE allows users to create, program and simulate a robotic workcell in 3-D without the physical need and expense of a prototype workcell setup.

* Options for Server Based Licenses

Manuals - Latest revision of the FANUC Manuals, also used in FANUC live Training.

eLearn - Access to online Training modules to assist with instruction.



Students who achieve this level of training should be competent in their understanding of basic machine types, motion commands, machine coordinate systems, tool and work offsets and basic G and M code programming. Additionally, they will become familiar with the basic operations of the control such as loading and editing data, program verification, machine setup and operation. As a bonus, training on a FANUC control will give students an edge due to its predominance in the industry.

To find out more about these credentials, please contact FANUC America Corporation.

WWW.FANUCAMERICA.COM/EDUCATION

CNC SOLUTIONS

CNC Guide Academic Edition - This solution is FANUC CNC software running on a PC. CNC Guide is ideal for development teams and is available with single or multi-seat licenses. CNC Guide provides a realistic operation and part programming environment so students can write, test and optimize programs without taking a machine out of production.

CNC Simulator - Students will experience the look, feel and layout of the control as they navigate and program a fully functioning CNC without the need for a full machine. This simulator is based on the FANUC Series 0*i*-MODEL F Plus platform and can be operated in either milling or turning configurations. The CNC Simulator can be connected to a FANUC robot to teach simulated machine tending and integration.

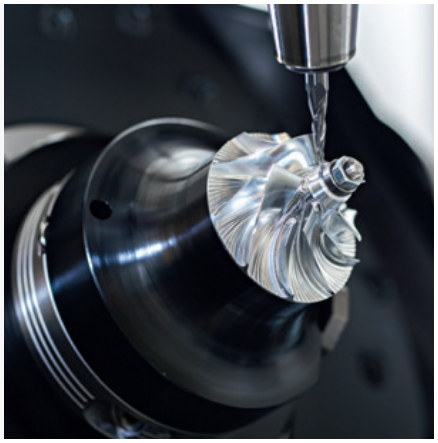
Machining Simulator - Upgraded version of the CNC Simulator with a realistic machining simulation function. Users can virtually manufacture parts in milling or turning environments with realistic kinematics and structure. The simulation is based on actual CNC position data, not on the G-code program, providing the most realistic simulation as the virtual machine reacts exactly as a real machine would.

Milling Curriculum: Programming, Setup and Operation - This course explores the fundamentals of CNC uses, configurations, and operations for the FANUC 30*i*/31*i*/32*i* Model B and 0*i*-F controls. Provides in-depth definitions and explanations of the FANUC CNC screens, keyboard functions, machine operator panel switches and basic G-code programming concepts. This course teaches a full range of skills necessary to produce parts on a CNC machining center: verifying the workholding equipment is ready, setting the work coordinate and tool off sets, calculating feeds and speeds, writing the G-code part program, machining the part and then optimizing the program for the shortest cycle time.

Turning Curriculum: Programming, Setup and Operation - This course explores the fundamentals of CNC uses, configurations, and operations for the FANUC 30*i*/31*i*/32*i* Model B and 0*i*-F controls. Provides in-depth definitions and explanations of the FANUC CNC screens, keyboard functions, machine operator panel switches and basic G-code programming concepts. This course teaches a full range of skills necessary to produce parts on a CNC turning center: verifying the workholding equipment is ready, setting the work coordinate and tool off sets, calculating feeds and speeds, writing the G-code part program, turning the part and then optimizing the program for the shortest cycle time.

ROBODRILL - ROBODRILL α-D*i*B Plus is a fast, high-quality machining center offering ease of use and optional robotic automation. This machine is ideally suited to milling applications, high-speed drilling, boring and tapping. Students will benefit from learning the advanced capabilities of the ROBODRILL.

4th/5th Axis ROBODRILL - 5 axis machining offers many advantages compared to conventional 3 axis machining, such as decreased fixture and setup time, and the ability to machine more complex part designs. Whether 3+2, 4+1 or full 5 axis simultaneous, the Robodrill is a compact, high speed solution utilizing the FANUC 31iB5 Control, featuring the *i*HMI interface.



FANUC CNC SIMULATOR

Overview:

Desktop simulator for learning the basic operations of CNC

Features

- 10.4“ LCD / QWERTY Keyboard I Machine operator's panel as actual FANUCs latest CNC
- Switchable machining center and lathe system in one simulator

Uses:

- It is possible to operate and program CNC on the actual hardware and train with the same feeling of the operation as the machine tool.
- Ideal for training those who have never used a machine tool.

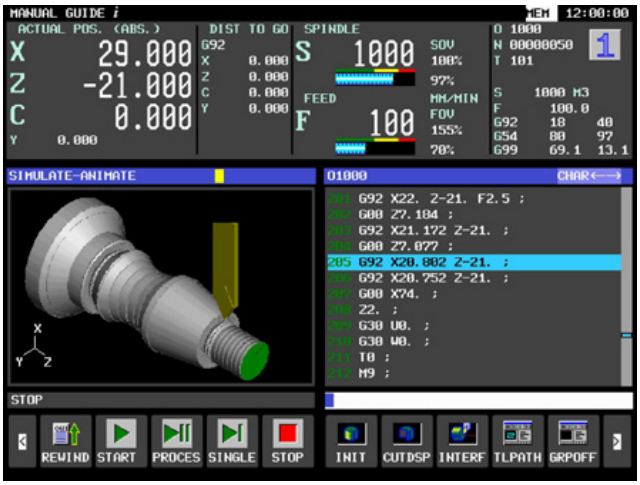
Specifications

Item	Specification
Dimensions	421mm x 220mm x 608mm (W x D x H)
Weight	Approx. 12kg
Display	10.4"LCD
Operation part	QWERTY key, Machine operator’s panel, Emergency stop button, Manual pulse generator, Override switch
Input and output media	USB memory, CF card
Communication I/F	Ethernet
Input rating	AC100V to AC240V, 0.8A to 0.4A, 50/60Hz
Other	Security Slot
System (Switching possible)	Machining center system (feed axes 3-axis, spindle axes 1 axis)
	Lathe system (feed axes 2-axis, spindle axes 1 axis)
Display mode	24 languages

* Cannot connect the motor
* Cannot add or change optional features
* Cannot use the touch panel and *i*HMI

Screen Examples

Machining Center System



Lathe System

Related Technical Information -

- FANUC CNC Simulator Operator's Manual A-96542-00001 EN/01

NOCTI/NOCTI BUSINESS SOLUTIONS (NBS) INFORMATION

NOCTI/NOCTI Business (NBS): Certification

Since it was first funded by a federal grant in the late 1960s, NOCTI has had a national presence and deep integration in the traditional career and technical education (CTE) community for over 55 years and has functioned as a not-for-profit consortium representing each of the 50 states and all US territories. NOCTI Business Solutions (NBS), NOCTI's sister company, has 25 years of experience working with private organizations and certification bodies to provide pre-employment testing and certification services across the country. Working together, the two companies provide a unique combination of services to education and industry that is crucial when developing assessment and certification programs. NOCTI/NBS offers a suite of assessment-related products. They are partners, collaborators, innovators, researchers, and most of all, they are committed to providing products and resources for preparing individuals for careers.

NOCTI and NBS are accredited through the International Certification Accreditation Council (ICAC). This accreditation signifies that NOCTI/NBS credentials, pre-employment assessments, certifications, and overall processes have been affirmed to follow the best international industry practices and standards outlined in ISO 17024 which relates to the general requirements for bodies operating certification of persons. NOCTI/NBS products and services meet and exceed requirements established by the American Psychological Association (APA), the American Educational Research Association (AERA), and the National Council on Measurement and Evaluation (NCME) through the Standards for Educational and Psychological Testing.

NOCTI/NOCTI BUSINESS SOLUTIONS (NBS) INFORMATION

Importance of Third-Party Development and Delivery

Third-party certification involves independent development and verification reducing conflict of interest and providing significant meaning. While it is important for an individual to prove their skill level by obtaining a third-party certification, it is equally as important for the organization developing the certification assessment to be a third party.

The assessment development company works with the Subject Matter Expert (SME) team provided by the certification organization to identify the core and critical competencies needed to become certified in a particular industry. This third-party also serves as the disinterested party of who becomes certified. Their only stake in the process is to ensure that those meeting the minimum requirements of the certification have the skills determined by the SMEs to be successful in the industry.

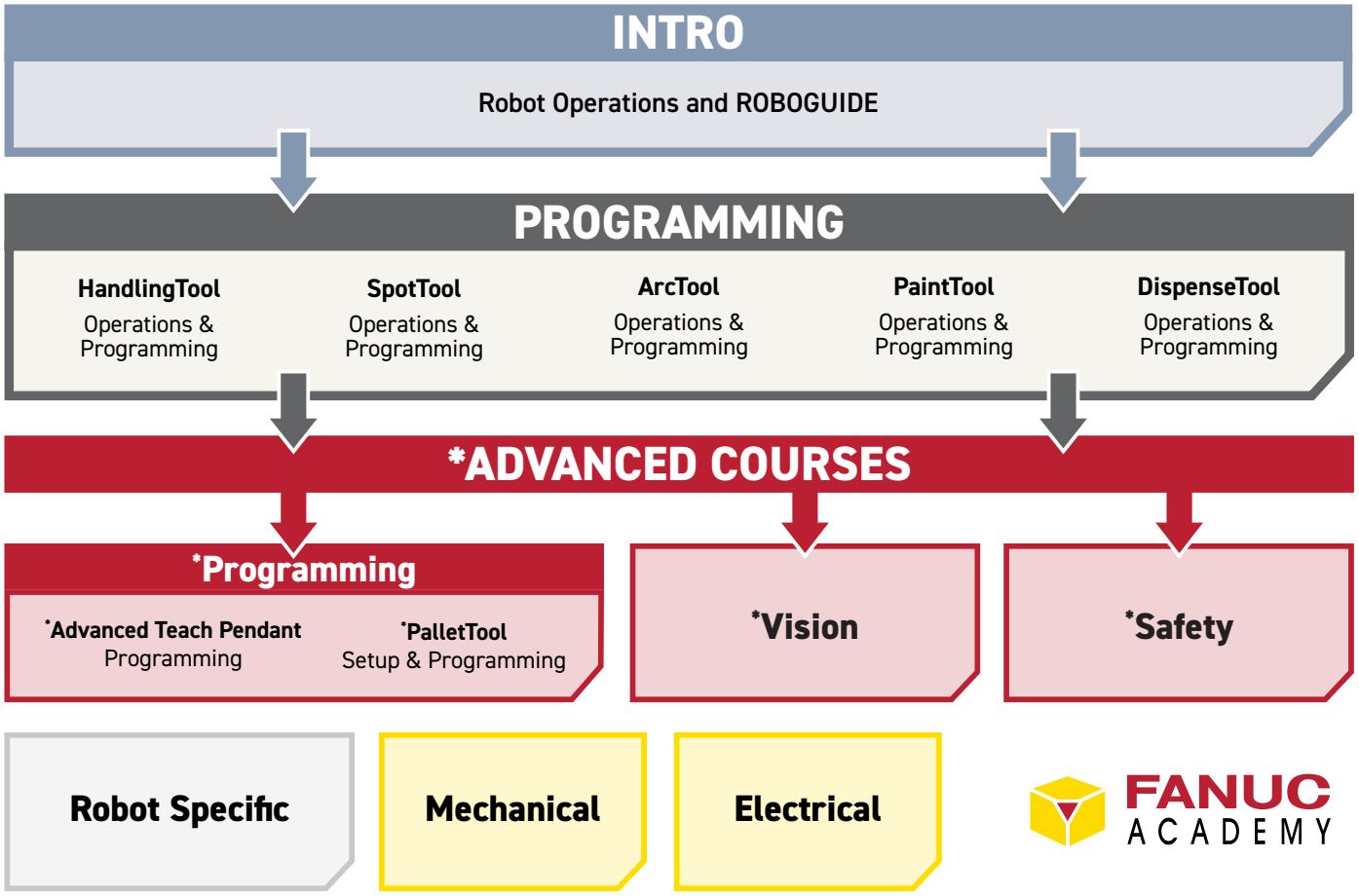
A first-party certification is a self-declaration. A second-party certification is a company or training provider creating its own verification program for candidate certification. A third-party certification verifies that a product, process, or service meets a defined standard. In addition, it is important that the assessment development company be accredited based on the ISO 17024 standards, as referenced above.

NOCTI/NOCTI Business (NBS) & FANUC

FANUC collaborates with NOCTI to provide industry-recognized credentials for learners and instructors in robotics and automation. NOCTI develops the credentialing assessments based on FANUC's CERT Program, ensuring that the certifications are robust and meet industry standards.

RECOMMENDED TRAINING CURRICULUM PATH

FANUC



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

Contact your local Education Solution Provider for more details, pricing and program customization options

FANUCAMERICA.COM/EDUCATION