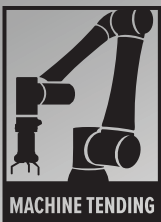


LYNDEX-NIKKEN

EZ-AUTOCART

EASILY AUTOMATE MACHINE TENDING

EZ-AUTOCART
Designed with
simple job setup
in mind



lyndexnikken.com



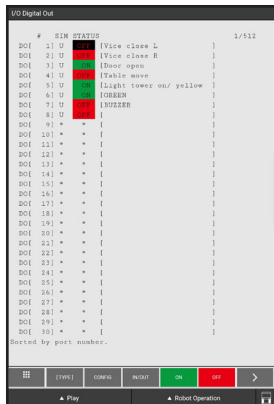
PREMIUM EZ-AUTOCART

Streamlined Machine Tending with Minimal Effort

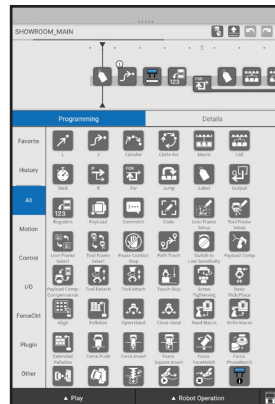
Embark on a new era of machine tending with Lyndex-Nikken's innovative EZ-AutoCart machine tending solution. This cutting-edge technology empowers machine shops to automate the tending of CNC lathes, mills, and similar machines, significantly boosting spindle time and enhancing overall machine efficiency. Embrace unattended operation for uninterrupted production, marking a significant leap forward in the seamless integration of machine tending into your manufacturing processes.

**NO-CODE
MACHINE TENDING
EMPOWERS
USERS**

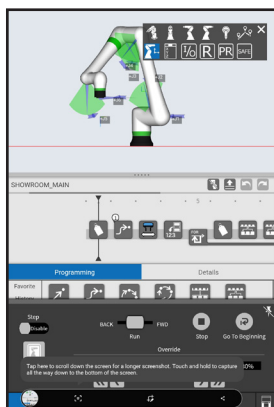
FANUC CRX Cobot Screens Through Controller



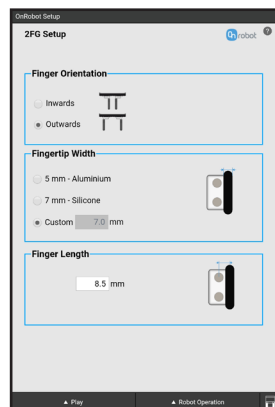
CRX20 Digital I/O
Output List Screen



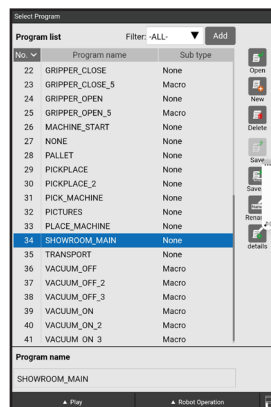
CRX20
Programming Screen



CRX20 Cobot
Joint Screen



CRX20 OnRobot
Set-up Screen



CRX20 Program
Selection Screen



*Standard Bot Core
also available.*

*Customer may
also specify their
preferred cobot.*

BASE EZ-AUTOCART

Functions and Features



Integration Capability:

- Includes 16 digital I/O to control peripheral devices
- Manage auto doors open/close
- Manage workholding conditions
- Optional Hub provides data mining and quick change between multiple CNC machines
- Monitor CNC machine conditions

Vision Capability:

- Includes integrated camera for 2/3D vision
- Optional software for 2.5D picking

Integrated
Camera for
2/3D Vision



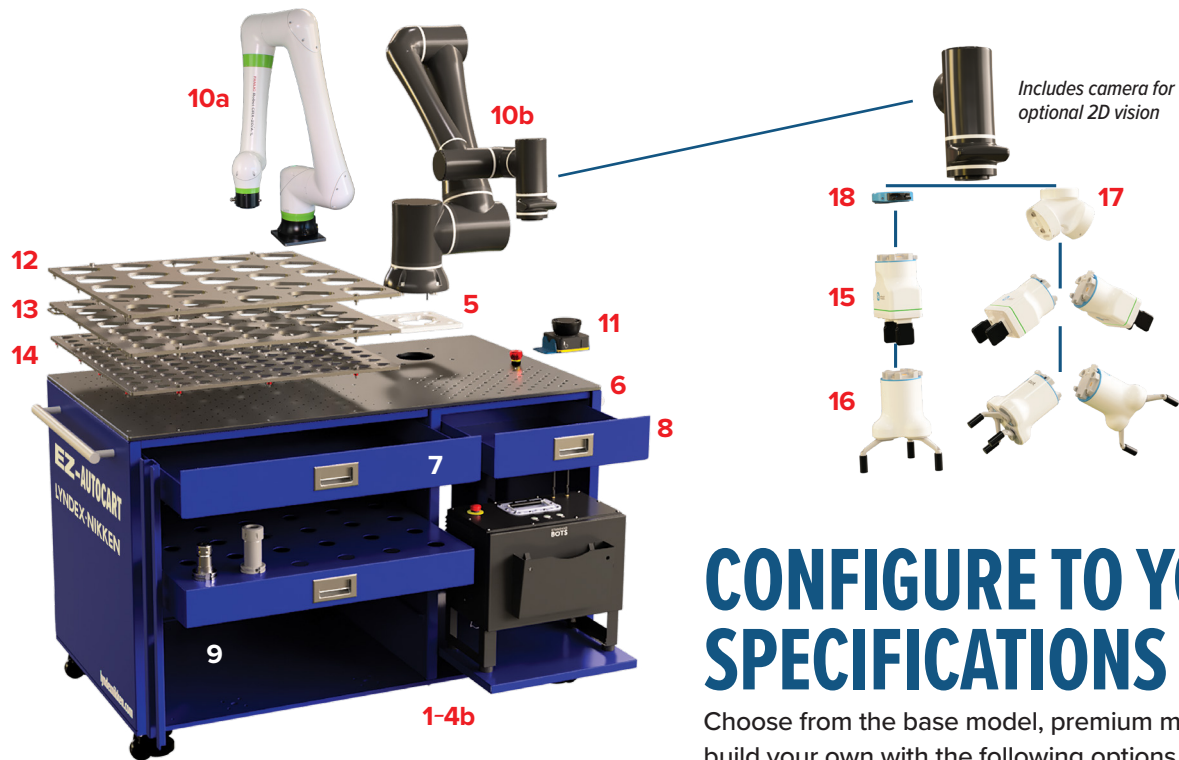
EZ-AutoCart - Designed for Machine Tending

STANDARD BOT CORE	FANUC CRX20
• Payload Capacity: 18kg • Reach: 1300mm • Max Joint Speed: 435°/s • Repeatability: +/-0.025mm	• Payload: 20kg • Reach: 1418mm • Max Joint Speed: 1000°/s • Repeatability: +/- 0.04mm

* FANUC CRX20 also available. Customer may also specify their preferred cobot.

EZ-AutoCart System Includes:

- Robot arm, cart, and tablet
- Support, including joint and hardware replacements
- Options (not included): Workholding, end-of-arm tooling, fixturing plates for the cart, safety scanners, and integration support.



CONFIGURE TO YOUR SPECIFICATIONS

Choose from the base model, premium model or build your own with the following options.

EZ-AUTOCART MODEL OPTIONS

SEQ	PREBULDT PART NO.	INCLUDING	DESCRIPTION
1	EZ-ACART-BASE	1 & 6	AutoCart base cart with 55x30.7 top plate
2a	EZ-ACART-BASE-CRX20	1,5,6 & 10a	AutoCart base cart with 55x30.7 top plate, cobot mount & FANUC CRX20
2b	EZ-ACART-BASE-LN1813	1,5,6 & 10a	AutoCart base cart with 55x30.7 top plate, cobot mount & Standard Bot Core
3	EZ-ACART-PREM	1 & 6-9	AutoCart premium with 55x30.7 top plate and drawers
4a	EZ-ACART-PREM-CRX20	1 & 5-10a	AutoCart premium with 55x30.7 top plate, drawers, cobot mount and FANUC CRX20
4b	EZ-ACART-PREM-LN1813	1 & 5-10b	AutoCart premium with 55x30.7 top plate, drawers, cobot mount and Standard Bot Core
ACCESSORIES PART NO.			
5	EZ-ACC-CMP		Cobot mounting plate - specify dimensions of preferred cobot base to be used
6	EZ-ACART-TP5531		AutoCart anodized top plate-55x30.7
7	EZ-ACART-DWRS1		AutoCart long drawers
8	EZ-ACART-DWRS2		AutoCart short drawers
9	EZ-ACART-DWRS3		AutoCart tool holder drawers
10a	EZ-COBOT-CRX20		FANUC CRX20iA/I, 20kg payload, 1418mm reach
10b	EZ-COBOT-LN1813		Standard Bot Core, 18kg payload, 1300mm reach
REQUIRED OPTIONS PART NO.			
11	EZ-ACART-SCAN		AutoCart safety laser scanner
12	EZ-ACART-GRD01-169		AutoCart universal part grid-1" capacity-max 169 parts cap
13	EZ-ACART-GRD02-49		AutoCart universal part grid-2" capacity-max 49 parts cap
14	EZ-ACART-GRD03-25		AutoCart universal part grid-3" capacity-max 25 parts cap
15	EZ-EOAT-2FG7		OnRobot 2FG7 2-fingers for R01 with adapter
16	EZ-EOAT-3FG15		OnRobot 3FG15 3-fingers for R01 with adapter
17	EZ-EOAT-QC2		OnRobot dual quick change adapter for LN1813
18	EZ-EOAT-QC1		OnRobot single quick change adapter for LN1813

OPTIONS

Elevate your machine tending with options for enhanced robotic performance.

COBOT OPTION (OPTIONAL)

- FANUC CRX20
- Standard Bot Core
- Customer may also specify their preferred cobot

GRID PLATE (OPTIONAL)

3 Grid Plates

Grid plates synergize with the robot's grid capabilities to allow for repeatable, easy to set up machine tending operations.

Grids come in 3 different sizes. The sizes are focused on the square dimension, but circles will still fit:

0-1 in square - 169 total parts

1-2 in square - 49 total parts

2-3 in square - 25 total parts

DYNAMIC TOP PLATE (INCLUDED)

Top Plate

Top plate with bolt patterns to allow for dynamic workholding to fit your needs. Cobot mount adapter for compatibility across different cobot brands. M6 50mmx50mm grid to accommodate future in feed needs. M12 50mmx50mm grid to accommodate future accessory needs.

SAFETY SCANNER (OPTIONAL)

Safety Scanner Integration Capable

A safety assessment and score will determine the need for added safety accessories.

END-OF-ARM TOOLING (OPTIONAL)

2 Grippers

2-finger and 3-finger grippers for square and round parts across a broad spectrum of sizes and materials.

2 Quick Changes

- Allows you to switch grippers with the touch of a button.
- Dual quick change can reduce robot cycle time and increase spindle efficiency.



EZ-AUTOCART AND COBOT SPECIFICATIONS

Description	Details	Standard Bot Core
PERFORMANCE	Power consumption Collaboration operation Ambient temperature range Humidity Operation	Depends on program & payload; range from 25W to 1,500W Speed, force, collision detection and other safety functions 0-55°C 90%RH (non-condensing) Collaborative or high-speed non-collaborative
SPECIFICATION	Payload capacity Reach Max. joint speed Degree of freedom	18kg (39lbs) 1300mm (51.2in) 435°/s Degrees of freedom: 6
COBOT AND EZ-AUTOCART PHYSICAL	EZ-AutoCart footprint Cobot footprint Materials Cable length, robot arm Weight, including cable IP classification Noise Robot mounting	L = 1530mm (60in), W = 780mm (30in), H = 920mm (36in) ø200mm Aluminum, steel, plastic 2000mm (79in) 32.5kg (71.6lbs) IP54 Depends on program; typically less than 58dB Floor mount
TOOLTIP CONNECTOR	Tool connector type Compatibility Native gripper support Tool/O parts * * * * Tool power supply	M8 8-pin & M8 4-pin Electrical & mech. compatibility with large gripper ecosystem Two-finger, three-finger & suction Digital in: 2 Digital out: 2 (Open-drain or push-pull, 1A) Analog in: 2 (24V tolerant) Analog out: 0 12V/24V, 3A continuous max
CONTROL BOX	IP classification IP class cleanroom Ambient temperature range I/O ports * * * * Communication * * * Power source Humidity Control box size (WxHxD) Weight Materials	IP54 N/A 0 to 55°C Digital in: 16 (24V tolerant) Digital out: 16 (24V 0.7A out continuous) 24V 0.7A (3A combined if using internal power) 24V 0.7A (12A combined with external power supply) Analog in: 4 (24V tolerant) 24V I/O TCP/IP, EtherNet/IP Modbus TCP Coming later with software update 90 ~ 264VAC, 47-63Hz 90%RH (non-condensing) 460mm x 430mm x 315mm (18.1in x 16.9in x 12.4in) 14.4kg (31.7lbs) Powder coated steel
MOVEMENT	Repeatability Shoulder axis (1&2) * Elbow axis (3) * Wrist axis (4,5&6) *	(+/-) 0.025mm Working range: +/-360° Maximum speed: 287°/sec Working range: +/-360° Maximum speed: 335°/sec Working range: +/-360° Maximum speed: 435°/sec

FANUC CRX20iA/L

Average power consumption for a CRX20iA/L is 400W
 Speed, force, collision detection and other safety functions
 Normal: 0-45°C storage: -60-45°C
 75%RH or less (non-condensation)
 Collaborative or high-speed non-collaborative

20kg (44lbs)
 1418mm (55.8in)
 Power/force limited mode: 1000 mm/sec, note - max allowable safe speed is a function of system application, consult A3 safety standards for recommended PFL robot guidelines
 Degrees of freedom: J1:360° J2:360° J3:540° J4:380° J5:360° J6:450°

L = 1530mm (60in), W = 780mm (30in), H = 920mm (36in)
 ø190mm
 Al/Mg casting
 Robot RCC length 1.5M, Teach Pendant Cable 5M, Power Supply Cable 2M
 41kg (90.2lbs)
 IP67
 < 70dB
 (4) - f9mm thru holes / see mounting documentation

The end effector (EE) interface defines the electrical connections available at the robot wrist.
 The connection accepts an M8 connector and has configurable inputs and outputs.
 The robot supports 12VDC and 24VDC inputs and outputs, as well as two 0-10VDC or 4-20mA analog inputs.
 The analog inputs can also be reconfigured to support RS485.

IP54
 N/A
 0 to 45°C (normal operation), -20°C to 60 (storage)
 Digital in: 20 (24VDC)
 Digital out: 16 (24VDC)
 On the side of the enclosure door
 24V 0.7A (12A combined with external power supply)
 Analog in/out: 2 (12VDC/24VDC)
 24V I/O
 EtherNet/IP, PROFINET, Modbus TCP
 Ethernet TCP/IP
 Standard: EtherNet/IP, PROFINET, EtherCAT & Modbus TCP
 110-120VAC or 200-240VAC, 50-60Hz
 <75%RH (no condensation)
 406mm x 381mm x 279mm (16in x 15in x 11in)
 20kg (44lbs)
 Misc.

(+/-) 0.04mm
 Compliant with ISO9283 see "Degrees of Freedom" for movement
 Maximum speed: 1000°/sec



FANUC CRX20iA/L



Standard Bot Core

LYNDEX-NIKKEN

ABOUT US

At Lyndex-Nikken, our mission is simple: keep you ahead of the competition. We deliver the industry's most advanced machine tool accessories, driven by cutting-edge technology and continuous innovation. Beyond our products, our experienced technicians and product specialists provide unmatched customer service and engineering support.

LYNDEX-NIKKEN

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