

CAPABILITIES GUIDE

2026

Custom Robotic Palletizing | FANUC CRX Cobots | Mech-Mind AI Vision | Itoh Denki 24V ZPA Conveyor

1

Robotic Palletizing
Systems

20+

YEARS EXPERIENCE

2

FANUC CRX
Cobots

500+

SYSTEMS INSTALLED

3

Mech-Mind
AI Vision

15+

INDUSTRIES SERVED

4

Itoh Denki
24V Conveyor

3,000+

MECH-MIND DEPLOYMENTS

ABOUT THIS GUIDE

Since every system we build is custom, this guide covers our capabilities, process, and expertise — not fixed product specs. Complete the Project Worksheet on the last page before reaching out — it helps us give you a faster, more accurate response.

WHO WE ARE

Robot Palletizer LLC — Dallas, TX — 20+ Years of Custom Automation

Robot Palletizer LLC is a Dallas-based automation integrator specializing in custom end-of-line solutions for manufacturers across the United States. We combine robotic palletizing expertise, FANUC CRX collaborative robots, Mech-Mind AI vision, and Itoh Denki 24V smart conveyor into complete turnkey systems — every one custom-engineered for the customer's facility, product, and throughput requirements.

| OUR PHILOSOPHY | OUR PROCESS | OUR PROMISE |
|---|---|--|
| Every system is custom-built for your product, facility, and speed. We never force a one-size catalog solution into a customer's operation. | We own the entire project: design, fabrication, programming, installation, and operator training. | If something is not right after commissioning, we fix it. No handoffs. No excuses. |

INDUSTRIES WE SERVE

15+ manufacturing and distribution verticals

| | | |
|-------------------|--------------------------|-----------------------------|
| Food & Beverage | Paint & Coatings | Chemical |
| Petroleum | Personal Care | Pharmaceutical |
| E-Commerce / 3PL | Industrial Manufacturing | Beverage |
| Building Products | Automotive | Cold Storage / Refrigerated |

OUR DESIGN & BUILD PROCESS

Six phases from discovery to go-live

- 01 Discovery & Application Analysis**
 We start with your product, throughput targets, facility, and budget. No assumptions — every detail matters.
- 02 System Design & 3D Modeling**
 Every system is modeled in SolidWorks 3D. You review and approve the complete design before we build.
- 03 Fabrication & Component Integration**
 We build in our Dallas facility using FANUC, Mech-Mind, and Itoh Denki components to your spec.
- 04 Factory Acceptance Test (FAT)**
 Full system test before shipment — using your product or equivalent to validate every function.
- 05 Installation & Commissioning**
 Our team installs on-site and integrates with your existing lines. We stay until you're satisfied.
- 06 Operator Training & Ongoing Support**
 Hands-on training for operators and maintenance staff plus support contracts and remote diagnostics.

CAPABILITY 1: ROBOTIC PALLETIZING SYSTEMS

Custom end-of-line palletizing — our core expertise for 20+ years

We design and build robotic palletizing systems for virtually any product, pattern, and throughput. Because every system is custom-engineered, specs are defined by your application — not a catalog.

| What We Handle | System Types | Performance Range |
|--|--|--|
| Cases, cartons, bags, pails, trays, bundles, totes, newspapers, drums, mixed or single SKU systems | Semi-automatic palletizers Fully automatic palletizers Over/under (O/U) Palletizer + stretch wrapper infeed Custom multi-robot cells | Payload: 50 kg to 140 kg+ Cycles: 20 to 36+ per min Single or dual lane Single or dual pallet exit All custom-configured |

CAPABILITY 2: FANUC CRX COLLABORATIVE ROBOTS

No safety cage required — the fastest-growing cobot in industrial automation

We are a certified FANUC CRX integrator. The CRX series eliminates the traditional trade-offs of industrial robots: no safety fencing, standard 120V power, and teach-by-hand programming make it the ideal choice for operations adding automation for the first time.

| Model | Payload | Reach | Best For |
|------------|---------|----------|--|
| CRX-10iA | 10 kg | 1,249 mm | Light packaging, pick & place |
| CRX-20iA/L | 20 kg | 1,418 mm | Mid-range palletizing, machine tending |
| CRX-25iA | 30 kg | 1,889 mm | Heavy palletizing — Top Pick for end-of-line |
| CRX-30iA | 30 kg | 1,756 mm | High payload, wrist-button direct teaching |

- ✓ No safety fencing — works alongside operators without costly guarding infrastructure
- ✓ Runs on 120V standard power — no electrical infrastructure upgrades required
- ✓ Teach by hand guidance or drag-and-drop tablet — no robot programming expertise needed
- ✓ Mobile and portable — deploy to different production lines as your schedule demands
- ✓ 8 years zero scheduled maintenance — proven FANUC industrial reliability
- ✓ Compatible with Mech-Mind 3DV iRVision for AI-guided adaptive picking

CAPABILITY 3: MECH-MIND AI 3D VISION SYSTEMS

Intelligent robot eyes — starting with depalletizing, expanding from there

Mech-Mind is a global leader in industrial AI vision. We deploy their 3D cameras and software for applications that traditional vision cannot handle: mixed-SKU depalletizing, bin picking, piece picking, and machine tending. Mech-Mind systems learn from experience and adapt to new products without reprogramming.

| Application | What It Handles | Key Advantage |
|------------------------------------|---|--|
| AI Depalletizing (Featured) | Mixed/single-SKU pallets up to 2.3m Wrapped, wrinkled, damaged cases Thousands of SKU types | No manual pre-sorting Zero reprogramming for new SKUs Pairs with Itoh Denki ZPA conveyor |
| Bin Picking | Randomly oriented parts Reflective, dark, transparent objects No fixturing needed | 3D pose estimation AI distinguishes complex surfaces Adaptive path planning |
| Piece Picking | E-commerce, 3PL order fulfillment Millions of SKUs Varied sizes and shapes | No prior SKU registration High pick rates Scalable to full warehouse |
| Machine Tending | CNC & press part loading Varied part sizes and orientations High repeatability | Vision-guided placement Reduces setup time Works with any industrial robot |

CAPABILITY 4: ITOH DENKI 24V ZERO PRESSURE ACCUMULATION CONVEYOR

Motor Driven Roller (MDR) technology — quiet, safe, and up to 50% more energy efficient

Itoh Denki invented the Motor Driven Roller in 1975. Their 24V DC brushless Power Moller eliminates the noise, energy waste, and product damage of traditional belt and chain conveyors. Zones only activate when product is present — perfect integration with robotic palletizing and depalletizing cells.

| Product | Diameter | Spec | Best Application |
|-------------------------------------|----------|-------------------------------------|---|
| PM486FH / PM486FE (Power Moller 24) | 1.91" | 24V DC brushless 25-196 FPM | General ZPA conveying light to medium duty |
| PM635KT (Heavy-Duty Pallet) | 2.5" | 24V, 10-amp high torque | Pallet conveying heavy unit loads |
| HBK-608F Driver Card | N/A | 2-zone ZPA built-in 30-motor max | Zero pressure accumulation no separate PLC chain needed |
| F-RAT Transfer Module | N/A | 90 degree transfer fully electric | Direction changes induct / discharge |

- ✓ Up to 50% energy savings — zones off when no product is present
- ✓ 24V safe low-voltage — critical when working alongside CRX cobots and human workers
- ✓ Dramatically quieter than chain or belt conveyors — significant facility noise reduction
- ✓ Minimal maintenance — brushless DC motors with no drive belts to replace in conveyor zones
- ✓ Scalable — start with a few zones in a palletizing cell, expand to full warehouse systems

CAPABILITY 5: AUTOMATION CONSULTING SERVICES

Engineering-led consulting from people who build what they recommend

Because we build the systems ourselves, our consulting advice is grounded in 20+ years of real integration experience — not theoretical recommendations from a generalist firm. We help manufacturers make better automation decisions before spending a dollar on equipment.

| | |
|---|--|
| Automation Needs Assessment | Evaluate operations, identify bottlenecks, deliver a prioritized roadmap with budgets and payback estimates. |
| System Selection & Vendor Evaluation | Unbiased comparison of robot, vision, and conveyor options for your application — from someone who integrates all of them. |
| ROI & Payback Modeling | Build the business case with realistic labor savings, throughput improvement, and capital cost scenarios. |
| Training & Support Planning | Operator training programs, maintenance schedules, and escalation plans so your team is confident from day one. |

READY TO TALK?

1-888-567-6585

Our team responds within one business day. Complete the Project Worksheet on the next page before your first call and we can provide a more accurate assessment right from the start.

sales@robotpalletizer.com

robotpalletizer.com

Dallas, TX

PROJECT WORKSHEET

Complete this before your first call — helps us give you better answers faster

Because every system is custom, the more we know upfront the faster we can provide an accurate assessment. Fill this out and email to sales@robotpalletizer.com or bring it to your first call.

A. CONTACT INFORMATION

Company / Facility Name

Contact Name

Phone Number

Email Address

Industry / Product Type

e.g. Food & Beverage, Chemical, Paint...

City / State

B. WHAT ARE YOU TRYING TO AUTOMATE?

Describe the task you want to automate

e.g. Depalletizing inbound cases from mixed-SKU supplier pallets onto powered ZPA conveyor

Product Description

What are you moving? Case, bag, pail, drum, tote...

Product Weight Per Unit

lbs or kg

Product Dimensions (L x W x H)

Approximate is OK

Required Throughput / Speed

Cases per min, per hour, or per shift

Pallet Size

e.g. 40"x48" standard, custom dimensions...

Pallet Pattern

Single SKU, mixed, random, slip-sheet...

C. FACILITY & SYSTEM REQUIREMENTS

Available Floor Space (L x W)

Approximate — even a rough sketch helps

Ceiling Height

Important for robot mounting clearances

Power Available

e.g. 480V 3-phase, 120V, 240V...

Existing Conveyor or Equipment to Interface With

Special requirements (check all that apply)

Cold storage Wash-down ATEX/hazardous FDA Noise limits Union labor Food-grade Other

D. TIMELINE & BUDGET

Target Installation / Go-Live Date

Approximate Budget Range

Helps us right-size the solution

Anything else we should know?

**RETURN COMPLETED
WORKSHEET**

sales@robotpalletizer.com | 1-888-567-6585 | robotpalletizer.com **TO:**