

fancort industries, inc.

Lead Forming | Robotic Soldering | Automation

PRODUCTS AND SERVICES

Official Brochure



COMPANY INTRODUCTION

Company Overview

Fancort Industries, Inc. is an industrial automation powerhouse specializing in Aerospace and Automotive Electronic sectors, renowned for delivering cost-effective solutions with world-class customer support and substantial ROI.

With an impressive legacy of over five decades, Fancort Industries has solidified its reputation as a global leader in the industry. Our strength lies not only in our extensive experience but also in our team of over 50 highly skilled engineers. Our reach extends far and wide across the globe, and our sterling reputation is a testament to our consistent track record of successfully completed projects.

We are the trusted leader in Lead Forming Equipment and Industrial Automation, renowned for our unwavering dedication to excellence and customer satisfaction.

HQ Location

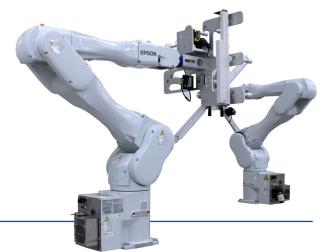
West Caldwell, New Jersey

Service Locations

USA Canada Mexico Europe

Key Products

Robotic Soldering (Japan Unix) Induction Soldering (RDO) Lead Forming Equipment Lead Forming Services Industrial Automation



Why Fancort?

Fancort Industries, Inc. has been a leading manufacturer, distributor, and integrator of high-quality tooling and automation equipment for over five decades.

Here are five reasons to partner with us.

- Fancort offers custom and in-line turn-key solutions from high-mix low volume to low-mix high volume processes, including assembly, dispensing, screw driving, inspection, soldering, and other ancillary procedures.
- Fancort offers the latest Robotic Soldering Technology from Japan UNIX. [World leader and holder of several patents for contact, laser, and Ultrasonic soldering].
- 3. On-site support for field service from our highly trained team of engineers throughout North America and Mexico.
- 4. Over 120 years of cumulative knowledge and experience within our team of engineers.
- Fancort offers solutions to customer problems or pain points. Could be from integrating a basic benchtop robot solution to a complex fully automated system.







COMPANY INTRODUCTION

Fancort Capabilities

Innovative Solutions through Software Development:

The inclusion of software developers empowers Fancort Industries to craft cutting-edge solutions tailored to the rapidly evolving manufacturing landscape. These professionals bring expertise in developing advanced automation software, optimizing production processes, and implementing Industry 4.0 technologies. This innovation not only streamlines operations but also ensures adaptability to industry trends, enabling Fancort to stay ahead of the curve.

Precision and Design Excellence with Mechanical Engineers:

Mechanical engineers play a pivotal role in ensuring the structural integrity and performance of Fancort's products. Their expertise in design, materials, and manufacturing processes guarantees that the company produces high-quality, reliable equipment. The collaboration between mechanical engineers and other teams ensures that products are not only functionally superior but also aesthetically pleasing, meeting or exceeding customer expectations.

Efficient Manufacturing through CNC Machining:

The integration of CNC machining into Fancort's capabilities brings unparalleled precision and efficiency to the manufacturing process. With CNC machines, the company can produce complex and intricate components with consistent quality. This automation reduces production time, minimizes errors, and optimizes resource utilization. As a result, Fancort can deliver products faster and maintain a competitive edge in the market.

By combining these strengths; Fancort Industries achieves a seamless integration of processes. This holistic approach ensures that product design, development, and manufacturing are tightly aligned. The collaborative efforts of these teams enhance communication, minimize errors, and accelerate the time-to-market for new products, ultimately boosting overall operational efficiency.







COMPANY PRESENCE









COMPANY PRESENCE



SUPPORT

Response Time

On-site USA - One Day

Remote support within minutes

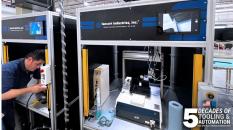
MX – One Day International – Up to 3 Days

















ABOUT **ROBOTIC SOLDERING**

JAPAN UNIX Robotic Soldering

Fancort offers the latest robotic soldering technology from Japan UNIX. Japan UNIX is the world leader and holder of several patents for contact, and laser soldering.

Fancort's New Jersey Process Development Center is staffed with subject matter experts and equipment to solve complex automated soldering applications.























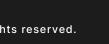














ROBOTIC SOLDERING

Platforms Available



Benchtop Available in Contact and Laser.



Gantry Available in Contact and Laser.



Scara
Available in Contact and Laser.



Available in Contact and Laser.



Soldering Modules

Available in Contact and Lase



Twin Table Gantry



Stand Alone Gantry Available in Contact and Laser.



Scara Gantry Available in Contact and Laser.



Custom Stand Alone Available in Contact and Lase

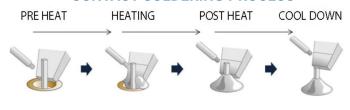


Custon In-line
Available in Contact and Laser

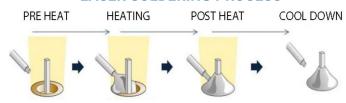
What is Robotic Soldering?

Robotic soldering is a sophisticated manufacturing technique that utilizes robotic systems to perform soldering tasks in various industries, particularly in electronics and circuit board assembly.Instead of manual soldering, which can be time-consuming and prone to errors, robots equipped with soldering equipment are employed to complete the soldering process.

CONTACT SOLDERING PROCESS



LASER SOLDERING PROCESS



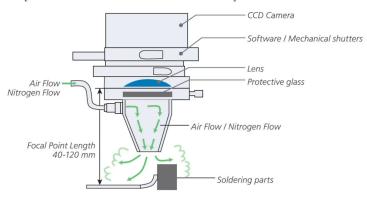


ROBOTIC SOLDERING

Laser Soldering Process

Laser soldering offers several benefits, including rapid soldering, minimal heat dispersion, and the ability to work with delicate components. Laser soldering ensures high-quality connections, reduces the risk of damage to sensitive electronic parts, and enhances overall manufacturing efficiency. It's the go-to solution for achieving top-notch soldering results in modern electronics assembly.

[Internal structure of the laser head]



Contact VS Laser Soldering

Contact



Laser



Possible Stress

- Physical contact to the substrate
- · Flux residue (carbide)

Possible Stress

- No physical contact
- No carbide

Dead Space

 It is necessary to secure space for the tip and solder wire feed.

Dead Space

- It is necessary to secure just solder wire feeding space
- Solder paste
- Any type of preform are approachable

Solder Amount

 There is a certain amount of solder that is brought to the wet surface of the tip.

Solder Amount

· Fed solder properly amounts





ROBOTIC SOLDERING EQUIPMENT

ROBOTIC SOLDERING: EQUIPMENT (CONTACT)



Soldering Modules - Contact

USP5 consists of three core modules that are ideal for integration with existing equipment: "soldering head", "controller", and "feeder" are all in the set.

Seamless integration to industrial robots, such as EPSON, UR, Fanuc, KUKA.



Desktop Soldering Robots - Contact

The new generation desktop robotic soldering for Industry 4.0 and IoT. UNIX-DF Series have improved its network function and robotic motion. Three types, according to PCB size. The automated robotic soldering can connect with network, which can visualize each soldering process and result. The additional two axes facilitate penetration angles or rotate PCB, which make difficult soldering component possible from now on. The desktop robot is available in 3 different models: UNIX-DF204S, UNIX-DF304S and UNIX-DF404S



Gantry Soldering Cells - Contact

An in-line gantry soldering cell is a robotic system used in manufacturing for automated soldering processes. It typically consists of a gantry system and a conveyor system. Its primary function is to precisely position, solder, and assemble electronic components onto PCBs (Printed Circuit Boards) or other devices in a production line. The system can be programmed to handle various soldering tasks, ensuring accuracy, repeatability, and efficiency in the soldering process.





ROBOTIC SOLDERING EQUIPMENT

ROBOTIC SOLDERING: EQUIPMENT (LASER)



Soldering Modules - Laser

The laser soldering modules are composed of a soldering head and a soldering controller/generator. The laser head irradiates the selected area with the laser beam focused in the proper spot size transmitted through an optical fiber from the laser. The coaxial CCD camera is built in the laser head as standard, and many other features come along to make daily production more efficient. Controlling the laser output value is key to laser soldering. Fiber coupled LD is used to transmit the laser beam to the laser head through an optical fiber.



Desktop Soldering Robots - Laser

Basic features such as: Visible shooting position, Coaxial CCD camera, Sofware controlled shutter. Power: 45W, 75W, 130W and Level 4 laser classification. The desktop laser robot is available in 3 different models: UNIX-DF203L X-axis 200mm, Y-axis 250mm, Z-axis 50mm, R-axis ±360° UNIX-DF303L X-axis 300mm, Y-axis 320mm, Z-axis 100mm, R-axis ±360° UNIX-DF403L X-axis 400mm, Y-axis 400mm, Z-axis 100mm, R-axis ±360°



Gantry Soldering Cells - Laser

An in-line gantry soldering cell is a robotic system used in manufacturing for automated soldering processes. It typically consists of a gantry system and a conveyor system. Its primary function is to precisely position, solder, and assemble electronic components onto PCBs (Printed Circuit Boards) or other devices in a production line. The system can be programmed to handle various soldering tasks, ensuring accuracy, repeatability, and efficiency in the soldering process.







ABOUT **SMT LEAD FORMING**

SMT Lead Forming World Leader

World leader in aerospace and defense semiconductor lead forming equipment and services. Capabilities include: ceramic and metal-cased integrated circuits for SMT and custom through-hole applications.

Fancort offers prototype to production equipment specializing in processing high-reliability devices to exacting tolerances. Fancort Industries is ITAR registered and a NASA and Johnson Space Center approved supplier of forming and tinning Services.







































SMT LEAD FORMING EQUIPMENT

SMT LEAD FORMING: EQUIPMENT



SmartFlex

The Patented Smartflex adds error proofing to the Flex line of adjustable production tooling systems. The intuitive HMI allows permission-controlled operator selection of form parameters from a customizable SMT library. Once selected, the tooling is verified via a bar code scanner. Two motorized axes of motion adjust the tip-to-tip and standoff height accordingly. Standoff height is controlled precisely with our patented Floating Anvil design.



Standard Flex

Universal Two-Sided Tool Adjustable system with manual or automatic standoff control, external centering station, and manual or automated vacuum loading for FPGAs & FPs. Process 2 sides at once with minimal part handling.



Dedicated Tooling

Available in floating anvil or manual with micrometer standoff control. Part-specific tooling processes all sides simultaneously for FPGAs and FPs to hold the tightest tolerances.





SMT LEAD FORMING TOOLING

SMT LEAD FORMING: TOOLING



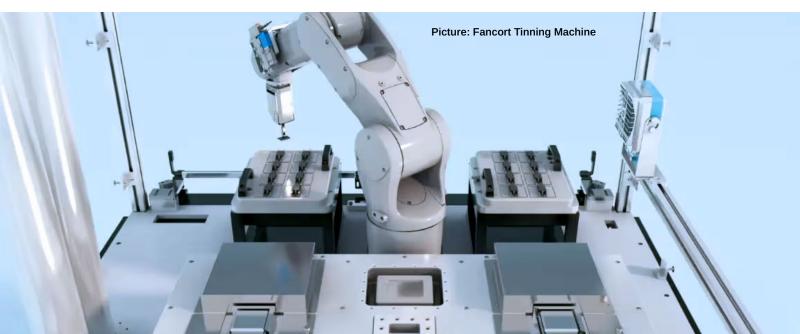
Universal One Sided Tool

Designed for low-volume or R&D applications. It operates a fully adjustable Fancort press and works for almost any flat radiation hardened package.



Robotic Tinning Machine

FThe Fancort Tinning Machine combines the capabilities of a precision 6-axis robot with an easy to program parameterized environment which includes part, tray, and process libraries. Custom parts, trays, and processes are easy to program using the built in HMI. Bar code recipe and tray verification is included to match trays, parts, and process together ensuring quality and consistency. Infeed component trays are easily programmed using a tray position function and can be enhanced with an optional vision system.





SMT LEAD FORMING SERVICES



ISO Certified Lead Preparation Services

Fancort is the industry leader in component lead preparation services for the semiconductor and aerospace industries. We have five decades of experience in lead forming a wide variety of packages, including large and small flat packs and quad packs, DIPs, fiber optic headers, and devices that require conversion from through-hole to SMT. We use our unique, universal, and dedicated tooling systems to ensure accuracy and quick turnaround of your parts to JEDEC/IPC, and or MIL-SPEC standard dimensions, with optional services such as package leak testing and tinning.

PIND TEST

- Particle Impact Noise Detection test
- Fine and Gross Leak Testing



SAM AWARD

Fancort Industries forming and tinning services, located in Fairfield, NJ, is listed in the System for Award Management (SAM) and has a cage code of 8KE76.



ISO CERTIFIED

Fancort is the industry leader in component lead preparation services for the semiconductor and aerospace industries.







SMT LEAD FORMING INDUSTRIAL PRESSES

SMT LEAD FORMING: INDUSTRIAL PRESSES







Adjustable Column Presses

Fancort's adjustable column pneumatic presses are designed for light assembly work from 2 to 1900 pounds of pressure. These pneumatic air presses have a small footprint, side-mounted controls, adjustable column, speed control, and a keyway for easy tool mounting.

C-Frame Presses

Fancort's C-Frame air presses are quiet, heavy-duty, and deliver smooth operation. Designed for applications requiring 1 ton of pressure or more. These sturdy pneumatic air presses come in a wide range of applied force.

Custom Presses and Tooling

Fancort designs and builds custom presses and turnkey tools that are press-fit and heated with automated PLC controls.

Janome Servo Presses

Fancort offers Janome stand-alone and custom servo presses from 50 to 5000 kg for highly accurate speed, distance, time, and force control. Janome Servo Presses Include SPC data collection.







ABOUT INDUSTRIAL AUTOMATION

Support from Day 1 - Guaranteed

Renowned for unparalleled customer service, Fancort has been recognized as the leading Tooling and Automation company for over five decades.

Our specialization lies in crafting automation solutions tailored for key industries such as aerospace, automotive, electronics, medical, and various industrial sectors. At the core of our expertise, we offer cutting-edge robotic technologies including precision robotic soldering (iron, laser, induction), state-of-the-art automated dispensing, efficient robotic screw fastening, depaneling, PCB routers, and seamless loading/unloading systems.

Complementing these solutions are our sophisticated small-scale conveyor systems, and vision inspection capabilities. Trust Fancort to elevate your operational efficiency with our innovative and expertly engineered automation solutions.









































INDUSTRIAL AUTOMATION DISPENSING

INDUSTRIAL AUTOMATION: DISPENSING

Key Advantages

Robots can dispense exact quantities of liquids or solids with high accuracy and precision, reducing the chances of errors and Accuracy:

inconsistencies that can occur with manual dispensing.

Robotic dispensing is faster than manual dispensing, allowing for more efficient workflows and increased productivity. Speed:

Consistency: Robots can perform dispensing tasks consistently over time without becoming fatigued or making mistakes due to human error. Safety:

Robotic dispensing eliminates the need for human operators to handle hazardous or toxic materials, reducing the risk of exposure

and improving workplace safety.

Robotic dispensing systems can be programmed to handle a wide range of materials and dispensing tasks, making them ideal Flexibility:

for use in various industries and applications.

Robotic dispensing offers a reliable and efficient way to perform dispensing tasks with high accuracy, speed, and safety. Overall:



System Specs.

Available Platforms: Inline, Twin table, Stand Alone Available Work Area: 400x400, 600x600, 800x800, 1200x1200 Platform: Standalone/Cell/ Robotics.

Real-time monitoring. Turn-key Solution.

Touchscreen for operating panel.

Custom Design. Tower Light.

Applications

Conformal coating

Potting

Underfill

Gasketing

Encapsulation & glob top

Dam & fill

Bonding

Optical bonding

Available Options

01. Upgrade to a 6-axis robot

02. Gantry Robot

03. Twin table setup

04. Custom Fixture

05. Scanner for MES (Traceability) with FOS®

06. Fiducial Correction (Vision system)

07. Vision Inspection System

08. Pallet Lifting System

09. "Tool Center Point (TCP)" for nozzle

height control

10. Digital weight scale with I/O communication

for dispensing feedback

11. Return Conveyor Integrated



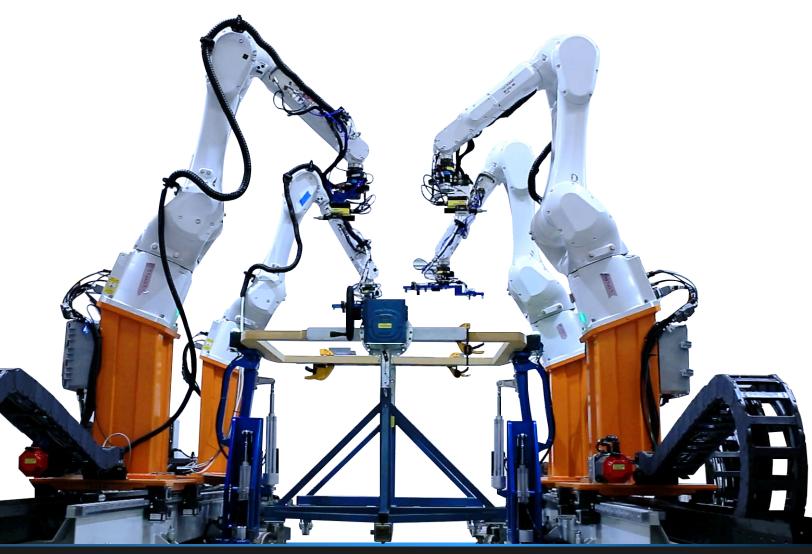


INDUSTRIAL AUTOMATION SCREW FASTENING

INDUSTRIAL AUTOMATION: SCREW FASTENING

Robotic Screw Fastening

Fancort is a specialist in standard and custom robotic screw fastening solutions. Fancort's Process Development Center is fully equipped with a variety of demo systems. Automatic screw fastening systems with robots increases throughput and traceability for various assembly applications. These systems are fully integrated, including a robot (Desktop, Scara, or 6-axis, electric drivers, and a screw feeder system. The automationdepartment customizes a design that suit your needs. The driver monitors screw depth to ensure that the screw is seated correctly and has reached the programmed torque value.





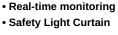
INDUSTRIAL AUTOMATION PCB ROUTERS

INDUSTRIAL AUTOMATION: PCB ROUTERS

PCB Routers

Run two programs simultaneously and cut change over time by 90%.

- · Large panel size: 450mm x 450mm.
- · Powerful gantry system.
- · Small overall footprint.
- · Vac filtering for ultra-clean operation.





Technical Specs.

- High accuracy/powerful 3-axis gantry robot.
- Large panel size: 450mm x 450mm.
- Configuration: X, Y, & Z axis.
- Repeatability: ±0.02mm.
- Spindle Motor: 350 Watt High Power Spindle.
- Power: 1.0 KW vacuum blower with HEPA filter.
- Touch Screen & Teach Pendant for easy programming.

Features

- · High accuracy machine structure.
- · Under/Over twin table with parallel programs (run two boards simultaneously).
- Smallest twin table footprint in the industry.
- · Vac filtering for ultra-clean operation.
- Production Simulation to optimize routing accuracy.

Safety Features

- · Full steel interlocked enclosure for noise, dust, and operator safety.
- · Safety light curtain across the load/unload zone.





INDUSTRIAL AUTOMATION MATERIAL HANDLING

INDUSTRIAL AUTOMATION: MATERIAL HANDLING

Material Handling

Fancort offers the widest selection of material handling systems, from SMT Conveyors to Magazine Stackers. Fancort's North American sales and support team will always be there to help.

About Fancort Material Handling Equipment

Our range of solutions, including advanced conveyors, shuttles, lifters, and flippers, is specifically designed to meet the unique demands of the electronics industry. We specialize in streamlining production processes, ensuring delicate components are transported safely and swiftly across the manufacturing floor. Our state-of-the-art equipment is engineered to optimize workflow, reduce manual handling, and increase overall productivity. Whether it's the precise positioning of circuit boards or the rapid movement of electronic components, our material handling systems are tailored to enhance efficiency and reliability in your electronics manufacturing operations.







INDUSTRIAL AUTOMATION AUTOBLOCKS MODULAR AUTOMATION

INDUSTRIAL AUTOMATION: AUTOBLOCKS MODULAR AUTOMATION

About Autoblocks™

AutoBlocks™ revolutionizes the world of custom machine building by introducing a standardized and modular approach. Our modules decrease hardware cost and include easy to use software for motion and robotics integration. Autoblocks modules have enable our customers to build more capable systems faster while eliminating expensive hardware and reducing programming hours. Our cost-efficient modules allow your engineers to focus on the critical process automation while keeping the standard automation aspects simple.

Features

• Machines can be configured from base & station Blocks in minutes. • Lead times are fast. Stock for the standard blocks and less than 6 weeks for custom systems. • BaseBlocks can be reused or reconfigured for future applications or as production needs change. • Power, air, safety are all controlled by one module. Includes provisions for e-stop, light curtain, light tower, interlocks, main disconnect with lockout/ tag out. • Station blocks ready for several brands of cobots and high-speed robots. • Most accurate standard turntable on the market with less than 5 arc mins backlash. • Heavy duty steel chassis with external mounting brackets to allow accessories to securely mounted.

Introducing Autoblocks[™] - Build your custom system from standard building blocks Building Blocks for Fast and affordable Automation



TurnBlock™

Base blocks

Base blocks come in three models: Turn Block 24, Turn Block 36 and Turn Block 48 varying the diameter of the indexing table. This advanced turntable is capable of managing operator loading, robots, power, air, communication, and safety.

Autoblocks™

Motion blocks

After selecting and configuring your Base Block you will be able to add and configure Machine Blocks. Each Base Block will have a range of available Machine Blocks that can be attached to your Base Block to extend the capabilities of your machine. The universe of Machine Blocks is constantly expanding with custom options available upon request and engineering review. Machine blocks typically cannot function without a Base Block and can be configured and customized using Application Kits & Accessories.











INDUSTRIAL AUTOMATION INDUCTION SOLDERING

INDUSTRIAL AUTOMATION: INDUCTION SOLDERING

About Induction Soldering

As veterans in the Induction Heating Industry, Fancort and its sister company RDO Induction, Inc. understand the struggles and complications you face throughout your manufacturing process. Our collaboration goes far beyond just the automation project, is a collaborative effort between the customer and the integrator. Fancort/RDO's design and process were developed to maximize your ROI and company productivity and deliver an efficient turnkey solution. Our projects are broken down into a series of milestones that help you track the project and gain confidence in the final product. We hold mandatory meetings at each critical point in the project to ensure our design and process will most effectively address your application. A thorough statement of work (SOW) is the backbone of every project. We will draft an SOW to save you time and effort. We will continue refining the SOW as we progress through the milestones until you are confident in our proposed solution.

Products and Services

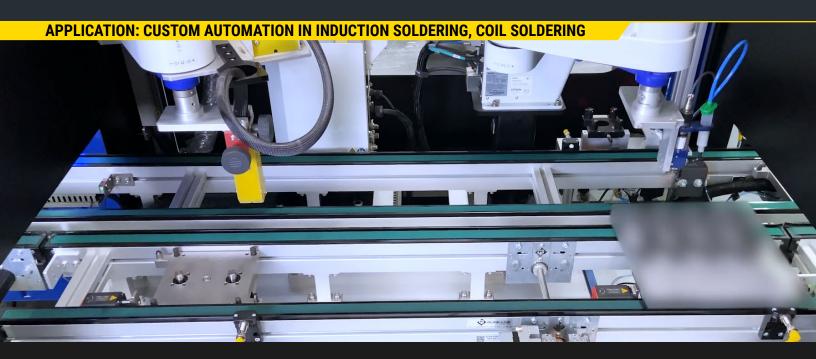
Our wide range of industrial heating systems, power supplies, induction coils, and machines gives you the very best solution to meet your requirements for induction heating, heat treating, brazing, casting and melting.







CUSTOM AUTOMATION IN INDUCTION SOLDERING: COIL SOLDERING





Induction Soldering + Robotic Dispensing System About

The Induction Soldering: A Trailblazing Initiative by Fancort Industries Fancort Industries leads the way with its groundbreaking Induction Soldering Systems, offering comprehensive turnkey solutions for both automated and induction soldering. This custom system tackles key challenges in the industry, significantly boosting productivity, enhancing quality, and optimizing labor efficiency. It's a forward-thinking approach to modern soldering needs, designed to revolutionize the way businesses handle their soldering processes.

System Specs.

Innovative Components: SV200 Auger solder paste dispensing valve, EPSON SCARA robots, RDO's induction coil, and safety measures like the Purex Fume Cube Max fume extractor.

Safety and Controls: E-stops, door interlocks, and safety covers. Insights: Cycle time, process requirements, real-time monitoring. Cycle rate: 6,000 parts per shift.

Watch equipment in action.





PICK AND PLACE - ROBOTIC DISPENSING





Robotic Pick and Place - Robotic Dispensing Cell

About

This custom automation cell excel in both pick and place operations and dispensing tasks due to their high-precision mechanics, advanced control systems, and the ability to be programmed with specific instructions to suit the unique needs of various manufacturing processes.

Features

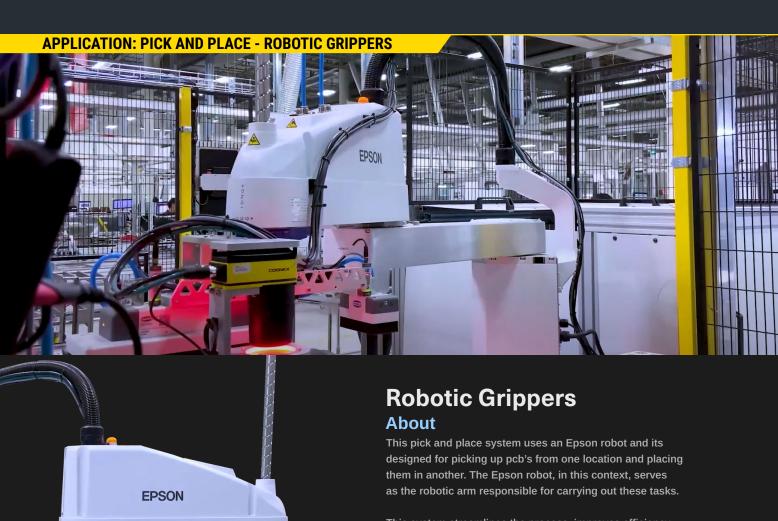
- · Automated pick and place
- Al Vision inspection
- Solder paste dispensing
- Automatic rejection

Watch equipment in action.





PICK AND PLACE - ROBOTIC GRIPPERS



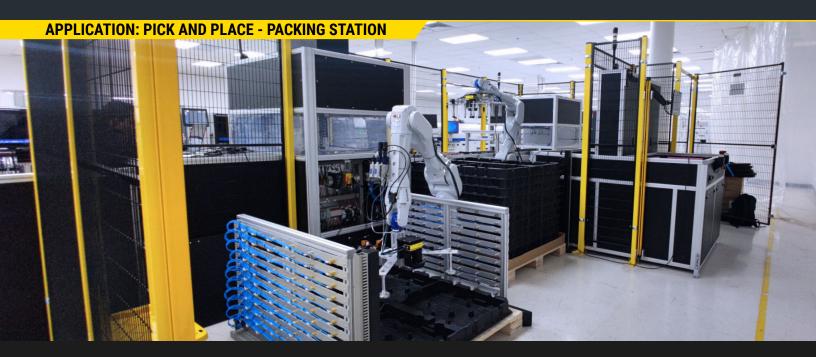
This system streamlines the process, improves efficiency, and reduces the need for manual labor in repetitive tasks involving the movement of objects.

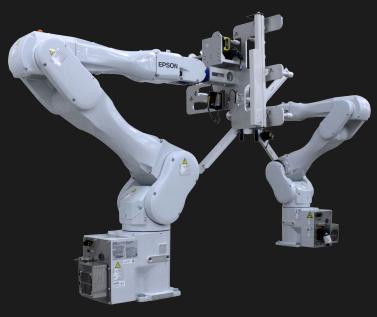
Watch equipment in action.





PICK AND PLACE - PACKING STATION





Pick and Place Packing Station

About

Fancort pick and place solutions are designed to automate the process of picking up objects and placing them in specific locations, making them a valuable tool in industries such as manufacturing, electronics assembly, and packaging.

The fully automated PCBA (Printed Circuit Board Assembly) packing cell is a cutting-edge system designed for efficient and autonomous packaging of PCBAs. This state-of-the-art cell utilizes two robots, each performing specific tasks to streamline the packaging process.

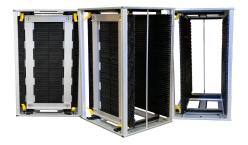
Watch equipment in action.





BUY OUR FAMOUS PCB RACKS

BUY OUR FAMOUS PCB RACKS ONLINE



Magazine Racks

Fancort Magazine Racks are built with premium materials such as aluminum, steel, and engineering plastics for long-lasting durability. These feature injection-molded card guides to handle small, medium, large, and hard-to-hold boards for increased versatility.



ESD-Safe Universal Board Racks

Fancort ESD-Safe Universal Board Racks secure storage and transport printed circuit boards. Fancort ESD-Safe Universal Board Racks are made of premium plastic for long-lasting durability.



Custom Made Racks

We can design and customize these racks as your application demands. If you have been looking for a solution for your application and have not found anything in the market yet, is because you need our custom solutions. When your application demands

- High temperature
- High Accuracy Handling
- Oversized PCB Boards
- Heavy Duty Process





PCB DEPANELING EQUIPMENT

PCB DEPANELING EQUIPMENT

PCB Depaneling (Only available for sale in Mexico.)

Fancort offers the widest selection of depaneling machines for pre-scored and routed boards from any one company. Our machines varying in throughput, cost, and stress level.

Our wide range contain: Desktop v-score cutters, Desktop tab board cutters, Metal board cutters and high-volume v-Score cutters.







RAD Capabilities

We have broad expertise in:

Robotic Soldering

Custom Automation

Dispensing

Screw Fastening

Pick and Place

Vision Inspection

Material Handling

Laser Marking

3D Vision Inspection

PCB Depaneling

Click to browse on website



3D Vision Inspection



Robotic Soldering



Custom Automation



Material Handling



FOS Operating System



PCB Depaneling



Vision Inspection



Screw Fastening



Robotic Dispensing



Pick and Place



Laser Marking











fancort industries, inc.

FIVE DECADES OF TOOLING & AUTOMATION

Don't forget to subscribe to our channels to stay updated with our latest content!



YouTube Fancortindustries Browse now



Fancortindustries
Browse now



Instagram
Fancort.industries
Browse now



Facebook
Fancortindustries
Browse now









ABOUT US



Fancort Industries is a vertically integrated Manufacturer, Distributor, and Integrator/machine builder of world-leading equipment. We are the world-leading SMT lead forming equipment manufacturer, master distributor of advanced robotic soldering equipment, and certified system integrator for Cognex, Fanuc, and Universal Robots.

31 Fairfield Place, West Caldwell, NJ 07006 USA info@fancort.com 888-326-2678

Copyright © 2024 Fancort Industries, Inc. All rights reserved.