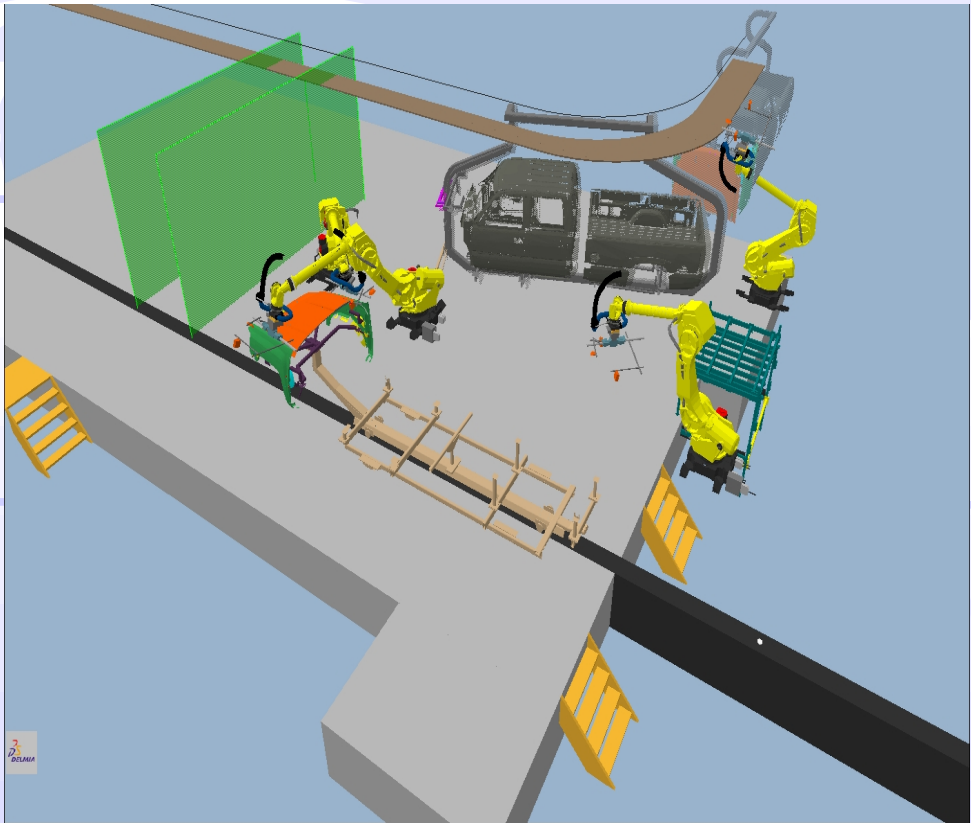


Material Handling and Simulations

Encore's Automation Group has installed and integrated over 700 robots in miscellaneous configurations, 6 or 7 axis, moving line or stop station, with practically all brands included. With the goal of process optimization, simulations are developed for the workcells allowing a complete process verification to meet our Customers Specifications.

The main advantages of the simulation are:

- Off-line programming, to reduce in field programming time,
- Reducing and minimizing impact on production schedules,
- Analyzing real-time performance,
- Collision detection, and avoiding robot over-limit Situations,
- Process parameter setup, (paint flow rate, high voltage, pattern, film build...),
- Selecting adequate equipment for the process,
- Optimizing the number and utilization of robots for money savings,
- Minimizing the negative effects of over-spray location to maintain cleanliness and minimize cross-contamination.



Services & Support

Encore Automation has taken special care not only to build into its provided systems the ability for remote access, but also to provide the electronic resources to enable our skilled technical service and engineering support teams the ability to look into our provided system, and identify the problem. Then we either fix the problem remotely, or alert the customer's technical support person of what to do to further investigate and correct the problem. The support we can provide is immediate. There is no delay in traveling to the particular manufacturing plant, which can take hours or even days depending on the location and flight availability. It means that we can often make instantly available the most technically competent and experienced person to help provide the support required to quickly investigate and solve the problem. This often may involve the actual personnel who designed, engineered, or programmed the system. This remote access support can be provided at minimal risk, since Encore Automation has networking experts who can advise of technically safe ways to provide that access (without risk of unauthorized access). If parts are needed to fix the system, and they are not available at the manufacturing plant, then Encore Automation can quickly identify them and obtain them either from our inventory or from local suppliers who maintain 24 hour access.

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Encore Automation

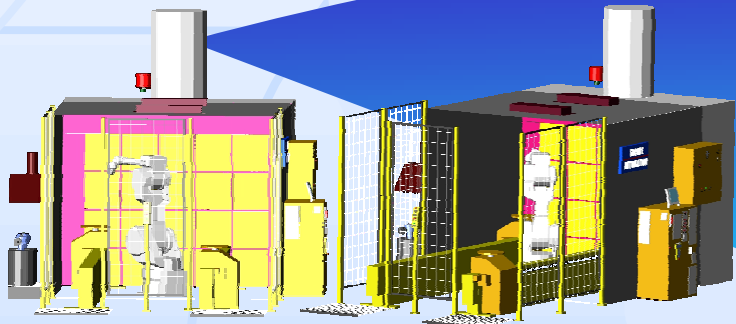
Welcome to
Encore Automation World

Your Competitive Edge
Filling the Gaps in Automation

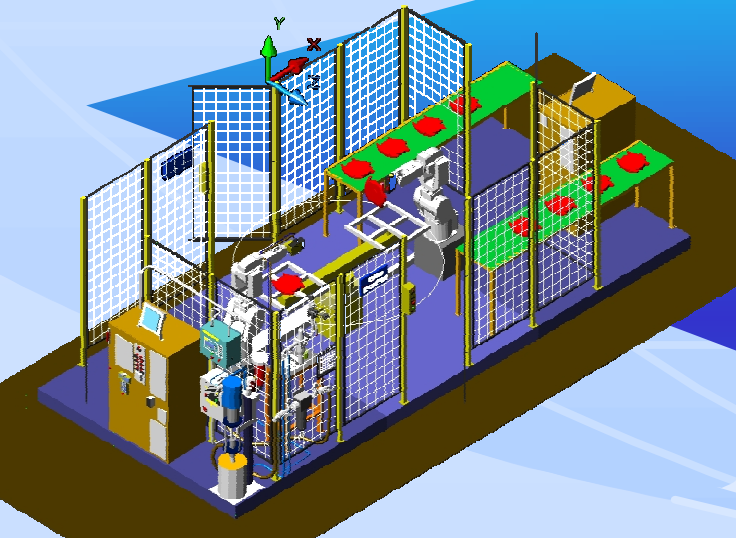
Encore Automation's goal is to be your best performing provider of automation systems and services for integration of controls, application processes and equipment with machines and robots for applications including automotive paint and sealer lines, sound deadener, structural adhesives, foam, in addition to cleaning surfaces prior to painting. Encore Automation currently employs more than 30 engineers, programmers and project managers with over 20 years of proven experience in designing, manufacturing and testing, installing, commissioning, servicing and training manufacturing systems for a broad variety of manufacturing processes. Encore Automation studies your application and determines the best alternative solutions that meet your quality, throughput, cost, and schedule requirements. Simulations are used to prove out the designs and approaches in the virtual world, eliminating interference and timing issues, and providing you with a clear understanding of the solution for review.

From this we discuss with you two approaches to meeting your needs:

EncorFlex Pre-Engineered Systems

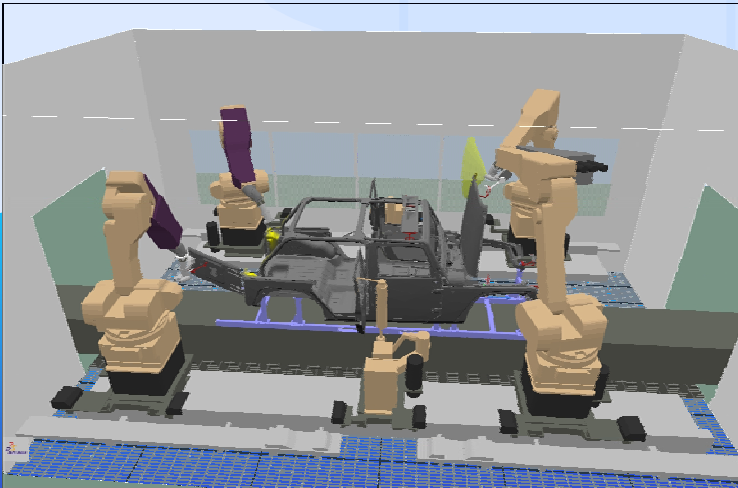


Encore has developed a line of Pre-Engineered, Prepackaged Products called Encorflex for those customers who want a quick, simple, cost effective, low risk solution to their manufacturing system needs for painting, sealing, foaming, gluing, fiberglass and other applications. All of the major components such as paint booths, part movers, application equipment, robots, tooling, and safeties are integrated into these complete solutions, which have the capability to process small to medium sized parts at a rate of up to 400 parts per hour.



Automation Systems and Services

We specialize in paint and powder application and measurement, blow-offs, featherdusters, robotic systems, and we use laser guided robotic technology as a key enabler for our sealing, material handling, and paint appearance measurement systems. We can provide engineering and design, and technical services and programming in the areas of paint application, robotic systems, control systems, robot simulations and process feasibility studies. We specialize in retrofitting existing systems, and our knowledge and experience of systems and application technology for a number of manufacturing processes allows us to excel in this area and to lower our customer's risk.

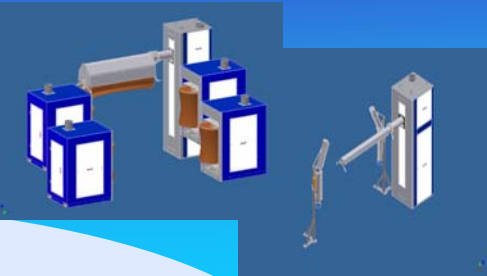


Encore provides turnkey automation systems and services to perform more demanding process and production requirements. Based upon the process feasibility analysis, simulations, and customer requirements, Encore's project teams develop, engineer, and manufacture the systems. Once tested in Encore's facility, with prescribed runoffs under customer review and approval, we install and commission the systems using our service engineers. Process engineers then tune in the equipment and then the processes to meet your quality requirements.

Automation Systems and Services

Blow-off Systems and Featherduster (Tack off)

Automatic Tack-off System solutions include five (5) roll modular feather dusters. Blow-off units are available in both compressed air and fan driven, and in fixed and articulating versions. Both the dusters and the blow-offs use the same modular cabinet enclosure, providing easy and uniform integration into the booth enclosure. Retrofit of existing machines and systems, as well as new systems are provided.



Powder and Liquid Paint Application

Our know how and experience extends from designing and integrating systems for powder paint delivery and collection, to powder or liquid application, for the wide variety of application processes used in automotive and industrial Painting. We have experience integrating and or retrofitting systems with machines and/or robots, using a variety of types and brands of paint application components and systems.



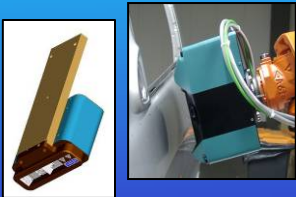
Retrofitting Existing

Encore's capabilities in system integration, and its foundation competence in controls hardware and software engineering, mechanical engineering, machine design, robotic integration, process engineering and process control, simulation, application and dispensing, and material handling and conveying systems, as well as Encore's lean cost basis, makes Encore Automation a good choice retrofitting existing systems.



Sealing, Gluing, LASD, and PUR Foam Application with Laser Guided Robotic Technology

With a superior laser vision system, we are able to propose new alternatives for sealing, LASD, PUR Foam, and Hem Flange sealing applications. The Laser Guided Robotic Technology can adapt to a variation of part and/or part feature location, and there is capability to adapt the robot motion dynamically to accommodate changing process and/or part conditions. Encore's technology allows customer savings on



Robotic Systems Integration, including Paint Appearance Measurement

Encore's know how and experience in many applications of robotic systems for a variety of processes make it an able supplier of robotic systems. Simulation, Tooling, System Engineering and Design, Installation, Startup and Robot Programming capabilities

Control Systems

Encore has provided sophisticated control systems for machine robotic application and dispensing systems with superior programming and configuration, data collection, reporting, and more effective motion and process control.



Material Handling with Laser Guided Robotic Technology

Encore's laser guided robot technology allows parts to be located and picked up and moved into and out of racks and/or belts without expensive fixtures or expensive and complicated robot end of arm tooling. This provides flexibility in providing cost effective and higher performance systems than previous vision and fixturing technologies.