

# A&RS INTEGRATION SOLUTIONS

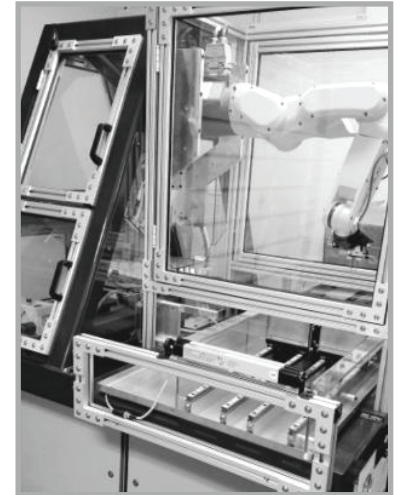


Automation & Robotics Solutions (A&RS) is an engineering firm that specializes in industrial automation. They are centrally located in Iowa with their facility in Des Moines. At A&RS, they offer innovative solutions to customers looking to design new systems, improve efficiencies, and develop tailored solutions.

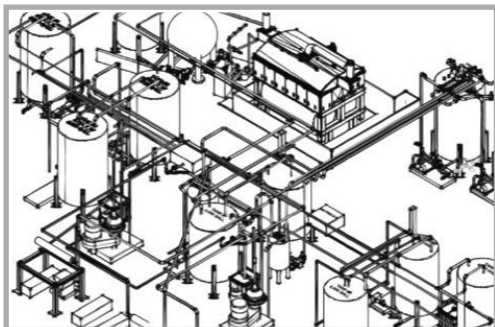
Their team consists of twenty-five members and offers decades of automation experience throughout the industry. They are highly intuitive and use their expertise along with their capabilities to achieve results. A&RS has the capabilities to engineer designs, fabricate custom parts, assemble specialized machinery, develop and program control systems, test and finalize equipment and controls, arrange deliveries, install and start-up new systems, and offer service work.

## A&RS Capabilities

- Automated process control systems
- Process development and improvement
- Electrical engineering
- Chemical engineering
- Mechanical engineering
- Software engineering
- Custom automation solutions
- Robotic solutions
- Motion control systems
- Machine vision systems
- Metal fabrication and assembly
- Master planning
- Project management
- Designing and building of control panels



A&RS strives to stay on the forefront of the industry by successfully integrating cutting edge technology when filling service work or implementing large-scale projects. They have access to products from respected leaders across the automation industry and they are recognized as a **Rockwell System Integrator** and **Fanuc System Integrator**.



Their product knowledge, experience, and dedication to industrial automation along with extraordinary customer service distinguishes them from other engineering firms.



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System Integrator**

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# A&RS

# INTEGRATION SOLUTIONS

## Electrical Panel Experts

At Automation & Robotics Solutions (A&RS), they pride themselves in being able to service any need within the controls industry. One such service is their Electrical Panel Shop. A&RS offers several panel solutions from designing, building and installing electrical systems to building clients' custom engineered systems. They offer professional and accurate work and great vendor relationships to reduce lead times and ensure smooth installation. Their 9,000 square foot Electrical shop within their 30,000 square foot facility can handle everything from largescale projects to weekly production.

## Fabrication

This begins with measuring the back plate and marking the location of holes to be cut or drilled and tapped for wire duct, din rail, and major components that bolt directly to the back plate. Holes are drilled and tapped, and the back plate is de-burred to ensure that metal filings from the process that could fall into electrical components are eliminated.

## Assembly

Extra attention is taken to ensure that parts provided match the specifications called out on the bill of material (e.g. amp ratings, horse power, make and model). All components are carefully unpackaged and mounted on the din rail according to the exact locations of the layout print. Every component is labeled with terminal markers and device tags to uniquely identify each item and for ease of wiring when troubleshooting in the field.

## Wiring

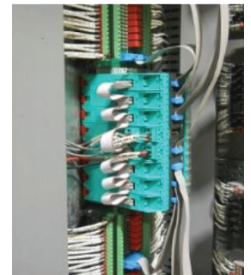
Using the most current electrical schematics available, each wire is cut to length, labeled with source and destination or wire number and ferruled. All terminations are done with great attention to detail. Wire labels are placed facing outward, so they are easy to read. Labels are placed in a uniform manner so that the panel is not only electrically functional but also aesthetically pleasing to the eye.

## Inspection

Every panel that is made at A&RS is thoroughly checked for accuracy. Every wire termination is checked for the correct placement as well as a positive contact to conductive surfaces. Whenever possible, panels are powered up and a live verification of function is made. If an entire machine is present, the unit is functionality tested. All of the unit's functions are run through for a one-hour time frame for verification. Finally, a copy of the electrical schematic, any component paperwork, and a copy of the inspection sheet are placed inside the enclosure.

## Shipping

Steps are taken to ensure the safety of sensitive components. Panels are placed on appropriately sized pallets or secured within a crate for transport. The panels are then shipped via the customer's desired method or, with our truck, we can deliver locally.



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