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QUARTERLY NEWSLETTER FROM AUTOMATED SOLUTIONS AUSTRALIA

AXIS

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INSPIRING THE NEXT GENERATION



## FROM THE DIRECTOR'S DESK



"It's our people who drive our success, and we're committed to investing in their growth and well being." Welcome to the latest edition of AXIS, our quarterly newsletter that brings you the latest updates, stories, and insights from Automated Solutions Australia.

As always, we aim to provide you with a deeper look into our operations, our team, and the cutting edge solutions we're delivering to our valued customers.

This quarter, we're excited to introduce you to some of the incredible people who make ASA what it is today. In our Meet the Team feature, we shine the spotlight on Alex Jackson, a dedicated and talented member of our team. Alex's expertise and commitment are just one example of how our people are at the heart of everything we do.

Our Customer in Focus this quarter is QuickAlly, a company we've had the pleasure of partnering with to enhance their operations through our innovative solutions. Their success story underscores the importance of collaboration and the shared goal of excellence

For our Robot in Focus segment, we take a closer look at the FANUC M-710iD, a new, powerful and versatile robot that's making a significant impact in the industry. We're proud to be at the forefront of automation technology, continually pushing the boundaries of what's possible.

Lastly, I'd like to highlight a special story that speaks volumes about our future — the experience of Lily, who spent a week with us at our Melbourne office. Her time here not only gave her valuable insight into our industry but also reminded us of the importance of nurturing the next generation of talent.

As you explore this edition of AXIS, I encourage you to reflect on the central theme that runs through all these stories: the quality of our work cannot exceed the quality of our staff. It's our people who drive our success, and we're committed to investing in their growth and well being.

Thank you for your continued support, and happy reading!

Pat Green,
Director, Automated Solutions Australia (ASA)

## MEET THE ASA TEAM - ALEX JACKSON

## AT JUST 22 YEARS OLD, ALEX JACKSON IS ALREADY MAKING SIGNIFICANT STRIDES IN THE WORLD OF ROBOTIC AUTOMATION.

As a Mechatronics graduate working full time at Automated Solutions Australia (ASA) in Melbourne, Alex is part of a team that designs, assembles, installs, and commissions robotic solutions across Australia and New Zealand. His journey is one of passion, determination, and an unwavering commitment to quality.



When asked about his role at ASA, Alex describes it as incredibly fulfilling. "The process of translating designs that I made into reality, into a customer's site where everything works smoothly, is something that is never going to get old for me," he shares. This satisfaction drives Alex to overcome challenges, no matter how daunting they may seem.

A typical day for Alex is a balance of hands on work in the workshop and design tasks. He's responsible for everything from wiring connectors and assembling grippers to creating electrical drawings and programming HMI systems. His work is varied, and each project brings its own set of challenges and rewards.

One of the most exciting projects Alex has been involved in, was a recent automated welding cell. The project features a seven meter long, three-axis positioner for parts to be welded by FANUC's ARC Mate 120iD. The sheer scale and complexity of this project are what make it particularly thrilling for Alex.

Throughout his time at ASA, Alex has encountered many unique challenges, including a control system overhaul for Australian Wool. This project required tearing out and reinstalling an entirely new system into an old automatic wool cut and grab machine. "The combined many years of experience of my mentors were crucial in overcoming this challenge," Alex notes.

The impact of ASA's work on clients is profound. Alex has witnessed firsthand the difference that automated machine tending cells can make in productivity. He recalls visiting multiple customer sites and seeing the satisfaction of operators who can now let the robots handle the heavy lifting, allowing them to focus on other tasks.

One of Alex's proudest moments was the successful installation and commissioning of a second machine tending cell for Inflatable Packers International. Despite initial challenges, the cell has been operational for months with minimal issues, leading to increased production and a very satisfied client.

Looking ahead, Alex is excited about the future of robotic automation, particularly the advancements in Artificial Intelligence. He believes ASA will continue to lead the way, leveraging over 20 years of experience to integrate new technologies into their solutions.

The culture at ASA Melbourne is another aspect that Alex deeply appreciates. "The company culture at ASA Melbourne is very friendly and teamwork oriented," he says. The collaborative environment makes him feel valued and part of a team working together towards common goals.

When asked about his favourite robot model, Alex mentions the M900iB/700 installed at AW Fraser in New Zealand. The sheer size and power of the robot, nicknamed 'Barney,' left him in awe. "Being able to throw around 500

"The process of translating designs that I made into reality, into a customer's site where everything works smoothly, is something that is never going to get old for me,"

kilograms of bronze like it's nothing is very appealing to me," he says with a smile.

Outside of work, Alex's love for computers continues to influence his career. Having built PCs since he was a teenager, he sees his work in designing and building system control

cabinets as an evolution of that passion.

For those interested in pursuing a career in robotic automation, Alex offers this advice: "Get involved at any level, whether that be through robotic clubs at school, internships and mentoring with automation companies, or your own side projects. A baseline of experience in the field makes you a much more attractive candidate to businesses and will propel you into your chosen career."

Alex Jackson's story is a testament to the power of passion, persistence, and teamwork. As he continues to innovate and grow at ASA, there's no doubt that the future of robotic automation is in capable hands.

## **CUSTOMER IN FOCUS: QUICKALLY**

## THE SYNERGY BETWEEN TECHNOLOGY AND INDUSTRY

In a recent project that highlights the synergy between technology and industry, Automated Solutions Australia (ASA) collaborated with QuickAlly Access Solutions to upgrade their welding capabilities at their Brisbane facility. This project is a perfect example of how innovative automation solutions can enhance manufacturing processes, particularly for a company as committed to quality and safety as QuickAlly.

QuickAlly Access Solutions is a key player in the Australian market, known for their high quality scaffolding and access platforms. As part of the G.James Group of Companies (Est. 1917), QuickAlly has a long-standing reputation for producing durable and reliable products that meet the highest safety standards. Their product range includes scaffolds, platforms, trestles & planks, stair treads and saw benches, all engineered to comply with Australian Standards. Additionally, QuickAlly specialises in creating customised work platforms for industries such as road, rail, aviation, marine, and industrial applications, further cementing their position as a leader in the field.

The collaboration between ASA and QuickAlly focused on replacing an aging REIS welding robot with a new, state of the art FANUC ArcMate 120iD/12L robot and 2x servo rotary positioners. This upgrade is a significant step forward in ensuring that QuickAlly remains at the forefront of manufacturing excellence. The new system, which also includes offline weld path programming software, offers

enhanced efficiency, precision and flexibility in QuickAlly's welding operations.

The FANUC ArcMate 120iD/12L robot was chosen for its proven track record in the welding industry. With its 2272 mm reach and 12kg payload capacity, the robot is designed to handle the rigors of industrial welding with ease. Its hollow wrist design minimises stress on cables, reducing maintenance needs and prolonging the system's lifespan. A failure the Quick Ally Team had experienced many times.

The robot's integration with an advanced rail axis drive and ASA-supplied FANUC servo positioners allows for precise, multi-axis coordinated motion, ensuring optimal welding performance across all fixtures.

The cell was relocated to a new factory and at the same time, a completely new control system was designed and built by ASA, ensuring compliance to latest industry safety standards as well as ensuring high equipment uptime. The field devices were assessed and repurposed if suitable or replaced with new hardware where required.

One of the standout features of this upgrade is the incorporation of automatic offline programming

software. This offline programming tool enables QuickAlly to develop and refine welding programs without interrupting production, providing a significant boost in operational efficiency. The software's ability to automatically identify welds from CAD models and generate robot code streamlines the entire welding process, from planning to execution. Our highly collaborative approach with this unique



customer allowed us to achieve impressive results in record time. QuickAlly not only tore down the existing welding cell but also relocated it to its new location. Then, working closely together, ASA and QuickAlly reassembled the system. This teamwork enabled the project to move from disassembly to the first welds in just 4 days onsite, with production welds completed in less than 7 working days. This efficient process ensured that QuickAlly could swiftly meet their production demands with a refreshed, highly capable welding system.

G.James spokesperson, Warren Reddicliffe reflects, 'We have worked closely with ASA on a previous robotic installation, so expectations and the bar was already set high for a successful project and we were not disappointed with the end results. Welding of Aluminium presents many challenges and variables to achieve high quality results every time and we have found that already the quality and reliability of the FANUC supplied by ASA along with our Fronius TPS400 has surpassed expectations. The welding software introduced by ASA for programming allows us to make simple changes without downtime on the robot and ability to create programs more efficiently and ensures the welds can be replicated and repeated over the whole product, harder for us to achieve previously.'

This project underscores ASA's dedication to providing tailored automation solutions that meet the specific needs of our clients. By partnering with QuickAlly, we've not only upgraded their welding capabilities but also contributed to their ongoing commitment to innovation and quality in Australian manufacturing. As automation continues to evolve, projects like this demonstrate the transformative potential of integrating advanced technology into traditional manufacturing processes.

www.quickally.com.au www.automatedsolutions.com.au



### **AUTOMOTIVE ROBOTS**



In the ever-evolving landscape of the automotive industry, technological advancements have consistently pushed the boundaries of what's possible. Among these advancements, automotive robots have emerged as a critical component, transforming the way vehicles are manufactured. These sophisticated machines, also known as automotive industry robots, are pivotal in enhancing efficiency. Additionally they enhance precision, and overall productivity in automotive manufacturing processes.

#### The Rise of Automotive Robots

As we delve deeper into the heart of automotive production, it becomes evident that automotive automation is indispensable. By automating repetitive and labor-intensive tasks, manufacturers can achieve higher levels of consistency and quality in their products. Not only does this automation replace human labor, but it also augments it to perform tasks that require precision and endurance beyond human capabilities. Consequently, the entire production process becomes more streamlined and efficient.

## FANUC: The Gold Standard in Automotive Robots

When discussing automotive robots, for us, one name stands out as the gold standard: FANUC. Renowned for their reliability, precision, and innovation, FANUC robots have set the benchmark in the industry. These

robots are designed to handle a wide array of tasks, from assembly and welding to painting and inspection. FANUC's commitment to excellence has made them a preferred choice for automotive manufacturers worldwide.

#### Automotive Robots — Integrating with Automated Solutions

At ASA, we take immense pride in our longstanding partnership with FANUC. For over 20 years, we have been integrating FANUC robots into the automotive industry. Thus helping our clients achieve unprecedented levels of automation and efficiency. Our expertise in implementing these advanced robotic solutions has enabled us to stay at the forefront of automotive automation, delivering results that consistently exceed expectations.

#### Automotive Robots for the Aftermarket Automotive Industry

Transitioning from traditional manufacturing, it's important to highlight the impact of automotive robots on the aftermarket automotive industry as well. This sector, which focuses on the production, distribution, and installation of vehicle parts, has greatly benefited from robotic automation. The precision and efficiency of automotive industry robots ensure that aftermarket parts meet the high standards required for performance and safety.

## Benefits of Automotive Industry Robots

- Increased Productivity: Automotive robots work non stop, around the clock, significantly boosting production rates and reducing downtime.
- Enhanced Quality: With precise control over manufacturing processes, these robots ensure that each component is produced to exact specifications, resulting in higher quality end products.
- Cost Efficiency: By streamlining operations and reducing the need for manual labor, automotive robots help manufacturers save on operational costs while maintaining high standards of production.
- Safety: Robots can perform hazardous tasks, reducing the risk of injury to human workers and creating a safer work environment.

In conclusion, the integration of automotive robots into the manufacturing process is no longer a futuristic concept but a present-day reality that continues to evolve. As the automotive industry advances, so too will the role of automation and robotics. FANUC robots are at the forefront of this evolution, setting the standard for what automotive robots can achieve. At ASA, our commitment to integrating FANUC robots into automotive manufacturing processes ensures that we remain leaders in automotive automation, driving the industry towards a more efficient and innovative future.

For more information on how ASA can help you leverage the power of FANUC automotive robots, contact us today. Let's drive the future of automotive manufacturing together.

## ANNUAL ROBOT SERVICING

# Has your Robot had it's Annual Service? Call ASA on 1800 ROBOTS to book.

Just like a car needs regular servicing, the same applies to your robots. Your robots work hard for your business, sometimes operating 24 hours a day for long periods, so annual servicing of your robots will ensure your FANUC robots remain in optimal condition. Greasing, battery replacements, checking for excessive wear and measuring back lash ensure motion repeatability, as well as continuing to provide you with a great consistent outcome for your manufacturing processes. Annual servicing helps maintain a high level of Mean Time Between Failures (MTBF), as well as potentially forecasting issues that may be developing.



## ROBOT IN FOCUS: FANUC M-710iD/50M

## FANUC M-710iD/50M: The Ultimate in Precision and Versatility.

The FANUC M-710iD/50M is a powerful and versatile robot designed to meet the demands of modern industrial applications.

As part of the renowned FANUC M-710 series, this six-axis robot stands out for its high precision, long reach, and robust design, making it an ideal solution for a wide range of automation needs.

#### Key Features of the FANUC M-710iD/50M

- Payload: The M-710iD/50M offers a substantial 50 kg payload, making it suitable for handling heavy components with ease.
- Reach: With an impressive reach of 2606 mm, this robot can operate effectively across large workspaces, providing flexibility in various applications.
- Axes: This model features six controlled axes, allowing for complex movements and precise positioning, essential for tasks that demand accuracy.
- **Precision:** The robot boasts a repeatability of  $\pm$  0.06 mm, ensuring consistent and precise performance across all tasks.

#### **Designed for Versatile Applications**

The FANUC M-710iD/50M is engineered to handle a variety of industrial applications, including:

- Assembly: Ideal for assembling components with high accuracy.
- Arc Welding and Spot Welding: Provides reliable and precise welding solutions for both small and large-scale operations.
- Pick/Pack/Palletising: Optimises material handling processes, increasing efficiency in packaging and logistics.
- Material Handling: Capable of transporting and positioning materials with great precision.
- Material Removal: Perfect for tasks like grinding, deburring, and polishing, where precision is critical.
- Dispensing: Ensures accurate application of adhesives, sealants, and other materials.

#### **Built for Tough Environments**

The FANUC M-710iD/50M is not only versatile but also incredibly durable. Its curved J2 arm minimises interference with workpieces and fixtures, enhancing operational efficiency. Additionally, the robot's fully-enclosed design, with an optional full-IP67 rating, provides exceptional protection against wet, dusty, or dirty environments. This makes it an excellent choice for harsh industrial settings where reliability and resilience are paramount.

## Why Choose Automated Solutions Australia for Your FANUC M-710iD/50M Needs?

At Automated Solutions Australia (ASA), we specialise in integrating FANUC robots



PAYLOAD: 50KG REACH: 2606MM AXIS: 6 AXIS

like the M-710iD/50M into your production processes. With over 20 years of experience, our team of experts is dedicated to providing tailored robotic solutions that meet the specific needs of your business.

We understand the importance of precision, reliability, and efficiency in modern manufacturing, and that's why we trust FANUC robots to deliver exceptional performance. Whether you're a large manufacturer looking to enhance your assembly line or a small business seeking to automate repetitive tasks, ASA is here to help you achieve your automation goals.

#### Take the Next Step with FANUC M-710iD/50M

If you're interested in exploring how the FANUC M-710iD/50M can revolutionise your operations, contact Automated Solutions Australia today. We're here to provide you with the expertise and support you need to integrate this high-performance robot into your production line, helping you stay competitive in a rapidly evolving market.

Call us at 1800 ROBOTS to learn more about our range of FANUC robotic solutions.

## INSPIRING THE NEXT GENERATION: A WEEK WITH LILY AT AUTOMATED SOLUTIONS AUSTRALIA



"We are thrilled to have been a part of Lily's journey and are excited to see where her passion for engineering takes her.

Her presence was a breath of fresh air, and she has left a positive impression on all of us."

Recently, Automated Solutions Australia had the pleasure of hosting Lily, a Year 10 student, for her work experience placement. This opportunity provided Lily with hands on learning and an exploration into the world of robotics and engineering.

Throughout her week, Lily worked under the direct supervision of ASA's Melbourne engineering teams on a variety of activities that gave her hands on experience and insight into what we do when building automation systems for our clients. She made brackets to support a control cabinet, cutting, drilling and tapping and then painting the brackets. She was shown how to design parts on 3D modelling software and she 3D printed her own design. She was shown how to drive a robot around with the teach pendant, even getting involved in touching up points prior to running the robot to see the results of her program edits. She actively took part in team discussions around a number of project concepts and impressed us greatly with her thoughtful questions and her quick grasp of complex concepts.

Pat Green, Director of Automated Solutions Australia, emphasised the significance of Lily's visit:

"Lily's week with us was an incredible experience for both her and our team. She has a real passion for engineering, made evident from day one as she jumped at every opportunity to take part in whatever we were working on. She spoke enthusiastically about her studies and her interests including that she is an RAAF Cadet. She aims to study engineering through the Royal Australian Airforce at ADFA, and it's truly inspiring to see young women like Lily taking a keen interest

in STEM fields and increasingly choosing engineering as their career."

Lily's experience highlights Automated Solutions Australia's commitment to nurturing the next generation of engineers, especially young women. The company recognises the importance of fostering diversity and inclusion within the engineering and robotics sectors. By providing opportunities for students like Lily, we aim to inspire more young women to pursue careers in these fields.

Reflecting on her experience, Lily said: 'During my work experience, I was supported through many of the engineering design and manufacturing processes related to current projects, allowing me to use my problem-solving skills and firsthand experience of what the job can be like in the industry. I was also taught how to use software to design, and 3D print different parts and even got the opportunity to control one of the robots built and run through some testing that needed to be completed. In the future I hope to become an engineer though at the time the discipline is unclear, work experience helped me to gain a better insight into what that might look like in the industry, and I thoroughly enjoyed my experience."

Automated Solutions Australia is dedicated to promoting engineering as an exciting and viable career path for women. As the field of robotics continues to evolve, the need for diverse perspectives and talents becomes increasingly important. Lily's successful week at the company is a testament to the potential of young women in STEM and the positive impact they can have on the industry.

The team at Automated Solutions Australia eagerly anticipates seeing Lily and other young women like her break barriers and lead the way in engineering and robotics. Lily's time with the company has equipped her with valuable skills and confidence, setting a strong foundation for her future endeavours in the field.

Pat Green concluded with optimism for the future:

"We are thrilled to have been a part of Lily's journey and are excited to see where her passion for engineering takes her. Her presence was a breath of fresh air, and she has left a positive impression on all of us. Whether Lily's dream leads her back to robotics eventually or some other technologies as an engineer in defence, we can't wait to see the contributions she will make to the future."

Lily's week at Automated Solutions Australia serves as a powerful reminder of the importance of supporting young talent and promoting diversity within STEM fields. Her story is an inspiration to all young women considering a career in engineering.

## **DELIVERING TOMORROW'S SOLUTIONS, TODAY**

ASA is a privately owned, wholly Australian company specialising in the design, engineering and integration of flexible automation solutions for the Australian manufacturing sector.



Whether your application is pick and place, palletising, packaging, part transfer or assembly, the development of a robotic solution offers significant benefits in almost any industry that is operating at high levels of throughput.

- Achieve uninterrupted speed, saving valuable production time.
- Achieve maximum repeatability, reliability and accuracy
- Lower costs versus manual labour
- Eliminate health and safety risks related to repetitive, tiring or dangerous operations

Contact ASA for more information or visit our website automated solutions.com.au





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