Application Report from Murrelektronik

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Contact Person: MacKenzie Regorsek, Telephone +49 7191/474318, presse@murrelektronik.de

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8397 characters, including spaces

Author: MacKenzie Regorsek (Corporate Marketing)

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*Murrelektronik Components in Theatre Automation*

Bringing the Magic of Theatre to Life

**The world of theatre is a magical place where storytelling comes to life in front of a collective audience. Through the characters, scenes and props we are transported into an imaginary world. Whether it’s the local high school musical, a show on Broadway or the London West End – the efforts of making a show become a reality require the talents of many different people.**

Today, automation systems are a vital element in the world of theatre production as designers and creative teams strive to deliver the ultimate theatrical event. Theatre automation and motion effects require highly skilled engineers and creativity. No one knows this more than Rob Raskovsky and his team at Absolute Motion Control. And, as theatre automation is a specialist request of Murrelektronik technology, the UK technical team were fascinated by the application and delighted to help Absolute Motion Control build the very best automation solution for their latest commission. With a combined experience of more than thirty years, they can make it all happen. Based in central London, they have been making theatres come to life by building bespoke automation for the most high-profile shows in the West End and on tour.

Unlike the TV shows or in the movies, special effects in the theatre world need to be executed to perfection, in the moment, night after night, and possibly for years on end. Behind the scenes, engineers and automation specialists are perfecting ways to make the spectacle happen.

Rob and Absolute Motion Control found Murrelektronik via our online shop. There he was able to access instant pricing and most importantly, download all the documentation he needed to implement components into designs. Finding the online shop extremely easy to use, Rob was impressed with user friendly functions, for example, easy searches and narrowing down selections via filters. His interactions with Murrelektronik didn’t stop online and he contacted the UK Sales Support team for further product advice. Although theatre automation is a rather niche field, the Murrelektronik technical team were fascinated with application and very keen help and support Rob build the very best automation solution for his latest commission.

Absolute Motion Control has built up two general business models for their customers: the first is providing standard equipment that can be rented within the entertainment industry. Theatre companies hire the equipment from Absolute, which includes 4-axis, single-axis and control surface cabinets. These are free standing devices that can be moved easily. Rob’s customers require that the cabinets will stand the test of time, can be flexible to handle a wide variety of theatre effects and are efficient.

Another solution Absolute offer is their customized solutions. These systems are based exactly on the customer’s needs and often must come together within a quick time frame and meet strict specific technical requirements all while remaining within budget. Finding the perfect mix for the solution is another reason why Absolute stands out in the industry.

Automation solutions required by the theatre industry differ from the typical industrial machine and production plant applications that Murrelektronik is most renown for. In the case of theatre automation, Absolute’s equipment solutions enable theatrical effects that bring shows to life! Their 4-axis motion control cabinet for servo motors is used in a variety of ways. This can be connected to winches to make certain stage elements track in and out, for example, when scenery move horizontally on and off stage. Another example is bringing stage elements up and out of the floor. To do this, certain components are connected to the servo motors and pushed up to lift new scenery onto the main stage. In certain cases, props will need to be brought to life. By connecting the prop to one of the Absolute Motion’s automation solutions, a coffin can be moved on or off stage, or plates can spin, or venetian blinds can automatically be moved up and down.

**Finding the Right Mix for the Perfect Solution**

Rob and his team are faced with many challenges when it comes to creating the theatrical special effects that West End productions are known for.

Producing automation rental equipment for hire within the theatre industry means that the components need to stand the test of time, be flexible, are easily integrated and are highly efficient. That is why Absolute Motion Control decided to use Murrelektronik Emparro power supplies. With a 95 percent efficiency rating, this range of products is among the most efficient on the market. Their low heat generation protects other cabinet components and ensures that the application lifetime is greatly extended. And with predictive maintenance integrated into the devices, Absolute and their customers can continually monitor parameters like temperature, load or number or starts.

To create the best solutions for their customers, Absolute also rely on Murrelektronik’s innovative current monitoring system - Mico Pro. Because it uses less footprint in the cabinet, Absolute can keep their standardized and customized cabinets to a manageable size. Another benefit is that Mico Pro easily daisy chains and links modules together. It’s ideal for the current control of low voltage parts. Controlling Mico Pro from the PLC enables Absolute to adapt the cabinets so that anyone with low-automation knowledge can access the information. Mico Pro also makes it possible to monitor all channels and provides precise, channel-specific diagnostics. These theatrical elements often have to link up to other mechanical elements so precise control is needed. This allows Absolute to make diagnostic information understandable for non-engineers, for example if is a problem with power distribution in the cabinet. This quick reaction time allows Absolute, as a provider, to supply a streamlined user interface.

Murrelektronik components play a large role in helping Rob and his team create customizable equipment that can be adapted to the different requirements within the theatre world. By using our M12 cable solutions in their custom solutions, they can ensure a low failure rate since the cables are pre-wired and 100 percent tested before leaving the Murrelektronik factory. This gives Absolute’s customers an extra level of safety. Another advantage of the Murrelektronik cable program is that many cable and connectors can be produced within 48 hours and immediately shipped out. This ensures that Absolute receive product exactly when it is needed, can react to short delivery times and high order reliability. The cables and connectors are high quality and meet the diverse project demands that Absolute and their customers need.

Rob and his team have been extremely pleased with their experience with Murrelektronik saying, “Everything we have ever purchased had been above standard and provide more than enough features – from the power supplies with low heat generation heat to the efficient Mico Pro module and especially the cables and connectors that we rely on continually. With Murrelektronik we solve our biggest challenge in adapting solutions to multiple cases. And Murrelektronik components ensure our solutions are future proofed.”

Absolute has become well known in their industry because of their frictionless collaboration with other providers, ensuring that their customers receive a complete solution meeting their needs from automation, to lighting, to video. They’ve developed a niche by working with other system integrators and rely on the flexibility of Murrelektronik’s components to continue to allow them to do so.

When asked what his favorite aspect of the job is, Rob had this to say, “That’s easy: the variety and the custom solutions. Trying to find a solution to a problem that fits into technical, financial, and time constraints is extremely interesting. We’re passionate about finding the right mix for the exact solution.” And if he has a favorite show? “I can’t say, but I have enjoyed working on shows like Waitress and Come from Away.”

**For more information, visit:**

<https://www.murrelektronik.com/products-industries/product-news/>

<https://www.murrelektronik.com/products-industries/products/electronics-in-the-cabinet/detail/product/mico-pror/>

<https://www.murrelektronik.com/products-industries/products/electronics-in-the-cabinet/detail/product/emparro/>

[**About Murrelektronik**](https://www.murrelektronik.com/de/)

Murrelektronik is a global leader in the development, manufacture and distribution of automation solutions. Our products can be divided into four core lines: Power Supplies and Control, Interfaces, Cables/Connectors and IO Systems.

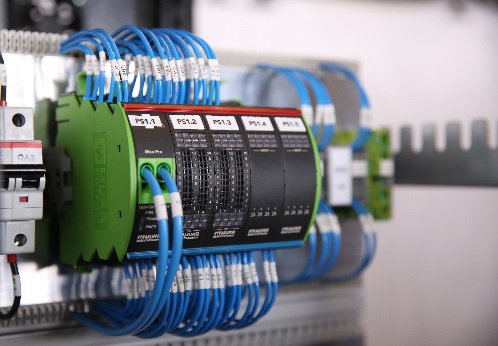
Our high-quality, innovative products and focus on market requirements sets us apart from the crowd. Our customer-oriented approach ensures our tailored solutions make your applications better.

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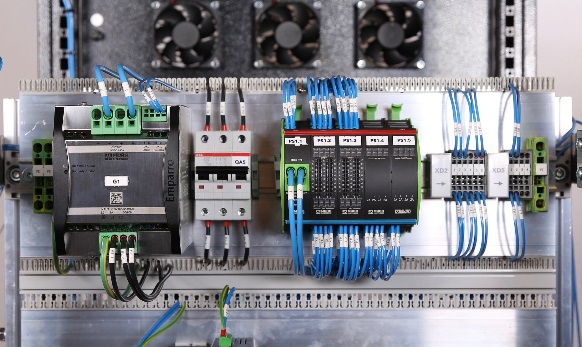
Pictures

*The team at Absolute Motion Control with Rob Raskovsky (on the left)  
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*Mico Pro*

*Emparro on the left, Mico Pro on the right*



*The cabinet at a glance*



*The cabinet during testing the special effects*



*Scene from Waitress  
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