

Building blocks for custom solutions

Developing customized laboratory automation solutions for complex liquid handling operations requires access to state-of-the-art robotics and OEM instrumentation. Flexible and modular components are essential building blocks of many of these bespoke designs, and the Xantus® XYZ robot has stood the test of time, supporting over 10 years of OEM integration by Synchron Lab Automation.

Synchron Lab Automation – based in Etten-Leur, the Netherlands – designs and builds software and hardware for automated liquid handling systems, customized to its clients' specifications and needs. The company has a long-standing history of working with Tecan, as Derk Wilten, Director and Owner, explained: "Synchron was born out of the automation department of Wilten Instruments, a laboratory supplier started by my grandfather in 1952. The

company became a Tecan distributor around 1980, and my father – who also worked in the business – was subsequently asked to develop some ELISA software for the Tecan MiniPrep, and this was the beginning of Synchron. When Tecan decided to invest in direct sales to its European customers, we partnered with Sias, and now the story has come full circle; my father worked with Tecan, then Sias, and now Sias is Tecan again."

"Customers turn to us when a standard pipetting platform does not meet their requirements. Every client has an idea of what they want, but we help to make it a reality, developing software and hardware and rapidly 3D printing prototypes, prior to creating the final design. Our expertise in custom lab automation has led to us working with customers in Europe, Singapore and the USA, on projects ranging from benchtop automation to more complex systems,



Derk Wilten, Director of Synchron Lab Automation



The Xantus robot offers a wide range of integration options

all dependent on our specialized knowledge of liquid handling robotics. Rather than limiting ourselves to a single market, we recognize that our expertise can be applied across the board. Our customers therefore come from a full range of industries, including life sciences, petrochemistry, pharma, food and beverage, and agriculture.”

“Although every project is different, they all share some similarities, with liquid handling at the heart of each design. If we develop a technique to pipette milk for a dairy, for example, the same technology can serve a similar need in a blood bank. We look to build as much standardization as possible into our designs, and so it is essential to have access to as many ‘building blocks’ as possible, which is where the Xantus robot comes into play. Its open geometry, modularity and flexibility have made it the best solution on the market for integration into our projects; 95 % of our projects make use of this platform. The configuration of the system is amazing. We can get it in any size up to three and a half meters long – with one or two arms, up to eight pipetting

channels, with or without a gripper – and we can even mount the arm to a wall, removing the deck entirely.”

“The Flexispan feature – enabling individual channels to move independently along the Y- and Z-axes – is also highly valued, and each channel can be fitted to a range of pumps and use either disposable or fixed tips. The new micropump technology also gives us a competitive advantage, by allowing us to accurately dispense both large and small volumes using the same pump. Our customers expect reliability and the system needs to be the best of the best. The Xantus robot is extremely high quality and reliable. The precision mechanics in the robotic arm are a feast for the eyes but, more importantly, they are very easy to access for servicing – it’s a fine piece of Swiss engineering.”

“We have now been working with the Xantus robot for over 10 years, so we know exactly what configuration to buy and what to do with it. However, we still meet with the Tecan team twice a year to discuss our projects and, if we ever

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need additional training, we know where to turn. Tecan is a great company to partner with, and there’s no doubt that the Xantus robot will continue to be a central feature in many of our future projects,” Derk concluded.

To find out more about partnering with Tecan, visit
partnering.tecan.com

To learn more about Synchron Lab Automation, go to
www.synchronlab.com