ASIGA®

Press release

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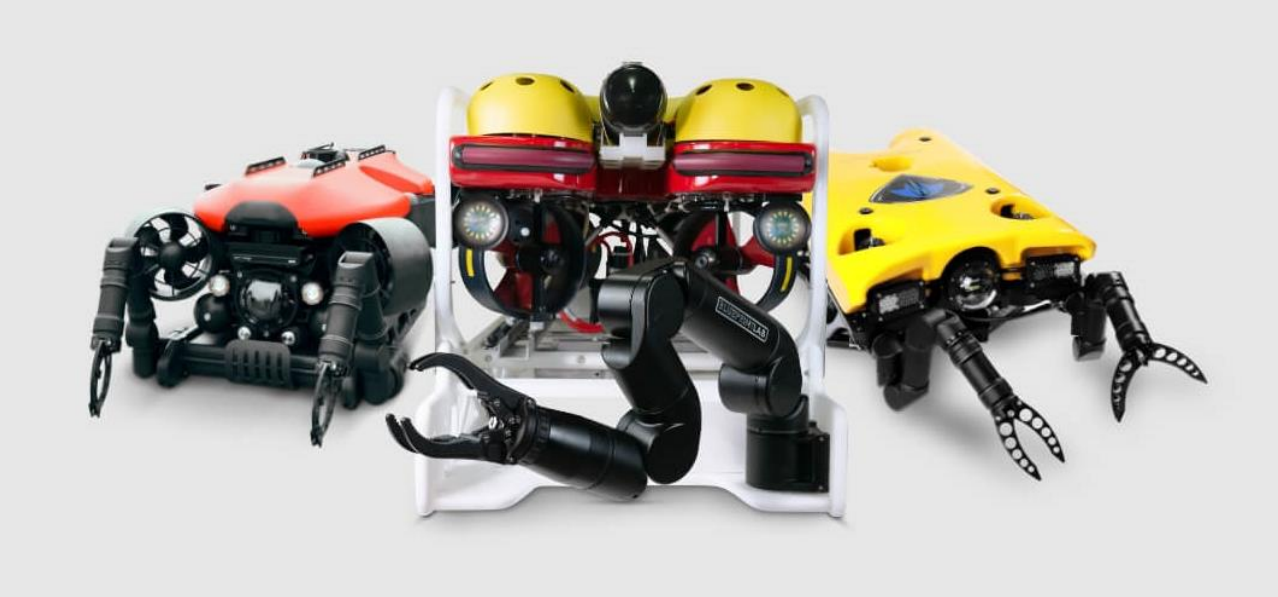
Underwater extremes with Reach Robotics.

Reach Robotics, a robotic manipulator manufacturer in Sydney, Australia develop rugged and lightweight manipulator arms designed to extend human reach into harsh environments. Repairing or maintaining equipment is challenging in extreme environments including underwater or subsea. Reach Robotics have products designed specifically for these applications providing a range of manipulator and gripper configurations.



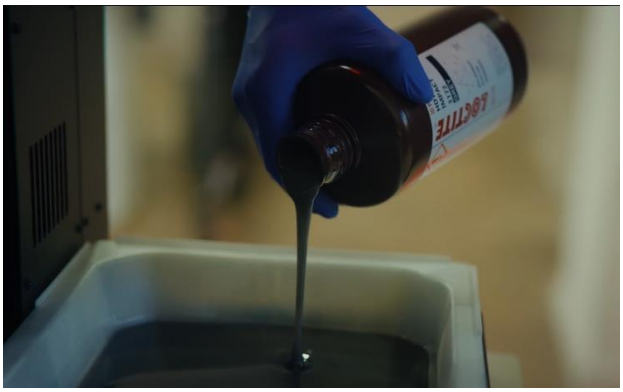
A rapid turnaround of prototyped parts for validation and testing is essential for Reach Robotics to deliver custom solutions to their customers in defence, offshore energy, ocean science and more. CNC machining and 3D printing prototype parts for application testing is nothing new but producing prototype parts in-house in a wide range of application-matched materials can be challenging.

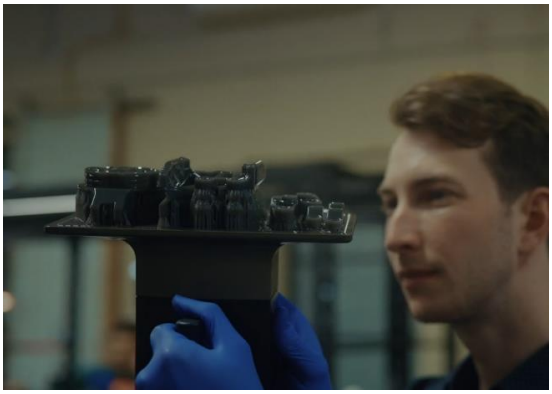
“Asiga’s precision and open source material library allows us to create compliant mechanisms with softer materials and use harder materials to withstand greater forces”, say’s Shaun Barlow, R&D Manager at Reach Robotics. “3D printing allows us to accelerate development of products. When we’re testing new jaw designs, modelling new joints or experimenting with hand controller designs – this technology allows us to fine tune the design before committing to machining a product.”

The ability to match a material to an application using a single printer is essential to create custom parts with mechanical properties transferable to the final manufacturing process reducing capital investment and R&D costs.

Manipulator gripper assemblies were printed on the Asiga PRO 4K80 XL in Henkel Loctite 3172 Grey. The mechanical properties of Henkel Loctite 3172 is well suited for parts that require high impact resistance, high yield strength and good rigidity.

“We use Henkel Loctite materials as they provide a good range of options that allow us to shorten lead times when developing bespoke solutions for our customers. We are able to move ahead quickly into production with confidence knowing that the structural testing completed in the prototyping stage is close to that in production of the final product” says Shaun Barlow.





“The robotic gripper is an ideal application for our all-rounder Henkel Loctite 3172 material. Having attributes similar to Polypropylene (PP), this material allows to produce functional parts that require high stiffness with a good surface finish and high impact resistance. It is very exciting to create synergy in this cooperation with three different companies who are pushing their boundaries in their relevant industry sectors” says Vittorio Medolago, Business Development Manager 3D Printing at Henkel Loctite AM.

“Combining an open material platform with our repeatable 3D printing technologies hits a sweet spot for companies looking for a reliable solution for engineering applications” says Graham Turner, Global Operations at Asiga. “When you are deep in the weeds developing new products, having the right tools on hand to help drive your project forward is essential to being successful.”

Take a look inside Reach Robotics and how they use the Asiga PRO 4K XL to prototype their custom gripper configurations using Henkel Loctite 3172 Grey here:

https://www.asiga.com/underwater-extremes-with-reach-robotics

About Reach Robotics
Reach Robotics develop advanced manipulator arm solutions for harsh environments. Reach Robotics manipulators enable complex inspection and intervention in maritime infrastructure management (UWILD, NDT, CVI, Sampling), military/police operations (Special Recovery), marine science, autonomous robotics research applications, and more. Reach Robotics is one team built on trust, grit, integrity, and the collective pursuit of excellence in the robotic systems we develop. Motivated by listening to the problems our clients have and developing the solutions that will allow them to extend human reach into harsh environments. www.reachrobotics.com

About Asiga
Asiga, a 3D printer manufacturer located in Sydney, Australia manufacture 3D printers for direct additive manufacturing in industries including dentistry, hearing, medical modelling, jewellery and more. Having the ability to output predictable and accurate 3D printed parts is essential for these industries, ensuring production continuity. Asiga 3D printers offer an open material architecture providing compatibility with more than 500 materials from many industry leading 3D printing polymer manufacturers. www.asiga.com

About Henkel
Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2019, Henkel reported sales of more than 20 billion euros and adjusted operating profit of more than 3.2 billion euros. Henkel employs more than 52,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel’s preferred shares are listed in the German stock index DAX. For more information, please visit www.henkel.com.

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