

RoboIT

pariter
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sciēntifica
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FWR
FLUID WIRE
ROBOTICS

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Fluid Wire Robotics – with its robotic arm for hostile environments – secures a funding round worth over 800,000 euros

[RoboIT](#), [Scientifica Venture Capital](#), and [Pariter Partners](#) announce a new investment in Fluid Wire Robotics, an innovative start-up developing robotic arms compatible with hostile environments such as radioactive zones, explosive risk areas, underwater regions and space.

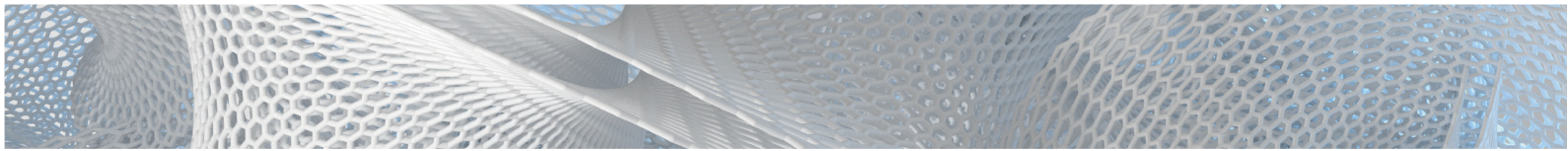
In addition to being one of the **projects selected** in 2022 by **RoboIT**, the National Technology Transfer Hub for Robotics initiated by **CDP Venture Capital** through its Tech-Incubation program, which funded and supported the team in the pre-seed phase, **Fluid Wire Robotics** is also one of the promising winners of the **Super Sapiens Day Factory** start-up competition by **Scientifica Venture Capital**.

The project originated as an accredited spin-off of the **Sant'Anna School of Advanced Studies** and has its roots in the Institute of Mechanical Intelligence at this renowned university. It was developed under the supervision of Professor Marco Fontana, co-founder of the start-up, who has many years of experience in robotics and applied mechanics. Therefore, it is a virtuous example of how collaboration between business and university is essential for the success of technology transfer.

RoboIT - the National Technology Transfer Hub for Robotics, initiated by the TechTransfer Fund of CDP Venture Capital together with Pariter Partners - leads a **deal worth over 800,000 euros** with the participation of Scientifica Venture Capital and Pariter Robotics.

Fluid Wire Robotics aims **to redefine the way robots are designed** to make them suitable for any environment without compromising their performance.

It is estimated that the **robotics market**, in terms of revenue, was approximately €42.2 billion in 2022 and is expected to reach approximately €95.5 billion by 2028, with a CAGR of 38.8% (2022-2025) and a CAGR of 5.8% (2026-2028).



Currently, adapting traditional robots to extreme environmental contexts involves significant design complexity and very high additional costs. Moreover, it requires ad-hoc technical solutions for each specific situation, thus limiting the versatility of robot usage.

The **Fluid Wire Robotics** team has instead designed a fully electric and modular **manipulator arm** capable of **operating in extreme conditions**, such as under radiation, in a vacuum, at high temperatures, underwater, or in areas considered too dangerous for human operators.

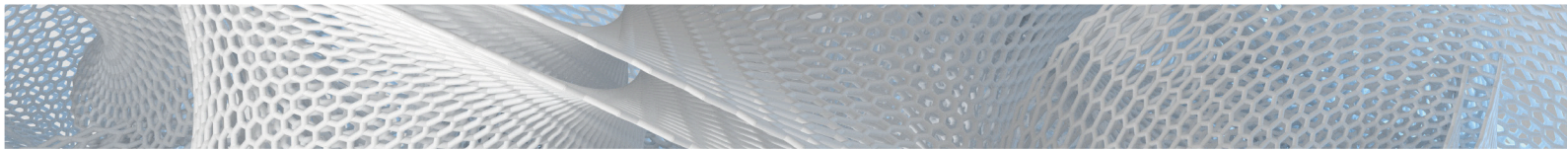
Its uniqueness lies in its ability to ensure **inherent and high reliability** by eliminating all electrical and electronic components (motors, sensors, etc.) traditionally placed inside the arm's structure, and positioning them instead in a remote external box. Power is then transferred from the external box to the robot's joints through '**Fluid Wires**,' which are specific fluid transmission systems based on **proprietary technology**.

This not only makes the arm extremely light, fast, and capable of exerting programmable forces with great accuracy, but also makes it a 'hollow structure,' meaning it is free of components that could trigger explosions, be damaged by radiation, or be subject to overheating issues.

Fluid Wire Robotics' mission is to overcome the boundaries that limit the fields of use of robotics by establishing a new standard for designing robots for extreme environments.

The start-up will initially focus on the development and commercialization of the robotic arm for the nuclear and space sectors, and will subsequently address underwater environments and environments at risk of explosion.

*"The technology developed by Fluid Wire Robotics significantly advances robotics in extreme environments, enabling new solutions within complex industries such as nuclear energy" comments **Claudia Pingue, Head of the Technology Transfer Fund at CDP Venture Capital**. "This is the type of initiative at the heart of RoboIT's activities, aimed at bringing forth long-term impactful projects developed by the excellence of Italian research"*



"Our decision to invest in Fluid Wire Robotics is based on the belief that this type of innovative technology is fundamental to the evolution of the advanced manufacturing industry," stated **Riccardo D'Alessandri, Managing Partner of Scientifica Venture Capital**. "We are convinced that this new approach to robotic design paves the way for unprecedented explorations and interventions in dangerous or hard-to-reach places, thereby limiting the extremely high-risk activities currently performed by humans" he added.

"We are pleased to confirm our support and investment in the Fluid Wire Robotics project, a team and company distinguished by their ability to pursue a disruptive technological vision that has the potential to revolutionize robotics design across various fields, from nuclear to aerospace... and beyond!" says **Valentina Franchini, Managing Director at Pariter Partners**.

"We are excited that RoboIT, Pariter Partners, and Scientifica Venture Capital have believed in the vision of Fluid Wire Robotics and chosen to join us in the challenge of creating a new generation of robots" said **Marco Bolignari, CEO and Co-Founder of Fluid Wire Robotics**. "This investment propels us towards accelerated technological development that will soon see our robots operating in the most extreme environments on our planet... and beyond! We aim to be an enabling technology platform capable of providing revolutionary, sustainable, and reliable robotic solutions to tackle the main technological challenges facing the nuclear energy, underwater exploration, and space robotics sectors. We can't wait to bring to life what we have planned and dreamed of for so long!"