AV&R

Disrupting Robotics Industry through Revolutionized Solutions

There was a time when someone asking for your 'phone number' was considered thoughtless? People didn't have personal phones back then – just telephones through which one could book a call and wait for the line to connect and to actual conversation. The whole process could take from 2 to 3 days.

Nowadays, connecting with your loved ones over phone calls has been a matter of seconds. The evolution of the internet has opened new ways of video calling, social media, and more. And who knows soon, sitting in our living rooms, we will be communicating with smart devices to get certain tasks done. The future is already here, and each one of us has a reason to be excited.

In the same context, **Jean-François Dupont**, the **CEO** of **AV&R** believes technology is a human partner when creating innovative solutions. Through this belief and his expertise, today AV&R has established itself in the robotics industry with the company's solutions being offered worldwide.

Read the following interview to know about the genesis of AV&R and how the company is working to make robotics technology more accessible and adoptive through its innovative solutions.

Brief us about the overall operations of AV&R.

An industrial automation leader for more than 25 years, AV&R is a Canadian robotic engineering company with 70 employees. It offers automation, vision, and robotics solutions worldwide. Its activities are concentrated in the fields of aerospace, orthopaedics, and energy.

AV&R designs high-tech robotic systems that have been developed specifically for complex parts such as gas turbine blades or knee implants. Specifically, AV&R offers robotic finishing (profiling, polishing, deburring) and automated visual inspection systems to aircraft engines, energy turbines, or implant manufacturers.

How did AV&R come into existence? What was the idea behind its genesis?

Originally a general automation company based in Montreal, Quebec, AV&R was born from the desire of its leaders to become world leaders and to be recognized as experts. Thanks to a developed knowledge of the aerospace industry and high-level technologies meeting market expectations, in the 2000s, AV&R specialized in surface finishing and inspection for gas turbine parts such as blades.

With the support of Quebec's investing partners such as Fondaction and Fonds de solidarité FTQ, AV&R has designed robotic profiling, polishing, deburring, and surface inspection systems that have helped aircraft engine manufacturers around the world achieve the technological demands of manufacturing their aircraft parts.

Kindly elaborate on the unique products or services of AV&R.

AV&R's multidisciplinary team of electrical, mechanical, and robotic engineers, programmers, and vision experts has been working since day one to design innovative robotic systems that meet the expectations and requirements of manufacturers.

Years later, after filing several patents, AV&R developed unparalleled technological expertise (profiling) dedicated to the aerospace market. This constant desire to innovate continues to guide AV&R's actions. By continuing to invest in research and development, and with the support of several international partners, the company aims to offer more efficient robotic systems.

AV&R's future innovations in robotics and vision will be varied and meet the needs of industry 4.0 and artificial intelligence trends. Thanks to robotics, AV&R foresees its future in leading-edge technology with the continual development of expertise to help manufacturers to become more productive.

What makes AV&R stand out from the rest of its competition?

Since its creation, AV&R's ambition has been to put people at the heart of its actions. This vision translates into a desire to design automated systems that are easy to use, safe, and easy to integrate into production plants.

Through the design of software for the management of its robotic systems, AV&R has put in place solutions allowing anyone to use robotics without prior knowledge of software programming, thus opening the way to the humanization of robotics.

What kind of challenges has your company faced in its initial days of establishment and what are the struggles it is going through now?

In the early years of AV&R, the company had to face the competition of generalist automation companies in Canada. Offering its products to different kinds of industries, it was difficult to stand alone and offer unique solutions. After a strategic decision made in 2007, AV&R decided to focus its research and development of high-tech robotic solutions to meet the needs of the aerospace niche market. Thanks to this change, the company was able to focus on developing specific expertise which was the key to separate it from the competition. This change was also the first step to the international recognition of AV&R.

Kindly describe the current industry scenario of the robotics industry.

Currently, the robotics industry is evolving and growing rapidly. More and more manufacturers are investing in robotic solutions to improve their productivity and competitiveness. Several countries are leading the way, such as South Korea, Japan, and Germany. With the drop of robot pricing, democratization and access to these high-

Jean-François Dupont
CEO of AV&R

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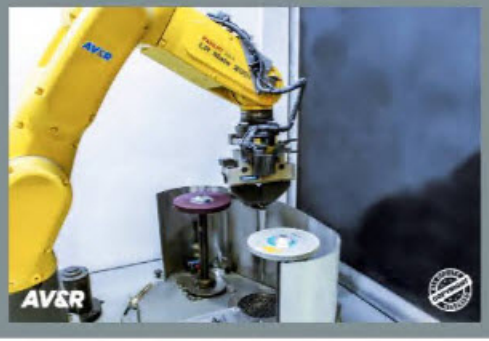

tech systems are possible for smaller manufacturers. However, some barriers are still persistent. Manufacturers can meet difficulties when finding the right partner to implement robotics. Robotic systems can be complex to use and not flexible enough to match the manufacturers' productions. Therefore, the next step for the democratization of robotics will be a simplification of the implementation process, and the development of solutions to help manufacturers use simply and without much training those high-tech systems.

What advice would you like to give the young entrepreneurs and start-ups that are willing to enter the robotics industry?

The robotics industry is in a full transformation which is conducive to start-ups. The availability of open-source software platforms will drive innovation at a low cost. The robotics market will explode in the coming years with the democratization of robotics and robots. The robots will finally come out of their cages and collaborate directly with humans. This market, which is now underdeveloped and significantly larger than the manufacturing sector, is an opportunity not to be missed for young entrepreneurs. Our advice for young entrepreneurs and start-ups is to think of robots as human partners and start creating solutions in that direction.

What does the future hold for your company in terms of growth?

AV&R is recognized internationally for its expertise in robotic surface finishing and visual inspection for specific and complex industries such as aerospace. But our vision is to bring robotics to more manufacturers in different industries. We are working on different projects with several partners to adapt our high-tech solutions for many. We innovate constantly to develop the best solutions which meet the exact needs of manufacturers.

About the leader

Jean-François Dupont is the **CEO** and **Co-founder** of AV&R, an engineering company specializing in robotics. Since its inception in 1994, Jean-François has held virtually every role within AV&R until becoming president of the company. He is an experienced entrepreneur with more than 20 years of experience in the field of robotics and artificial vision. He completed his training in automated production engineering from the École de Technologie Supérieure (ÉTS), as well as a certificate in entrepreneurship at the Massachusetts Institute of Technology (MIT).

Jean-François is convinced that what separates successful entrepreneurs from others who fail is perseverance. This belief is what helped him build what AV&R is today – a leader in robotic finishing and automated surface inspection, internationally.

Exhibiting excellence

"The robotic cells offer excellent technology. This brings us the necessary precision and reliability in grinding and polishing to ensure very high and consistent product quality."
– Sven Nieper, Managing Director at Leistritz

"AV&R has offered an automated solution that keeps aviation's MRO space competitive, and their continuous innovations help further production and inspection techniques.

Since using the systems and software, our production output has increased while controlling quality. Their level of quality customer support and client collaboration is unbeatable! AV&R truly makes a humanizing robotic system."
– Brooke Willin, Product Line Engineer a Propulsion Technologies International