

At the heart of a winning strategy is collaborative robotics

The ARTS Carnot Institute helps Thyssenkrupp Presta France to strengthen its production tool.

Supporting Innovation

By co-ordinating highly sensitive tasks both humans and robotic systems can perform very closely in order to bring improvements in both productivity and agility to the production teams. The on-site integration of LBR* iiwa, Kuka's collaborative robot, into these OEM's** highly automated production facilities is considered very innovative. Not only in terms of state-of-the-art technology but also regarding its contribution in relation to comfort at the workstation, new material architectures and process simplification. Beyond selecting the appropriate hardware the real innovation revolves around the approach to setting an industrial policy for Industry 4.0 developed and tested based on multiple scenarios, while winning over the operators' support) at the same time.

* Lightweight robot (Leichtbauroboter)

** Original equipment manufacturer



The client needs

Thyssenkrupp Presta France [attention, boutons des versions anglaise et allemande non actifs sur le site web de l'entreprise], which employs about 1200 people spread over 2 highly automated production facilities (Florange and Fameck), have been ensuring assembly of steering columns and EPS (Electric Power Steering) systems since 2001 and 2011 respectively. Praised by all the major car brands the company delivers on a just-in-time basis security components that can be found on nearly 1 car out of 7 around the world. To maintain and reinforce its position globally, the foundations for developing one's production base remain insufficient. New solutions must be tried and tested constantly and the production teams driven to technical perfection regularly. Such endeavour could only be achieved through an influx of external resources with a long-term vision in line with the company's values.

Partnership

With its strong network of 20 research labs spread over 15 production sites across 9 regions **the ARTS Carnot Institute** has the capacity to respond to a high volume of ad-hoc industrial inquiries quickly and efficiently and to provide decisive technological expertise at knocking down the technological barriers [OU unlocking the technological bolts]. In view of the appropriate Thyssenkrupp requirements, the ARTS Carnot Institute has developed a robust co-robot cell to assess the robot's ability to perform specific rack ? assembly operations using different configurations and [steering ?] types. While affirming the need of a global vision, the ARTS Carnot Institute has provided impetus and supported Thyssenkrupp Presta France's exemplary Industry 4.0 approach in the region to allow the business impact of collaborative robotics (ColRobot) to be encouraged, notably by the launch of a specialised Master's Degree Programme at ENSAM Lille*.

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