



Speedcargo

Güdel announces collaboration with Speedcargo Technologies to disrupt air cargo and logistics with advanced intelligent robotics

Langenthal, July 2022 – Güdel AG, based in Switzerland, announces its collaboration with Speedcargo Technologies Pte. Ltd from Singapore with a common vision of bringing intelligent robotic automation to the complex domain of Airfreight. The past decade has seen a multitude of robotic automation efforts in the logistics industry. However, this has been limited to domains where the freight is cuboidal in shape, SKU based, lighter than 50 Kgs and mainly comprising of low value goods. Airfreight, is a completely different beast, operations happen in a high-mix,

high-volume and very-high-payload scenario. Each piece of cargo can weigh from 1kg up to 3 tonnes, come in any size and shape and may comprise of high value goods. Therefore, airfreight requires extremely safe and secure handling, especially for dangerous good, perishables and pharma.

Solving automated handling for airfreight requires major technological advancements in computer vision, A.I., advanced motion planning, combinatorial optimisation, advanced gripper design and sensor

fusion based low level robot control. In 2018, Speedcargo demonstrated its intelligent robotics capability to automatically build and breakdown and full freighter ULD with high-mix high-volume and very-high-payload cargo. The technology developed involved next generation robotics, computer vision and A.I. software from Speedcargo, Singapore and the most advanced robotics gantry system from Güdel. As a result positive commercial feedback from key airlines and ground handlers, Speedcargo and Güdel have joined forces towards developing the

world first robotic end-to-end material handling solutions for the air-freight industry.

Through this partnership Güdel, a manufacturer of high-precision machine components and a provider of sophisticated automation solutions, brings knowhow in intralogistics and material handling, while Speedcargo, a Singapore based technology company with roots at Tumcreate (A research collaboration between The Technical University of Munich, Germany and the Nanyang Technological University, Singapore) and supported initially by the National Research Foundation (Prime Minister's Office) and Civil Aviation Authority of Singapore brings two decades of experience and knowhow in computer vision, robot control, a.i and cloud technology. The synergy between sophisticated motion technology and advanced cognitive software allows the partners a strong competitive first mover advantage in achieving the challenging goal of automating complex end to end material handling in air freight.

Introduction of cognitive robotics technologies will result in lower costs, higher throughputs, improved safety, enhanced security, and future proofing the industry w.r.t dependence on labour given the acute scarcity of blue collar in the current operations which are heavily manual, highly laborious and have several safety risks. This technology injection will also result in upskilling of the current blue-col-

lar labour for better value add prospects. Speedcargo is already active in the air-freight industry and have commercially deployed its solutions with multiple airlines and ground handlers. Its three modular products: Cargo Eye, Cargo Mind and Cargo Arm, form a suite of solutions using intelligent systems that provide accurate dimensioning, digitization of cargo, planning & optimising of operations that enable automation for the stakeholders in the logistics value chain. The collaboration with Güdel enable Speedcargo to scale the Cargo Arm capabilities beyond ULD build-up/breakdown to complete material handling (from truck dock to air side). This will enable ground handler to let go of traditional and legacy systems like ASRS which are heavy in investments and real-estate.

Covid-19 has bought to the fore the importance of cargo for Airlines and the challenges of operating in an environment that is highly manual. Post Covid-19 as markets have opened up, ground handlers still face challenges of hiring and getting personnel trained to manage the complex processes required to ensure cargo is built up and carried safely on flights. The inescapable solution to these challenges is automation.

"Migrating to an automated environment requires a rethink of current norms and business models, we see the leaders in the space already thinking on how to make this transition, by deploying

Speedcargo's technologies for digitisation and optimisation that will become key enablers to automating the handling process" said Dr. Krishna Kumar Nallur, CEO of Speedcargo.

"Through this collaboration we are well positioned to bring in a plethora of bleeding edge automation technologies to the airfreight industry. We will inject true Industry 4.0 capabilities by harnessing nex-gen standards such as OPC-UA, IOT and 5G combined with advanced robotics software" said Dr. Suraj Nair, Founder and CTO of Speedcargo.

"Automation will keep the world busy for a long time. This is due to rising wages on the one hand and a shortage of labor on the other. In the area of pick and place applications paired with artificial intelligence, great potentials lie ahead. We are proud to master these challenges together with Speedcargo" says Prof. Dr. Hans Gut, CEO Güdel Group.

About Speedcargo Technologies

Speedcargo is a Singapore based deep technology start-up which brings innovative A.I. and Robotics solutions to the logistics industry. It's suite of products for digitization, optimization, and automation reduces revenue leakage, maximizes operational efficiency, and improves productivity and business performance.

[Speedcargo.sg](https://www.speedcargo.sg)

Güdel Group AG

The Güdel Group is a manufacturer of high-precision machine components and provider of turnkey automation solutions. Its spectrum of products ranges from linear guideways, racks, pinions and drives right through to linear axes and gantry robots. Güdel assembles its products into systems with a high degree of control intelligence and complete plant installations, which can be used in the automotive, tire, metal, rail, intralogistics, pharmaceutical, renewable energy, wood, and aerospace industries. Güdel's technology is characterized by its innovation, quality and modularity. The Güdel Group has a workforce of approximately 1,000 employees worldwide in over 20 locations. The Group has been owned by the same family since its foundation 1954. The Güdel Group has its headquarters in Switzerland.

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