From Concept to Creation: How SOLIDWORKS Transforms SMC Automation's Engineering



Company Background

Established in 1978, SMC Automation (Malaysia) Sdn. Bhd. has grown into a trusted provider of automation solutions, specialising in pneumatic components, chillers, and sensors. Over the years, the company has earned a strong reputation for reliability, innovation, and customer-focused service, supporting industries as diverse as food and beverage, electronics, and manufacturing.

As part of the global SMC Corporation headquartered in Japan, SMC Malaysia is backed by an international network spanning more than 80 countries and regions. This global presence allows the company to combine world-class technology and resources with local expertise, ensuring customers receive high-quality products and tailored solutions that drive industrial efficiency.

Engineering for a Growing Demand

As SMC's customer base expanded, thus did the complexity of its projects. Each industry brought unique requirements, often demanding intricate designs and rapid turnaround. For the engineering team, this meant balancing precision with speed while maintaining the flexibility to adapt designs across diverse applications. To sustain its growth and maintain its reputation for reliability, SMC looked for a design platform that would not only accelerate development but also strengthen collaboration across teams and provide the flexibility needed to serve a dynamic industrial landscape.



SOLIDWORKS: The Catalyst for Smarter Design

Partnering with IME since 2014, SMC introduced SOLIDWORKS into its engineering department as the foundation for design work. With its powerful 3D modelling capabilities, SOLIDWORKS enables engineers to create accurate representations of pneumatic systems and automation components, while managing complex assemblies with ease. The ability to visualise how multiple parts fit and function together allows the team to detect potential issues early and make adjustments quickly to meet customer requirements.

This shift streamlined workflows, reduced reliance on costly physical prototypes, and shortened the overall development cycle. Equally important, SOLIDWORKS enhanced communication across departments — empowering engineering, production, and sales teams to collaborate seamlessly through shared digital models and technical data.



"With IME's strong local presence, support is always within reach. That reliability has made them a trusted partner for us."

> **Mr. Yong KS** Engineering Supervisor.





Steamlined Design for Greater Accuracy

With SOLIDWORKS Premium, SMC can deliver solutions to customers faster than ever. Its integrated tubing routing and simulation features help save valuable design time and identify potential issues before production. By streamlining the entire process—from 3D modelling to performance testing—the team reduces rework and improves accuracy.

This efficiency not only enables SMC to respond quickly to customer demands but also reinforces its commitment to delivering reliable, high-quality solutions that meet the evolving needs of the industry.

