

Wheel of Future: Monumo reinvents the electric motor

Monumo, a technology business that couples deeptech AI innovation with traditional engineering expertise to redesign the electric motor, has emerged from stealth.

Temps de lecture : minute

20 February 2024

Travelling the world shouldn't cost the planet.

Motored vehicles have always posed a problem to the environment. From the extraction of their components to their daily use, by way of their manufacturing process, the wonderful machines that take you across counties, countries and continents take a heavy toll on nature.

But the solution doesn't lie in the past, when slow coach and horses were swarming the streets, soiling the roads and exhausting the hard-working animals. Instead, the answer rather lies in the future, where thrive both technological progress and the desire to protect our blue planet.

Coupling deeptech AI innovation with traditional engineering, *Monumo* is on a mission to reinvent the electric motor.

Smooth and Sustainable

Monumo's patented technology has already produced a deeptech-generated design for a switched reluctance motor (SRM). This technology reduces torque ripple by 50% across the drive cycle, making it significantly smoother and quieter. Monumo's world-first approach to SRMs with its simulation, optimisation, and prototype framework,

demonstrates the potential for wider applications across a wide range of the electric motors market.

Founded in 2021, the Cambridge and Coventry based startup has a mission to move the needle on decarbonisation and is initially focused on the global EV market, which is projected to reach £495.54B in 2024. Through its unique combination of AI, ML and motor design ability, Monumo's proprietary technology runs around 10 million simulations per day to test potential iterations of the motor design. In turn, the platform can identify the optimal parameters for the specific use-case whether that is reducing cost, creating efficiencies or improving sustainability.

Backed by trustworthy allies

Monumo recently raised a £10.5M seed round from angels and has signed NDAs with numerous tier one engineering companies and Original Equipment Manufacturers (OEMs). The company is led by CEO and founder, Dominic Vergine, a serial entrepreneur and former VP Sustainability at Arm, and CTO Jaroslav Rzepecki, PhD, who previously held software engineering positions at Siemens, Microsoft Research and Arm.

Leveraging multidisciplinary expertise across its 30 strong team, Monumo brings together automotive engineers, data scientists, physicists, deeptech experts, and entrepreneurs. Across the team, half have PhDs in physics, electronics, ML and computer science, and engineering.

“By partnering with OEMs and tier one engineering companies, our unique combination of simulation, ML, AI and motor design ability can facilitate genuine near-term impact in the EV industry.”

These incredible results from our motor simulations are just the start as we look to create genuine system level optimisation for the first time. Naturally we're excited about the company's next phase of growth." says Dominic Vergine, CEO and Founder at Monumo

Article by Paul Ferretti