



KREMFORD PTY LTD

COMPANY OVERVIEW

Established in 2009, Kremford offers defence industry partners world-class capabilities in the design and manufacture of control systems for stepping electric motors. The technology behind these motors is designed to deliver high-precision movement, such as is necessary to enable the positioning of Magnetic Resonance Imaging machines, test equipment used by optometrists, and even machinery use to study nanoparticles.

We have recently upgraded our Hyperdrive-3 Programmable Stepper Motor Controller (pictured) through the release of a version that operates at 10 amps and 70 volts – internationally recognised as representing a ‘high power’ level of functionality for stepping motors. The Hyperdrive-3 is fully programmable, and can set speed, acceleration, number of steps, delay times and input-output control. It can also be programmed remotely from a personal computer or PLC.

UNIQUE VALUE PROPOSITION

Kremford has accumulated a strong background in electrical engineering, computers and design built on the expertise of its founders, Ron Kreymborg and Kieran Harford. Outstanding capability is maintained in regard to concept analysis, collaborative design and product manufacture and placement which



has benefitted from many years of experience and exclusive access to high-quality motors.

This enables Kremford to help customers ‘bring to life’ unusual motor application ideas, as well as guide them through motor and controller choice options. Ultra-reliability of firmware and hardware and continuous close client collaboration during product development are hallmarks of Kremford’s customer engagement ethic. In addition to local capabilities, we are the Australian distributor for two leading US-based electric motor manufacturers: Schneider Electric Motion and Groschopp Custom Electric Motors.



OUR ROLE IN HORIZON DEFENCE SYSTEMS

Precisely-controlled stepping motors are used in numerous military applications, including radar and artillery. Mr Harford says Kremford's role in Horizon Defence Systems is to "provide industrial partners developing equipment for the Australian Defence Force with a sovereign capability from the point of view of inserting Australian design capacity into Australian produced defence equipment". Strong local design capability enables us "to create tailored precision control systems for specialist defence equipment being developed in Australia that would generally be unavailable anywhere else in the world." In a separate initiative, Kremford is leveraging the Horizon Defence Systems collaboration model to bring forward technology to improve the capacity of power packs currently employed by Australian soldiers in the field. Candidate technologies extend to non-chemical solid-state devices that are lighter, more powerful and safer than the current generation of lithium-ion power packs.

OUR VISION IN DEFENCE

Kremford has embarked on an ambitious R&D program with a local university to develop supercapacitor-based batteries. Successful proving of the technology will enable a commercialisation pathway that has wide application for the future soldier and related new military capability requirements being addressed in parallel by Horizon Defence Systems.

