Award

Robotic Overground Harness System

UNIVERSITY OF ESSEX

UK6: Contract award notice - Procurement Act 2023 - view information about notice types
Notice identifier: 2025/S 000-039859
Procurement identifier (OCID): ocds-h6vhtk-055f1e (view related notices)
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Scope

Reference

T1158

Description

ZeroG is a robotic overground harness system mounted to an overhead track which includes a small motor to propel the trolley and harness. The system provides zero drag for the patient/participant enabling realistic motion without added confounders. The harness system due to its unique fall arrest system (velocity or range of movement monitored at 1000Hz) allows a greater variety of movement tasks to be performed safely such as stair ascent/descent, sit to stands, complex terrain (i.e. obstacles) amongst others, meaning neuromechanical/motor control paradigms and theories can be tested beyond normal walking and running. During the performance of any task, ZeroG has the additional capacity to ensure consistent bodyweight support during dynamic movements - this is not available in most other harness systems. ZeroG's final and unique feature is its integrated perturbation system (TRiP), which generates specifically designed and controlled perturbations during movement or balance tasks. TRiP provides the opportunity for extensive investigation of the neuromechanical/motor control of movement and the recovery from system disturbance (e.g. via "preflexes"). This is a key integral function of

safe movement and understanding the fundamental underpinnings of motor control. Furthermore, understanding the deficits within this system are key for future novel movement health metric development, rehabilitation strategies, assistive devices and other clinically relevant interventions.

ZeroG is currently widely used as a rehabilitation tool in spinal injury (e.g. Queen Elizabeth University Hospital, Glasgow), other adult movement deficits (e.g. Adelante Rehabilitation Centre, Netherlands) and in children (e.g. Pulderbos Rehabilitation Centre, Belgium). At SRES, ZeroG would enable closer tie in with clinical applications by providing collaboration with the Health, Wellbeing and Care Hub (HWCH), and enabling rehabilitation opportunities for their patients. ZeroG would therefore enable SRES to expand our current research portfolio further into the clinical domains, but also provide a unique purpose for ZeroG to investigate the neuromechanical and motor control underpinnings of movement.

ZeroG will be focussed on novel research within both basic sciences (e.g. validating novel movement health metrics) and applied clinical domains (e.g. development of movement as

an intervention for mental health; validation of falls devices for older adults). The integration of ZeroG into our state-of-the-art human biomechanics lab will provide a unique package of technology that enables innovative and world-leading research. Across these activities, the addition of ZeroG will lead to establishing the University of Essex as a centre of excellence in human neuromechanics and motor control, attracting further external funding and research students, enable further development of existing and new collaborations to develop basic

sciences understanding into clinical applications, provide a unique rehabilitative modality for clinical populations, and combine state-of-the-art technologies in new research areas to

expand our understanding of human neuromechanics and motor control.

Justification for sole source for the ZeroG Gait and Balance System of which Aretech, LLC is the sole manufacturer and Ectron Ltd is the sole distributor in the UK. Only one responsible source and no other supplies or services will satisfy agency requirements. An awarded patent, a patent-pending software feature, and other proprietary features on the ZeroG Gait and Balance System prevents competition,

Contract 1. T1158 - Robotic Overground Harness System

Supplier

- ECTRON LIMITED

Contract value

- £289,000 including VAT

Above the relevant threshold

Award decision date

15 July 2025

Standstill period

- End: 24 July 2025
- 8 working days

Earliest date the contract will be signed

1 August 2025

Contract dates (estimated)

- 1 September 2025 to 31 January 2026

- 5 months

Main procurement category

Goods

Options

The right to additional purchases while the contract is valid.

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Comprehensive Service Contract can be purchased and renewed after the installation for a maximum of four cycles (8 total years). Spare parts will be available for 10 years.

CPV classifications

- 33190000 - Miscellaneous medical devices and products
- 51410000 - Installation services of medical equipment

Contract locations

- UK - United Kingdom

Procedure

Procedure type

Direct award

Supplier

ECTRON LIMITED

- Companies House: 06139484
- Public Procurement Organisation Number: PNQY-6513-WVLD

Ectron Limited

Bristol

BS2 0QQ

United Kingdom

Email: alexjones@ectron.co.uk

Region: UKK11 - Bristol, City of

Small or medium-sized enterprise (SME): Yes

Voluntary, community or social enterprise (VCSE): No

Supported employment provider: No

Public service mutual: No

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Contracting authority

UNIVERSITY OF ESSEX

- Companies House: RC000652
- Public Procurement Organisation Number: PQBL-6931-JNGJ

Wivenhoe Park

Colchester

CO4 3SQ

United Kingdom

Email: procure@essex.ac.uk

Website: http://www.essex.ac.uk

Region: UKH34 - Essex Haven Gateway

Organisation type: Public authority - sub-central government