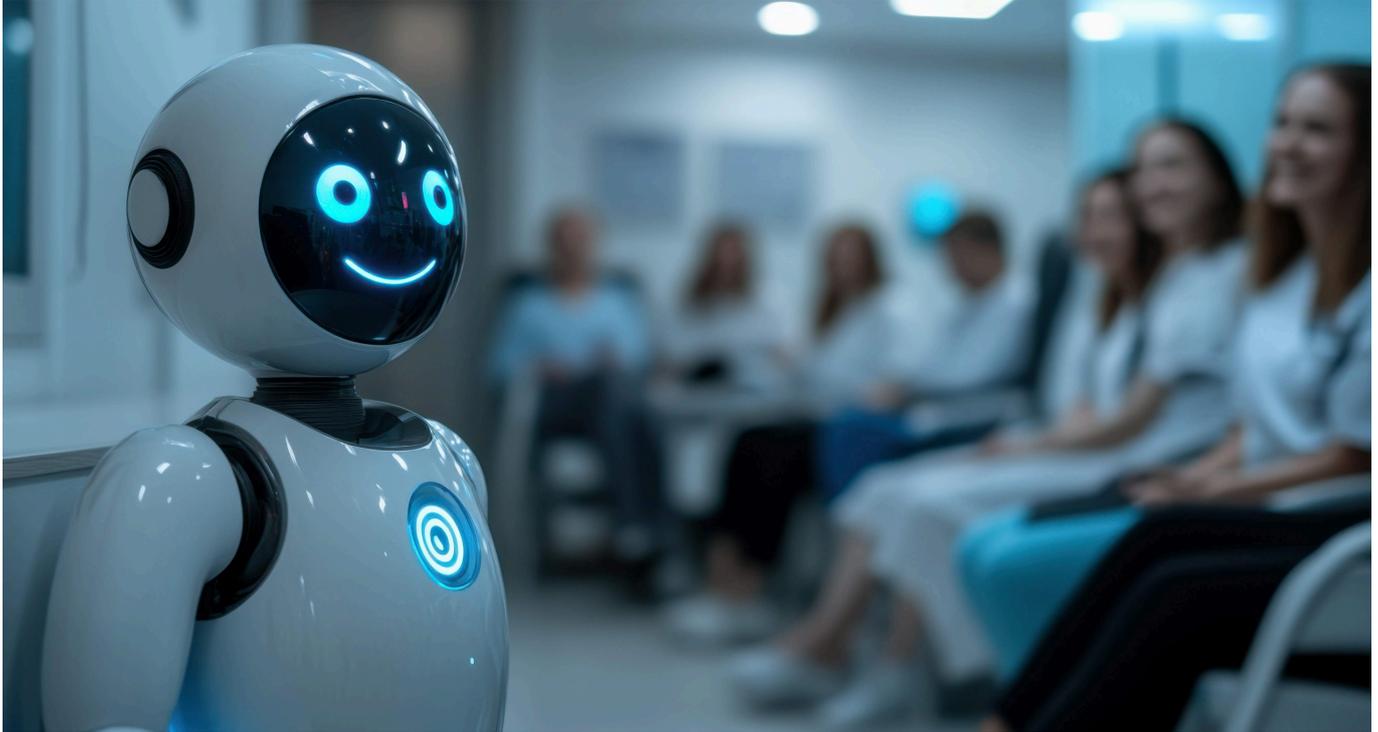**TECH OFFER**

Purpose-Built Humanoid for Social and Therapeutic Engagement

KEY INFORMATION

TECHNOLOGY CATEGORY:
Sustainability - Sustainable Living

TECHNOLOGY READINESS LEVEL (TRL): **TRL9**
COUNTRY: **SINGAPORE**
ID NUMBER: **TO175356**

OVERVIEW

With the global rise in ageing populations and a declining birth rate, the healthcare sector is increasingly strained, particularly in the provision of therapeutic and rehabilitative services. This humanoid technology has been designed to augment the capabilities of healthcare professionals, especially therapists, by automating repetitive intervention tasks.

The humanoid enables frequent and consistent client engagement, thereby promoting inclusivity and solidarity in care settings. It works collaboratively with professionals to deliver curated intervention modules with clinically evident outcomes. By relieving caregivers of routine duties, the humanoid supports a more person-centric model of care and enhances operational efficiency in eldercare environments.

Ideal collaboration partners include:

- **Care providers** – Community hospitals, eldercare centres, and day-care operators interested in deploying humanoid solutions for therapeutic engagement.

- **Therapy professionals** – Clinicians and therapists seeking technology to support non-pharmacological intervention programs.
- **Deep-tech companies** – Firms with expertise in data, image, or video analytics for enhancing humanoid capabilities.
- **Institutes of Higher Learning (IHLs)** – Academic institutions conducting research in cognitive health, psychosocial screening, or elderly care innovation.

TECHNOLOGY FEATURES & SPECIFICATIONS

The technology combines in-house capabilities in robotic hardware and application/system software development:

- Hardware: Realistic humanoid form with facial expressiveness and full-body articulation enabled by 50 degrees of freedom.
- Software: Includes social dialogue engines, animation control, application development, and system integration. Advanced features such as video analytics and IoT edge capabilities can be developed based on partner requirements.

POTENTIAL APPLICATIONS

- Cognitive and physical intervention programs for elderly individuals, including dementia care.
- Social humanoids for community engagement, outreach, and therapeutic feedback collection.
- Custom humanoid deployments for enterprise-level media communication and interactive content delivery.

UNIQUE VALUE PROPOSITION

- Eldercare-focused – Designed for cognitive and therapeutic engagement in ageing populations.
- Deployment-ready – Proven functionality in real-world care settings.
- Customisable content – Delivers tailored intervention modules.
- Care support – Automates routine tasks to free up caregivers.
- Scalable platform – Built for ongoing enhancement and integration.