

Tidewell W1

Wheeled mobile manipulator for flat, busy floors.

What it does

- Tote and parcel handling (Ports and Logistics)
- Ward delivery and collection (Healthcare)
- Patrol and inspection (Healthcare)

Specifications

SPECIFICATION	DESIGN TARGET	MEASURED
Payload	15 kg	—
Reach	1.2 m	—
Degrees of freedom	2 × 7 arm, 2 × 6 hand	—
Footprint and height	0.6 × 0.7 m, 1.6 m	—
Mass	110 kg	—
Battery and runtime	2 kWh, 8 h mixed duty	—
Charge time	1.5 h to 80 percent	—
Speed	1.5 m/s	—
Sensors	3D lidar, 4 depth cameras, fingertip tactile	—
Onboard compute	NVIDIA Jetson AGX Thor	—
Connectivity	Wi-Fi 6, 5G, Ethernet dock	—
Ingress rating	IP54	—
Operating temperature	0 to 45 °C	—

SPECIFICATION	DESIGN TARGET	MEASURED
Safety functions	Dual e-stop, safety-rated speed and separation, protective stop	—
Measured values are added as each test completes and carry the test date.		

Safety and certification status

IEC 61508 · Functional safety of e-stop and protective stop · in-design
IMDA equipment registration · Radio equipment for use in Singapore · not-started
ISO 13482 · Personal care robots, mobile servant type · in-design
ISO 3691-4 · Driverless industrial trucks, safety requirements · in-design
UN 38.3 · Lithium battery transport testing · not-started

Deployment model

Pilot · Robots as a service

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