

Tidewell B1

Biped for decks, stairs, curbs and interiors.

What it does

- Vessel-side lashing deck work (Ports and Logistics)
- Container and ULD interiors (Ports and Logistics)
- Service stairs and cabins (Ports and Logistics)

Specifications

SPECIFICATION	DESIGN TARGET	MEASURED
Payload	10 kg	—
Reach	0.9 m	—
Degrees of freedom	31 body, 2 × 6 hand	—
Height	1.65 m	—
Mass	60 kg	—
Battery and runtime	1.2 kWh, 2 h mixed duty	—
Charge time	1 h swap	—
Speed	1.2 m/s walking	—
Sensors	3D lidar, 3 depth cameras, fingertip tactile, IMU	—
Onboard compute	NVIDIA Jetson AGX Thor	—
Connectivity	Wi-Fi 6, 5G	—
Ingress rating	IP54	—
Operating temperature	0 to 45 °C	—
Safety functions	E-stop, controlled fall, protective stop, geofence	—

Measured values are added as each test completes and carry the test date.

Safety and certification status

IEC 61508 · Functional safety of e-stop, controlled fall and protective stop · in-design
IMDA equipment registration · Radio equipment for use in Singapore · not-started
ISO 13482 · Personal care robots, physical assistant type · not-started
UN 38.3 · Lithium battery transport testing · not-started

Deployment model

Pilot

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