

# Tidewell Brain Kit

Tidewell Brain on a robot you already own, with the vendor's telemetry removed.

## What it does

- Retrofit to EDU-class Unitree and AgiBot bodies (Ports, logistics and healthcare)
- Join an existing body to a Tidewell Crew (Ports, logistics and healthcare)
- Replace vendor provisioning, telemetry and update path (Ports, logistics and healthcare)
- Add an independent safety controller and secure site comms (Ports, logistics and healthcare)

## Specifications

| SPECIFICATION                                                             | DESIGN TARGET                                                                           | MEASURED |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------|
| Compute module                                                            | NVIDIA Jetson Thor T5000 or T4000, sealed backpack housing                              | —        |
| Safety controller                                                         | Independent dual-channel supervisory controller, e-stop, geofence, speed and separation | —        |
| Site communications                                                       | Private 5G or Wi-Fi 6E, wired safety channel where the site allows                      | —        |
| Firmware                                                                  | Signed, per-unit keys, customer-held signing keys                                       | —        |
| Provisioning                                                              | No Bluetooth provisioning, no unsolicited telemetry                                     | —        |
| Vendor network                                                            | Isolated at the kit, vendor cloud unreachable from the body                             | —        |
| Kit mass                                                                  | 3.5 kg backpack plus 0.8 kg controller                                                  | —        |
| Power draw                                                                | 40 to 70 W from the body's pack                                                         | —        |
| Installation                                                              | One working day per body, no body firmware changes                                      | —        |
| Measured values are added as each test completes and carry the test date. |                                                                                         |          |

## Safety and certification status

IEC 61508 · Independent supervisory safety controller for retrofitted bodies; the body itself is not certified · in-design

IMDA equipment registration · Radio equipment in the secure comms module for use in Singapore · not-started

## **Deployment model**

Kit purchase · Brain licence per robot

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