LUCHS B

Off-road autonomy chassis · 4×4

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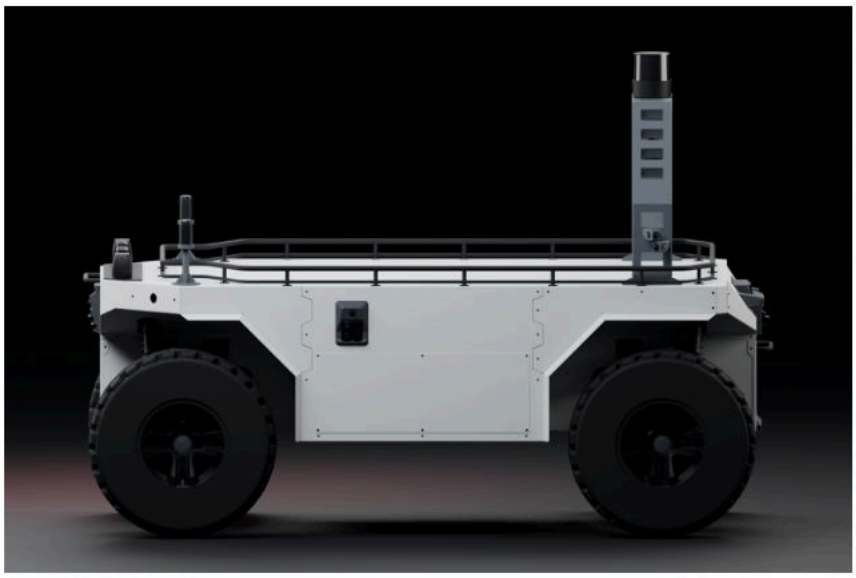
Mining sites · Construction sites · Agriculture · Oil pipelines



VEHICLE

External dimensions	1990 × 1150 × 800 mm
Chassis weight	237 kg
Working / max. payload	125 / 250 kg
Ground clearance	300 mm
Tyres	22×7-10 in, off-road
Suspension	Independent, 50 mm travel

PERFORMANCE

Max. speed	40 km/h normal mode; 86 km/h boost mode
Max. climb	30° at full load
Turning circle	4.4 m, dual Ackermann
Endurance	≥60 km at full load; up to 300 km in desert mode

DRIVE AND STEERING

Drive	4 in-wheel motors, 1.8 kW rated / 5 kW peak each
Peak torque	330 N·m per wheel
Steering	Dual EPS; single or dual Ackermann
Brakes	Electro-hydraulic + electric parking brake
Modes	4WD / 2WD; skid-steer on request; creep mode

ENERGY

Battery	$LiFePO_4$, 72 V 60 Ah (4.3 kWh) or 73 V 127.4 Ah (9.3 kWh)
Desert mode	2 packs + 1.5 kW petrol range extender
Payload power	12 V / 300 W (Standard), 12 V / 600 W (Pro)
Charging	About 3 h on-board; pack swap under 3 min

INTERFACE AND PROTECTION

Host interface	CAN 500 kbit/s, LCI v1.0, heartbeat and live limits
Software	ROS 2 / ROS 1 / C++ SDK
Ingress protection	IP67 battery, motors, connectors; IP65 controllers

AUTONOMY BUILD (TAR)

Sensor modes	Mast + 128-line LiDAR / LiDAR + cameras / cameras only
Safety backup	Radar front and rear, all modes
Positioning	GNSS + visual-inertial
Fleet	Control station, cloud, mesh radio

BARE CHASSIS

A drive-by-wire chassis with the documented LCI interface. Run your own autonomy stack on it.

AUTONOMOUS VEHICLE

The TAR sensor kit and software, multi-source positioning, control station and cloud, integrated.

Live limits and LCI functions are available with the LCI firmware. Specifications depend on configuration and may change; ground clearance is the current design value. Black is the standard version; white is the cooling version with a heat-protective coating.

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Vehicle images are product renders.