

# Quadroin AUV

AUTONOMOUS UNDERWATER VEHICLE

Available 2022



EvoLogics PingGuin prototype

Quadroin is an autonomous underwater vehicle with low-drag bionic design. Based on years of research, the AUV's shape and contour of a penguin-like spindle maximize its hydrodynamic performance.

- Fast and maneuverable at up to 5 m/s
- The propulsion system includes 4 horizontal thrusters in X-shaped configuration
- Combined automatically collapsible antenna increases endurance and communication range on the surface
- Surface communication module with Wifi, 868 MHz radio and GNSS
- Built-in S2C M 18/34 "mini" modem with streamlined antenna cover for underwater communication and positioning
- Payload capacity for various sensors and instruments
- High-power flash lights for easy localization and recovery

## SPECIFICATIONS

GENERAL	OPERATING DEPTH	150 m
	OPERATING SPEED	up to 5 m/s
	ENDURANCE	over 2 h at 4 m/s; over 10 h at 2 m/s; over 30 h at 1 m/s over 28 km at 4 m/s; over 72 km at 2 m/s; over 108 km at 1 m/s
POWER	POWER SUPPLY	internal rechargeable Li-Ion batteries
	BATTERY CAPACITY	1 kWh
	CHARGING TIME	less than 6 hours
INSTRUMENTS	UW COMMUNICATION AND POSITIONING	S2C M 18/34 acoustic modem, up to 13.9 kbit/s
	NAVIGATION	GNSS, AHRS, depth sensor, LBL positioning, optional DVL
	GNSS	GPS, GLONASS
	RADIO COMMUNICATION	WiFi 2.4 GHz, 863-870 MHz ISM modem (GSM or Iridium optional)
	INTEGRATED AHRS	Integrated xSens MTi 30
	ON-BOARD PC	I.MX 6ULL single core ARM Cortex-A7, 792 MHz, 512MB RAM, 64GB memory (SD-card), additional $\mu$ Controller (upgradable up to quad-core for additional payload)
PAYLOAD	PAYLOAD OPTIONS	forward looking sonar, side-scan sonar, forward looking underwater camera, object recognition hardware and software, CTD
	PAYLOAD CAPACITY	up to 3 kg
	DIMENSIONS	length 1082 mm, $\varnothing$ 293 mm max.
	WEIGHT <small>in air/buoyancy</small>	less than 25 kg/ TBC