

# PingGuin AUV

AUTONOMOUS UNDERWATER VEHICLE

Available Q1 2022



EvoLogics PingGuin prototype

EvoLogics PingGuin 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 collapsible antenna, 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
- Large surface footprint, position and high-power flash lights for easy localization and recovery

## PRELIMINARY SPECIFICATIONS

GENERAL	OPERATING DEPTH	150 m
	OPERATING SPEED	up to 5 m/s
	OPERATING TIME	over 2 h at 4 m/s; over 10 h at 2 m/s; over 30 h at 1 m/s
	OPERATING RANGE	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	1.2 kWh
	CHARGING TIME	less than 6 hours
INSTRUMENTS	UW COMMUNICATION AND POSITIONING	S2C M 18/34 acoustic modem, up to 13.9 kbit/s
	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	1.MX 6ULL single core ARM Cortex-A7, 792 MHz, 512MB RAM, 64GB memory (SD-card), additional µController (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, DVL, CTD
	PAYLOAD CAPACITY	up to 3 kg
DIMENSIONS		length 1082 mm, Ø 293 mm max.
WEIGHT <small>in air/buoyancy</small>		less than 25 kg/ TBC