



- Technology transfer from the National Oceanography Centre to McLane Research Laboratories, Inc.
- Patents: Robidart, J, J Wyatt, R Brown (2021) Autosampler device and method for autosampling. UK Patent Application 2105092.7
- For more information about this product visit mclanelabs.com.

Selected References:

- National Oceanography Centre annual report, p. 24-25; p.36.
- 3400 m depth deployment in AutoSub6000 on the iMirabilis expedition for EU Horizon 2020 project iAtlantic.
- Surface RoCSI measures DNA from microbes across the western N Atlantic (Bermuda and along the US coast) - ISME Journal article.
- 12 August 2022: RRS James Cook JC237- both submersible (in Autosub 5, with NERC Project CLASS and EU project iAtlantic) and benchtop (part of EU Horizon 2020 project AtlantECO).

Robotic Cartridge Sampling Instrument

Application:

The Robotic Cartridge Sampling Instrument (RoCSI), is a biomolecular sampler that performs in-situ sample collection and preservation onto 0.22 µm or 0.45 µm Sterivex™ filter cartridges. RoCSI features high sample count capabilities in a compact, 6,000 m rated instrument.

Cartridges are stored on a continuous sample belt and are rotated into position for sampling or injecting preservative. The compact size and user-defined sample capacity make the RoCSI ideal for vehicle integration, long-term mooring systems, buoy mounts, bottom landers and ship-board applications.

Features:

Suitable for collection of genetic material, environmental DNA (eDNA) and other fine particulates or microorganisms. Supervised sampling (pressure and flow rate) is programmed to process samples. Automated cleaning of the intake fluid path for contamination mitigation. Compact size for deployment in AUVs or ROVs.

RoCSI Specifications:

Dimensions:	17 cm x 18 cm x 53 cm (6.7 in x 7.08 in x 20.86 in)
Weight in air:	15.5 kg (34 lbs)
Weight in seawater:	10 kg (22 lbs)
Depth rating:	6000 m
Bulkhead connectors:	Subconn MCBH8M 8-pin male for 12V power
Communications:	USB to a Windows® interface or RS-232 (for adaptive sampling)
Power supply:	12 V DC /2 A nominal; 16 V max 0.4-0.7 A current at 12 V
Electronics Housing:	Titanium
Pump:	Peristaltic pump

Specifications subject to change without notice • 03/24 • www.mclanelabs.com