- Wave-actuated motion allows batteries to be dedicated to sensor payload.
- Time-series vertical profiles from the upper 500m of the water column.
- For more information about this profiler, see the Prawler pages at mclanelabs.com.

Prawler

Application:

The Prawler (PRofiling crAWLER) is a low-cost, wave-actuated vehicle that moves along the mooring wire, collecting data from the surface to 500m of the water column. Data can include conductivity, temperature, depth (CTD), optical backscatter, and dissolved oxygen.

Wave motion and special ratcheting clamps move the vehicle up the wire. The Prawler free-falls to the bottom of the user programmed profiling range, collecting data measurements. Wave oscillation powers vehicle movement. Sensors are powered by lithium primary batteries.

Features:

Lightweight to deploy and ideal for profiling the upper 500m of the water column. Minimal wave action needed for movement, making Prawler suitable for coastal locations such as lakes and reservoirs as well as open ocean applications. Data offload via inductive communications.

Sample schedule options:

Continuous instrument movement even when not sampling prevents biofouling on the Prawler and mooring line. User programmable bottom range.

Deployment:

Can be installed on many mooring configurations. Deployments up to 18 months are possible. Actual deployment duration is dependent on sensors installed, profile length, and profile frequency.

Supported sensors:

One or all of the curently installed sensors can be integrated.

Sea-Bird Scientific CTD	Aanderaa Optode DOX
Sea-Bird Scientific Optical backscatter	

Prawler Specifications

WEIGHT (APPROX):	In air with CTD:	14 kg (30lbs)
	In water:	0.68kg (1.5 lbs)
POWER:	Profiling:	Wave actuated
	Sensors:	Sensors powered by lithium primary batteries
OPERATIONS:	Depth:	500 m rated (mooring can be deployed in any depth)
	Operating temperature:	-2°C-35°C
	Profiling speed:	Fall rate ~ 30cm/sec
	Mooring cable:	3/8” diameter, 3x19 construction, galvanized, improved plow steel wire rope, overmolded with a polyurethane extruded jacket available from McLane
	Data storage:	On-board data storage

DIMENSIONS: