



FT120

Multi-purpose Profile Winch

The FT120 winch is a compact, self-designed winch manufactured by OPT for profile operations on unmanned platforms such as unmanned vessels and buoys. It can be mounted on the bow of an unmanned vessel and configured for deployment and retrieval via a web-based control panel program.

The FT120 winch features a compact and streamlined design. Beyond OPT's proprietary HydroFrog 25 USV, it can be integrated into other conventional unmanned vessels and easily connected to Ardupilot systems. Winch status data can be monitored through the unmanned vessel's control interface.

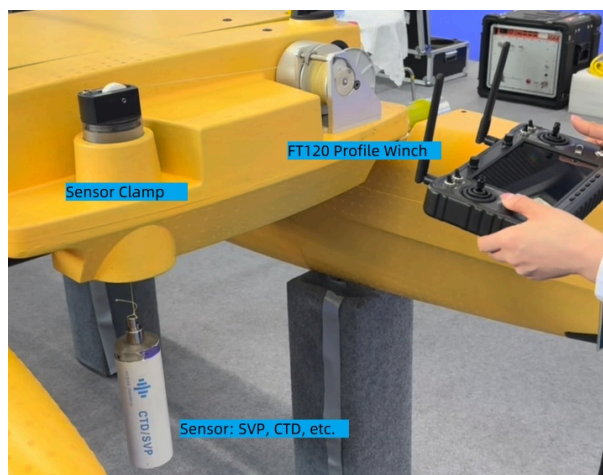
Specification

- ▶ **Maximum cable length:** 100 meters (2mm Kevlar cable)
- ▶ **Breaking load:** 150 kg
- ▶ **Rated load:** 6 kg
- ▶ **Peak load:** 15 kg
- ▶ **Weight:** 2 kg (Winch only)
- ▶ **Power supply:** 24V 6A
- ▶ **Cable payout speed:** 0~0.5m/s (motor speed 0~20rad/s), maximum speed configurable via web interface.
- ▶ **Control Protocol:** S-Bus control (select any two channels), web interface control (LAN port)
- ▶ **Data Feedback (Customizable):** Open SDK provided for secondary development; real-time feedback of full winch status data, including drum speed, cable payout length, line tension, limit alarms, fault codes and running state.

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Sensors Supported

- ▶ SVP
- ▶ CTD
- ▶ Multi-parameter water quality sensors
- ▶ Water Sampler
- ▶ Hydrophone, etc.



FT120 Integration onto HydroFrog 25 USV