



Photo by Steve Van Meeter



Smart Tether Benefits

Smart Tether, a complete ROV navigation system, offers you unmatched operation of your VideoRay system. The Smart Tether system, which includes tether, control box, and software is designed to meet multiple missions and tested to survive extreme environments. No matter what your mission, the Smart Tether system makes it smarter, faster, safer, and easier.

Deploy Instantly, Deploy Easily

With Smart Tether, there's no need for transponders and no need for complicated set-up, measurement, and training. Since the sensors are embedded in the tether, you won't need extra wires and batteries, either. It's a "drop and go" system.

Navigate in Real Time

The Smart Tether system's 10-30 Hz refresh rate gives your crew instant and accurate information about your VideoRay's position. This real-time navigation facilitates missions that require precise operation, including: close-up ship hull inspection, rescue and recovery work, ordnance location, and homeland security operations.

GPS Enabled

Tides, currents, and wave dynamics make precise ROV navigation using a fixed point nearly impossible. The Smart Tether uses GPS to allow you to navigate your ROV from a moving point.

Robust and Tough

Smart Tether was designed to outlast your toughest mission. It's been tested and used in extreme environments.

Missions

- Search and Recovery
- Port and Homeland Security
- Underwater Crime Scene Investigation
- Offshore Drilling
- Inland and Offshore Inspections

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SMART TETHER

A Revolution in ROV Navigation



Advantages of the Smart Tether System

- Deploy Instantly
- Measure ROV GPS Location
- Navigate in Real Time



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VideoRay


VideoRay is a registered trademark of VideoRay LLC.

SMART TETHER

A Revolution in ROV Navigation



Easy Set-up



1. Connect



2. Set GPS Location

3. Launch and Drive

Smart Tether Interface

The Smart Tether user interface and display makes navigation in the field simple, smart, and safe.

The system features a smart user interface that displays the position of your ROV and tether, as well as video and SONAR scan areas. Smart Tether even provides a position history of visual and sonar scans so your operators know what areas have already been searched.



Smart Tether Navigation System ROV, tether, and video/SONAR field of view location and orientation shown graphically in real-time

Technology

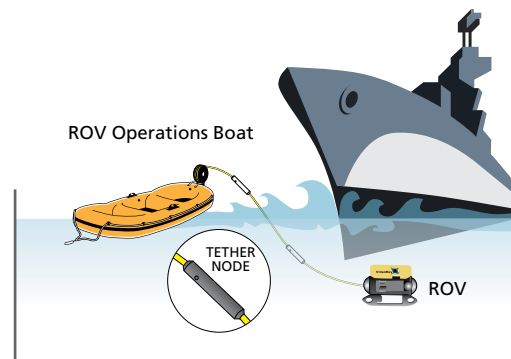
What is a KCF Smart Tether™?



Smart Tether includes a series of sensors and nodes embedded in your VideoRay tether.

These nodes use orientation and pressure sensors to measure the tether shape and track the position and heading of your ROV.

This data is then transmitted to the control box and displayed on your computer screen in real time.



System Capabilities

Accurate

The typical Smart Tether accuracy is 5 feet or better, depending on the deployment configuration.

Real-time

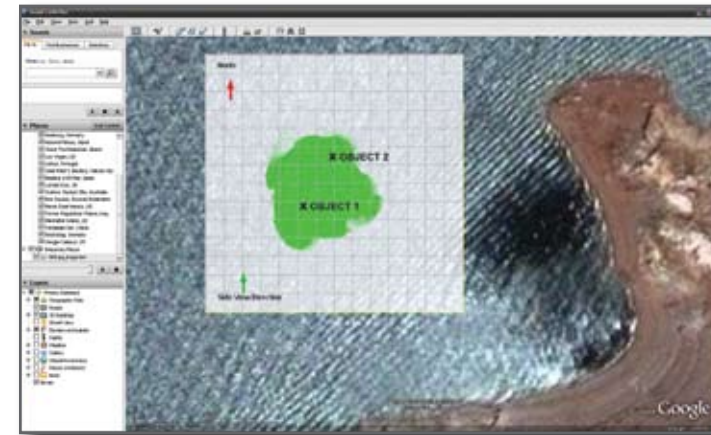
Smart Tether position updates are fast, showing the dynamic motion of the tether and VideoRay.

Scan History

Smart Tether gives position history of Visual or SONAR scan.

Winchable

Smart Tether sensors accommodate the standard VideoRay Tether Deployment System.



Connect with Google Earth

With the click of a button, you can view the scanned area and targets you have marked with your VideoRay camera or SONAR in Google Earth. **Geographic landmarks can be instantly referenced**, making it easy to confirm the location of any points of interest under investigation. The Google Earth feature is also ideal for post-processing of data saved from your VideoRay operation or for creating interactive graphics to aid in discussion or presentations. Utilizing Google Earth, the **Smart Tether is the easiest and fastest way to confidently locate your VideoRay ROV, anywhere in the world.**

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About Us

KCF Technologies, founded in November 2000 as a Penn State spin-off, is an innovative leader in research commercialization, serving customers in industrial, research, and defense markets with products in the fields of vibration, noise, and electromechanical device engineering.

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Customers

Our customers include defense and industrial market leaders.

- Office of Naval Research
- Naval Surface Warfare Center Panama City (NSWC PC)
- Naval Surface Warfare Center Carderock (NSWC CD)
- Army Medical Device Acquisition Activity (Walter Reed)
- Applied Research Laboratory, Penn State
- Johnson Controls (YORK)
- Emerson Climate Technologies
- Exxon-Mobil Corporation
- Mine Safety Appliances, Inc.
- Ingersoll Rand Co.
- Lockheed Martin Aerospace, Inc.
- Belle-Aire Fragrance, Inc.
- Hunter Fan Company