HOVERFLY®

SOLUTIONS

2023 CATALOG

CONTENTS

SENTRY 2

SPECTRE 2.0 9

SERVICES 16

SENTRY

HOVERFLY SENTRY

PRODUCT INFORMATION

Sentry System Including:

- Sentry 6205 Series sUAS Aerial Vehicle with:
  - EO/IR Payload with 120X Zoom 1080p HD Visible Camera and Co-Boresighted 640x512 8X Zoom Thermal Imager with NON-ITAR 30Hz Update Rate
  - Dual Simultaneous h.264 Video Streams
  - NO RF emissions. Command and Control and Simultaneous Video-Over-Tether (C2VOT)
  - Advanced Tether Sensor (ATS) for Precision Landing
  - Quick Change Safety Landing Battery (SLB)
- Advanced Tether Automation Kit (62-ATK) Including:
  - LWII Series Modular Automatic Tether Management System with 200’ Altitude Engineered Tether with Kevlar strength member
  - Hoverfly Infini-Fly Modular Power System
  - Hoverfly Flight Management System (FMS) Embedded Computer
  - Dual Barometric Compensation System for long duration flight
  - Dual External Ethernet Interfaces
- One Way Installation Precision Landing Platform (Landing Ring)
- Autonomous Precision Landing Capability
- Mobile On-The-Move (OTM) Capability
- 6’ Power Cable
- Two Custom-fit International Capable Hard Cases
- MIL-STD 810 Weather Resistant Performance
- One Year Limited Warranty

I-LVS-6205-S SENTRY / LVS-6205-S SENTRY
Sentry Craft #1000575
Sentry Gimbal #1000491
Sentry Tether Kit #1000055

CAMERA PAYLOADS

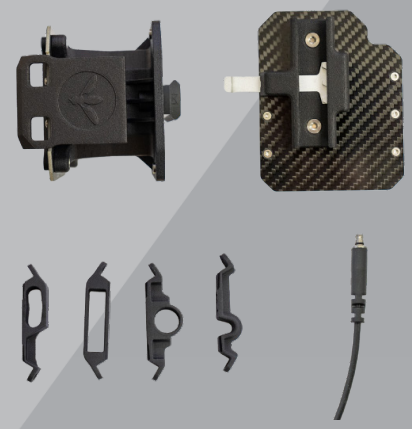
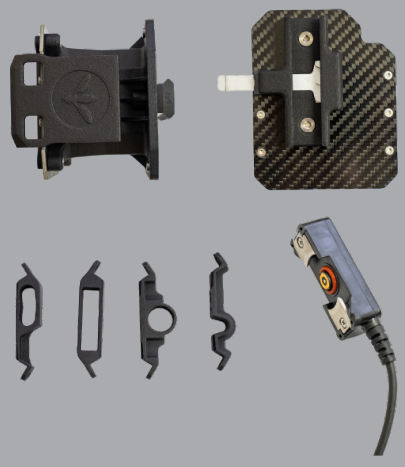
PTZ2	PRODUCT INFORMATION

	I-P-6205-EOIR / P-6205-EOIR
	#1000491
	
	Standard camera payload for Sentry 6205 Series UAV
	• PTZ2 Gimbal:
	  • E/O Camera: iShot Imaging XBlock XBC-KZ10 Block Camera
	  • IR: FLIR Boson640 Long-Wave Infrared
	• Sensor: 1/2.8” Exmor CMOS
	• Zoom:
	  • E/O Zoom: X120 (X10 + X12 Digital)
	  • IR Zoom: X8 (X1 + X8 Digital)
	• 3-axis Stabilization
	• Field of View:
	  • E/O hFOV: 54° vFOV: 31°
	  • IR 8.7mm hFOV: 50° vFOV: 40°
	  • IR 18.0mm hFOV: 24° vFOV: 19.2°
	• Resolution (dual stream):
	  • EO = 1920x1080 30fps / 1280x720 5fps
	  • IR = 640x512 60fps / 320x256 10fps

NextVision Raptor	**PRODUCT INFORMATION**
	I-P-6205-Raptor / P-6205-Raptor **#1001776** • NextVision Raptor • Long range dual EO-IR stabilized camera. • Zoom: X80 (X40 + X2 digital) • FOV: 60° WFOV – 1.5° NFOV – 0.75° DFOV • Thermal Resolution: 1280x720 • Visible: 400-700 nm, options for 1280x720 and 1920x1080

RADIO PAYLOAD MOUNTS

Hoverfly Warranty Terms Apply to Hoverfly Installed Equipment. Data Cable NOT Included.
6205 Interface

TrellisWare TW-850 Ghost	PRODUCT INFORMATION
	I-P-6205-TW850 / P-6205-TW850 **#1001681** • PowerMount TrellisWare TW-850 Ghost • Removable TrellisWare TW-850 (Ghost) Mounting and Power Kit. Includes Snap-In Mount for One (1) TW-850 and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector to Receive LiveSky Power.
TrellisWare TW-875 Ghost	**PRODUCT INFORMATION**
	**I-P-6205-TW875 / P-6205-TW875** **#1001682** • PowerMount TrellisWare TW-875 Ghost • Removable TrellisWare TW-875 (Ghost) Mounting and Power Kit. Includes Snap-In Mount for One (1) TW-875 and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector to Receive LiveSky Power.
TrellisWare TW-950 Shadow	**PRODUCT INFORMATION**
	**I-P-6205-TW950 / P-6205-TW950** **#1001683** • PowerMount TrellisWare TW-950 Shadow • Removable TrellisWare TW-950 (Shadow) Mounting and Power Kit. Includes Snap-In Mount for One (1) TW-950 and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector to Receive LiveSky Power.

Silvus SC4200 StreamCaster	PRODUCT INFORMATION
	I-P-6205-SC4200E-EB / P-6205-SC4200E-EB #1001684 • PowerMount SC4200 STREAMCASTER • Removable Silvus Streamcaster SC4200 Mounting and Power Kit. Includes Snap-In Mount for One (1) SC4200 and One (1) Pre-Installed Antenna Captive Hold Device. • Includes Primary Connector For SC4200 to Receive LiveSky Power.
	I-P-6205-SC4200E-BB / P-6205-SC4200E-BB #1001685 • PowerMount SC4200 STREAMCASTER • Removable Silvus Streamcaster SC4200 Mounting and Power Kit. Includes Snap-In Mount for One (1) SC4200 and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector Replacing Battery On SC4200 to Receive LiveSky Power.

Persistent Systems MPU5	PRODUCT INFORMATION
	P-6205-MPU5-Upper C-Band Modular Payload #1001082 • Persistent Systems MPU-5 Embedded Module Integrated Modular Payload for LiveSky Payload Bay • Full-up Upper C-Band (5.1-6.0 GHz) payload includes: Embedded Module, Upper C-Band RF Module, three (3) C-Band Omni antennas, Fixed Camera for Situational Awareness and External Ethernet Port for Ease of Programming. • Payload has interchangeable antennas and RF Modules to accommodate other available frequency bands (other frequency bands not included in this payload - only Upper C-Band).
	P-6205-MPU5-L-Band Modular Payload #1001082 • Persistent Systems MPU-5 Embedded Module Integrated Modular Payload for LiveSky Payload Bay. • Full-up L-Band (1350-1390 MHz) payload includes: Embedded Module, L-Band RF Module, three (3) L-Band Omni antennas, Fixed Camera for Situational Awareness and External Ethernet Port for Ease of Programming. • Payload has interchangeable antennas and RF Modules to accommodate other available frequency bands (other frequency bands not included in this payload - only L-Band).
	P-6205-MPU5-S-Band Modular Payload #1001082 • Persistent Systems MPU-5 Embedded Module Integrated Modular Payload for LiveSky Payload Bay • Full-up S-Band (2200-2500 MHz) payload includes: Embedded Module, S-Band RF Module, three (3) S-Band Omni antennas, Fixed Camera for Situational Awareness and External Ethernet Port for Ease of Programming. • Payload has interchangeable antennas and RF Modules to accommodate other available frequency bands (other frequency bands not included in this payload - only S-Band).
	P-6205-MPU5-Lower C-Band Modular Payload #1001082 • Persistent Systems MPU-5 Embedded Module Integrated Modular Payload for LiveSky Payload Bay • Full-up Lower C-Band (4.4-5.0 GHz) payload includes: Embedded Module, Lower C-Band RF Module, three (3) C-Band Omni antennas, Fixed Camera for Situational Awareness and External Ethernet Port for Ease of Programming. • Payload has interchangeable antennas and RF Modules to accommodate other available frequency bands (other frequency bands not included in this payload - only Lower C-Band).

ACCESSORIES

Panasonic Toughpad Controller	PRODUCT INFORMATION
	I-HF-TBC / HF-TBC • LiveSky Compatible Panasonic ToughPad Controller with Hoverfly Flight Management System (FMS) • Pre-Installed Executable for Remote System Control over Wired Ethernet Connection to Tether Kit. Xbox Controller Included
Field Replaceable Unit	

	I-FRU-6205-VHA / FRU-6205-VHA
	#1001520
	
	• Includes All Field Replaceable Spares:
	  • (1) LVS-62-TK-LW3 Series Tether Reel with Tether and Connector
	  • (2) Aircraft Back-up Battery
	  • (2) TK Back-up Battery
	  • (8) Props
	  • Two (4) each CW and CCW
	  • (1) iFixItFRU Hardware and tools.
	• Includes international-capable storage and transit case.
	• Requires Specific Training
	• Does not include Payload(s)

Software Development Kit	
I-HF-SDK-API / HF-SDK-API • Software Development Kit (SDK) including: (1) Command and Control Interface over Ethernet for local Computer or Remote (Network) • Operations in .NET, JAVA, REST, C++ • (1) Example GUI and program for LiveSky / BigSky vehicle control and telemetry downlink per Hoverfly SDK interface specification. • Note Integration and Engineering Services available at additional cost. • Includes: 12-months Email support for SDK during normal business hours Eastern Time USA.	

SPECTRE 2.0

HOVERFLY SPECTRE 2.0

PRODUCT INFORMATION

Spectre 2.0 System with up to 5 lbs payload capacity subejct to payload comformity SWAP Including:

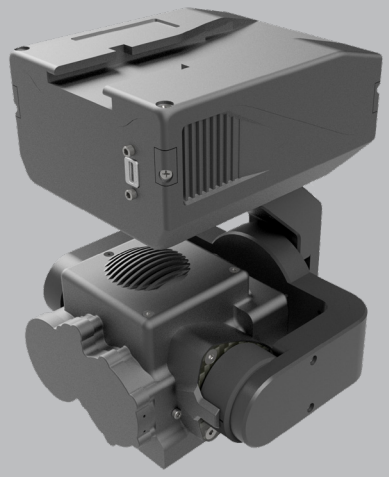
- Spectre 2.0 6205-HL Series sUAS Aerial Vehicle with:
  - EO/IR Payload for LiveSky with 120X Zoom 1080p HD Visible Camera and Co-Boresighted 640x512 8X Zoom Thermal Imager with 30Hz Update Rate
  - Dual Simultaneous h.264 Video Streams
  - NO RF emissions. Command and Control and Simultaneous Video-Over-Tether (C2VOT)
  - Advanced Tether Sensor for Precision Landing
  - GPS-less Operation Capability (TRL8 pending fielding)
  - Controllable Anti-Collision Beacon
  - Quick Change Safety Landing Battery (SLB)
- Advanced Tether Automation Kit (62-ATK) Including:
  - LWII Series Modular Automatic Tether Management System with 200’ Altitude Engineered Tether with Kevlar strength member
  - Hoverfly Infini-Fly Modular Power System
  - Hoverfly Flight Management System (FMS) Embedded Computer
  - Dual Barometric Compensation System for long duration flight
  - Dual External Ethernet Interfaces
- One Way Installation Precision Landing Platform (Landing Ring)
- Autonomous Precision Landing Capability
- Mobile On-The-Move (OTM) Capability
- 6’ Power Cable
- Two Custom-fit International Capable Hard Cases
- MIL-STD-810 Weather Resistant Performance
- One Year Limited Warranty

I-LVS-HL SPECTRE / LVS-HL SPECTRE
Spectre Craft #1001567
Spectre Gimbal #1001803
Spectre Tether Kit #1001568

ALL FEATURES OF SPECTRE 2.0 AND ALL PAYLOAD PACAKAGES ARE SUBJECT TO CHANGE WITHOUT NOTICE*

CAMERA PAYLOADS

PTZS	PRODUCT INFORMATION

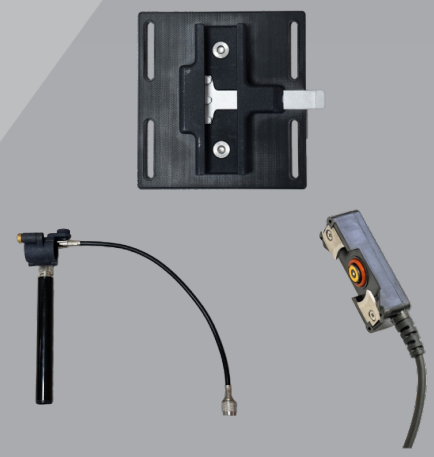
	**I-P-HL-EOIR / P-HL-EOIR**
	#1001803
	
	Standard Payload for Spectre 2.0 UAV
	• PTZS Gimbal:
	  • E/O Camera: iShot Imaging XBlock XBC-KZ10 Block Camera
	  • IR: FLIR Boson640 Long-Wave Infrared
	• Sensor: 1/2.8” Exmor CMOS
	• Zoom:
	  • E/O Zoom: X120 (X10 + X12 Digital)
	  • IR Zoom: X8 (X1 + X8 Digital)
	• 3-axis Stabilization
	• Field of View:
	  • E/O hFOV: 54° vFOV: 31°
	  • IR 8.7mm hFOV: 50° vFOV: 40°
	  • IR 18.0mm hFOV: 24° vFOV: 19.2°
	• Resolution (dual stream):
	  • EO = 1920x1080 30fps / 1280x720 5fps
	  • IR = 640x512 60fps / 320x256 10fps

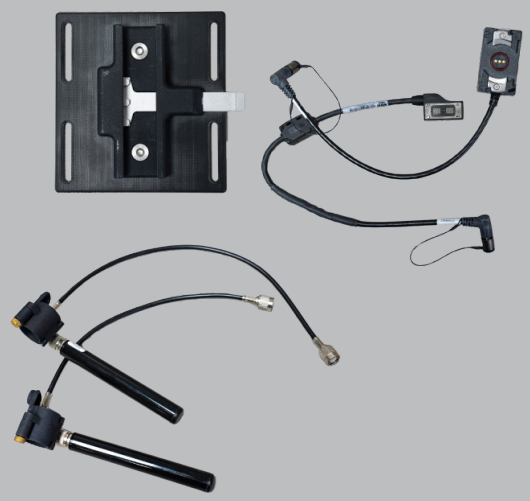
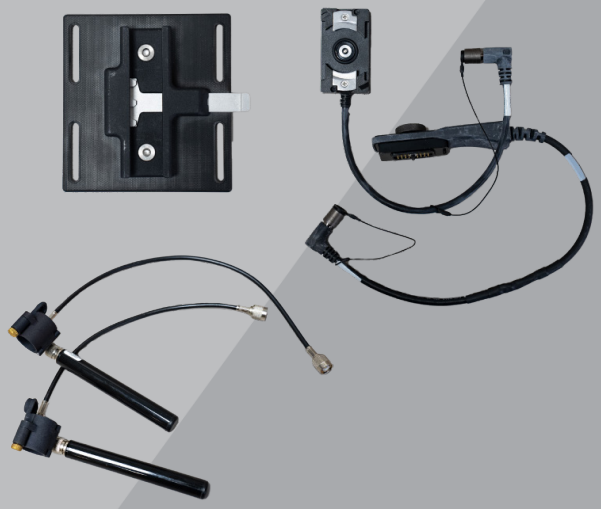
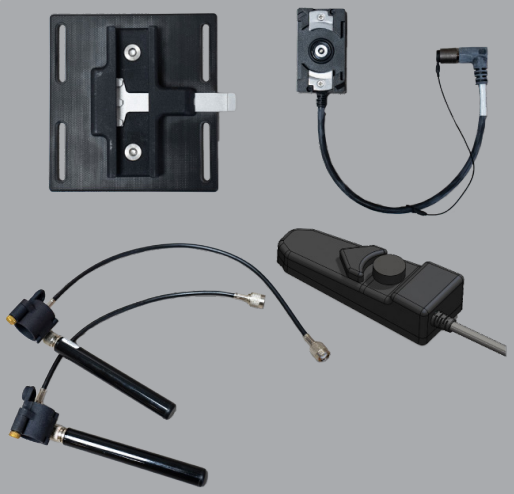
NextVision Raptor	**PRODUCT INFORMATION**
	I-P-HL-Raptor / P-HL-Raptor **#1001951** • NextVision Raptor • Long range dual EO-IR stabilized camera. • Zoom: X80 (X40 + X2 digital) • FOV: 60° WFOV – 1.5° NFOV – 0.75° DFOV • Thermal Resolution: 1280x720 • Visible: 400-700 nm, options for 1280x720 and 1920x1080
Logos Technologies MicroKestrel WAMI	**PRODUCT INFORMATION**

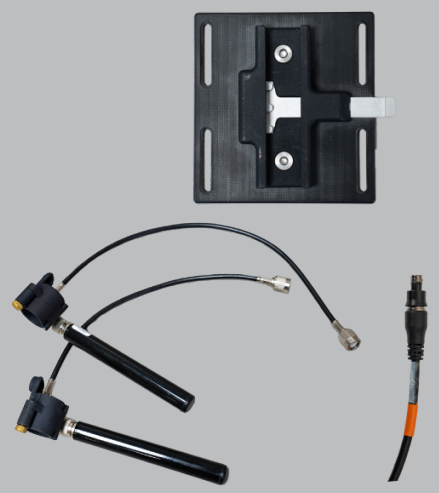
	I-HL-Logos Tech WAMI / HL-Logos Tech WAMI
	
	• Wide Angle Motion Imagery (WAMI) Payload for LiveSky Spectre
	  • Mounted MicroKestrel daytime WAMI sensor
	  • 1x MicroKestrel ground station
	  • Sensor and ground station defective parts and workmanship warranty (1 year).

RADIO PAYLOAD MOUNTS

Hoverfly Warranty Terms Apply to Hoverfly Installed Equipment. Data Cable NOT Included.
HL Interface - single radio mount

TrellisWare TW-875 Ghost	PRODUCT INFORMATION
	I-P-HL-TW875 / P-HL-TW875 **#1001953** • PowerMount TrellisWare TW-875 Ghost • Removable TrellisWare TW-875 (Ghost) Mounting and Power Kit. Includes Snap-In Mount for One (1) TW-875 and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector to Receive LiveSky Power.
TrellisWare TW-950 Shadow	**PRODUCT INFORMATION**
	**I-P-HL-TW950 / P-HL-TW950** **#1001954** • PowerMount TrellisWare TW-950 Shadow • Removable TrellisWare TW-950 (Shadow) Mounting and Power Kit. Includes Snap-In Mount for One (1) TW-950 and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector to Receive LiveSky Power.

Persistent Systems MPU5	PRODUCT INFORMATION
	**I-P-HL-MPU5-Power Mount / P-HL-MPU5-Power Mount** **#1001958** Includes: • HTI MPU5 Ethernet Connector (1x) • HTI MPU5 Power Connector (1x) • HTI MPU5 Picatinny Rail Adapter (1x) • HTI TNC Antenna Captive Device (3x) • RF Cable Extension (3x) • Octane Antennas (3x) • HTI Payload Plug (1x) - For radio only application
PRC 161	**PRODUCT INFORMATION**
	**I-P-HL-PRC161 / P-HL-PRC161** **#1001960** • Pre-Installed and Removable PRC 161 Mounting and Power Kit. Includes Snap-In Mount for One (1) PRC 161 and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector to Receive LiveSky Power.
PRC 163	**PRODUCT INFORMATION**
	**I-P-HL-PRC163 / P-HL-PRC163** **#1001959** • Pre-Installed and Removable PRC-163 Mounting and Power Kit. Includes Snap-In Mount for One PRC-163 and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector to Receive aircraft Power.

Silvus SC4200 StreamCaster	PRODUCT INFORMATION
	**I-P-HL-SC4200E-EB / P-HL-SC4200E-EB** **#1001957** • PowerMount SC4200 STREAMCASTER • Removable Silvus Streamcaster SC4200 Mounting and Power Kit. Includes Snap-In Mount for One (1) SC4200 and One (1) Pre-Installed Antenna Captive Hold Device. • Includes Primary Connector For SC4200 to Receive LiveSky Power.
	I-P-HL-SC4200E-BB / P-HL-SC4200E-BB **#1001956** • PowerMount SC4200 STREAMCASTER • Removable Silvus Streamcaster SC4200 Mounting and Power Kit. Includes Snap-In Mount for One (1) SC4200 and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector Replacing Battery On SC4200 to Receive LiveSky Power. • (2x) FV-1600-5900 Antennas
Silvus SC4400E StreamCaster	**PRODUCT INFORMATION**
	I-P-HL-SC4400-E / P-HL-SC4400-E **#1001955** • Removable Silvus Streamcaster SC4400E Mounting and Power Kit. Includes Snap-In Mount for One (1) SC4400E and Pre-Installed Antenna Captive Hold Device(s). • Includes One (1) Integrated Power Connector On SC4400E to Receive LiveSky Power. • Includes Cable Extension(s) for Antenna Mount and L-, S-, & C-band Omni Antennas. • (4x) FV-1600-5900 Antennas

ACCESSORIES

Panasonic Toughpad Controller	PRODUCT INFORMATION
	I-HF-TBC / HF-TBC • LiveSky Compatible Panasonic ToughPad Controller with Hoverfly Flight Management System (FMS) • Pre-Installed Executable for Remote System Control over Wired Ethernet Connection to Tether Kit. Xbox Controller Included
Field Replaceable Unit	

	I-FRU-HL / FRU-HL
	#1001965
	
	• Includes All Field Replaceable Spares:
	  • (1) Spectre Series Tether Reel with Tether and Connector
	  • (2) Aircraft Back-up Battery
	  • (2) TK Back-up Battery
	  • (8) Props
	  • Four (4) each CW and CCW
	  • (1) iFixItFRU Hardware and tools.
	• Includes international-capable storage and transit case.
	• Requires Specific Training
	• Does not include Payload(s).

Software Development Kit	
I-HF-SDK-API / HF-SDK-API • Software Development Kit (SDK) including: (1) Command and Control Interface over Ethernet for local Computer or Remote (Network) • Operations in .NET, JAVA, REST, C++ • (1) Example GUI and program for LiveSky / BigSky vehicle control and telemetry downlink per Hoverfly SDK interface specification. • Note Integration and Engineering Services available at additional cost. • Includes: 12-months Email support for SDK during normal business hours Eastern Time USA.	

SERVICES

TRAINING

I-T-Basic Training OCONUS / T-Basic Training HTI or CONUS
- Basic Training with optional On-the-Move (OTM) and Field Replaceable Unit (FRU) supplements.
- For class size 1-6 people, one Hoverfly Factory Trainer

I-T-Train the Trainer OCONUS / T-Train the Trainer HTI or CONUS
- Basic Training with On-the-Move (OTM) and Field Replaceable Unit (FRU) supplements with supplemental testing, troubleshooting, and certification to train future users.
- For class size 1-6 people, two Hoverfly Factory Trainer, including labor, travel, expenses

T-Virtual Training
- Virtual Training. Basic Training with optional On-the-Move (OTM) and maintenance supplements.
- For class size 1-6 people, one Hoverfly Factory Trainer

I-T-Refresher Training OCONUS / T-Refresher Training HTI or CONUS
- Refresher training of the Basic Training course at Hoverfly Technologies with optional On-the-Move (OTM) and Field Replaceable Unit (FRU) supplements.
- For class size 1-6 people, one Hoverfly Factory Trainer

I-T-Scenario Based Training OCONUS / T-Scenario Based Training HTI or CONUS
- HTI - Advanced Training with scenario simulations, supplemental testing, troubleshooting, and certification to train future users.
- For class size 1-6 people, two Hoverfly Factory Trainer, including labor, travel, expenses

Contact us for cost estimate.

INTEGRATION & SUPPORT

I-T-Custom Integration

- Integration onto vehiclular and maritime platforms. Custom compatibility and developmental collaboration.
- Cost estimate includes non-recurring engineering (NRE), software, and service-based efforts; includes labor, travel, expenses.
- Hoverfly TUAS Interface Control Document (ICD) available upon request and with fully executed NDA.

I-T-Field Service Representative (FSR) Support

- Hoverfly TUAS field subject matter experts provide support with maintenance, service, troubleshooting, warranty work, repairs or pilot/operator support for customer events such as: Demonstrations, Field Exercises, Training Center Rotations, Experiments, and DV days.
- Cost includes labor, materials, and travel expenses.

Contact us for cost estimate.

DRONE AS A SERVICE

I-T-Drone As A Service

- Hoverfly Solutions Team providing Hoverfly systems, piloting, and subject matter experts to perform support for a dedicated event or duration of time.
- Examples of events include concerts, sports events, political rallies, parades, etc.
- Provide supplemental support for news agencies, event security, law enforcement and first responders.

Contact us for cost estimate.

CONTACT US:
www.hoverflytech.com
info@hoverflytech.com
(407) 985-4500
800 Central Park Drive
Sanford, FL 32771

DLA Tailored Logistics Support (TLS) contract vehicle
(https://www.dla.mil/Portals/104/Documents/TroopSupport/ConstructionandEquipment/SOE_CustomerGuidelines.pdf)

NOTICE: Limited Rights Data

This document includes data that shall not be disclosed outside the U.S. Government and shall not be duplicated, used, or disclosed in whole or in part for any purpose other than training or operating the Hoverfly System. This restriction does not limit the right to use information contained in this document if it is obtained from a source without restriction. The information subject to this restriction is contained on all sheets.

This document contains Trade Secret and Proprietary Information of Hoverfly Technologies, Inc. and is protected under U.S. Laws and by 5 USC 552 as amended and is Prohibited from Public Disclosure by 18 USC 1905. The pages that contain this information are marked with the legend "Hoverfly Proprietary Information."

All Rights in Computer Software and Technical Data are reserved by Hoverfly Technologies, Inc., and no license is implied or offered except to the extent as may be provided in the Contract Number referenced above.

Limited Warranty Summary Statement

Hoverfly provides a **LIMITED WARRANTY ONLY** if the system has not been modified or altered from its original condition, and if the software is intact and maintained in an authorized configuration.

No warranty or obligations shall apply to any portion of the system that has been either; (A) Operated or maintained in a manner inconsistent with the O&M Manual, or (B) Operated in a manner inconsistent with the provisions of the contract, or (C) Damaged by negligence or misuse, fire, casualty, or other external cause(s).

Other than replacement of Customer Serviceable Items, this Warranty shall be null and void if any service, repair, changes, or modification of the System or Software is performed by any party other than Hoverfly or a Hoverfly authorized service agent.

This Warranty shall be null and void if any unauthorized payloads are installed and/or flown on the Hoverfly system.

Other warranty conditions apply. Review the entire warranty under the applicable contract.

Copyright © 2023, Hoverfly Technologies Inc., All Rights Reserved.
Trademarks are Property of Their Respective Owners.
Hoverfly Technologies Solutions. 2023 CATALOG
Published by Hoverfly Technologies Inc.
www.hoverflytech.com

DCN 1001967