

Unmanned Solutions Realized

Manufactured with hitecnology





Realize Success.

At **Hitec Commercial Solutions**, we offer a variety of unmanned platforms, designed and engineered to effortlessly conquer your most demanding challenges. Our dedication and partnerships with Straight Up Imaging (SUI) and Quantum Systems provide you with the most efficient, innovative and progressive mapping and data acquisition solutions in today's market.

The XENO FX is our proprietary fixed wing platform, optimized for efficient and cost effective area survey and monitoring missions, and constructed of Multiplex's resilient Elapor® foam. With a company alliance spanning over forty years, Hitec and Multiplex have consistently created durable, visionary airframes that push the boundaries of imagination.

The SUI Endurance LT offers the ultimate precise responsiveness from the multirotor realm of unmanned systems. With a lightweight aerodynamic body, powerful brushless motors, efficient carbon fiber propellers, and impressive camera stabilization unit, the Endurance delivers upon its promise of easy operation.

The Quantum Systems Trinity is a fixed-wing VTOL UAV combining high efficiency engineering and superior data retrieval in the world's most compact drone of its class. The Elapor® foam construction and optimized electronics layout showcase the best in German engineering.

Supporting your business with leading-edge unmanned solutions is the goal of Hitec Commercial Solutions. Whether you require agricultural surveying, high-definition surveillance, intricate imagery retrieval, or customized support for your own unique mission, we are your partner for realized success.

INDUSTRIES







CONSTRUCTION & EXCAVATION



ENERGY & GAS



ENGINEERING & SURVEYING



MINING & **AGGREGATES**



PUBLIC SAFETY



DISTINCT FEATURES

FULLY AUTONOMOUS FLIGHT

Easily program your flight plan before launch to ensure thorough coverage of target region. Fixed wing design for efficient cruise and maximum time aloft.

"SAFE LAUNCH" PROTECTIVE FEATURE

Propeller starts spinning after airframe has been safely hand launched.

MODULAR PAYLOAD SYSTEM

Quick-change modular system allows you to reconfigure your data acquisition hardware for multiple missions.

COLLAPSIBLE WING / EASY TRANSPORT

Folding wings make for compact storage and effortless transport.

TECHNICAL SPECIFICATIONS

Weight with Standard Camera	Approx. 2.35 lbs. (1.1 kg)
Material	Durable Elapor® Foam Construction / Carbon Fiber Tubing
Wingspan	49 in. (1245 mm)
Cruise Airspeed	27-45 MPH
Flight Time	60 Minutes
Max. Survey Range	Up to 675 Acres per Flight (2.73 km²) @ 400' AGL

INTERCHANGEABLE PAYLOAD / SENSOR PACKAGES

MAPIR[®] SURVEY3

- Sensor: 12MP RGB (RAW+JPG, JPG)
- Filters: RGB, RGN (NDVI), OCN (NDVI), NGB (ENDVI), NIR, Red-Edge
- 5.5cm/px (2.17in/px) @ 120m AGL

PARROT® SEQUOIA

- Quad Band
- 1.2 MP per Band
- Green, Red, Red Edge, NIR

MAPIR® KERNEL (SINGLE / DUAL SENSOR)

- Sensor Choice: 3.2MP (MONO) or 14.4MP (RGB)
- Customizable to Survey Requirements

FLIR® DUO / DUO R

- Spectral Band: 7.5 13.5 μm
- Thermal Measurement Accuracy:
 - ► +/-5°C or 5% of reading (DUO);
 - ► +/-5°C (DUO R)

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POSSIBLE CUSTOM APPLICATION-SPECIFIC SENSORS AVAILABLE UPON REQUEST

XENO FX BASE PRICE

\$6,995 w/MAPIR® SURVEY3 SENSOR

\$7,995 w/MAPIR® KERNEL SINGLE SENSOR

XENO FX BASE PACKAGES INCLUDE:

- XENO FX Airframe
- Mission Control Software
- 8" 32GB Quad Core Tablet
- 915MHz Telemetry Modem
- 2 x 3,200 mAh Flight Batteries
- RDX1 Pro AC/DC Charger
- Durable Carrying Case

Base pricing does not include setup, training or repair contracts. | Prices are subject to change based on technology improvements and material sourcing.



DISTINCT FEATURES

ADVANCED AUTOPILOT CAPABILITY

Seamlessly transition between autonomous and manual flight modes with robust safety features for maximum mission success.

COMPACT FORM FACTOR

Lightweight, rigid carbon fiber arms fold for convenient storage and transportation with fully customized commercial-grade travel case.

CUSTOMIZED SENSOR PACKAGES

Optimized flexible payload integration featuring plug-and-play imaging and data-gathering options. Customized solutions also available.

INTEGRATED GROUND CONTROL STATION (GCS)

Handheld controller with tablet offers pDDL & RFD900x radio modem support for video* and telemetry to multiple devices. *pDDL version only

TECHNICAL SPECIFICATIONS

Weight with Standard Camera	7 lbs. (3.2 kg)
Material	Carbon Fiber and Plastic
Frame Size Extended	28.5 in. (725mm)
Sensor Capability	Modular / Plug & Play
Flight Time	40+ Mins. with any 1 lb. Sensor
Max. Range (Area)	Up to 16 km

INTERCHANGEABLE PAYLOAD / SENSOR PACKAGES

SURVEYOR PACKAGE - SONY® UMC-R10

- 20.1 MP Sensor on a Fixed, Dampened Downward-Facing Mount
- RFDesign RFD900x Streams C2 and Telemetry
- Conventional Survey Photogrammetry
- 3D Terrain and Structure Mapping
- Automatically Georeferences Each Image for Easy Processing
- Near-Infrared (NIR) Filter Option Available for NDVI Crop Health Assessment

PRECISION SURVEY PACKAGE - SONY® A6000

- Sony A6000 on a Stabilized 2-Axis Gimbal
- Septentrio AsteRx-m2a UAS GNSS Receiver for PPK Accuracy
- On-board Logging of Geodata and Camera Hot Shoe Feedback
- RFDesign RFD900x Streams C2 and Telemetry
- Used for Survey-Grade Photogrammetry and Volumetrics

ADVANCED IMAGING PACKAGE - SONY® OX30U

- 3-Axis, Stabilized CNC Aluminum Gimbal 30x Optical-Zoom Still and Video Camera (Sony® QX30U)
- Supports Live HD Video and Pass-Through Camera Control
- Microhard pDDL Digital Data Link Streams C2, Telemetry, and **HD** Digital Video
- Ideal for Detailed Imaging of Distant Objects and Activity

FIRST RESPONDER PACKAGE - FLIR® VUE PRO

- 3-Axis, Stabilized CNC Aluminum Gimbal for Thermal Camera (FLIR® VUE PRO - 640, 9/13/19mm, 30Hz)
- Supports Live HD Video and Pass-Through Camera Control
- Microhard pDDL Digital Data Link
- Ideal for Fire Services, Paramedics, Police Officers, Security, Infrastructure Inspections & Wildlife Monitoring (Day / Night)

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ALL PAYLOADS ARE PLUG & PLAY - ADDITIONAL OPTIONS AVAILABLE UPON REQUEST

ENDURANCE BASE PRICE

\$13,595 SURVEYOR **PACKAGE** (w/NDVI CONVERSION)

PRECISION SURVEY **PACKAGE CONTACT FOR PRICING**

\$15,495 **PACKAGE**

17,695 FIRST RESPONDER (for RADIOMETRIC VERSION)

Contact your sales representative for package details. | Prices are subject to change based on technology improvements and material sourcing.



DISTINCT FEATURES

VTOL FIXED WING SYSTEM

Efficient fixed wing design offers unique VTOL capabilities from flexible operational areas for expanded range and coverage.

EXCEPTIONAL SENSOR PROTECTION

The Elapor® foam and composite construction provide complete shock and vibration protection for the integrated sensors.

EFFICIENT OPERATION PROFILE

Achieves longer flight times while using less power, for mission durations up to 60 minutes.

FOOL-PROOF ASSEMBLY

The Trinity Lock Mechanism (TLM) enables the operator to quickly assemble the system without tools or special knowledge.

TECHNICAL SPECIFICATIONS

Weight with Standard Camera	9.9 lbs. (4.5 kg)
Material	Durable Elapor® Foam / Carbon Fiber Structure
Wingspan	7.48 ft. (2.394 m)
Cruise Airspeed	38 MPH (17 m/s)
Flight Time	60 Minutes
Max. Range (Area)	70 km = 500 ha

INTERCHANGEABLE PAYLOAD / SENSOR PACKAGES

SURVEY PAYLOAD COMPARTMENT (SPC)

- Sensor Choice: Sony® UMC-R10C 20.1 MP (APS-C, Exmor® CMOS)
- Ideal for Surveying & Mapping, Archeology, Mining, Stock Volumes, Geotechnical Engineering, GIS, Disaster Control, Civil Engineering and Forestry.
- Results: True RGB Orthophotos (DOP), Digital Terrain Models (DTM), Digital Surface Models (DSM), Dense RGB Point Clouds (XYZ,LAS,...), 3D Models (OBJ, DXF, PLY, STA,...)

AGRICULTURE PAYLOAD COMPARTMENT (APC)

- Quantum Snap Ultra-Fast 80 gram NIR-RED/GREEN Multi-Spectral Imaging System
- Near-Infrared Filter for Crop Health Surveying using NDVI Imagery
- Results: True Multispectral Orthophotos (DOP), NDVI Maps, Application Maps (ISO-XML), LowRes Digital Terrain Models (DTM), LowRes Digital Surface Models (DSM)

CPC PROFESSIONAL PACKAGE

- Combines the Best of Both SPC & APC Compartments
- Ideal for Advanced Agricultural Analytics (Growth & Health Monitoring, Volume Calculation & Insurance Projects)
- Results: True RGB and Multispectral Orthophotos (DOP), NDVI Maps, Application Maps (ISO-XML), HiRes Digital Terrain Models (DTM), HiRes Digital Surface Models (DSM), Dense RGB Point Clouds (XYZ, LAS,...), 3D Models (OBJ, DXF, PLY, STA,...), Tree Counts, Plant Counts, Plant Height Monitoring,...

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TRINITY BASE PRICE

\$17,800 WITHOUT PAYLOAD

\$2,300 ADDITIONAL COST

w/SONY® SPC OPTION

TRINITY BASE PACKAGE INCLUDES:

- Trinity Airframe
- QBase Software
- 915MHz Telemetry Modem
- 10,000 mAh Flight Battery
- AC/DC Charger
- Durable Carrying Case

SONY® SPC OPTION INCLUDES:

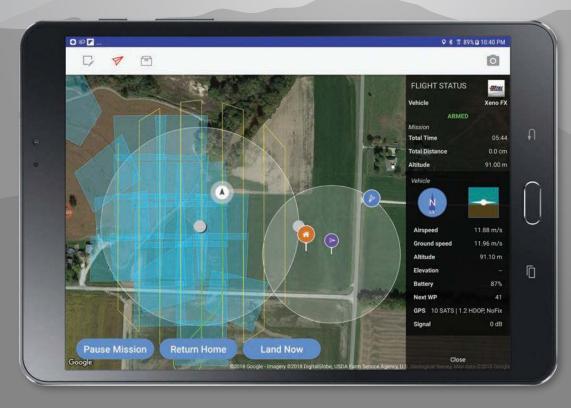
- Sony® UMC-R10C 20.1 MP Sensor with Fixed 16mm Focal Length
- Payload Compartment with Control System for Triggering and Geotagging

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MISSION CONTROL

HIGH-PRECISION MAPPING DATA ACQUISITION APP



SELECT YOUR
MISSION AREA

2
SELECT YOUR
VEHICLE TYPE

3
SELECT YOUR
PAYLOAD

4
BEGIN
MISSION

MISSION CONTROL FEATURES

- High-Precision Data Acquisition (DAQ) App
- Intuitive Layout on Easy-To-Use Tablet
- Simulate Complete Missions in Advance or On Location
- Monitor Mission Parameters of Vehicle and Payload
- Updateable for Future Payloads, Vehicles and Criteria
- Fast Image Pre-Processing / Pre-Stitching Capabilities
- · Ability to Store and Share Missions and Data
- Direct Upload to Post Processors from App
- Previous Mapping Drone Experience Not Required

DISTINCT FEATURES

EASY MISSION PLANNING

Plot and map missions quickly and easily just using your fingertips on the provided tablet.

MULTI-VEHICLE, MULTI-PLATFORM CAPABILITY

Integrated flexibility and expandability allow support for current and future unmanned aerial needs.

PRE-STITCHING

View images onsite for convenient preview prior to post processing of high resolution pictures.

SPLIT SCREEN STREAMING VIDEO

Monitor performance data without cluttering your inflight video stream.

MISSION CAPABILITIES



AREA SURVEY

Cover defined areas with this basic survey mission profile.



LINEAR SURVEY

Survey point-to-point features such as pipe and power lines, transportation infrastructure, etc.



EXPANDED SEARCH

Search and rescue mission profile suitable for law enforcement and public safety applications. (Coming Soon)



PERIMETER SEARCH

Monitor peripheries for unexpected activity. Used at recent NCAA Tournament. (Coming Soon)



POINT OF INTEREST

Maintain continuous observation of specific objects/targets on the ground. (Multirotor Only)

COMPATIBLE WITH THESE PHOTOGRAMMETRIC / POST-PROCESSING SOFTWARE





• DRONEDEPLOY®



MAPS MADE EASY





DRONE MAPPER
AGISOFT PHOTOSCAN

NOTE: Additional software options available based upon your preferences.

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THE MISSION CONTROL MAPPING DATA ACQUISITION APP CAN BE LICENSED TO OTHER DRONE MANUFACTURES FOR COMMERCIAL USE. CONTACT YOUR HCS SALES REPRESENTATIVE FOR MORE INFORMATION.





Hitec Commercial Solutions, LLC

9320 Hazard Way, Suite D | San Diego, CA USA 92123 | www.hitecnology.com