



Engineering Intelligent Systems for a Smarter Planet



Autonomous UAVs



Robotics & Humanoids



AI Platforms

Vision & Mission

Vision

Advance humanity through scalable **autonomous systems**, intelligent robotics, and transformative AI technologies.

A future where intelligent systems seamlessly integrate with human society, enabling unprecedented efficiency and capability.

Mission

Build **intelligent hardware** and **software** that improves everyday life

Creating practical, scalable solutions that address real-world challenges across logistics, and infrastructure.



Core Philosophy

Technology should enhance human capability, not replace it

20+

Patents

Multi

Domain

Global

Vision

The Problem

Critical gaps in the autonomous systems landscape



Fragmented Ecosystem

Robotics solutions operate in silos with limited interoperability, creating inefficiencies and integration challenges for enterprises.



Logistics Inefficiencies

Traditional logistics face mounting pressure from labor shortages, rising costs, and the need for faster delivery times.



Limited Scalability

Current autonomy solutions lack the coordination capabilities needed for large-scale deployment across multiple domains.



The Market is Ready for a Unified Solution

Enterprises need an integrated autonomy platform that spans aerial, ground, and AI systems—not point solutions.

The Answer

Our Solution

A unified autonomy ecosystem



UAV Platforms

Group 1-2 aerial systems for logistics, ISR, and rapid deployment



Robotics

Humanoids and ground vehicles for inspection and assistance



AI Stack

Intelligence layer for coordination, perception, and decision-making



Unified Autonomy Ecosystem

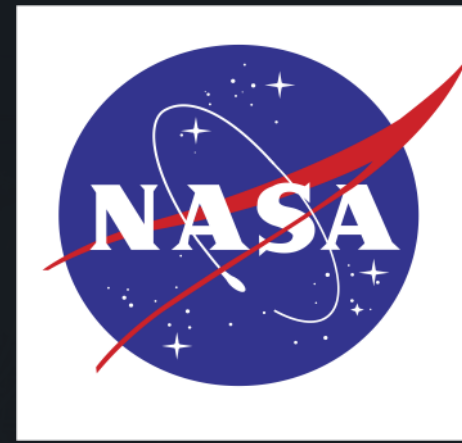
All components work together as an integrated platform

Seamless
Integration

Scalable
Architecture

Awards & Partnerships

Recognition and collaborative ecosystem



Awards & Programs

 **NASA Sustainable Business Award 2025**
Recognized for aerospace technology innovation



 **DARPA Heavy Lift UAV Program 1: 3.5/**
DARPA Awardable Status for UAVs
Research efforts aligned with defense priorities



 **U.S. Army xTech Humanoid Program**
Finalist 2025-2026



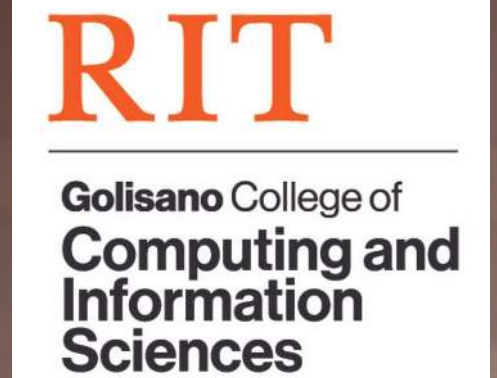
 **Defense Innovation Unit**
AI Triage Wearable Device



Partnerships



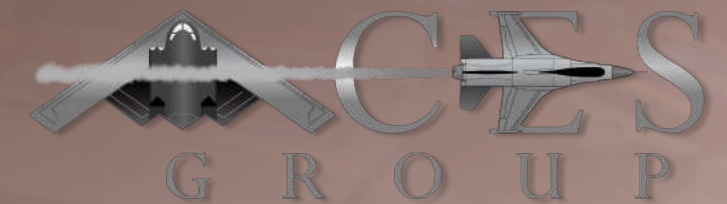
Rochester Institute of Technology
Academic Research Partner



Collaboration with RIT for advanced research and development, leveraging academic expertise in robotics and AI.



Industry Participants
Collaborating Companies



Engagement with companies supporting joint development projects across various product and technology initiatives. Aces Group (High Density Batteries/Power System), Diaconia LLC (Humanoid, Human Machine Integration)



These partnerships strengthen Vision One's technical capabilities and real-world impact



Vision One Core Team Members



Sushant Khadka (Shan/S.K)

Founder, CEO & Chief Engineer

Founder & CEO, Vision One Tech

B.S. Aerospace & Mechanical Engineering

University of Texas at Arlington, CUNY

Former Principal Systems Engineer, Northrop Grumman (5 years)

US Army Aviation Vet (6 years), Worked on **Radar systems, ICBM (GBSD) program**

20+ patents (approved/pending) in UAVs, robotics, and autonomous systems

Leads development of **UAV platforms, humanoid (NETRION)**

Expertise in hybrid VTOL, heavy-lift drones, and AI-integrated aerospace systems



Dr. Dukka KC

Advisor/Research/STTR Partner – RIT

Professor & Chair of Computer Science

Rochester Institute of Technology

Ph.D. in Informatics – Kyoto University

Expert in deep learning, transformer models, and AI systems

Extensive NIH/NSF-funded research experience

Leads advanced AI modeling and algorithm development

Supports predictive AI, perception systems, and autonomy

Bridges academic research with real-world deployment



Arpan Bom

Program Manager/Lead AI/Software Engineer

Masters in Computer Science – London Metropolitan University

Specialization in **AI, autonomy, and cybersecurity systems**

Leads computer vision, SLAM, and autonomous navigation

Develops ROS2-based autonomy stack and real-time AI systems

Expertise in edge AI deployment

Leads software architecture for drones, humanoids, and UGCS



Raj Bhetuwal

Lead Systems Validation & QA Engineer

US Air Force Veteran

M.S. Information Systems Security

Experience: Northrop Grumman, Raytheon, BAE Systems

Expert in HIL/SIL testing, automation, and secure systems

Leads system validation, reliability, and compliance testing

Ensures integration of hardware, AI, and communication systems



Pranisha Karki

UAV Systems Integrator & Program Coordinator

B.S. – Logan University

Supports UAV assembly, integration, and testing

Manages program coordination and scheduling

Handles proposal documentation (SBIR, xTech, NASA)

Tracks CAD, hardware builds, and system configurations

Supports end-to-end system validation and deployment



Sameer Khatri

Software Systems Engineer & Integration Lead

U.S. Army Reservist, Former Software Engineer – FedEx

Expertise in backend systems, APIs, and cloud platforms

Works on UGCS, telemetry, and system integration

Experience in logistics systems and DevOps environments

Supports military logistics integration and deployment systems



Vision One Ecosystem



UAVs

Aerial platforms




Robotics

Ground systems



AI

Intelligence layer

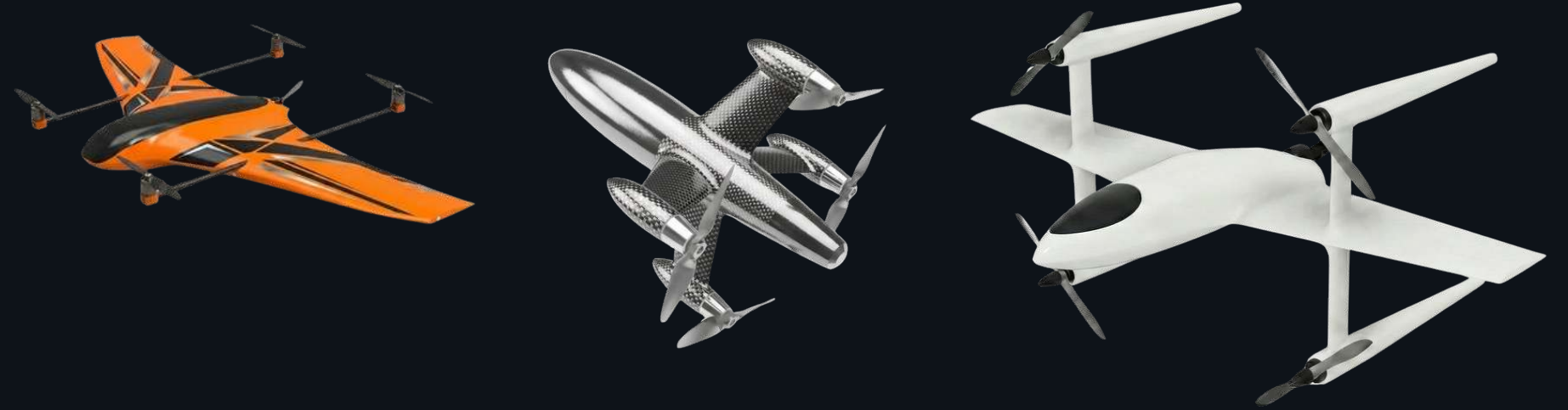
 Real-time Coordination

 Unified Security

 Scalable Growth

UAV Portfolio Overview

Comprehensive aerial platforms for diverse mission profiles



G2 Group 2 Tactical UAVs

HeavyLift
Flagship logistics platform

THERMIS
Thermal imaging system

RAPTOR
Rapid response unit

QuickDrop
Precision delivery

Use Cases: Logistics, ISR, Emergency Response

G1 Group 1 Lightweight UAVs

FieryStrike

NOVA

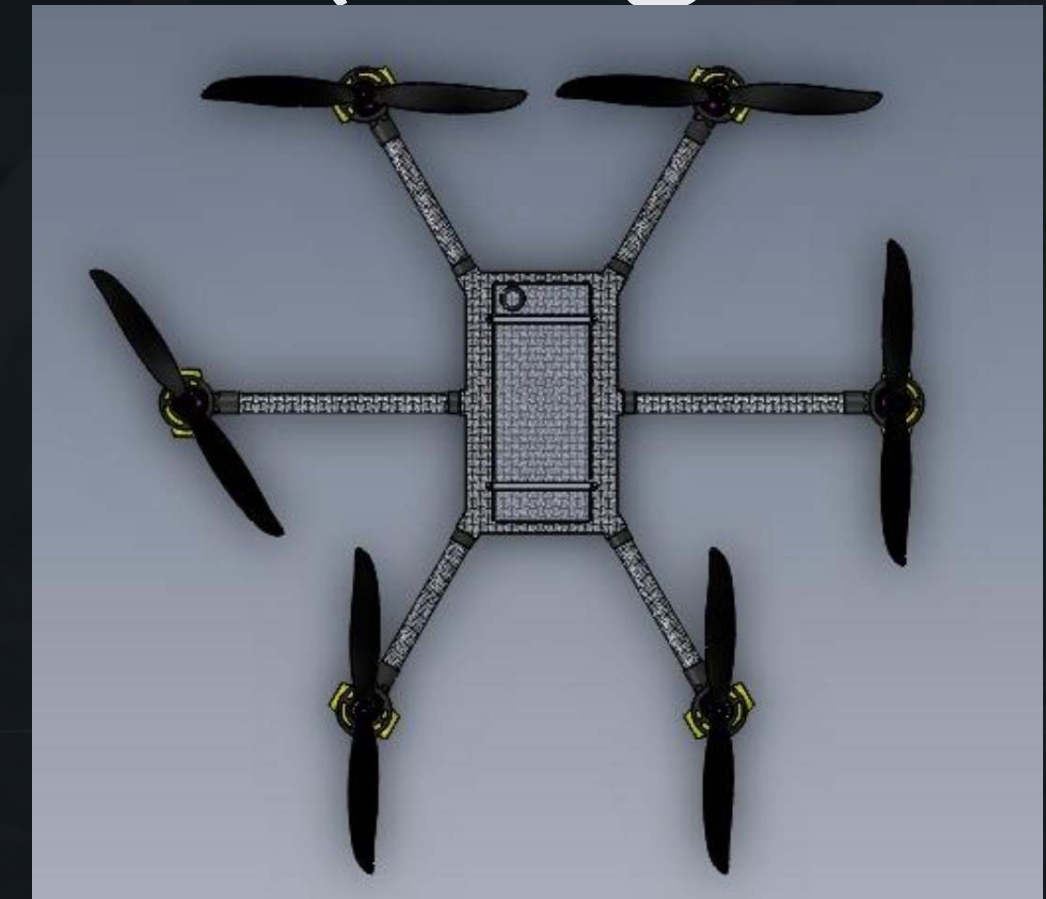
Mini

X

SiteScan

Use Cases: Rapid Deployment, Reconnaissance, Surveillance

Heavy Lift UAV for DARPA Program (25 kg UAV, 87 kg Payload 1: 3.5)



High-payload aerial logistics platform



Payload Capability

Industry-leading payload-to-weight ratio enabling heavy cargo transport for logistics, construction, and emergency supply missions.



Logistics Applications

Last-mile delivery, warehouse automation, remote area supply, and construction material transport with autonomous precision.



Patented

Proprietary propulsion system protected by intellectual property, creating sustainable competitive advantage in heavy-lift segment.

Market Impact

Positioned to capture significant share of the \$15B+ aerial logistics market through superior payload performance and autonomous capabilities.

Key Specifications

Max Payload: 87kg

Class-Leading

Range: 8km

Extended 75 km Range with 5kg Payload

Autonomy

Full

Navigation

GPS/Visual

THERMIS • RAPTOR • QuickDrop

Multi-mission aerial platforms for complex operations



THERMIS



Thermal Imaging System

Advanced thermal sensing for search & rescue, firefighting, and surveillance operations in low-visibility conditions. Star Link Mountable

NASA Sustainable Business Award 2025

Key Capabilities

- High-resolution thermal cameras
- Night operation capability
- Heat signature detection



Primary Use: Emergency Response, Surveillance

RAPTOR



Hybrid Tail-Sitter UAV

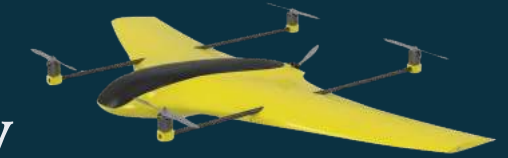
Advanced hybrid tail-sitter drone designed for efficient vertical takeoff and long-range flight without separate lift motors. Optimized for agility, low complexity, and high-performance autonomy.

Key Capabilities

- Seamless vertical-to-horizontal transition
- VTOL (no runway required) + long-range fixed-wing flight
- GPS-denied autonomous navigation (AI + SLAM)
- Lightweight, low-drag airframe design
- Reduced mechanical complexity (no lift motors)
- Modular payload integration



Quick Drop



Precision Delivery

Specialized payload delivery system with pinpoint accuracy for medical supplies, equipment, and critical materials.

Key Capabilities

- GPS-guided precision drop
- Multiple payload configurations
- Autonomous landing

Primary Use: Medical Delivery, Logistics



Comprehensive Tactical Coverage for Defense & Commercial Applications

3

Platforms

Multi

Mission

Rapid Deployment Fleet

Agile platforms for reconnaissance and surveillance

FieryStrike

Precision strike-capable platform for tactical operations with extended range capabilities.



7-inch Class Quad

Agile AI-enabled quadcopter with vision-based navigation for GPS-denied environments, rapid deployment, and short-range ISR missions up to 15 km.




15-inch Class Quad

Extended-endurance AI-powered quadcopter with advanced vision autonomy, stable ISR capability, and long-range operations up to 75 km.



 **Rapid Deployment**
Minutes to airborne

 **Stealth Operation**
Low acoustic signature

 **Modular Design**
Mission-specific configs

Autonomous Robotics

Multi-domain physical autonomy



NETRION

Humanoid Platform



Human-Scale Autonomy

Bipedal humanoid robot designed for human-centric environments, capable of navigating stairs, obstacles, and complex terrain.

xTech Finalist

Applications

 Logistics

 Maintenance

 Assistance

 Inspection



GroundHawk

Rover System



All-Terrain Mobility

Rugged autonomous ground vehicle with all-terrain capabilities for industrial inspection, security patrol, and logistics support.

Applications

 Industrial

 Security

 Warehousing

 Mapping

 Seamless Integration with Aerial Fleet for Complete Autonomy Coverage

2
Platforms

Multi
Terrain

Portable AI-Assisted Hemodynamic Monitoring & Triage System

Guardian PULSE-AI Wearable Device



DIU SEMI FINALIST

- ▶ Advanced integrated prototype built and operational (TRL 5–6, progressing to TRL 6–7 through field validation)
- ▶ Compact wearable device (wrist/forearm-mounted), live demonstration available

Device Form Factor: Rugged wrist / forearm-mounted wearable

Length / Diameter: 50–55 mm

Width (forearm profile): 45–50 mm

Thickness: ~16–20 mm

Weight: ~100-130 grams (including battery)

Enclosure: IP-rated, impact-resistant polymer / composite housing

Battery Type: Lithium-ion (Li-ion), high-density pouch cell

Capacity: ~3500–3500 mAh

Energy: ~11-13 Wh

Operating Life: 80+ hours continuous monitoring (low-power mode), 30–50 hours (high activity / continuous sensing + comms)

Charging: USB-C / magnetic dock

Processor: Low-power embedded MCU (e.g., ARM Cortex-M / Edge AI co-processor)

Core Sensors & Hardware

- Photoplethysmography (PPG) + Blood Oxygen Saturation (SpO₂) → pulse waveform, perfusion, oxygen levels
- Heart Rate (HR) / Heart Rate Variability (HRV) → derived from PPG
- Skin Temperature (ST) → shock / infection indicators
- Inertial Measurement Unit (IMU: accelerometer + gyroscope) → motion tracking, artifact filtering
- Respiration Rate (RR) → derived from PPG waveform modulation

Device Design

- Ruggedized enclosure (MIL-STD-810 aligned design intent)
- Waterproof / dustproof (IP67 or higher target)
- Glove-operable interface → minimal user interaction

Core Technology Pillars

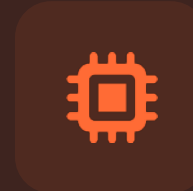
Integrated foundations enabling scalable autonomy



Computer Vision

Real-time perception and situational awareness through advanced image processing and sensor fusion.

Object Detection · SLAM · Tracking



Edge AI

Onboard intelligence enabling independent operation without constant cloud connectivity.

Local Processing · Low Latency · Secure



Hybrid Autonomy

Seamless integration across air, ground, and robotics domains for unified operations.

Air-Ground · Multi-Domain · Unified



Ensuring Scalability, Resilience & Long-term Leadership

These pillars form the foundation for sustainable competitive advantage

Scalable

Resilient

Breakthrough Capabilities

Advancing the state of autonomous systems



High Payload-to-UAV Mass Ratio

Industry-leading aerial platforms capable of carrying disproportionately heavy payloads relative to vehicle weight, enabling efficient logistics operations.



Autonomous Logistics Infrastructure

Complete end-to-end logistics automation from warehouse to delivery point with minimal human intervention.



Integrated Air-Ground Ecosystem

Seamless coordination between aerial and ground systems creating unified autonomous operations across multiple domains.



Swarm Coordination

Distributed sensing and collaborative mission execution through advanced multi-agent coordination algorithms.



AI-Driven Intelligence

Real-time operational intelligence enabling adaptive decision-making and predictive capabilities across all platforms.



DARPA Relevance

Research and capabilities aligned with DARPA priorities in autonomous systems, swarm robotics, and AI-driven coordination.

Intellectual Property Overview

Innovation as a strategic foundation



20+ Patents

Growing IP Portfolio



Aerospace



Robotics



AI



Mobility



Infrastructure



Full-Stack Protection

Hardware + Software + Infrastructure coverage enabling long-term product roadmap

Aerospace & Robotics Patents

Core aerial and infrastructure technologies

HeavyLift UAV

High-payload aerial vehicle with proprietary propulsion system for logistics and transport applications.

Drone Charging Tower

Automated charging and storage infrastructure enabling continuous fleet operations.

Manipulator Drone

Aerial platform with robotic manipulation capabilities for inspection and maintenance tasks.

GroundHawk Rover

Autonomous ground vehicle system for all-terrain navigation and industrial applications.

RescueBreach Drone

Specialized platform for emergency access and search-and-rescue operations.

AeroTest Rig

Propulsion validation and testing system for aerial vehicle development.



Enabling Scalable Logistics, Inspection & Autonomous Aerial Operations

Comprehensive patent protection across the aerial robotics stack

Market Opportunity

Multi-billion-dollar convergence of autonomous technologies



Autonomous Robotics

UAVs & Ground Systems

Rapidly growing market driven by logistics automation, defense applications, and industrial inspection needs.

Logistics Defense Industrial



Logistics & Mobility

Transport & Delivery

Last-mile delivery transformation and autonomous mobility solutions reshaping transportation industries.

Last-Mile Delivery Transport



AI Platforms

Intelligence & Coordination

Enterprise AI adoption accelerating across industries for automation, decision-making, and operational efficiency.

Enterprise Automation Analytics



Multi-Billion Dollar Opportunity

Driven by automation and digital transformation across converging sectors

High
Growth

Global
Scale

Technology & Product Roadmap

Scaling toward a global autonomy ecosystem



Near Term

0-2 Years



Mid Term

2-5 Years



Long Term

5+ Years

Product Scaling

- ✓ R & D Contracts
- ✓ Prototype deployments
- ✓ Pilot programs
- ✓ Production scaling
- ✓ Market validation

Fleet Integration

- ✓ Fleet coordination
- ✓ Infrastructure integration
- ✓ Humanoid pilots
- ✓ Swarm deployment

Global Scale

- ✓ Energy-integrated systems
- ✓ Global logistics networks
- ✓ Type-1 technologies
- ✓ Planetary-scale autonomy



Clear Path from Near-Term Products to Long-Term Civilization-Scale Impact





Join the Vision

Vision One is building a multi-domain autonomy platform designed for long-term global impact

Key Valuation Drivers

- TRL 6 autonomous systems across UAV, UGV, and humanoid platforms
- 20+ patents approved/pending in robotics, AI, and aerospace systems
- Multi-domain ecosystem (air, ground, humanoid + AI software stack)
- Recognition from DIU, NASA, DARPA and U.S. Army xTech finalist
- Experienced team with Northrop Grumman, US Air Force, US Army, DoD, Industry & University Partners and advanced AI research background
- Strong dual-use potential across defense, wildfire, and commercial markets

Strategic Partnerships

Collaborate on technology development and market expansion

Equity Participation

Equity available for strategic investors

Innovation Support

Support initiatives advancing autonomous systems



Together, we are shaping the future of intelligent systems



From autonomous logistics to Type-1 civilization technologies



Contact us to learn more

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