

Solution Consultant Company



# Next-Generation Drone Manufacturing Solutions

# BUILDING SYSTEMS, NOT JUST COMPONENTS

## ADVANCED INJECTION

Injection Molding  
Capacity up to 890mm

## PRECISION METALS

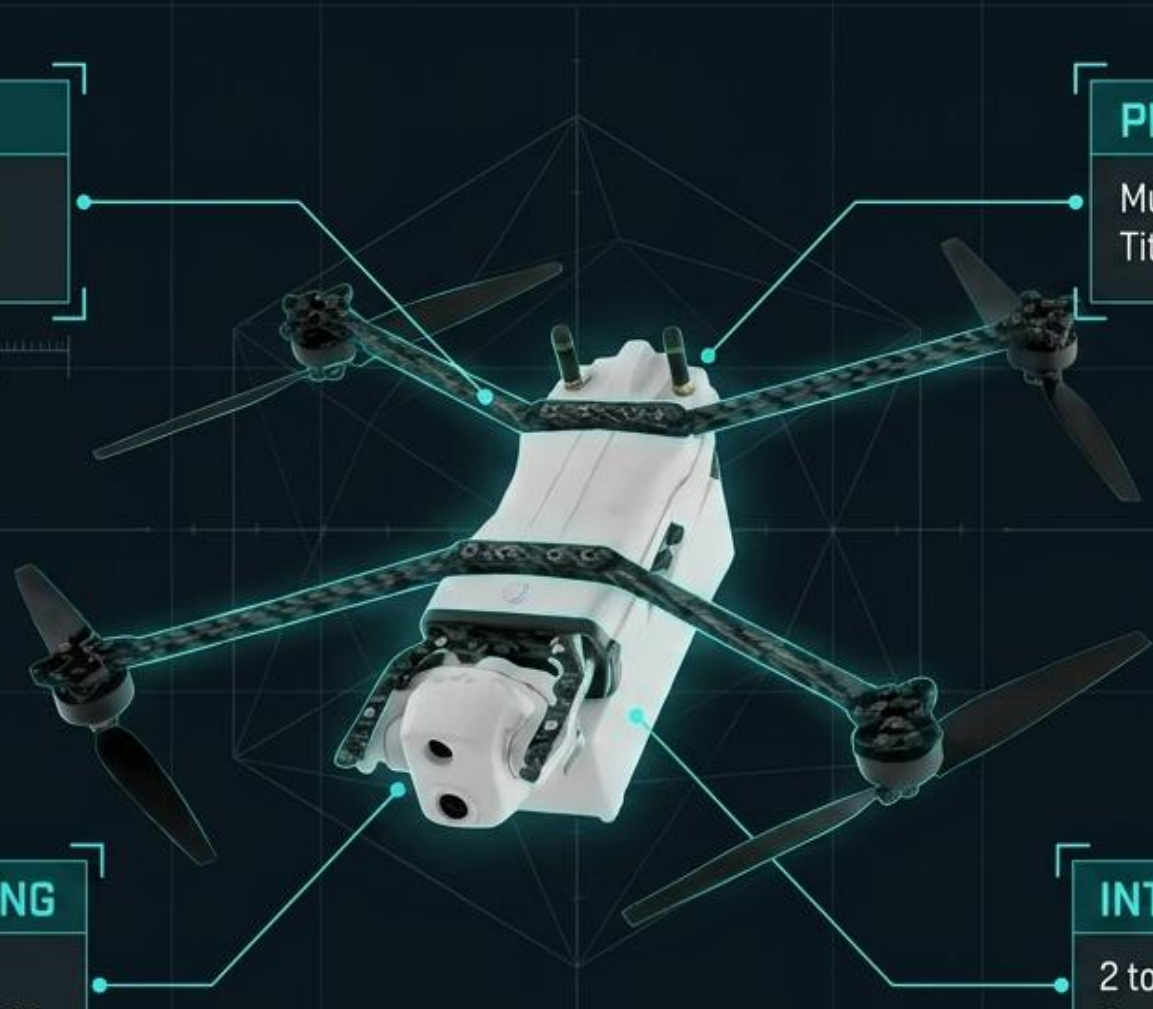
Multi-Axis CNC, Forging & MIM  
Titanium, Stainless Steel, Al7075

## ADDITIVE MANUFACTURING

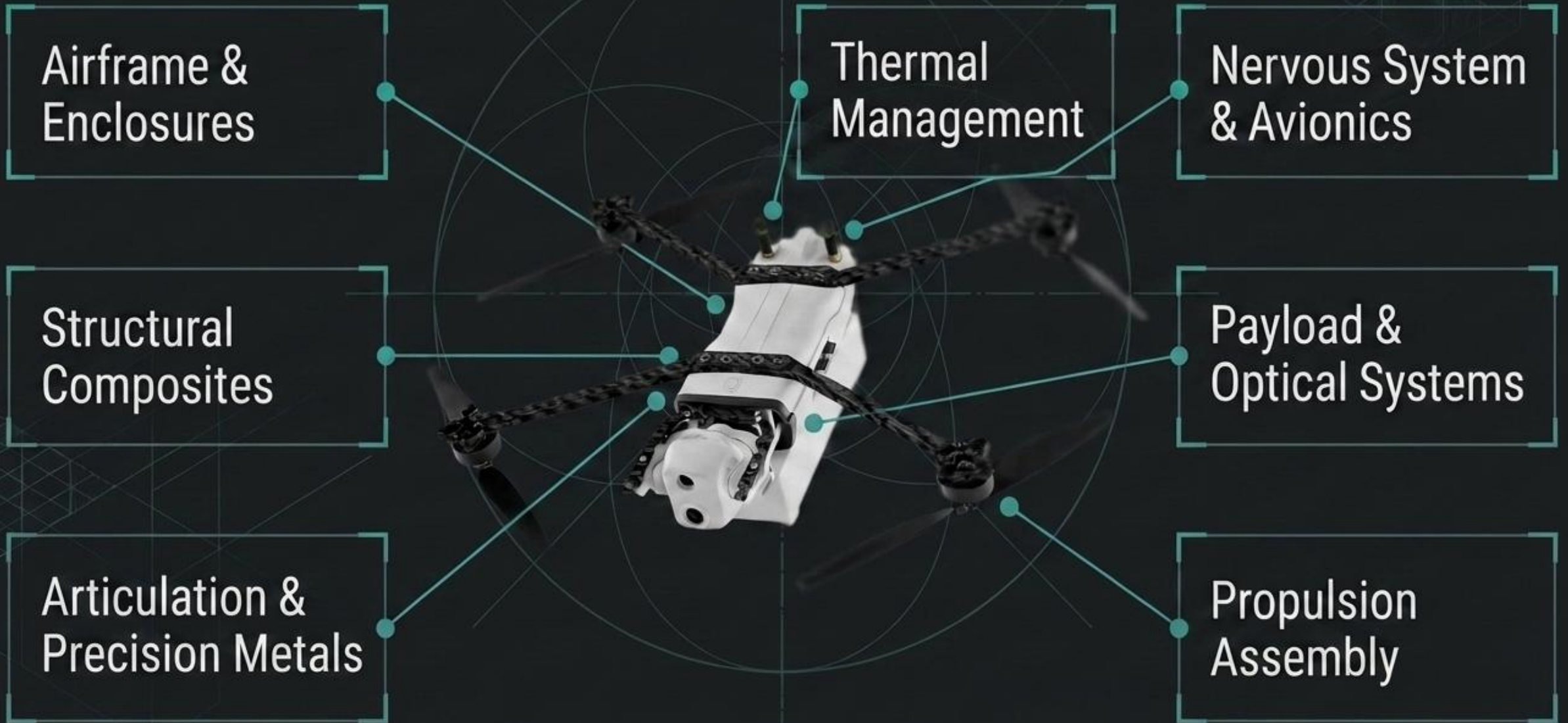
DMLS, SLS, and MJF  
Titanium, AL7075, AlSi10Mg, PA+CF

## INTEGRATED ELECTRONICS

2 to 20 Layer PCBAs  
Custom RF & Power Wire Harnessing  
DC motors



# Master Teardown Map



# Molding the Airframe and Enclosures



## PRIMARY FUSELAGE

**PROCESS:** Metal Liquid Injection or Plastic Injection

**MATERIAL:** Special Mg Alloy & All different plastic resin with CF/GF material

**Max Capacity:** 400\*400\*400mm

## MAIN ENCLOSURE

**PROCESS:** Plastic Injection or Composite Molding

**MATERIAL:** 1. All different plastic resin with CF/GF material  
2. Thermoset and Thermoplastic carbon fiber or glass fiber composite material

**Max Capacity:** 900\*900\*900mm

## EXTERNAL DETAILING (POD, SHOULDER, CAP, BAR)

**PROCESS:** Precision Injection & CNC

**MATERIAL:** PCB-ABS

**Note:** Seamless integration of multi-part structural supports

# High-Strength Structural Composites

## [ Propulsion Blades ]

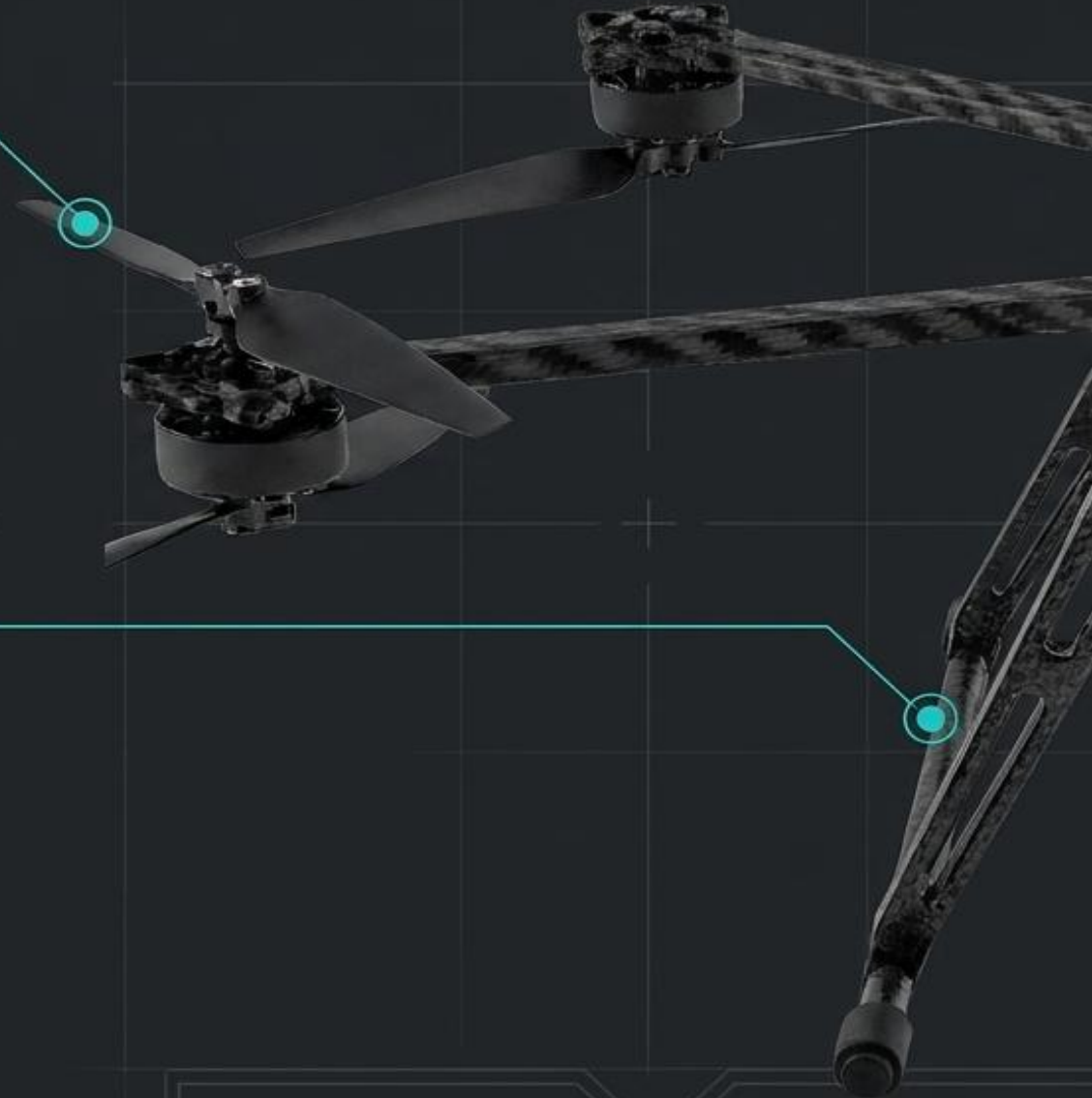
Process: Composite molding  
Material: Carbon / Plastic  
Supported Sizes: 12", 26", 34"

## [ Landing Gear ]

Process: Preprag  
Material: Kevlar/Glass Fiber(GF)/ Carbon Fiber  
Scale: 0.4m \* 0.25m \* 0.2m

## [ Massive Scale Airframes ]

Capability: Large-Scale CFRP Curing  
Max Dimension Limitation: 2000 \* 2000 \* 4000 mm



# Articulation and Precision Metals



## MICRO-COMPLEX JOINTS

PROCESS: MIM  
MATERIAL: TITANIUM  
LIMITS: 100x100x100mm

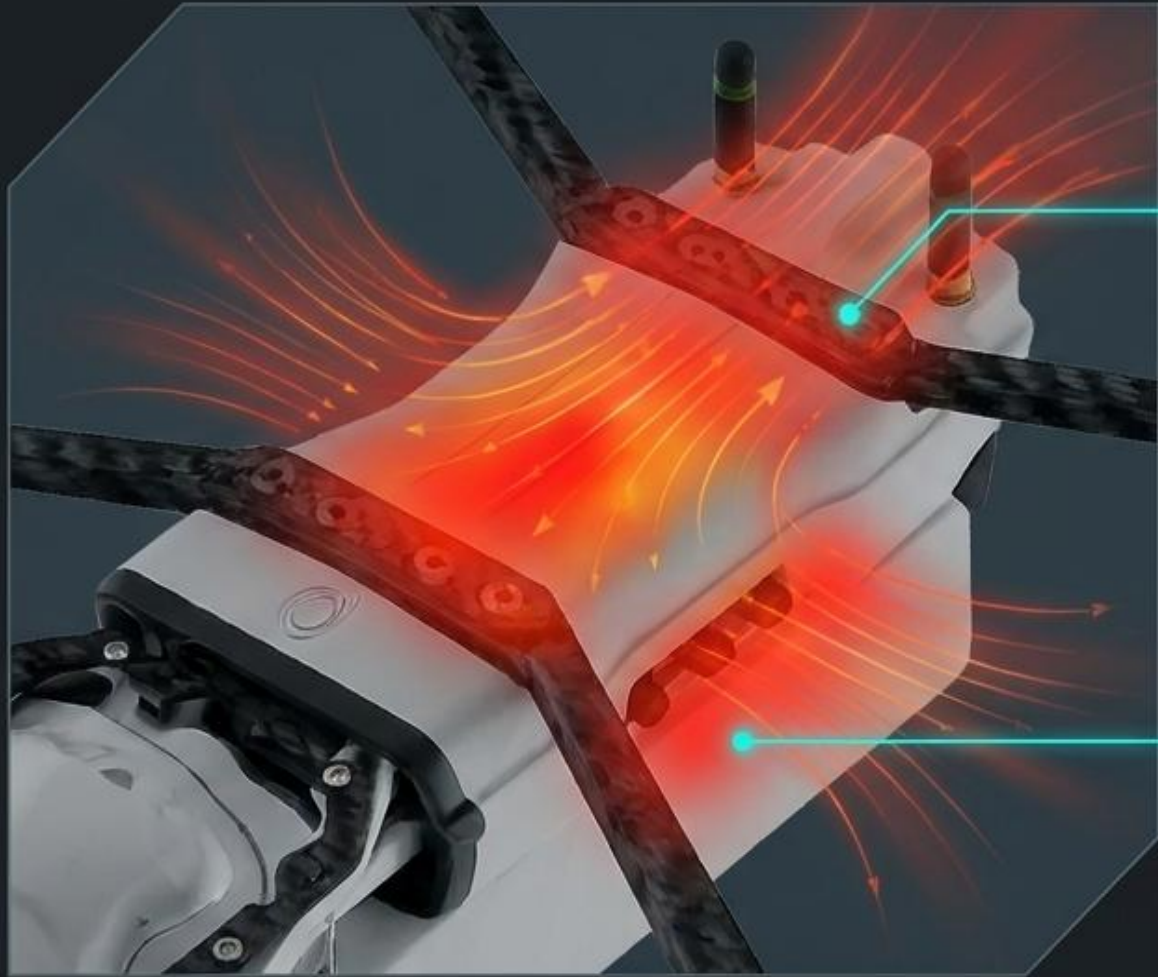
## HEAVY-DUTY HINGES

PROCESS: ASSEMBLY & CNC  
MATERIAL: AI7075

## INTERNAL STRUCTURAL COMPONENTS

PROCESS: MULTI-AXIS CNC & FORGING  
MATERIAL: TITANIUM / STAINLESS STEEL / AI7075  
MAX CAPACITY: 700x560x600mm

# Additive Thermal Management Solutions



## [ Aerospace-Grade Thermal Exhaust ]

Process: 3D printing

Material: Scalmalloy

Dimensions: 140 \* 140 \* 38 mm

## [ High-Volume Heat Sinks ]

Process: 3D printing-DMLS

Material: AlSi10Mg & Copper

Capacity Range: Up to 300 \* 300 \* 350 mm

# Payload Housing and Optical Systems

## [ Camera Module Housing ]

Process: 3D printing-SLS

Material: PA+CF / Formlabs

Dimensions: 165 \* 165 \* 165 mm

## [ Internal Support Structures ]

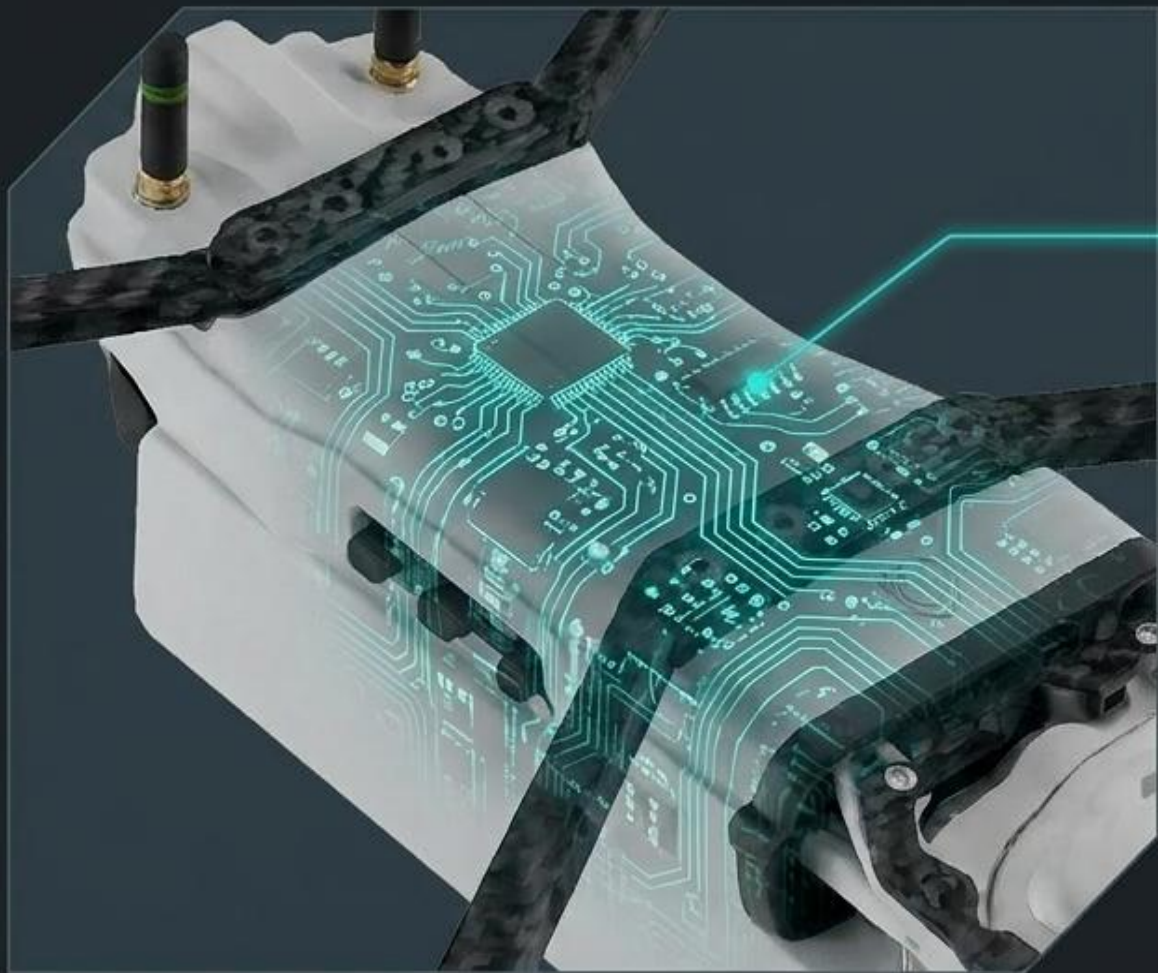
Process: 3D printing (MJF / SLS)

Material: PA12 (HP) / PA12+GF (Formlab / Duraform)

Max Dimensions: Up to 380 \* 280 \* 380 mm



# The Nervous System: Avionics Integration



## [ Main PCBA Logic Boards ]

Process: SMT / DIP / X-ray / AOI  
Base Materials: FPC, 370HR, FR4, RO4350B, FR408 HR  
Specs: 2~20 Layers, PCB L/T 8~32  
Max Dimensions: 750mm \* 550mm

## [ Custom Wire Harnessing ]

Capabilities: Crimp, Soldering, Overmolding, Shielding  
Applications: Power Cable, Signal Cable, RF Cable, Wire Harness Assembly  
Status: Customized

# Precision Propulsion Assembly

## [ Motor Assembly ]

**Process:** Assembly

**Material:** Metal

**Dimensions:** Micro-tolerances at  
29.5 \* 87.3 mm & 37.1 \* 40.8 mm

