

UE
SE

UESE
AEROMOBILITY
CONCEPT

HIGHER
FREEDOM
CLOSER

PEOPLE
TECHNOLOGY
A CLEANER
TOMORROW

PERSONAL FLIGHT
FOR A BRIGHTER TOMORROW

A new dimension of personal mobility.
UESE combines advanced electric propulsion
with human-centered design to make
individual flight a reality.

ULTRA COMPACT

SAFETY FIRST

EXPAND YOUR HORIZON

CLEANER TOMORROW

INTELLIGENT FLIGHT INTERFACE
REAL-TIME AWARENESS. TOTAL CONTROL.

SPEED
32
km/h

ALTITUDE
120
m

HEADING
278°

AUTOPILOT

MANUAL

78%

250 m
Turn right

Riverside Viewpoint
250 m

MODE

FLIGHT MODE
STABILIZED

CLEAR DATA.
CONFIDENT FLIGHT.

GPS NAVIGATION

AUTOPILOT MODE

MANUAL MODE

BATTERY STATUS

SPEED INDICATOR

ALTITUDE (AGL)

HEADING / COMPASS

HORIZON LEVEL INDICATOR

FLIGHT STATE & MESSAGES

FLIGHT CONTROL SYSTEM
PRECISION SENSORS. INTELLIGENT STABILITY.

GPS / GNSS
Guidance
(RTK Ready)

Inertial Measurement
Unit (IMU)

Gyroscope
(3-Axis)

Accelerometers
(3-Axis)

Barometric
Altitude Hold

Self-Leveling
Flight Controller

Redundant
Motor Control

Obstacle-Awareness
Sensors
(Front / Down / 360°)

STABILITY & SAFETY SUITE
DESIGNED FOR A SMOOTH, CONFIDENT RIDE.

Active
Self-Leveling

Anti-Tip /
Anti-Roll Control

Anti-Fall
Stabilization

Automatic
Hover Hold

Vibration Damping
Low-Vibration
Deck Isolation

Emergency
Descent Mode

Geofencing
& No-Fly Zones

Return-to-Home
Assist

Manual Override
(Direct Control)

MULTIPLE LAYERS OF INTELLIGENCE.
A SAFER SKY FOR EVERYONE.

ENGINEERED FOR REAL FLIGHT
RIGID. STABLE. SMOOTH.

RIGID STRUCTURAL FRAME
Aircraft-Grade Aluminum

VIBRATION ISOLATION MOUNTS
Active Damping System

LOW CENTER OF GRAVITY
Battery Placement

STABILIZED DECK STRUCTURE
Composite Deck with Isolation

ORTHOGRAPHIC VIEWS
REMAINS LEVEL AND HORIZONTAL IN OPERATION.

SIDE VIEW

FRONT VIEW

TOP VIEW

HEIGHT
1,300 mm

LENGTH
1,250 mm

WIDTH
1,250 mm

DECK WIDTH
580 mm

FLIGHT ATTITUDE: ALWAYS LEVEL

MINIMAL VIBRATION

STABLE IN ALL DIRECTIONS

TECHNICAL SPECIFICATIONS
CONCEPT TARGETS.

DIMENSIONS (L x W x H)

DECK HEIGHT

VEHICLE WEIGHT (EST.)

PAYLOAD (USER)

MAX SPEED (EST.)

FLIGHT TIME (EST.)

PROPULSION

BATTERY

1,250 x 1,250 x 1,300 mm

220 mm

45 kg

100 kg

60 km/h

20-30 min

4 x Ducted Electric Rotors

High-Energy Li-Ion (Swappable)

KEY FEATURES

Self-leveling platform

GPS-assisted navigation

Assisted autopilot

Manual control redundancy

Vibration-optimized ride quality

Anti-tip stability logic

MATERIALS & COLOR PALETTE
PREMIUM MATERIALS. A CLEANER TOMORROW.

Matte Graphite Black
#1F2328

Satin Anthracite
#343A4D

Brushed Dark Aluminum
#5C6A6A

UESE Brand Gray 50%
#8C9090

Electric Blue Accent
#2F80FF

Safety Orange Accent
#E67E22

CARBON COMPOSITE
(STRUCTURAL)

MACHINED ALUMINUM
(HARDWARE)

TEXTURED DECK SURFACE
(ANTI-SLIP)

POLYCARBONATE
(ROTOR SHROUD)

SOFT TOUCH POLYMER
(HAND GRIP)

UESE | AEROMOBILITY

PEOPLE / TECHNOLOGY / A CLEANER TOMORROW

EST. 2024

UAC-01

TECHNICAL DRAWING PACK

IT/EN - RFQ concept drawings - NOT FOR MANUFACTURE

Le tavole rappresentano intenti di layout, interfacce e requisiti. Il costruttore deve produrre i CAD e disegni di produzione finali mantenendo il design esterno congelato.



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CLEAR DATA. CONFIDENT FLIGHT.

- GPS NAVIGATION
- AUTOPILOT MODE
- MANUAL MODE
- BATTERY STATUS
- SPEED INDICATOR
- ALTITUDE (AGL)
- HEADING / COMPASS
- HORIZON LEVEL INDICATOR
- FLIGHT STATE & MESSAGES

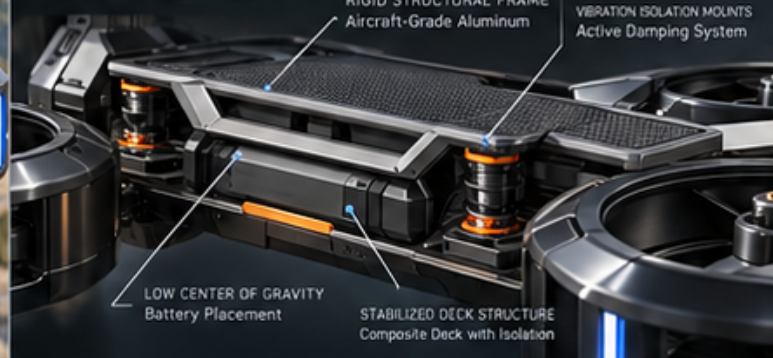
FLIGHT CONTROL SYSTEM PRECISION SENSORS. INTELLIGENT STABILITY.



STABILITY & SAFETY SUITE DESIGNED FOR A SMOOTH, CONFIDENT RIDE.



ENGINEERED FOR REAL FLIGHT RIGID. STABLE. SMOOTH.



ORTHOGRAPHIC VIEWS REMAINS LEVEL AND HORIZONTAL IN OPERATION.



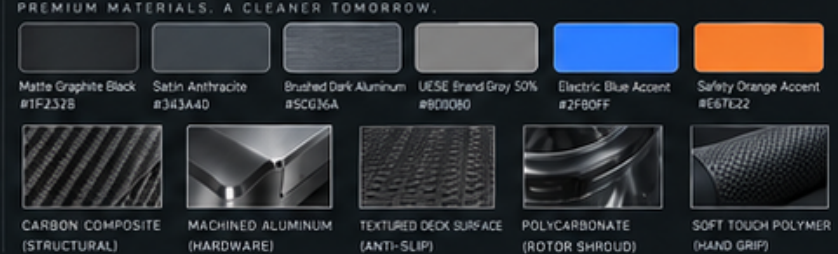
TECHNICAL SPECIFICATIONS CONCEPT TARGETS.

DIMENSIONS (L x W x H)	1,250 x 1,250 x 1,300 mm
DECK HEIGHT	220 mm
VEHICLE WEIGHT (EST.)	45 kg
PAYLOAD (USER)	100 kg
MAX SPEED (EST.)	60 km/h
FLIGHT TIME (EST.)	20-30 min
PROPULSION	4 x Ducted Electric Rotors
BATTERY	High-Energy Li-Ion (Swappable)

KEY FEATURES

- Self-leveling platform
- GPS-assisted navigation
- Assisted autopilot
- Manual control redundancy
- Vibration-optimized ride quality
- Anti-tip stability logic

MATERIALS & COLOR PALETTE PREMIUM MATERIALS. A CLEANER TOMORROW.

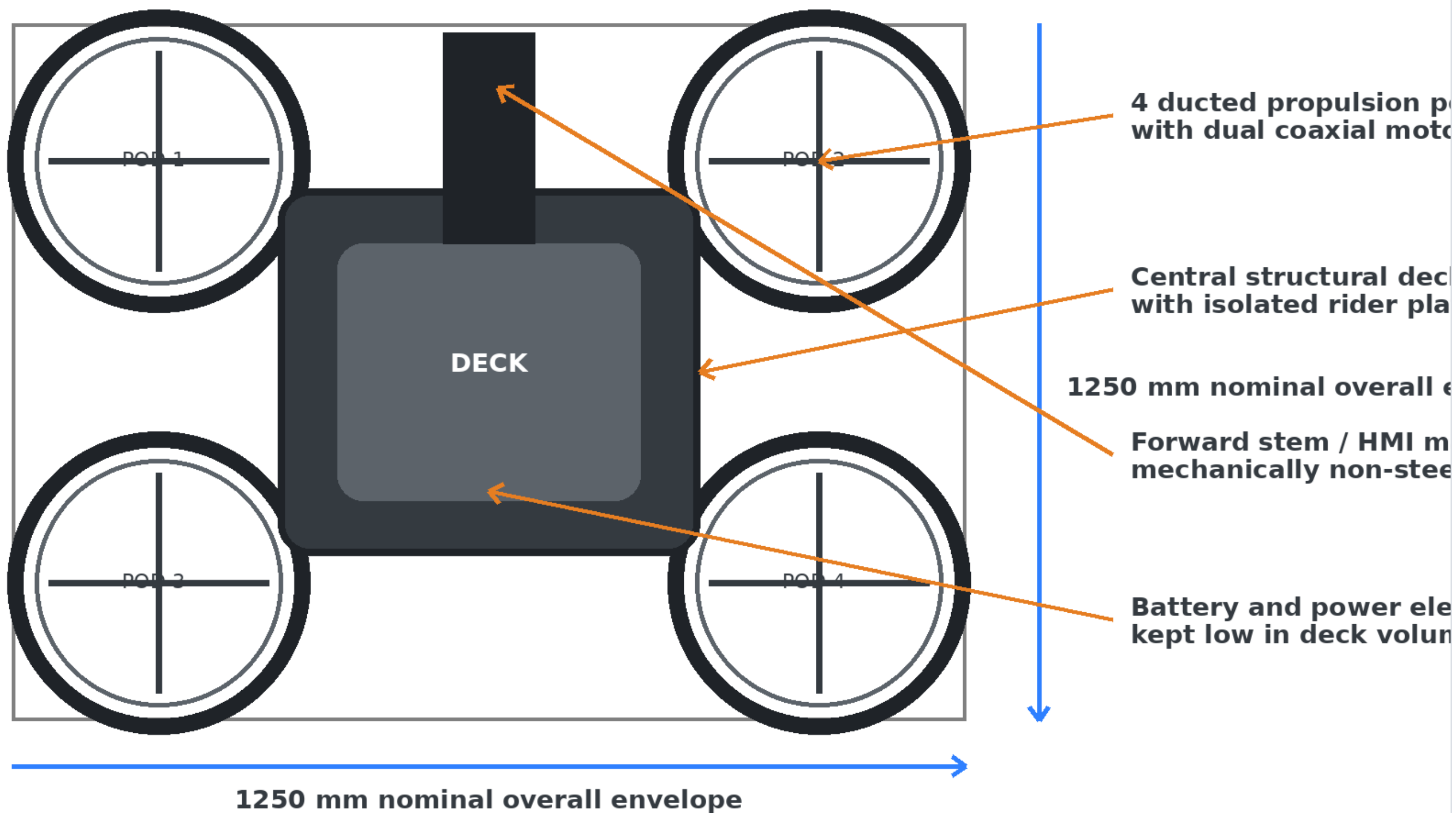


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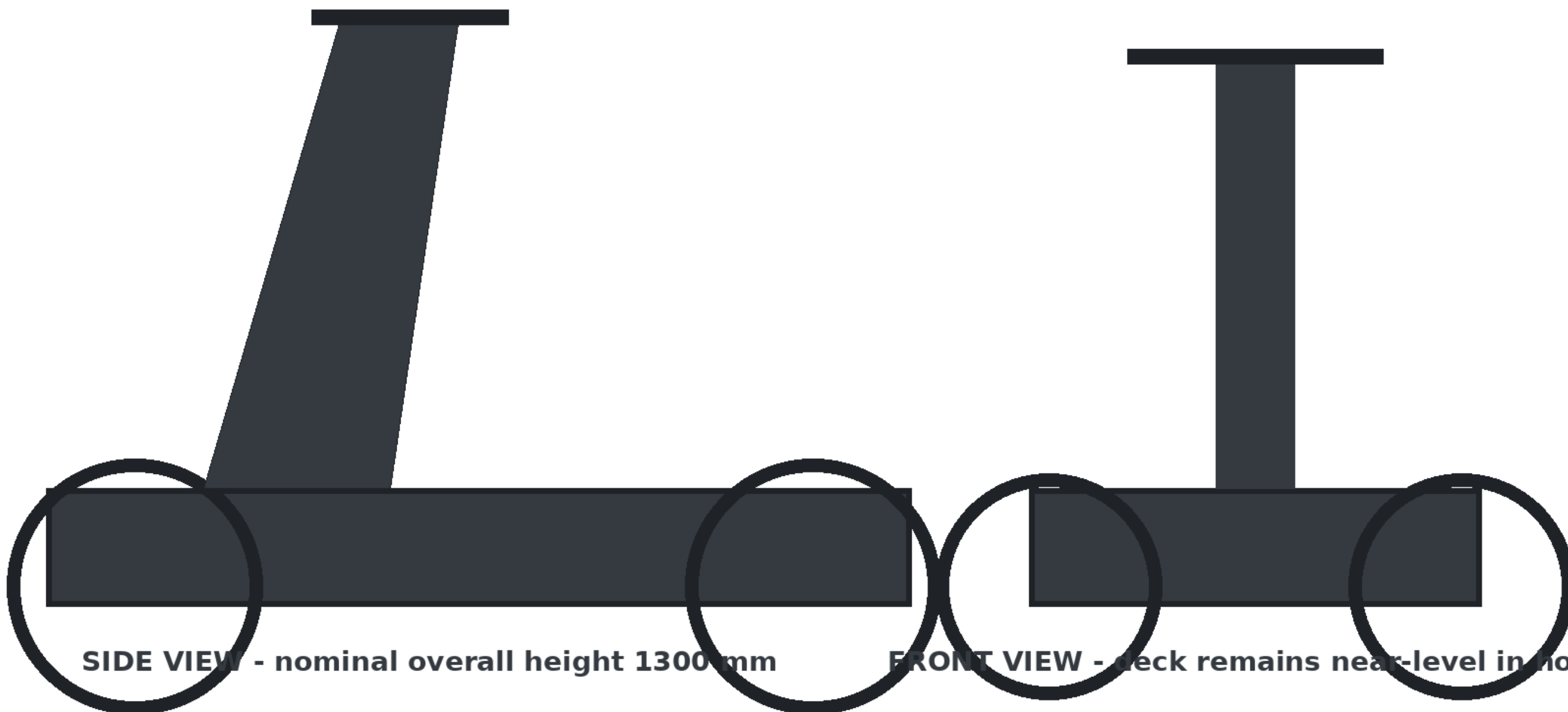
PEOPLE / TECHNOLOGY / A CLEANER TOMORROW

EST. 2024

UAC-01 - GENERAL ARRANGEMENT / TOP VIEW



UAC-01 - GENERAL ARRANGEMENT / SIDE + FRONT



RFQ dimensions are nominal and must be confirmed by supplier 3D packaging. Exterior styling and visu

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REAL-TIME AWARENESS. TOTAL CONTROL.



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Anti-Tip /
Anti-Roll Control



Anti-Fall Stabilization



Automatic Hover Hold



**Vibration Damping
Low-Vibration
Deck Isolation**



Emergency Descent Mode



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SIDE VIEW



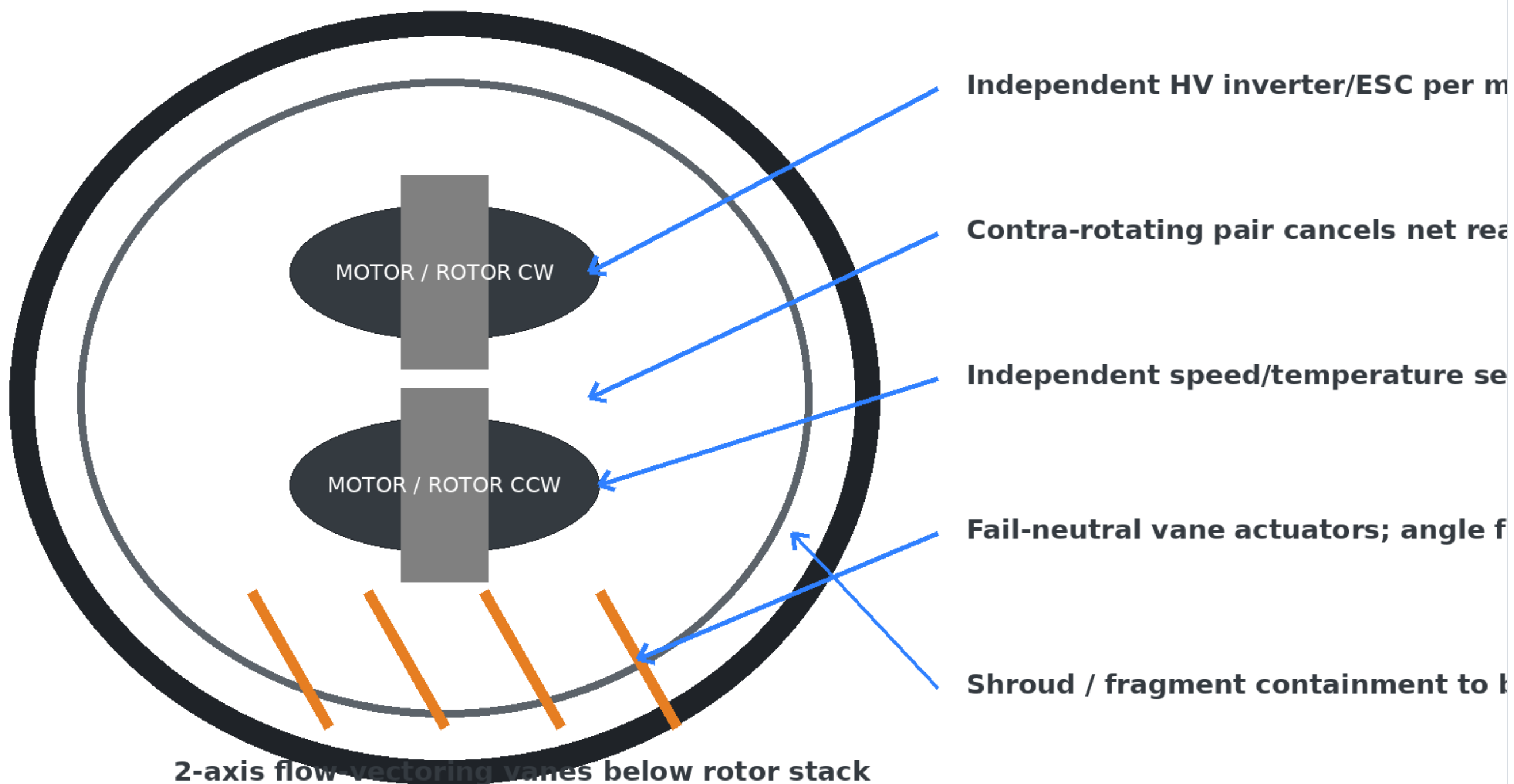
FRONT VIEW



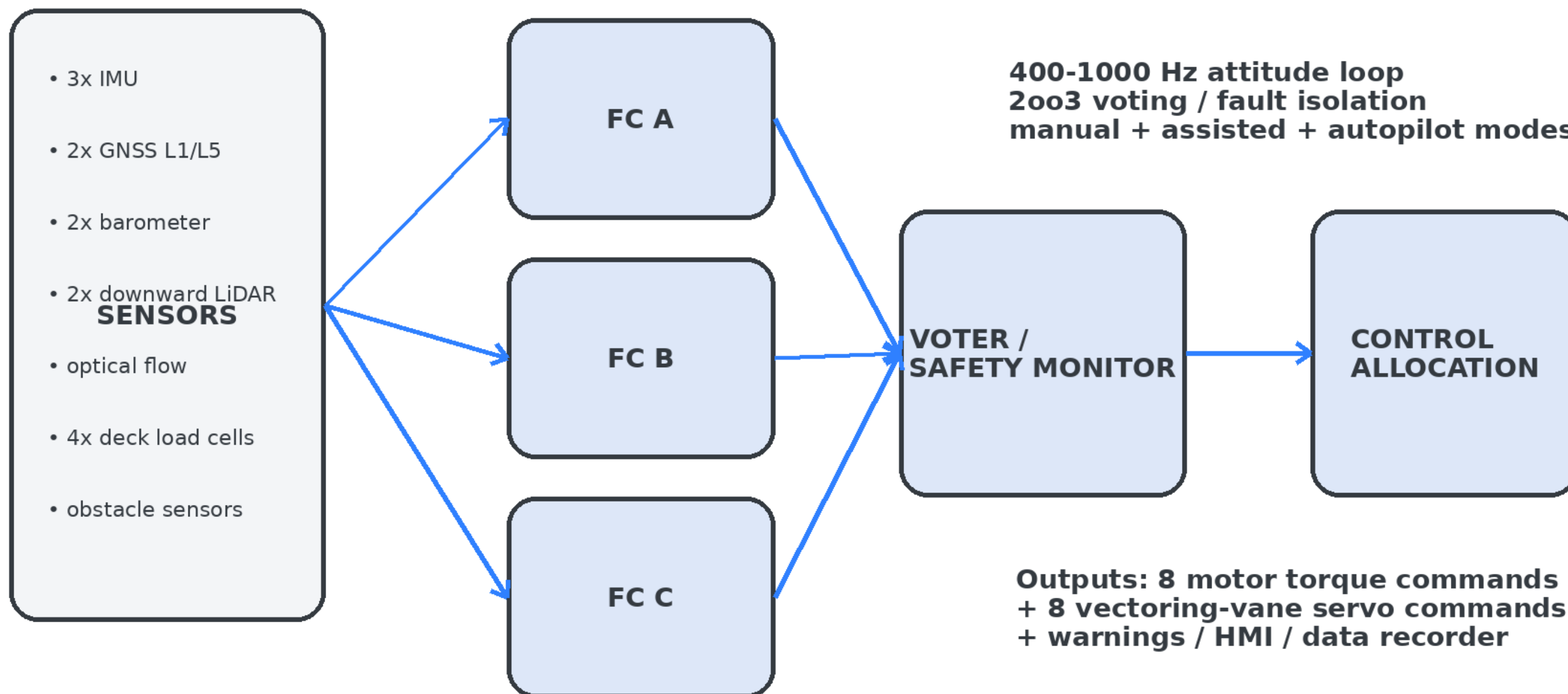
TOP VIEW



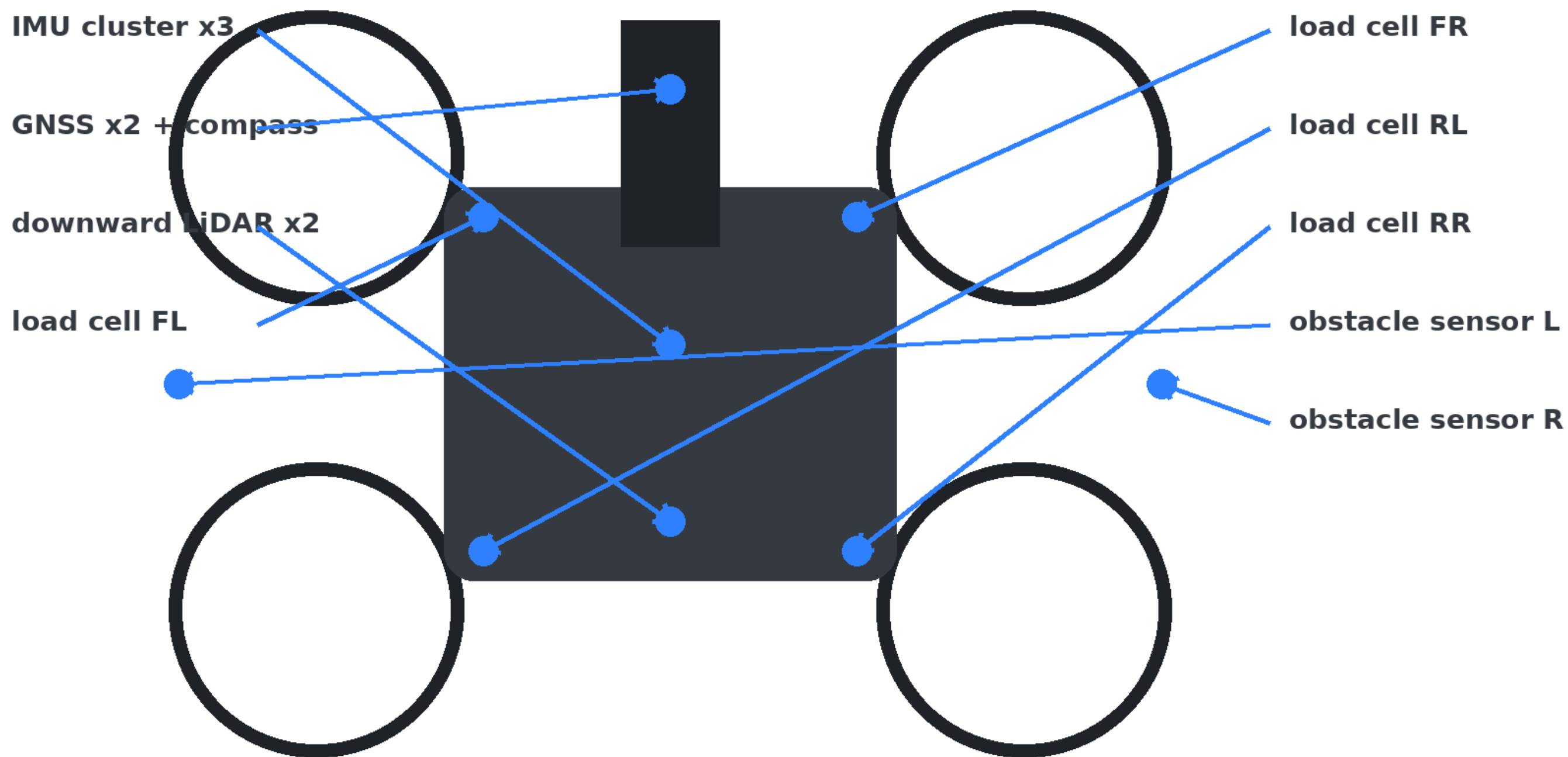
PROPULSION POD - DUAL CHANNEL / VECTORED THRUST CONCEPT



FLIGHT CONTROL & NAVIGATION ARCHITECTURE

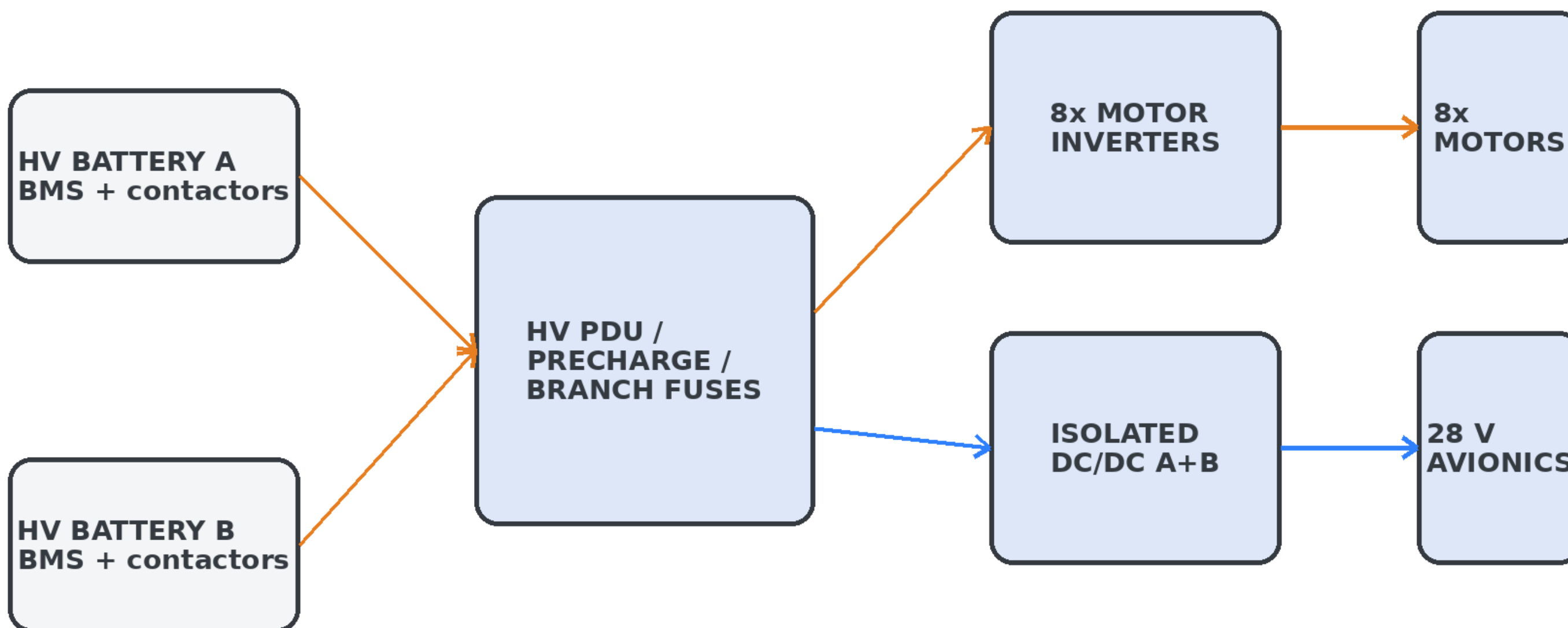


SENSOR PLACEMENT / RIDER-INTERACTION MAP



Four deck load cells provide rider center-of-pressure feed-forward to the stabilisation controller.

HIGH-VOLTAGE / LOW-VOLTAGE POWER ARCHITECTURE



HVIL, service disconnect, insulation monitoring, pack thermal monitoring and fault-containment are mand

VIBRATION CONTROL - POD ISOLATION + FLOATING DECK

Rotor dynamic balance:
ISO 21940-11 target class to be proposed

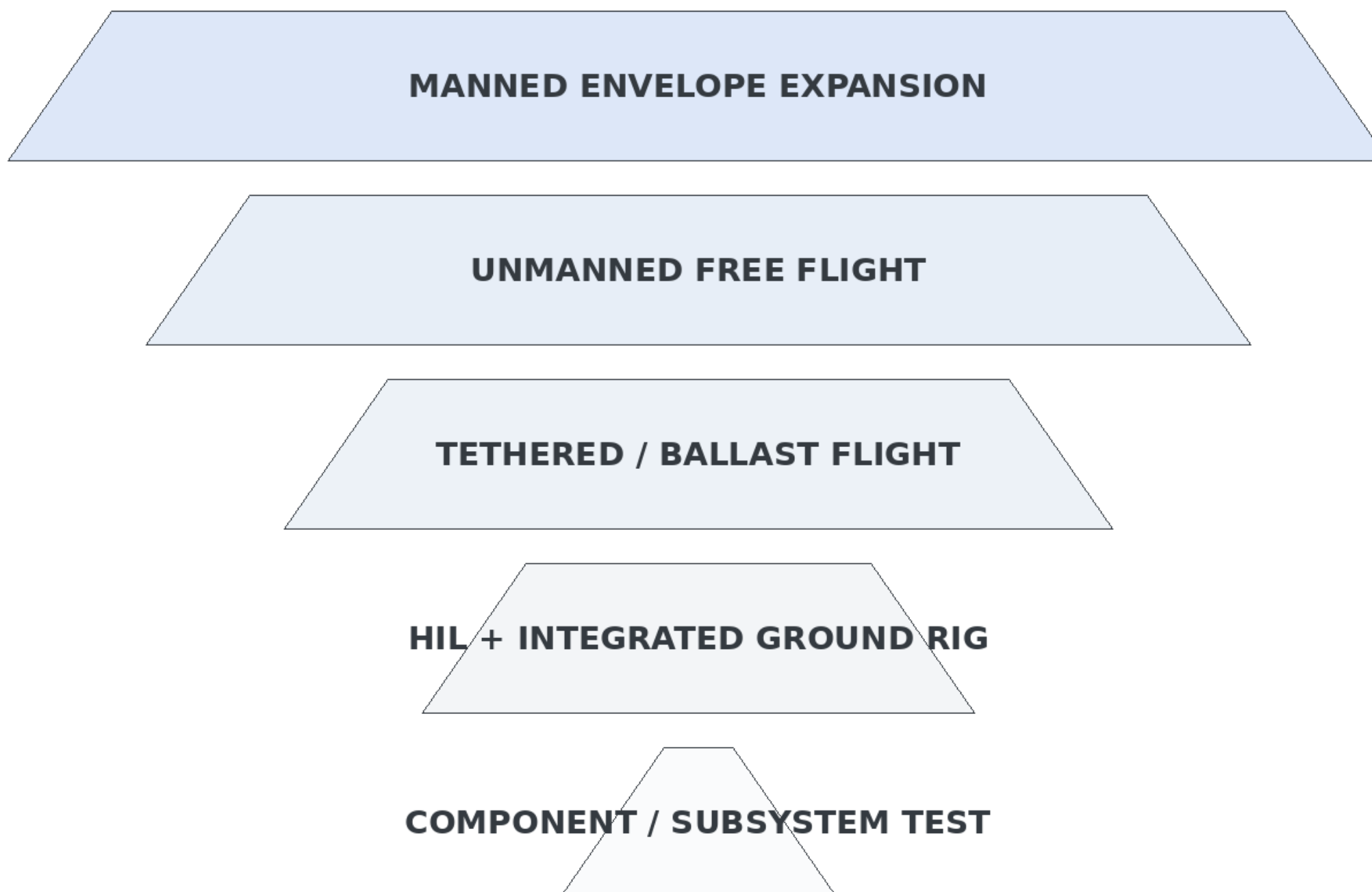
Floating rider deck:
4 tuned elastomer / wire-rope isolators



Control-law active damping:
notch filters at blade-passing frequencies

Acceptance target:
weighted deck & hand vibration measured in hove

VERIFICATION PYRAMID / FLIGHT-TEST GATES



No human carriage before formal completion of preceding gates, independent safety review, test-area auth



ID	Interface	Type	Qty	Rule
IF-01	Pod <=> chassis	Mechanical + HV + CAN-FD	4 identical stations	Replaceable module; keyed connectors
IF-02	Battery <=> PDU	HV + HVIL + CAN-FD	2 independent strings	Service disconnect each string
IF-03	Flight computer <=> ESC	CAN-FD / deterministic bus	8 channels	Command + feedback + heartbeat
IF-04	Flight computer <=> vector servos	CAN/PWM redundant	8 actuators	Position feedback monitored
IF-05	HMI <=> flight computers	Ethernet/CAN + discrete fallback	1 display	Display not sole flight control
IF-06	Deck load cells <=> FCS	Synchronized sensor input	4 corners	CoP feed-forward
IF-07	GNSS/IMU/LIDAR <=> FCS	Timestamped sensor data	Redundant	Health/status mandatory
IF-08	Telemetry <=> service network	Non safety critical	Isolated	No control authority in flight



ITALIANO

- Tutte le quote sono nominali RFQ e non costituiscono rilascio produzione.
- Non scalare dalle immagini. Il CAD 3D del costruttore costituisce la geometria master dopo approvazione UESE.
- Mantenere 4 pod, silhouette, stelo, posizione rider, palette e branding.
- Ogni modifica per fattibilità deve essere proposta con ECR e overlay before/after.
- Progettare per manutenzione modulare e sostituzione pod/batterie/elettronica.
- Separare fisicamente HV, LV/signal e thermal vent paths.
- Tutte le parti rotanti devono avere una soluzione di protezione/containment integrata.
- Inserire accessi per instrumentation e sensori durante sviluppo senza alterare esteticamente il prodotto finale.

ENGLISH

- All dimensions are nominal RFQ values and do not constitute manufacturing release.
- Do not scale from images. Supplier 3D CAD becomes the master geometry after UESE approval.
- Maintain four pods, silhouette, stem, rider position, palette and branding.
- Any feasibility-driven change shall be proposed through ECR with before/after overlay.
- Design for modular maintenance and replacement of pods/batteries/electronics.
- Physically segregate HV, LV/signal and thermal vent paths.
- All rotating parts require an integrated guard/containment solution.
- Provide development instrumentation/sensor access without altering final product styling.