



Revolutionary propulsion technology inspired by nature,  
designed for the future of aviation.



## Why Propellers Are Holding Us Back

### ✕ Noise Pollution

Traditional propellers generate excessive noise (85-100 dB), limiting urban applications and causing noise pollution.

### ✕ Inefficient Energy Use

Current electric propulsion systems waste energy through turbulence and drag, limiting range and performance.

### ✕ Limited Control

Conventional propulsion offers limited degrees of freedom, requiring complex mechanical systems for maneuverability.

### ✕ Bulky and Exposed Design

Propellers are large and usually exposed, which:  
Increases drag  
Poses safety hazards to people or nearby objects  
Limits vehicle compactness and urban landing use



# Humming Propulsion System (HPS)

## Inspired by Nature

Our revolutionary propulsion system mimics the efficient wing movements of hummingbirds, combining rotational and oscillatory motion patterns.

- ✓ Full 6 degrees of freedom thrust control
- ✓ Ultra-quiet: < 65 dB
- ✓ 25% more efficient than propellers
- ✓ Enclosed design for enhanced safety



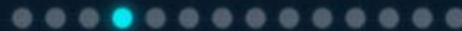
# CROW: The First Hydrogen-Powered Flying Car

## Technical Specifications

- ⚡ Speed: 500 km/h
- 🕒 Range: 1500 km
- 🏠 Altitude: 12,000 ft
- 👤 Capacity: 5 passengers + cargo
- ≡ Can land on water and drive on roads
- ≡ Noise Level 65 dB at 5 meters
- ≡ 10 safety systems
- ≡ Hydrogen-Powered

CROW is the world's first flying car designed to match the Hollywood dream – a true car that flies, combining the look and feel of a futuristic vehicle with the power and agility of advanced aviation technology.

Powered by the revolutionary Humming Propulsion System (HPS), CROW is compact, efficient, and versatile, built for both urban and intercity mobility.



# Market Vision

## Air Taxis

Urban mobility revolution with on-demand aerial transportation, reducing commute times by 80%.

## Cargo Drones

Autonomous delivery systems for last-mile logistics and emergency supplies to remote areas.

## Flying Hotels

Luxury aerial accommodations offering unique travel experiences and unprecedented mobility.

## Accessible Aviation

Our vision extends beyond technology to democratize flight. With intuitive controls and autonomous capabilities, HPS Aviation will make personal air travel accessible without extensive pilot training.

**\$980B**

Global Market by 2035

**43%**

Annual Growth Rate

**2028**

Commercial Launch





# Roadmap to Revolution

## Phase 1: Concept & Research (2014 – 2020)

Fundamental research and technology development. Patent portfolio established with 12 core technologies.

## Phase 2: Advanced Prototyping & Company Formation (2021 – First Half 2025)

Full-scale working prototype of the CROW flying car. Testing and certification process begins.

## Phase 3: MVP Development & Lab Construction (Second Half 2025)

Maiden voyage of the CROW. Public demonstrations and regulatory approval process.

## Phase 4: CROW – First Flying Car Prototype (2026 – 2027)

Production facility established. Supply chain secured and manufacturing begins.

## Phase 5: Market Entry & Early Sales (2028 – 2029)

Commercial launch of the CROW flying car. Initial deliveries to strategic partners and early adopters.

## Phase 6: Expansion & Diversification (2030 and Beyond)

Scale the business by expanding HPS integration across multiple flying platforms beyond CROW



## Phase 1: Concept & Research (2014 – 2020)

- 2014 – Initial idea inspired by bird and insect flight
- 2015 – Mathematical modelling of hummingbird wing patterns using MATLAB & ANSYS
- 2016 – Resigned from military R&D to dedicate full-time focus
- 2017–2020 – Developed and tested multiple mechanical prototypes
- Built CAD, CFD, and 3D-printed models
- Achieved 25% higher efficiency compared to traditional propulsion
- Validated full 6-DOF control without tilting the propulsion system

2014 2015 2016 2017 2020



## Phase 2: Advanced Prototyping & Company Formation (2021 – First Half 2025)

- Simplified HPS design for manufacturability
- Integrated hybrid control (rotational + oscillatory motion)
- Finalized scalable axial-flux electric motor architecture
- 2024 – Designed full MVP model
- Began company setup in Abu Dhabi Global Market (ADGM)
- Registered HPS Aviation and prepared for equity crowdfunding

2021

2025





## Phase 3: MVP Development & Lab Construction (Second Half 2025)

- Target funding: \$1.5M
- Build engineering team (CFD, mechanical, business)
- Set up R&D lab + acquire equipment (5-axis CNC, lathe, metal 3D printer)
- Complete MVP for HPS propulsion system within 6 months
- Finish Patents registration + certification & safety testing

2025



## Phase 4: CROW – First Flying Car Prototype (2026 – 2027)

- Begin full-scale build of CROW
  - Materials: carbon fiber + bamboo composite
  - Power: Hydrogen fuel cells + safety batteries
  - Integrate 10 advanced safety systems (including Aerospike emergency landing)
  - Flight tests, government compliance, and certification
  - Showcase to investors, public, and strategic partners

2026

2027



## Phase 5: Market Entry & Early Sales (2028 – 2029)

- Launch limited production of CROW
- Price: \$500K – \$1M based on configuration
- Build early adopter community (private owners, corporates, tourism)
- Begin licensing HPS propulsion to other platforms (eVTOLs, amphibians)
- Establish after-sales, service, and maintenance network

2028

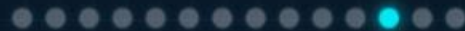
2029



## Phase 6: Expansion & Diversification (2030 and Beyond)

- Develop new air mobility vehicles:
  - Cargo drones
  - Flying taxis
  - Modular flying hotels
- Integrate HPS in:
  - Defense applications
  - Construction air platforms
  - Human-scale drones
- Explore open-source HPS licensing model
- Global expansion and strategic joint ventures

2030



# Crowdfunding Round – Own a Share in the Future of Aviation

## Campaign Overview:

- ✓ **Funding Goal**  
\$1,500,000
- ✓ **Share Price**  
\$1 per share
- ✓ **Pre-Money Valuation**  
\$15,000,000
- ✓ **Equity Offered**  
10% of HPS Aviation
- ✓ **Registered in**  
ADGM, Abu Dhabi – UAE

## Use of Funds

- ✓ **Build the MVP of Humming Propulsion System (HPS)**
- ✓ **Strategic Partnerships**
- ✓ **Construct R&D and prototyping lab in Abu Dhabi**
- ✓ **Acquire key equipment (3D printer, CNC, lathe)**
- ✓ **Hire full core team: engineers, CFD, business dev**
- ✓ **Begin advanced development of CROW flying car**
- ✓ **Patent filing, certification, and early marketing**

## Why Invest Now

- ✓ **Patent Portfolio**  
12 patents secured for our core technologies, creating a strong competitive moat.
- ✓ **Strategic Partnerships**  
Agreements with key aerospace suppliers and hydrogen fuel cell manufacturers.
- ✓ **Regulatory Advantage**  
Working closely with aviation authorities to establish certification pathways.
- ✓ **Market Timing**  
Perfect intersection of hydrogen technology maturity and growing demand for sustainable aviation.

## Investor Perks (based on tiers):

- ✓ **Digital investor certificate & name in the credits**
- ✓ **Exclusive merch (CAP, HPS shirt)**
- ✓ **Access to flight sim & development updates**
- ✓ **Early reservation or discount for CROW when launched**
- ✓ **VIP invite to MVP launch event in Abu Dhabi**






## Join Our Journey



**HPS AVIATION**

**The Next Step to the Sky**

 ADGM , AL MYRAH , ABU DHABI

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**Ahmed Hamza**

CEO & Chief Engineer

**SCHEDULE  
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