Briech UAS



AFRICAN' BIGGEST
DRONE MANUFACTURING
FACILITY IN ABUJA, NIGERIA

WHO WE ARE

Building a future where Nigeria's security and technological prowess are self-sufficient and locally driven. Briech UAS (Unmanned Aerial Systems) is Nigeria's leading indigenous drone manufacturer, building tactical UAVs for surveillance, combat, and humanitarian operations. As the aerospace arm of the EiB Group, Briech UAS places the Group at the forefront of defence and security innovation with a mission to secure the nation and empower communities through advanced UAVs for combat and humanitarian missions.

Our Smart UAV Technology approach is built primarily on intensive customer interaction. We listen carefully to our customers and, based on their challenges, we look for solutions that matter. Sometimes we find the right partners to integrate their innovative technology; sometimes we develop new solutions ourselves, building on existing and proven technologies. In this way, we produce some of the best performing UAVs in use today.



Briech UAS | MILITARY GRADE COLLABORATION | INDIGENOUS NIGERIAN MANUFACTURER





KEY ACTIVITIES

- Production of surveillance and combat drones, including the Damisa and Argini.
- Operations from a 10-hectare facility.
- Collaboration with the Nigerian military and security agencies.
- Youth training in drone operation and maintenance.

PIONEERING INDIGENOUS DEFENCE TECHNOLOGY

Replacing foreign dependence with local innovation and quality manufacturing. Briech UAS embodies Nigeria's drive for technological self-reliance. We are not just building drones; we are building a future where the nation's security and technological prowess are self-sufficient and locally driven.

Advanced Drone Production

Briech UAS designs and builds cutting-edge surveillance and combat drones like the Damisa and Argini, giving Nigerian forces vital, home-grown aerial superiority.

World-Class Manufacturing

Operating from a 10-hectare facility in Abuja with a 700-metre runway, Briech UAS ensures strict quality control and efficient, large-scale production.

Strategic Collaboration

Working with the Nigerian military and security agencies, Briech UAS tailors its technology to meet modern defence challenges and enhance national security.

Investing in Human Capital

Beyond manufacturing, Briech UAS is deeply committed to advancing human capital development – fostering innovation, technical expertise, and leadership within the specialized and rapidly evolving field of aerospace technology. Through youth training programs focused on the critical skills of drone operation and maintenance, we are building a skilled local workforce, nurturing a new generation of technical experts, and ensuring the long-term sustainability of Nigeria's indigenous defence infrastructure.

Briech UAS

Nigeria's leading indigenous drone manufacturer



FLEET ARCHITECTURE:

DETAILED PLATFORM BREAKDOWNS

The Briech UAS operational matrix is split into specialized tiers, allowing commanders to deploy targeted solutions matching the unique scale, distance, and severity of each mission

The Damisa
Combat Drone

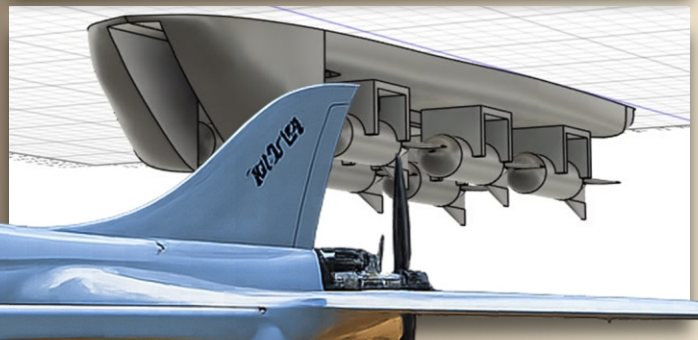
The Damisa (the Hausa word for "tiger") represents the pinnacle of Briech's long-endurance precision combat capabilities. Powered by an electronic fuel injection (EFI) internal combustion engine optimized for low acoustic output, the Damisa cruises at high altitudes where it is visually and audibly undetectable from the ground.
Its internal payload bay houses precision-guided micro-munitions that interface directly with the aircraft's targeting computer.

When an operational target is acquired, the platform deploys its internal optical tracking and laser designation systems. The onboard computer calculates wind vector variations, air density, and terminal glide paths, providing continuous target updates to the launched munition. This process yields an incredibly tight circular error probable (CEP), minimizing collateral damage while effectively neutralizing hardened targets.

Key Features

- Vertical take-off and landing capability
- Precision strike capabilities, equipped with guided munitions for high-risk operations
- Advanced sensors: backup GNSS and magnetic compass sensor, multiple fail-safe mechanisms, and
- RTK high-precision landing
  High-speed manoeuvrability: aerodynamic design for swift evasive action and agile combat performance
- Smart payload adaptability: modular weapon integration for diverse mission profiles







The Argini

Long-Range ISR Platform

Optimized for persistence, the Argini utilizes a hybrid VTOL configuration that combines the flexible deployment of multirotors with the efficient endurance of a fixed-wing aircraft. Capable of remaining airborne for up to 14 hours, the Argini acts as a persistent aerial sentinel for border surveillance and maritime security.

Its modular payload bay can house advanced Synthetic Aperture Radar (SAR) systems, allowing it to generate high-resolution radar imagery through dense cloud cover, dust storms, or thick forest canopies. This capability provides commanders with continuous situational awareness across expansive, remote border regions.

Key Features

Vertical take-off and landing capability, enabling quick deployment from constrained areas

- Autonomous navigation: intelligent route planning and autonomous target tracking
- Advanced sensors: backup GNSS and magnetic compass sensor, multiple fail-safe mechanisms, and RTK high-precision landing
- High-speed manoeuvrability: aerodynamic design for swift evasive action and surveillance in diverse terrains
- Smart payload adaptability: modular payload integration for diverse mission profiles
- Optimized aerodynamic design with electric propulsion zero emission



The Arsenio

Tactical Reconnaissance Drone

The Arsenio serves as a medium-altitude, heavy-lift tactical workhorse. With an 8-hour flight endurance and a ruggedized frame designed for quick deployment in field environments, it provides real-time tracking support for moving ground units.
Equipped with high-definition multi-axis gyrostabilized sensor pods, the Arsenio delivers crisp thermal and optical feeds, allowing ground units to spot potential ambushes or terrain hazards well in advance.



Key Features

- Vertical take-off and landing capability
- Advanced sensors for precise navigation and positioning: backup GNSS and magnetic compass sensor, multiple fail-safe mechanisms, and RTK high-precision landing
- Flexible payload integration for tactical surveillance and border security



Xander, Bfly
and Striver Utility Assets

The lower tiers of the fleet provide highly responsive operational flexibility.
The Xander specializes in fast automated terrain mapping, creating high-accuracy 3D topographical profiles for operational planning.

The Bfly is a compact, ultra-light quadcopter designed for immediate, squad-level tactical reconnaissance, allowing infantry units to look over ridgelines or behind structures in real time. The Striver functions as a high-speed utility hybrid VTOL, built to carry critical supplies, blood plasma, or specialized electronic gear to cut-off forward positions, showing the extensive flexibility of the Briech product framework





KAMIKAZE DRONE (FPV)

FIRST-PERSON VIEW - DIRECT ENGAGEMENT

While long-endurance aircraft like the Damisa manage high-altitude strategic operations, frontline operations often demand immediate, low-cost tactical options. In response to asymmetric threats where rogue actors use modified consumer drones to track military assets and coordinate ambushes, Briech UAS developed the Briech FPV Kamikaze Drone system. This system acts as a direct, highly effective equalizer for frontline troops.



THE KINEMATICS OF FPV INFILTRATION

The Briech FPV drone is built on an ultra-light, impact-resistant carbon fiber frame, driven by high-RPM brushless motors paired with high-discharge lithium-polymer batteries. Operating without heavy autonomous navigation sensors or stabilization software, the aircraft is controlled directly by a pilot wearing low-latency virtual reality goggles. This design enables extreme maneuverability, allowing the drone to fly at speeds past 100 km/h just inches above the ground, ducking under radar horizons and navigating around terrain obstacles.



THE FRONTLINE EQUALIZER



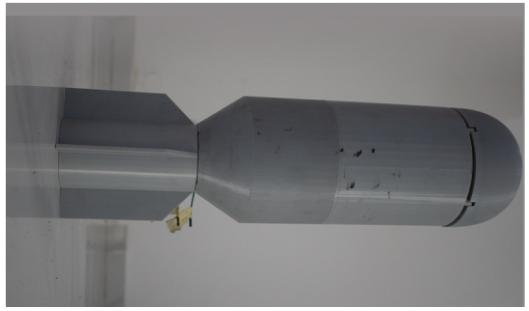
Operational Architecture and Warhead Customization

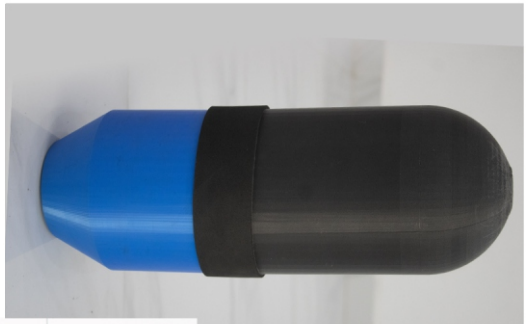
The platform is designed to carry diverse payloads tailored to frontline needs. Utilizing a universal modular attachment rail, field technicians can quickly secure various payload types:

- High-Explosive Anti-Tank (HEAT) Modules: Shaped charges designed to punch through armored plating, disabling technical vehicles or mobile weapon emplacements instantly.
- Anti-Personnel Fragmentation Arrays: Directional blast charges engineered to clear entrenched ambush positions safely from a distance.· Thermobaric Structural Breachers: Specialized fuel-air warheads optimized for neutralizing fortified blockhouses, tunnels, or urban firing positions.

The impact on unit economics has reshaped tactical planning. Instead of risking a multimillion dollar vehicle or exposing an infantry squad to a fortified position, a single operator can deploy a low-cost, expendable FPV drone to eliminate high-value threats













A DAY IN BRIECH UAS

Behind every successful mission is a team committed to precision, innovation, and excellence. Here's a glimpse into the everyday operations and processes that keep Briech UAS moving forward and delivering results

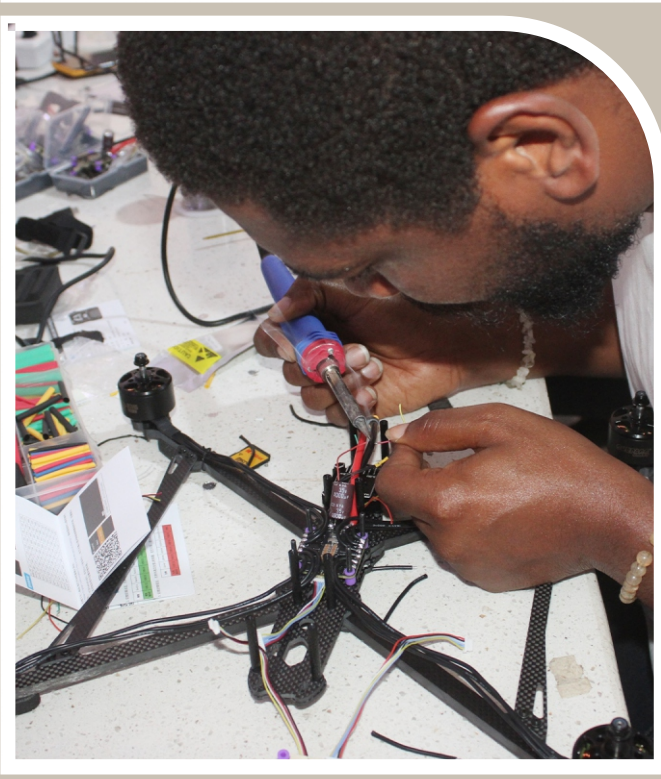









G-39
NASA




COMPOSITE COUPLING



INSTITUTIONAL SYNERGY
AND THE "DEFENCE SILICON VALLEY"

The long-term success of an advanced technology sector depends on robust institutional support, clear regulatory paths, and strategic integration with state security structures. Briech UAS has woven its operational growth directly into the fabric of Nigeria's national defense strategy.



THE DICON EIB GROUP (BRIECH UAS) ALLIANCE Under the DICON Act

A major accelerator for this industrial development is the formal partnership established between Briech UAS and the Defence Industries Corporation of Nigeria (DICON).

Enhanced by the updated DICON Act, this public-private framework aims to create an independent domestic defense industrial base.
During an exhaustive industrial inspection of the Abuja manufacturing facility, Minister of State for Defence Dr. Bello Matawalle commended the joint operation, emphasizing that Briech UAS represents the exact model for the future of national self-reliance. This alignment effectively forms a designated defense innovation zone in Nigeria, bringing together military intelligence, academic engineering talent, and private capital.

Chief of Defence Staff General Christopher Musa recently highlighted that by manufacturing these drones locally, the country significantly reduces its dependence on foreign resources, ensures prompt acquisition, and strengthens its ability to respond swiftly to security threats. The armed forces can now field essential assets without navigating the long delays typically associated with international procurement channels.

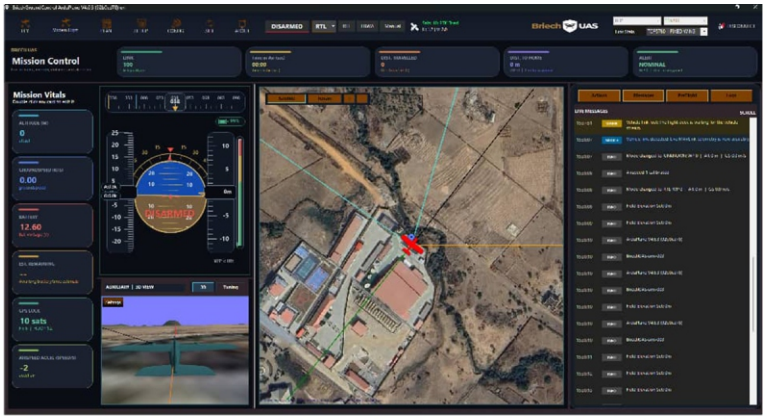
The Briech UAS Software Ecosystem

Briech UAS has developed a suite of indigenous software solutions designed and built entirely in-house by the team of Briech UAS engineers to support unmanned aerial systems (UAS) operations, defence operations, manufacturing, and enterprise management. These locally developed applications are tailored toward reducing reliance on foreign technologies.

The software portfolio integrates seamlessly with Briech UAS's indigenous drone platforms, enhancing mission planning, command and control, quality management, maintenance, logistics, training, and operational efficiency. These innovations demonstrate Briech UAS's commitment to advancing local content, strengthening technological self-reliance, and supporting Nigeria's defence and aerospace capabilities through home-grown technology.

» Briech Ground Control

Our foundational platform is a universal command station designed for absolute operational freedom. Unlike platforms that lock users into a specific aircraft, it operates independently of frame type, size, or class managing long-range winged aircraft and nimble multi-rotors seamlessly from a single screen. To eliminate the biggest vulnerability in drone operations (digital hijacking) we wrap a bank-grade digital vault around the data link using advanced encryption protocols, guaranteeing an unbreakable, private connection.



Briech SINDy-MPC — Predictive Flight Control

Operating deep within the aircraft's onboard computer, SINDy-MPC is our revolutionary embedded flight control software, integrable into virtually any modern flight stack. Traditional autopilots are reactive – like a driver who only turns the wheel after hitting a pothole.

Our predictive engine replaces this with a proactive brain: it reads microscopic clues from the air, instantly calculates the physics of its immediate environment, and – like a racing driver looking far down the track – forecasts its flight path milliseconds into the future, adjusting its motors before a disturbance is ever felt. In severe storms, under an uneven payload, or after unexpected structural damage, the software automatically rewrites its own flight rules mid-air to keep the drone perfectly stable, predictable, and safe.

Seamless Ecosystem Integration

While each product offers an immediate, independent capability boost, they share a hidden superpower: when stacked together, they talk to one another perfectly. When a drone running Briech UAS Vision spots an infrastructure anomaly, it instantly broadcasts the data across the mesh network powered by the AI C2 Suite. A neighbouring drone, kept stable in a storm by SINDy-MPC, automatically receives that data and alters its flight path to investigate while the operator monitors the entire automated event unfold in real time on Briech Ground Control. Start with one product today, and scale into a complete, interconnected autonomous ecosystem tomorrow.

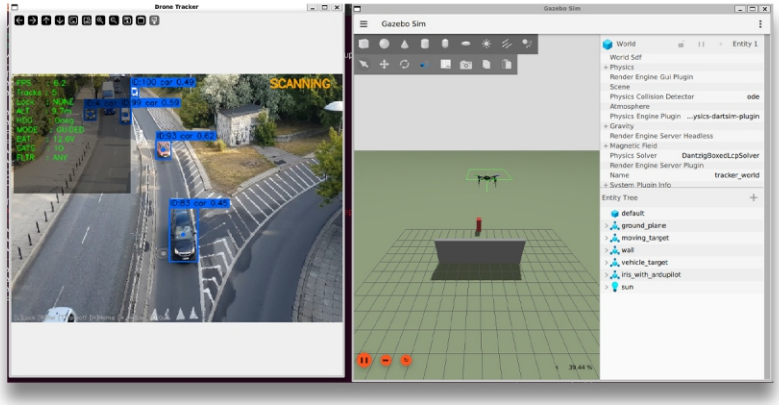
Briech UAS AI C2 Suite

For operations requiring true scale, the AI C2 Suite deploys either as a standalone upgrade to current systems or as a direct add-on to our core ground control. It shifts the operator from manual pilot to strategic mission commander overseeing an entire autonomous fleet. Powered by a built-in AI engine, it handles dynamic automatic planning: an operator simply points to an objective on a map, and the AI instantly calculates, tests, and optimizes the safest, most efficient flight paths for multiple drones simultaneously. The aircraft use a decentralized mesh network to communicate peer-to-peer a shared 'hive mind' that coordinates complex manoeuvres and divides large areas for search sweeps with zero human intervention. Because it operates independently of a central server, the network is entirely self-healing: if one drone loses connection, the remaining fleet instantly redistributes the workload and completes the mission.



Briech UAS Intelligent AI Vision

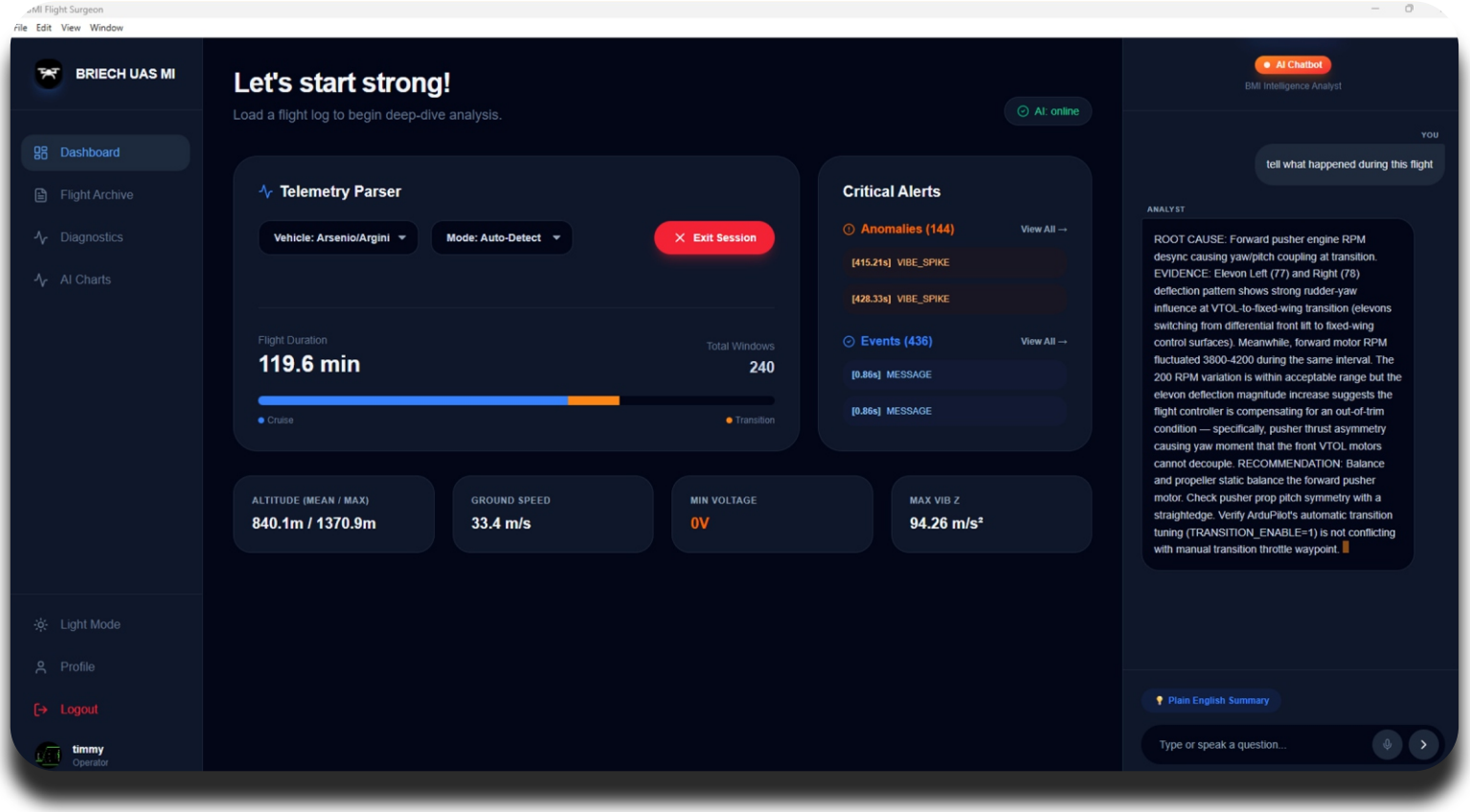
Briech UAS Vision gives your assets digital eyes that transform raw video feeds into real-time operational decisions. This standalone software deploys directly onto a drone's edge hardware, or onto existing ground infrastructure like facility security cameras – without expensive new hardware. It can be custom-trained to recognize, tag, and track anything a client needs. For high-security defence applications, the AI achieves a flawless visual lock on a moving target, guiding an aircraft to intercept without relying on jammable external GPS links. For commercial and industrial clients, the same system can patrol remote cross-country pipelines to flag structural leaks, scan thousands of acres of farmland to pinpoint early crop disease, or monitor logistics yards to track shipping containers.



Briech UAS Mission Intelligence (BMI) — AI Log Reviewer

Data is only valuable if you can understand it instantly. Historically, reading a drone's technical flight logs required teams of specialized engineers and days to decode dense charts and binary files. BMI is our standalone desktop application that shatters that barrier – a simple, beautiful dashboard powered by a specialized AI that translates complex aviation data into plain English.

After a flight, an operator drags and drops the flight file from any drone into the application and starts a conversation: ask 'Why did the drone slow down near the treeline?' or 'Did the battery perform well during the high winds?' and the local AI reviews millions of data points to give a clear, conversational answer in seconds. Because data security is an absolute priority, BMI operates 100% offline and air-gapped on your local computer, it never connects to the internet and never pings an external cloud. Your flight paths, proprietary maps, and operational secrets stay entirely inside your organization.



DIGITAL MANUFACTURING & ENTERPRISE SYSTEMS

Precision, reliability, safety, and traceability — engineered into every aircraft.

QUALITY MANAGEMENT SYSTEM (QMS)

Our web-based Quality Management System digitizes, centralizes, and streamlines quality control and production management across the design, production, testing, and maintenance of our unmanned aerial systems. It provides an integrated platform for inspection management, production monitoring, defect tracking, flight log management, quality documentation, operational analytics, asset monitoring, and automated report generation – all in a single, centralized environment.Designed with a user-friendly interface and role-based access control, the platform enables quality engineers, production technicians, inspectors, and management to collaborate efficiently while keeping information accessible only to authorized users.

Through interactive dashboards, users monitor key indicators such as flight performance, inspection status, issue rates, battery utilization, engine hours, fuel consumption, and overall operational efficiency.

A distinctive feature is the Drone Footage Management Module, which integrates aerial photographs and video recordings directly into the quality assurance workflow – enabling secure upload, organization, streaming, retrieval, and long-term storage of footage captured during production testing, inspection, surveillance missions, and field operations. By linking multimedia evidence with inspection reports, flight logs, and defect records, the platform provides visual verification of manufacturing activities, facilitates root-cause analysis, and strengthens product traceability.

EIB Storix

Enterprise Store, Procurement, Inventory & Asset Management

EIB Storix is our web-based enterprise platform that digitizes and streamlines store, procurement, inventory, and asset management within a single centralized system. It integrates inventory management, procurement, warehouse operations, asset management, approval workflows, and enterprise reporting to support employees, procurement officers, warehouse personnel, managers, and executive leadership.

Procurement requests pass through a structured approval hierarchy reflecting the organization's Standard Operating Procedures, ensuring every request is properly authorized before any purchase or asset movement. The platform manages the complete procurement lifecycle, from purchase requisition and supplier quotation to comparative analysis, purchase-order generation, payment notification, goods receipt, inspection, and closure with every transaction recorded alongside supporting documents, approval history, timestamps, and user information for a reliable audit trail.

Beyond procurement, EIB Storix monitors stock levels in real time, controls warehouse operations, registers company assets, assigns assets to responsible personnel, tracks asset movement across departments, conducts routine verification, and manages disposal through approved procedures. Interactive dashboards give management real-time insight into procurement performance, supplier reliability, inventory availability, asset utilization, and warehouse activity with role-based access control and centralized data management enabling secure collaboration across departments and subsidiaries.

THE ROADMAP TO 2035

FUTURE TECHNOLOGICAL ADVANCEMENTS

As global unmanned aerospace technology advances towards increased autonomy and cognitive systems, Briech UAS is actively driving a multi-tiered research and development pipeline designed to keep domestic systems at the forefront of innovation over the next decade.

1. Embedded Edge AI Neural Networks

Current operational systems rely on human eyes to continuously scan incoming video streams, which can lead to fatigue over long missions. Briech is addressing this by integrating ultra-efficient, low-power Tensor Processing Units (TPUs) directly into its aircraft electronics. These onboard neural networks process high-definition video frames on the fly, running advanced computer vision algorithms to automatically detect, classify, and track specific assets—such as concealed equipment or small watercraft—even through camouflage or dense brush. The system flags the operator only when a high-probability match is found, dramatically increasing reconnaissance efficiency.

2. Decentralized Swarm Intelligence Architecture

To counter modern air defense systems that can successfully track and target single aircraft, Briech's software lab is developing decentralized swarming algorithms. Under this architecture, a commander can deploy a coordinated cluster of fifteen to thirty compact Briech FPV or Striver units.These platforms connect via a localized, dynamic mesh network, sharing processing power and mission duties automatically. If multiple units are disabled or jammed during an operation, the surviving assets instantly adapt, redistributing scanning angles and target assignments without requiring manual updates from the ground station.

3. Fiber-Optic Guided Strike Platforms for Contested EW Environments

To fully insulate tactical systems from heavy electronic warfare jamming, Briech's advanced research division is developing fiber-optic guided strike drones. As the drone flies toward its target, it releases an ultra-fine, lightweight strand of fiber-optic filament from an onboard spool.

Because telemetry data and operator controls travel through a physical glass line rather than open airwaves, the system is completely immune to radio frequency jamming or interception. This creates a secure, highly reliable option for high-intensity, heavily electronic-warfare contested environments.

4. Alternative Solid-State Hydrogen Propulsion Pipelines

While advanced lithium formulations and internal combustion hybrids power the current fleet, achieving multi-day endurance requires moving beyond fossil fuels. Briech is partnering with regional academic centers to develop solid-state hydrogen fuel cell power systems.

By converting compressed hydrogen into clean electricity with minimal thermal and acoustic output, next-generation variants will be capable of flying continuously for over thirty hours, quadrupling current operational capabilities while remaining virtually silent.

SECURING THE SOVEREIGN SKY

The rapid transformation of Briech UAS from an ambitious concept to an elite defense manufacturer highlights a significant shift in technical capability. By domesticating composite manufacturing, securing software pipelines against external vulnerabilities, deploying agile FPV kamikaze systems, and building an integrated partnership framework with DICON, the company has established a new model for technological self-reliance.

The skies across the continent are increasingly being monitored, managed, and defended by technology engineered and produced from within Africa. For global defense analysts and technological researchers alike, one clear truth has emerged: African self-reliance in aerospace innovation is no longer a distant aspiration—it is an active reality.

To see these advanced systems in production and observe their design and flight trial workflows firsthand, you can watch the Briech UAS Production Journey. This brief look into their facility shows how advanced 3D CAD modeling, carbon fiber fabrication, and end-to-end manufacturing are carried out on-site in Abuja.



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