DEEP RESEARCH / INDIA 2026

India Defence & Autonomous Systems

Where the real market gaps are, and how they map to Arnav's ability to fill them

Bottom line
Do not begin with generic drone assembly or a missile factory. Explore a trusted-autonomy company: resilient mission systems, sovereign subsystems, and the validation stack that gets prototypes into fieldable products.

Rs 7.85L cr	Rs 52,000 cr	676
FY26-27 defence budget	July 2026 DAC AoNs	iDEX participants

Prepared for Arnav Bhatia | 31 August 2026
India-first scope | 0-3 year founder decision horizon | Primary evidence prioritised

Assumptions

- Arnav is 24, has an Imperial engineering education, has built and launched Amphi with three co-founders, and is strongest in product/engineering.
- He has unusual access to capital, the Bird family reputation, YPO/YNG networks, and potentially defence-sector relationships through family, but the exact size, availability and terms of capital and relationships have not been verified.
- He is still developing enterprise sales, hiring, delegation, regulated manufacturing and government-procurement capability.
- The objective is a large, defensible company, not a lifestyle drone integrator or a speculative factory.

Direct answer

> **There is a real and large Indian opportunity, but the market gap is not "India needs another drone manufacturer." Platform assembly is crowded, procurement is lumpy, and credible incumbents already have products, trials and order books.**

The stronger opportunity is to build the trusted autonomy layer for Indian unmanned systems: sovereign and secure mission compute, resilient navigation and communications, sensor fusion, autonomy software, simulation/hardware-in-the-loop validation, and fleet command-and-control that can work across air, ground and maritime platforms.

For Arnav, the best first wedge is likely one of two:

- Autonomy validation and mission-system integration: a simulation, digital-twin and hardware-in-the-loop stack that helps Indian OEMs move prototypes through testing, reliability evidence and integration faster, then expands into the deployed autonomy runtime.
- A sovereign subsystem with software leverage: for example a modular mission computer/flight-control and navigation stack, designed around trusted components, degraded communications and platform portability.

These fit his engineering and software background, can begin with a small team and staged capital, and let him sell to OEMs/DPSUs as well as eventually the armed forces. They also create a credible path into counter-UAS, swarming, maritime autonomy and later missile/rocket subsystems.

The recommendation is investigate immediately, but do not capitalise a factory yet. Run a 90-day problem-validation sprint and make a go/no-go decision only after customer evidence, a domain co-founder/adviser, and a technically credible prototype plan exist.

1. The demand is real

India's FY2026-27 defence budget is reported at Rs 7.85 lakh crore, including Rs 2.19 lakh crore of capital expenditure. Indigenous defence production reached Rs 1.78 lakh crore in FY2025-26 and exports reached Rs 38,424 crore. The same government review says defence R&D allocation rose to Rs 29,100.25 crore and that 25% of the defence R&D budget had been opened to industry, startups and academia. PIB, The Defence Decade, 17 June 2026

Domestic capital acquisitions rose from Rs 74,000 crore in FY2021-22 to Rs 1.2 lakh crore in FY2024-25. PIB, Battlefield has changed, 7 October 2025

The July 2026 Defence Acquisition Council approved Rs 52,000 crore of proposals that explicitly included an anti-UAV electronic-warfare system, a jet-based kamikaze drone system, a naval shipborne unmanned aerial system, a high-altitude pseudo-satellite and a land-based electric-propulsion test facility. Acceptance of Necessity is an in-principle approval, not an awarded contract, but the list shows where demand is moving. PIB, DAC approvals, 3 July 2026

The civil/dual-use base is also substantial: by February 2026, India had 38,575 registered drones, 39,890 certified remote pilots and 244 approved training organisations. The drone/component PLI outlay was Rs 120 crore. PIB, India's Drone Ecosystem, 17 February 2026

2. The market is already crowded

As of February-March 2026, iDEX had engaged 676 startups, MSMEs and innovators, signed roughly 548-551 design/development contracts, cleared 58 prototypes for procurement worth about Rs 3,853 crore, and signed 45 procurement contracts worth about Rs 2,326 crore. These are not clean cohort conversion figures, but they show both a large innovation funnel and the much smaller number that reaches procurement. PIB, National Defence Industries Conclave, 19 March 2026

Government data also describes 430+ licensed defence companies and about 16,000 MSMEs in the broader industrial base. In FY2025-26, public-sector entities still accounted for 76% of defence production and private companies 24%. PIB, Make in India Powers Defence Growth, 29 March 2025; PIB, India's Defence Strength, 14 August 2026

Listed-company evidence shows that serious incumbents exist and revenue is order-driven. ideaForge reported FY2025-26 revenue of about Rs 249 crore and its largest annual order bookings of about Rs 530 crore, after FY2024-25 revenue around Rs 187 crore and a loss. Zen Technologies reported an FY2025-26 year-end order book around Rs 1,336 crore and is established in anti-drone systems and simulators. The exact product mix differs, but the lesson is clear: platform and full-system entry means competing with firms that already have procurement history, certifications, field evidence and working-capital capacity. ideaForge FY2025-26 annual report; ideaForge investor presentation, 30 April 2026; Zen FY2025-26 annual reports; Zen investor presentation, 26 July 2026

3. The gaps that appear real

A. Trusted components and sovereign subsystems - high evidence, high strategic value

MP-IDSA's 2026 review reports that more than 75% of drone components, including motors, autopilots, power packs, payloads and sensors, are imported. The Defence Minister separately called for domestic production from moulds and software through engines and batteries, explicitly noting Chinese component dependence. Rajan Desai, MP-IDSA, Jan-Mar 2026; PIB, 19 March 2026

Gap hypothesis: Indian OEMs need trusted, documented, supportable components and subsystems rather than nominally Indian airframes assembled around opaque imports.

Best wedges: mission compute; flight-control/autopilot stack; secure datalink; edge-AI module; propulsion control; EO/IR payload electronics; batteries/power-management; and test evidence that makes indigenous-content claims auditable.

Caution: not every imported component is commercially replaceable at Indian volumes. Motors, batteries and sensors can become capital-intensive commodity battles. The better fit for Arnav is a software-rich subsystem where IP, integration and field data matter.

B. Resilient autonomy and PNT in degraded environments - high evidence, strong fit

iDEX problem statements include GNSS-independent or long-duration positioning and counter-UAS using GNSS jamming. Other challenge pages seek autonomous underwater swarms and counter-swarm systems. iDEX GNSS/PNT challenge; iDEX C-UAS challenge; iDEX underwater swarm challenge; iDEX counter-swarm challenge

Gap hypothesis: autonomy that works only with clean GPS, continuous datalinks and benign weather is not defence-grade. The value moves to multi-sensor navigation, onboard perception, degraded-link mission execution, recoverability, cyber-resilience and explainable operator control.

Why attractive: this is software/embedded-systems heavy, portable across platforms and difficult to prove without accumulated test data. That creates a better moat than an airframe.

C. Counter-UAS integration and low-cost defence - high demand, high competition

The government is buying anti-UAV EW and publicly highlights counter-drone as a future-defining capability. iDEX also lists C-UAS bubbles and counter-swarm interceptors. But BEL/DRDO, Zen, Paras and other firms already compete in sensors, jammers and effectors.

Gap hypothesis: the under-served layer may be open-architecture sensor fusion, threat classification, command-and-control, evidence logging and integration of heterogeneous detectors/effectors, especially for mobile or critical-infrastructure use.

Verdict: attractive as a software/integration wedge or subsystem partnership. Poor first choice as a complete radar-to-effector system.

D. Test, simulation, digital twins and prototype-to-production tooling - medium-high evidence, best near-term fit

The Ministry is opening DRDO test facilities, publishing laboratories through the Defence Testing Portal, funding DPSU challenges, and explicitly promoting digital twins and advanced simulation. It also highlights the need to move ideas into viable products and prototypes into production. PIB, 19 March 2026; PIB, The Defence Decade, 17 June 2026

Gap hypothesis: hundreds of teams can build demos; fewer can produce repeatable verification, configuration control, hardware-in-the-loop evidence, field telemetry and integration artefacts acceptable to buyers and primes.

Why attractive: lower initial capital, direct fit with software/product skill, potential B2B revenue from OEMs and DPSUs, and a route to learn the procurement/testing system before taking platform risk.

Ceiling risk: a pure services/test-lab company may remain modest. The strategic version uses validation tooling as the entry point to own the deployed autonomy runtime, mission computer or certification data layer.

E. Maritime and multi-domain autonomy - medium-high evidence, less crowded but harder access

Current acquisition and iDEX evidence includes naval shipborne UAS, autonomous underwater swarms and multi-domain counter-swarm concepts.

Gap hypothesis: the Indian Ocean operating environment creates demand for USVs/UUVs, persistent sensing, harbour security, seabed awareness and cross-domain control.

Verdict: strategically compelling, but Arnav currently lacks naval-domain expertise and test access. Pursue only with a domain co-founder, Navy problem owner or established shipyard partner.

F. High-altitude persistence and logistics - real demand, platform-heavy

The July 2026 DAC list includes high-altitude pseudo-satellites, naval UAS and advanced-sensor platforms.

Verdict: real, but long endurance, environmental qualification and airframe/propulsion demands make this a poor first build. A subsystem or autonomy partnership is more plausible.

4. Why generic drone manufacturing is the wrong opening move

Global evidence suggests that airframes, particularly small attritable systems, are moving toward volume, rapid iteration and replacement economics. Ukraine reported receiving 3 million FPV drones in 2025, while the US Replicator initiative targeted multiple thousands of attritable autonomous systems across domains. Ukraine Ministry of Defence, 27 December 2025; US Department of Defense, 13 November 2024

The implication is not that every drone becomes cheap. It is that differentiation increasingly sits in supply-chain sovereignty, autonomy, payloads, EW resilience, mission software, production learning and the ability to update systems quickly. An Indian startup entering with “a better quadcopter” faces weak differentiation and a hard procurement funnel.

5. Founder-fit assessment

Opportunity	Market evidence	Defensibility	Capital intensity	Arnav fit now	Overall
Autonomy validation + mission integration	4/5	4/5	2/5	5/5	4.4/5
Sovereign mission computer / autonomy subsystem	5/5	5/5	3/5	4/5	4.3/5
Counter-UAS C2 / sensor-fusion layer	5/5	4/5	3/5	4/5	4.1/5
Maritime autonomy	4/5	5/5	4/5	2/5	3.5/5
High-altitude / long-endurance platform	4/5	4/5	5/5	2/5	3.0/5
Generic defence drone OEM	5/5	2/5	4/5	3/5	2.9/5
Missile prime / full-system manufacturer now	5/5	5/5	5/5	1/5	2.6/5

Scoring is a decision aid, not a measured market statistic. Capital intensity is scored inversely in the overall judgement.

What Arnav brings

- Engineering/product ability and actual software-building experience.
- Genuine interest in electronics, sensing, AI and autonomy.
- Ability to fund exploration and tolerate a longer technical cycle than a typical first-time founder.
- Family reputation, YPO/YNG access and potentially valuable introductions.
- A founder's willingness to build from scratch.

What he does not yet bring

- Defence procurement, trials, quality assurance and security/compliance experience.
- Embedded, RF, avionics, controls or manufacturing depth proven in harsh environments.
- A defence sales organisation or working-capital discipline for lumpy orders.
- Experience hiring and leading the multidisciplinary team this requires.
- A validated problem owner inside the armed forces or a committed OEM/DPSU design partner.

The largest risk is not technical intelligence; it is assuming that capital and relationships can substitute for domain credibility, field access and organisational execution.

6. Recommended company thesis

Long-term thesis: Build the trusted autonomy and mission-systems layer for Indian unmanned platforms across air, ground and maritime domains.

First product thesis: A platform-agnostic autonomy validation and mission-compute stack that lets an Indian OEM integrate sensors, run hardware-in-the-loop scenarios, record repeatable evidence, deploy resilient mission logic and update a fleet without rebuilding the full platform.

Customer sequence:

- Indian drone/robotics OEMs and component makers.
- DPSUs, shipyards and large primes as a subsystem/integration partner.
- iDEX/TDF problem owners and armed-forces procurement pathways.
- Dual-use infrastructure, disaster-response, industrial inspection and public-safety customers where appropriate.
- Export markets after Indian field evidence, export-control review and support capability.

Expansion path: validation/simulation -> mission computer/runtime -> navigation/datalink/sensor fusion -> fleet C2 -> counter-UAS/multi-domain autonomy -> selected missile/rocket subsystems or licensed production partnerships.

7. A 90-day validation plan

Days 1-30: learn the problem, do not pitch a factory

- Interview 20-25 people: 6 armed-forces/users or recent operators, 6 Indian OEMs, 3 DPSUs/primes, 3 test/certification experts, and 3 procurement/iDEX/TDF founders.
- Ask for the last failed trial, integration delay, imported component that blocked delivery, and evidence package buyers demanded.
- Recruit one serious technical adviser or prospective co-founder in controls/avionics/RF/autonomy and one procurement/quality adviser. Paid, scoped work is better than ceremonial names.
- Produce three one-page problem briefs with user, environment, current workaround, measurable failure and buyer.

> **Gate 1: continue only if at least five independent buyers/users converge on the same failure and two will provide data, test access or a letter of intent.**

Days 31-60: prove the narrow technical claim

- Build one bench prototype, not a polished drone: for example, a hardware-in-the-loop validation harness plus a mission-compute module running repeatable degraded-navigation and link-loss scenarios.
- Integrate with an existing commercial or Indian platform instead of designing an airframe.
- Define measurable performance, safety boundaries, configuration control, telemetry and an indigenous-content bill of materials.
- Map whether iDEX Open Challenge, a specific DISC/ADITI statement, TDF, a DPSU challenge or a direct OEM contract is the right route.

> **Gate 2: continue only if the prototype demonstrates a buyer-relevant improvement and a credible customer agrees to a field trial.**

Days 61-90: validate the business, not only the demo

- Price a paid pilot and identify who owns the budget.
- Build a procurement timeline, cash requirement, security/IP plan, industrial-licence view and export-control view with specialist counsel.
- Decide build/partner/buy for compute, sensors, datalinks and manufacturing.
- Apply to a government challenge only where the problem statement fits. The iDEX Open Challenge page was live on 31 August 2026, listed grants up to Rs 1.5 crore, and a 30 September 2026 deadline; verify eligibility and live status immediately before relying on it. iDEX Open Challenge

> **Gate 3: incorporate and fund the venture only with a domain team, a field-trial path, a 24-month cash plan and a product wedge narrower than "autonomous systems."**

8. Capital and pathway

Start with staged risk:

- Discovery/bench stage: founder-funded, small multidisciplinary team, existing platforms and rented/shared test facilities.
- Prototype stage: paid OEM pilot plus iDEX (up to Rs 1.5 crore on the current open-challenge page), ADITI for eligible strategic technologies, or TDF. Government reporting describes TDF grants up to Rs 50 crore, an additional Rs 500 crore corpus and 80 projects costing Rs 334 crore as of June 2026. PIB, The Defence Decade
- Qualification/production stage: strategic prime/DPSU partnership, institutional capital and working-capital facilities. Do not fund large production before trials and purchase visibility.

Most parts/components no longer require an industrial licence, while controlled products do; defence industrial-licence validity has been extended to 15 years with a possible three-year extension. Product classification must be checked before design freeze and contracting. PIB, Reforms in Defence Sector; PIB, Atmanirbharta in Defence Sector

9. Where missiles fit

On 25 August 2026, the Defence Minister approved transfer of DRDO-developed technologies for all conventional missile systems to qualified Indian industry for domestic production, subject to certifications and regulation. The release explicitly mentions MSMEs and technology partners in the supply chain. PIB, missile technology transfer, 25 August 2026

This is a genuine structural opening, but it does not make a full missile company founder-accessible on day one. The rational route is to build qualified subsystem, test, electronics, autonomy or manufacturing capability, then enter a technology-transfer consortium, become a production partner, form a JV or acquire a licensed operator.

10. Key uncertainties and disconfirming evidence

- Government announcements and AoNs are not signed revenue; programme timing and scope can change.
- The iDEX counts are snapshots with mixed cohorts, not a startup success rate.
- “More than 75% imported components” is from one MP-IDSA analysis and may vary materially by platform and component value.
- Public order books do not disclose all product economics and may include simulators or non-drone systems.
- A validated technology gap is not automatically an open commercial gap. Classified requirements, incumbent relationships and customer preference may close the opportunity.
- Defence procurement cycles, trials, payment timing, performance guarantees and working capital can overwhelm a technically good startup.
- The recommended wedge remains a hypothesis until interviews and a field partner validate willingness to pay.
- Arnav's personal capital, time allocation alongside Amphi, exact defence relationships, appetite for a 7-10 year regulated build, and willingness to recruit a domain co-founder remain unverified.

Final recommendation

> **Go forward with a structured exploration, not a company launch. Spend 90 days testing a trusted-autonomy thesis. Bias toward autonomy validation/mission integration or a software-rich sovereign subsystem. Avoid generic drone assembly, complete counter-UAS hardware and missile priming as the first move.**

If the validation gates are met, this is one of the few opportunities in the roadmap that combines national demand, deep technical defensibility, Arnav's interests, family/network leverage and a path to very large scale. If the gates are not met, stop without sunk-cost attachment and preserve the learning for a later partnership or acquisition.

Research record and stopping rule

Research covered six lanes: demand/budget; procurement and live challenges; regulation/funding; components and technical gaps; incumbent economics; and global volume/attrition benchmarks. More than 30 source candidates were screened and the consequential claims above were checked against first-party government pages, official challenge pages, company filings or a named defence-research publication. Research stopped when the main segments had primary evidence, the central contradiction (large demand versus crowded platforms) was resolved, and further searches were returning repeated categories rather than changing the recommended wedge.