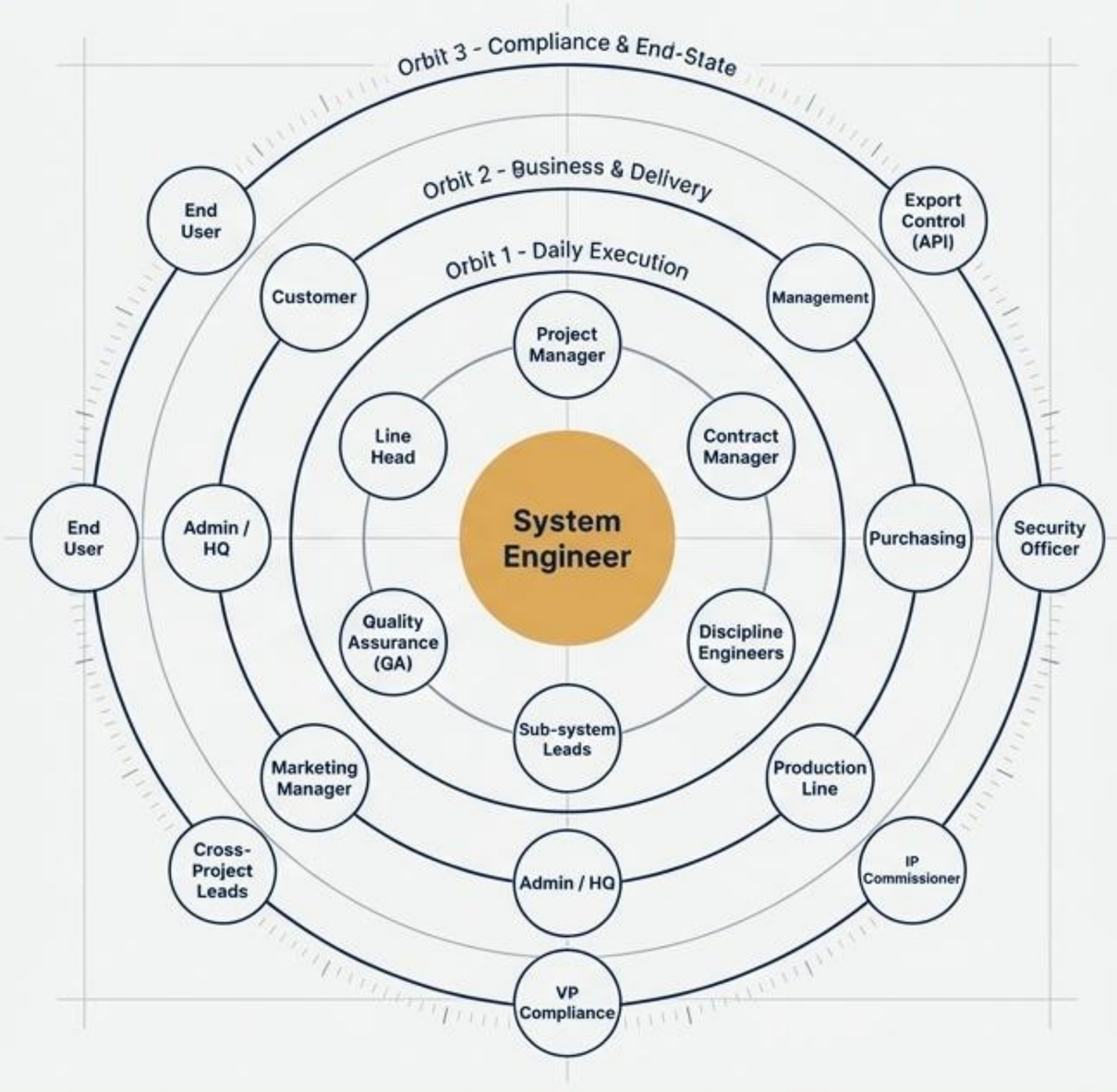
Noti Haim

The System Engineer

Navigating the Whole, Managing Stakeholders, and Integrating the Whole.

The System Engineer sits at the center of a complex stakeholder orbit



Aligning technical execution with business realities and customer expectations

Customer & End User

Goal

Product meets all operational expectations at the contracted price.

Required SE Conduct

Maintain relentless reliability and professionalism. Provide clear technical/business thinking during design reviews and define highly accurate reference scenarios for testing.

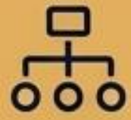
Project & Contract Managers

Goal

Profitability, schedule adherence, budget management, and securing Sale After Sale (SAS).

Required SE Conduct

Define the optimal working point balancing technical perfection with economic viability. Manage risks proactively to protect the cost model and milestones.



Line Head & Management

Goal

Overall project success, positive cash flow, and the creation of shared building blocks.

Required SE Conduct

Manage critical shared resources horizontally. Design with reusability in mind, ensuring project components can serve as building blocks across the organization.

Integrating disciplines to ensure safety, reliability, reliability, and lifecycle performance

Quality (QA) & Safety Engineers

Goal

Absolute compliance with organizational standards, product safety, and occupational safety.

Required SE Conduct

Avoid last-minute handoffs. Integrate QA early into design reviews, coordinate Material Review Board (MRB) activities, and manage hazard analysis proactively.

Reliability, ILS & Testability

Goal

Maximum test coverage, highly predictable reliability, and optimized Life Cycle Cost (LCC).

Required SE Conduct

Define clear Test Requirements Documents (TRD) early. Seamlessly integrate Integrated Logistics Support (ILS) into the core architecture, not as an afterthought.

Sub-system & Discipline Leads

Goal

Meet allocated sub-system requirements entirely within budget and schedule.

Required SE Conduct

Vigorously manage technical interfaces, oversee design reviews, and ensure total traceability between system-level and component-level requirements.

Securing the perimeter through compliance, manufacturability, and market growth

Production SE & Purchasing

Goal

Maximum manufacturability and lowest procurement cost while meeting precise needs.

Required SE Conduct

Enforce early freezes of production portfolios. Strictly monitor procurement to prevent a "cheap" component from becoming an "expensive" system failure.

Marketing Manager

Goal

Ultimate customer satisfaction to drive future up-sells and Sale After Sale (SAS).

Required SE Conduct

Provide consistent technical updates and intentionally define architectural "growth options" the customer can seamlessly purchase in the future.

Compliance, Security & Export

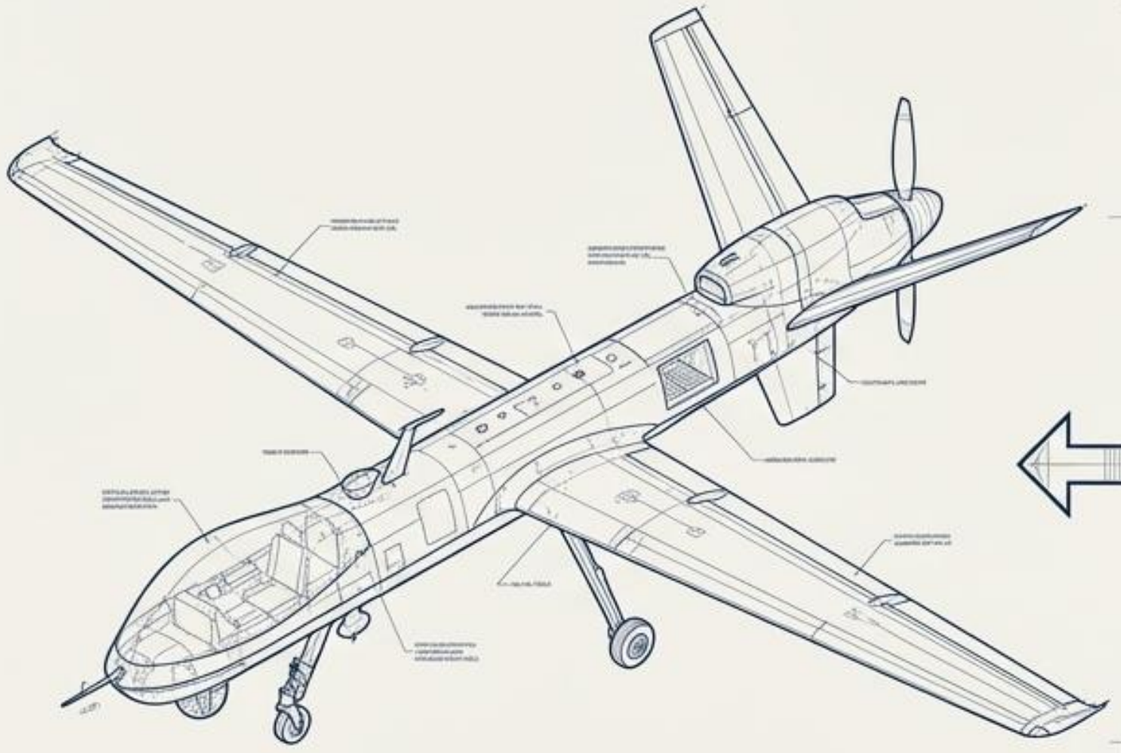
Goal

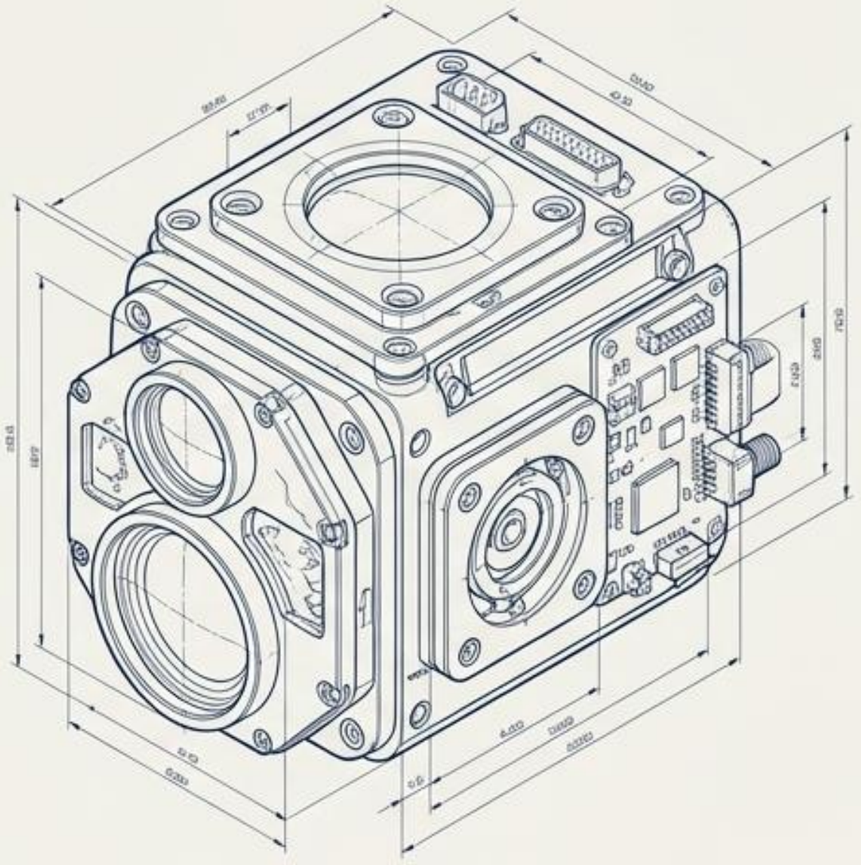
Protect national defense assets, secure intellectual property, and ensure strict ethical compliance.

Required SE Conduct

Execute NDAs, rigorously protect weapon systems per export control permits, flag patent opportunities early, and adhere to all ethical corporate regulations.

Looking at the exact same project through macro and micro lenses





The System Engineer’s Altitude

Holistic system integrity, customer traceability, and overarching operational architecture.

The Sub-system Lead’s Altitude

Specialized discipline mastery, component-level requirements, and localized technical execution.

THE PARADIGM SHIFTS FROM DEEP VERTICAL EXECUTION TO BROAD HORIZONTAL INTEGRATION

DEVELOPMENT ENGINEER

SYSTEM ENGINEER

Technical Expertise	Highly specialized, deep, and vertical.	Medium depth, but highly broad, comprehensive, and multi-disciplinary.
Management Style	Direct line-management of a localized, dedicated team.	Cross-functional leadership driven purely by influence and negotiation.
Systemic Impact	Confined to the localized sub-system or specific discipline.	Extremely high, integrative, holistic, and horizontally focused.
Customer Exposure	Highly limited; interactions mostly internal during testing.	High exposure; direct, face-to-face management of customer needs.

Dividing the field: Strategy, Requirements, and Planning

Category	System Engineer	Sub-system Lead
Overall Responsibility	Shares holistic systemic and managerial responsibility in direct coordination with the Project Manager.	Holds absolute technical and managerial responsibility for their specific discipline or isolated component.
Requirements Definition	Defines overarching system requirements with rigorous, unbroken traceability directly to the customer's contract.	Defines component requirements derived strictly and solely from the SE's overarching system requirements.
Working Point & Planning	Defines the systemic working point and drafts the Systems Engineering Management Plan (SEMP).	Defines the component working point and builds a disciplinary work plan perfectly synchronized with the SE's overarching plan.

Dividing the field: Execution, Risk, and Integration

Category	System Engineer	Sub-system Lead
Integration & Tests	Ultimately responsible for system-level integration, comprehensive testing, and final system design approval.	Responsible for component integration and test approvals; actively participates as a contributor in system-level tests.
Risk Management	Owns, tracks, and mitigates systemic, cross-disciplinary technical risks.	Owns, tracks, and mitigates localized technical and managerial risks isolated within their specific discipline.
Reviews & Communication	Leads internal system-level design reviews and all technical correspondence with the Customer, partners, and PM.	Leads internal component-level reviews and handles technical correspondence exclusively with component sub-contractors.