PATRICK LUKASAK

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SUMMARY

Design leader with 20+ years building and scaling product design across medical devices, robotics, automotive, IoT, and consumer. I build design functions from the ground up and lead them as a player-coach, staying hands-on for the most critical work. I have deep experience shipping products with a shared design language across hardware and software in safety-critical, regulated environments (FDA human factors, IEC 62366, ISO HE75, design controls), and I turn complex, high-volume data into interfaces people can act on. I build AI into both the design workflow and the products themselves. Proven people leader: a decade directing design teams at Adidas and Reebok, founding the design and research function for Medtronic's surgical robotics operating unit, and standing up the UX practice for PTC's IoT innovation team, in each case enabling fast, iterative design decisions grounded in data.

EXPERIENCE

Senior Principal Designer, UX Design & Strategy | Medtronic (Surgical Robotics) *2022 – Present*

- Founding design leader for Medtronic's surgical robotics operating unit: built the design and research function from the ground up, grew the team from 2 to 9 designers, established its first design operations framework and career development path, and lifted design-process efficiency 84% by treating the process itself as a product.
- Put AI to work across the design team: building design systems, automating digital prototyping, and creating agents that work alongside designers to answer research questions, explore multiple directions quickly, and pressure-test design decisions.
- Built the operating unit's rapid-prototyping and formative research practice: ran 9 complex in-person formative studies, surgeon and clinician advisory sessions every six months, and 15 remote UX research sessions this year.
- Built the surgical operating unit's design system: a shared design language and reusable pattern library spanning multiple surgical robotics programs, instruments, and services across hardware and software, encoding the physical environment, proxemics, and UX heuristics to hold consistency as the portfolio scales.
- Created a Robotics Heuristic Evaluation Framework for HCI and human-robot interaction in surgical environments, adopted org-wide by the Next-Gen Hugo, Project Nautilus, and Athena Energy Generator teams.
- Design to FDA human factors and usability standards (IEC 62366, ISO HE75), balancing iterative design against design controls; decisions reduced user error rates and improved patient safety across four Hugo RAS releases, including the v5.0 software revision that gained US sales approval.
- Simplified a safety-critical operating-room notification system, auditing and re-categorizing all 265 system notifications down to 32 aligned with user mental models to cut cognitive load. Patented.
- Designed an escalating multimodal alert system across haptic, light, sound, and UI, grounded in Naturalistic Decision Making research, to keep surgical teams in a flow state longer. Patented.
- Designed a computer-vision 'no-go zone' visualization using a digital twin to ease the discomfort of working near heavy robotic arms, raising surgical-team confidence.
- Designed a 3-step calibration progress indicator giving teams clear visibility into robot status and time remaining, cutting calibration frustration 90%.
- Designed Luna, a 3D navigation system that simplifies complex lung navigation for diagnostics and therapy, leveraging AR features (patent pending) and AI algorithms (patent pending).
- Partner early with Product, Engineering, Quality, and Regulatory; facilitate cross-functional workshops spanning journey mapping, product naming, and positioning; and lead executive communication through design reviews.

Senior Manager UX Design & Researcher | Immuta *2021 – 2022*

- Led design for a big-data governance platform, turning complex, high-volume data access policies into clear, usable workflows; cut user error 40% and contract abandonment 54% in core policy creation, and cut data-access approval time 100x with a redesigned notification flow.
- Co-developed the company's first design system, grounded in research and accessibility standards, improving accessibility 55% against WCAG and APCA.
- Stood up the company's research practice, implementing Dovetail as the research repository and analysis system.
- Designed a dashboard that turns automated security-task data into actionable insights and tracks data-pool health, giving teams an at-a-glance view of risk.
- Directed a full corporate rebrand with marketing, informed by user research and market analysis, improving brand recognition by 137%.

Lead UX Strategist, IoT / AR / VR / AI | PTC *2019 – 2021*

- Built the team's UX design and rapid-prototyping practice from scratch for a connected IoT hardware-and-software ecosystem, including co-development partnerships with Rockwell Automation and Whirlpool.

- Defined the UX strategy for PTC Orbit, an AI-first asset intelligence MVP that unified data from five enterprise systems (PLM, ERP, CRM, IoT, FSM) into a single system of record, letting teams act on fleet-level, real-time performance data previously trapped across silos; built the concept prototype.
- Led strategy for Digital Performance Management (DPM), surfacing manufacturing-plant performance data across global industrial sites by combining connected-robot and human inputs; developed its Action Tracker and Bottleneck modules to monitor corrective initiatives across the enterprise, a service and business-process experience.
- Designed Vuforia Expert Capture, an AR authoring tool on Microsoft HoloLens for guided assembly of complex products, reducing onboarding time and reliance on memorization.
- Pioneered an ML-powered ergonomic analysis tool that read workstation video to surface safety risks and optimize worker posture relative to robotic systems.

Global Design Head | Adidas Group / Reebok *2008 – 2019*

- Directed and grew a multidisciplinary design team of 18 spanning design management, industrial design, graphics, color and materials, and consultancy, owning the full people cycle: hiring, growth plans, critique, leveling, performance reviews, and promotion advocacy.
- Translated commercial priorities into team structure, headcount, and design capacity, tying the group's design plan directly to business needs.
- Created the Nano franchise, the first segment-defining CrossFit shoe: a 0-to-1 product that reached $75M in annual revenue, roughly a third of Reebok's global footwear sales at the time.
- Created and managed multiple footwear franchises (Zigtech, Spartan Trail, Flexagon, Hexalite, Sublite), growing sales in the sub-$100 category 240%.
- Drove 130% YoY growth in Reebok's core performance business through design and human-factors work across the footwear line.
- Pioneered bringing sales data and online user feedback into the footwear design briefing process, cutting design workload, increasing development speed 33%, and simplifying the product line by focusing on fewer, higher-volume offerings; adopted org-wide.
- Creatively directed Reebok's largest-ever footwear rebranding campaign, informed by consumer research.

Automotive Concept Designer | Honda R&D Americas *2004 – 2008*

- Acura MDX: led design for the production SUV from concept to production, balancing design intent against NHTSA safety regulations and navigating homologation across US, European, and Chinese markets.
- Acura NSX concept (ASCC, Advanced Sports Car Concept): premiered at the Detroit Auto Show and established Acura's new design language and brand direction (Keen Edge, Precision Crafted Performance), still in use today; 2 design patents granted.
- Research-stage concepts: took usability innovations like hidden storage and a 2-way tailgate from concept to production.

Founder, Design Consulting | MATTER Consulting (parallel practice) *2016 – 2022*

- Michelin: led stakeholder research and product strategy for a fleet tire data platform, supporting a successful relaunch.
- Adidas: designed and prototyped an IoT app using real-time biomechanical data to coach athletic form, bridging hardware and software.
- PJ Masks: designed consumer toys for the children's franchise, from concept sketches through production.

CORE COMPETENCIES

Design Leadership: Team Building & Scaling | Player-Coach Leadership | Design Operations | Mentoring & Career Paths | Vendor & Headcount Management | Executive Communication

Design Craft: Interaction Design | UI / UX | Design Systems | Industrial / Hardware Design | Mobile & Web | Rapid Prototyping | Human Factors Engineering

Regulated & Human Factors: FDA Human Factors | IEC 62366 | ISO HE75 | Design Controls | NHTSA | Agile / SAFe

Complex Data & Systems: Data-Dense Interface Design | Data Visualization | IoT / AR / VR Ecosystems | AI/ML-Enabled Products

Tools: Figma | Adobe Creative Cloud (Photoshop, Illustrator, InDesign) | Miro | Jira | Confluence | Dovetail | Microsoft 365

EDUCATION

B.S., Transportation & Industrial Design (with Honors), Art Center College of Design

B.F.A., Fine Art & Art History (with Honors), Minor: Native American Studies, Rutgers University

CERTIFICATIONS & PATENTS

Design Thinking Certificate, d.school @ Stanford University | Certified SAFe Agilist | Design for Manufacturing, Black Belt | NN/g User Research

Patents: 14 total, 8 granted and 6 pending, across Honda and Medtronic