

# Don Pancoe

Industry 4.0 and Digital Manufacturing Leader | CTO | P.E.

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Technology executive and Professional Engineer specializing in Industry 4.0, digital manufacturing, and industrial automation. Proven leader of complex hardware–software systems spanning factory floor to cloud, aligning technology to business goals such as speed-to-market, scalability, operational resilience, and capital efficiency. Increasingly integrating data, analytics, and AI-enabled techniques into industrial systems to improve diagnostics and decision-making. Background includes startup CTO leadership, consulting, and hands-on engineering in regulated industrial environments.

## EDUCATION

Master of Science in Industrial Design  
Philadelphia University, 2013

Bachelor of Science in Electrical Engineering  
Pennsylvania State University, 1990

## CERTIFICATIONS

Professional Engineer, Commonwealth of Pennsylvania  
License # PE070908, issued June 8, 2004

Professional Engineer, State of New York  
License # 085101, issued July 31, 2007 (no longer registered since July 2025)

Ignition Core Certification, issued February 16, 2024

4.0 Solutions Digital Factory Mastermind Program, August 2023 to present

## PROFESSIONAL EXPERIENCE

### **Senior Principal Electrical Engineer, AirJoule LLC Dec 2024 to present, Newark, Delaware**

Senior technical leader responsible for the electrical, controls, and connectivity architecture of early-stage industrial Atmospheric Water Generation (AWG) machines, with a focus on deployment today and Industry 4.0 integration readiness at customer sites

- Lead electrical and control system design for AWG machines under tight delivery timelines and low-volume production constraints, while maintaining scalability and Industry 4.0 readiness
- Define control hardware and IO strategies that balance immediate buildability with future automation, AI-driven optimization, standardization and cost reduction
- Own site-level electrical planning and upgrades, including power capacity, voltage strategy (208V / 480V), and expansion considerations
- Influence controls software architecture based on prior Industry 4.0 and IIoT experience, without over-engineering ahead of production realities
- Design and implement AWS-based remote telemetry and monitoring to support commissioning, diagnostics, and field support of deployed machines
- Serve as primary electrical and controls SME for manufacturing sites and customer deployments, ensuring safety, reliability, and rapid issue resolution

### **Principal, Blinkenlights Technologies, LLC 2021 to present (LLC formed 2023), Philadelphia, Pennsylvania**

Consulting and advisory services spanning digital manufacturing strategy, industrial automation, and full-stack product development. Engagements include fractional CTO leadership, controls and IIoT

**Blinkenlights Technologies, continued**

architecture, and hardware-software system design for industrial, energy, agriculture, and advanced materials clients. Also provide pro bono mentorship to early-stage founders

- Key Project: Phoenix Tailings, Burlington, MA
  - Led foundational architecture, specification, and deployment of control systems for the first U.S.-based commercial rare earth metal refining operation in 40+ years
  - Designed and implemented PLC, HMI, and data infrastructure supporting novel metallurgical processes
  - Established early digital manufacturing and data strategy used during fundraising and scale-up
  - Worked extensively with Ignition (Inductive Automation) and industrial PLC platforms (Rockwell and others)
  - Coordinated internal teams and external integrators during rapid technology maturation

**Cofounder, Chief Technology Officer, Interim Chief Executive Officer, Kapsul, 2016 to 2023 (Interim CEO from July 2022), Philadelphia, Pennsylvania**

- Cofounded and led technology strategy for an investor-backed manufacturer of connected home comfort products, successfully bringing a flagship product to market and through multiple production seasons
- As CTO, owned end-to-end electrical, embedded software, IoT, and production test architecture, aligning product and manufacturing decisions with cost, reliability, and scalability constraints
- As Interim CEO, led final fundraising efforts and managed an orderly wind-down when additional capital could not be secured, with a strong emphasis on transparent communication with investors, employees, and partners
- Maintained stakeholder trust during the transition through clear governance and disciplined decision-making under significant uncertainty

**Principal, Likuma Laboratories, LLC, 2014 to 2016  
Philadelphia, Pennsylvania**

- Cofounded and led early-stage product development consultancy that became the technical and organizational foundation of Kapsul, including user-centered design of connected appliances, embedded electronics, and control systems spanning concept through working prototypes

**Principal Consultant, 2015 to 2016  
Macro, a division of Ross & Baruzzini, Chalfont, Pennsylvania  
Systems Engineer, 2001 to 2015  
Clifton, Weiss & Associates, Gwynedd Valley, Pennsylvania**

- Led and consulted on safety-critical transportation systems, including Positive Train Control and mission-critical control centers, delivering integrated control and communications architectures in regulated environments

**Systems Engineer, 1995 to 2001  
STV Incorporated, Philadelphia, Pennsylvania**

- Systems engineering across transportation and infrastructure projects, including vehicle testing, field validation, and development of large-scale operational network concepts supporting safety, reliability, and performance

**OUTSIDE ACTIVITIES:**

- Mentor to early-stage founders and engineers through Founder Institute, Techstars and the Philly Hardware Meetup community