BRENDAN GEARY

Industrial Designer · Design Engineer

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PROFILE

Multidisciplinary Industrial Designer and Design Engineer from the University of Illinois Urbana-Champaign with a experience spanning consumer electronics, accessories, and furniture design. Equally at home developing original product concepts and solving manufacturing problems with hands-on experience in SolidWorks, Keyshot rendering, DFMA, woodoworking, soft goods construction, and modeling/prototyping. Designs for how things are made, not just how they look. Interested in roles where craft and engineering thinking are both expected.

CAPABILITIES

CAD & Modeling SolidWorks — parametric modeling, assemblies, technical drawings	**Visualization** Keyshot — studio lighting, material dev, presentation-ready renders	**DFMA** Design for manufacture & assembly — part reduction, tolerancing, cost-out
Technical Drawing Shop drawings, dimensioned sketches, hand drafting, annotation	**Materials & Process** Wood joinery · Soft goods · Hardware · CNC-optimized geometry	**Design Process** Research → brief → ideation → prototype → production documentation

Software: SolidWorks · Keyshot · Adobe Illustrator · Adobe Photoshop · Adobe InDesign

PROJECT EXPERIENCE

ARES_Mk1 — Performance Headphone System

Spring 2026

Consumer Electronics · SolidWorks · Keyshot · User Research · Competitive Analysis · DFMA · Technical Specification

- Designed a tactical over-ear headphone system for high-intensity training, defining the product from a gap in the market (existing headphones failing in sweat-heavy, explosive-movement environments) through to a resolved, fully rendered final design.
- Conducted structured competitive analysis of leading platforms (AirPods Max, Sony WH-1000XM6), documenting specific failure modes against a defined use context and translating findings into a formal design brief and set of measurable requirements.
- Developed full parametric geometry in SolidWorks and produced a professional visualization suite in Keyshot: cinematic hero renders, annotated feature callout diagrams, and a labeled exploded view, communicating design intent at both aesthetic and engineering levels.
- Specified materials and controls with functional rationale: antimicrobial performance mesh for moisture management, knurled aluminum volume knob for gloved tactile differentiation, and reinforced structural housing for drop resistance.
- Maintained a cohesive product identity from brief through final presentation, demonstrating ability to carry a design program end-to-end with consistent brand and engineering coherence.

Threshold — Furniture Design System

Fall 2025 – Spring 2026

Furniture Design · Wood Joinery · DFMA · Material Specification · SolidWorks · Technical Documentation

- Designed a furniture system exploring the intersection of traditional Danish woodworking joinery and modern work environments, balancing craft aesthetic with DFMA discipline to produce a design that is both visually resolved and practically manufacturable.
- Applied DFMA principles to joinery selection and part geometry: minimizing unique part count, designing for tool-accessible assembly, and specifying joint types based on structural load, grain direction, and production repeatability.
- Selected wood species, hardware, and finish based on structural performance, workability, and long-term surface durability, with documented material rationale for each decision.
- Produced dimensioned SolidWorks drawings, joinery detail sheets, and assembly documentation for fabrication, demonstrating ability to translate design intent into precise, production-ready specifications across a material-driven project.

Mammoth Bike Bag — Hard-Use Carry System Fall 2024

Accessories Design · Soft Goods Construction · DFMA · Material & Hardware Specification · Construction Documentation

- Developed a hard-use cycling carry system from research brief through final prototype, managing the complete product development cycle independently: user research, concept ideation, material and hardware specification, prototype iteration, production documentation, and mass production.
- Applied DFMA principles throughout: standardized hardware across attachment points to reduce SKU count, minimized part complexity for repeatable assembly, and designed load-path geometry to distribute stress away from failure-prone zones.
- Specified all materials and trims against functional requirements (load-bearing webbing rated to dynamic cycling loads, weather-resistant face fabric, corrosion-resistant hardware) with documented rationale for each selection.
- Produced full construction documentation communicating pattern geometry, seam allowances, hardware placement, and assembly sequence – clear enough for fabrication without additional engineering input.
- Iterated through multiple prototype stages, attending to fit accuracy and construction quality at each stage and incorporating corrections into updated documentation before advancing.

EDUCATION

University of Illinois Urbana-Champaign Aug 2022 – May 2026

Bachelor of Fine Arts, Industrial Design · GPA: 3.33

Coursework: Design for Manufacturing & Assembly · Materials & Processes · Technical Drawing · Furniture Design · Soft Goods · Prototyping · Visual Communication

PROFESSIONAL EXPERIENCE

University Housing Desk Clerk — University of Illinois Aug 2022 – May 2026

- Managed high-volume front-desk operations across four years building skills such as inventory tracking, multi-party communication, and deadline-driven procedures. Built the organizational and documentation habits that carry directly into a design engineering workflow.
- Trusted with resident safety as a mandated reporter, demonstrating reliability and composure under responsibility.

Summer Camp Counselor — Village of Evergreen Park May 2022 – Aug 2023

- Coordinated daily programming for groups of 30+ participants, developing strong multi-task management, communication, and team collaboration skills applicable to fast-paced, cross-functional design environments.

LEADERSHIP

Trombone Section Leader — Marching Illini Jan 2025 – May 2026

- Led 40+ musicians across a full performance season, running independent sectionals, delivering individual technical feedback, and maintaining performance standards under deadline pressure. Demonstrates the communication, ownership, and team-management skills that translate directly into collaborative design environments.