

Luke K. Hayworth

Lecturer of Industrial Design, Auburn University

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Biographical Summary

Luke Hayworth is a Lecturer in the Auburn University School of Industrial and Graphic Design. He is also an active professional product and graphic designer specializing in sports and outdoors products. He teaches the Industrial Design first year introductory course, introducing the most essential aspects of industrial design to students in multiple colleges, and preparing industrial design majors for further study. He has a base of experience in multiple fields, including power equipment design, home appliances design, outdoor recreational equipment design, and musical instrument design. He holds master's and bachelor's degrees in industrial design from Auburn University. His research interests focus on the design of sports and outdoors equipment and design education. Currently, Luke is the Co-founder and Design Principle of Hayworth Designs, a sports and outdoors equipment company.

Education

Master of Industrial Design | 2022 | Auburn University

Bachelor of Industrial Design | 2018 | Auburn University

Research Interests

Fitness, Sports, and Athletics Equipment

Outdoor Expedition Products and Equipment

Experience

Hayworth Designs | Co-founder and Design Principal

Jan 2025-Current | Auburn, AL

Mercury Systems | Manufacturing Engineer I

Aug 2025-Jan 2026 | Gulf Breeze, FL

PlayCore | Product Designer

June 2021-Dec 2024 | Chattanooga, TN

Techtronic Industries | Industrial Design Intern

Jan-July 2019 | Anderson, SC

Electrolux Appliances | Industrial Design Intern

Jan.-July 2018 | Charlotte, NC

Teaching Experience

Lecturer | Auburn University

August 2026-Current | Auburn, AL

Graduate Teaching Assistant | Auburn University

3D Industrial Design Principles Studio | Spring Semester 2021

2D Industrial Design Principles Studio | Fall Semester 2020

Anthropometry | Spring Semester 2020

Presentation Rendering | Fall Semester 2019

Graduate Assistantship | Auburn Online

Fall Semester 2019 | Auburn, AL

Undergraduate Grader | Auburn University

Synthesis of Drawing Perspective Section | Summer Semester 2016

Synthesis of Drawing Rendering Section | Summer Semester 2016

Expertise

Product Design

Outdoor recreation products

Musical instruments

Power equipment

Home appliances

Design for people with disabilities

Ergonomic design

User-centered design
Interaction Design
Design for manufacturing
Design processes
Designing around competitor patents
Product semantics (intuitive physical/digital interfaces)
Color, form, and design language development
Manufacturing processes and systems
Utilization of materials in product design
Utilization of finishes and surface coatings in product design
Technical documentation for product design
Technical drawing/ drafting
Product graphics and branding
Design portfolios
Drawing and sketching for product design
Prototyping (construction, testing, and validation)
Product management
Research, experiments, and surveys for product design
Project management of multiple concurrent design projects
Vendor relations (sourcing, negotiations, and coordination)
Managing and implementing changes to product line
Managing product portfolio
Optimizing production efficiency

Specialized Software and Technology

- SolidWorks: solid and surface, large assemblies, configurations, and drawings
- Oracle NetSuite ERP (item creation and management)
- Adobe InDesign, Illustrator, and Photoshop
- Adobe XD
- Digital sketching
- Autodesk Fusion 360
- Autodesk Inventor
- Photography

Patents

US Design Patents

1. Percussion musical instrument [US-D1131624-S]
2. Percussion musical instrument [US-D1131625-S]
3. Percussion musical instrument [US-D1122342-S]
4. Percussion musical instrument [US-D1112461-S]
5. Outdoor drum [US-D1066477-S]

US Utility Patents

1. Percussion mallet assembly for outdoor instruments [US-20260120665-A1]
2. Tuned Spherical Dome Bells and Musical Instruments Including Them [US-20250087194-A1]
3. Outdoor musical instruments having smartphone-interactive features and smartphone stand [US-20230335089-A1]

Foreign Utility Patents

1. Outdoor musical instruments having smartphone-interactive features and smartphone stand [GB2620235]
2. A percussion mallet assembly for connection to an outdoor instrument [GB2702218]

Publications

1. Hayworth, L. K. (2022). Training Program for Industrial Design Sketching. Etd.Auburn.edu.

Awards

Outstanding Graduate Student, Industrial Design, Auburn University | 2020

Outstanding Undergraduate Student, Industrial Design, Auburn University | 2018

Dave Vunk Award | Auburn Highschool Lacrosse | 2014