
BIOGRAPHICAL SKETCH

NAME: Windham, Jerrod

POSITION TITLE: Associate Professor Industrial Design

EDUCATION/TRAINING

Auburn University, Auburn, AL	B.I.D.	06/2000	Industrial Design
Auburn University, Auburn, AL	M.I.D.	05/2007	Industrial Design

Positions and Employment

2000-2001	Industrial Designer, Push Product Design, Birmingham, AL
2001-2007	Project Manager, Push Product Design, Birmingham, AL
2007-2013	Assistant Professor of Industrial Design, Department of Industrial & Graphic Design
2013-Present	Associate Professor of Industrial Design, School of Industrial & Graphic Design

Awards

2010	Young Educator of the Year – Industrial Designs Society of America (IDSA)
2015-2017	Bauhaus Professor - Endowed professorship honor awarded within the School of Industrial and Graphic Design.
2021-2023	Ulm Professor - Endowed professorship honor awarded within the School of Industrial and Graphic Design.

Contribution to Science

The profession of industrial design is experiencing three distinct movements in the early part of the 21st century. Sustainable design, digital manufacturing, and product digitization require designer to develop new strategies and approaches to the production of goods and services. Through sustainable design strategies, the benefits provided by products are being rethought. How can these benefits be provided in alternative ways with less impact both socially and environmentally? While there are many answers, digital manufacturing and product digitization are two promising pursuits. The focus of my academic research lies at the intersection of these three movements.

Environmental impact can be reduced by transferring the benefit formerly provided by a physical product to a digital product or service. Here, design methods and strategies long employed by industrial designers and graphic designers are combined to create new and innovative user interfaces and experiences. Digital manufacturing, including 3D printing, is the antithesis to the mass production model of delivering products that has defined the industrial revolution, and many of the negative impacts we associate with it. Physical goods can now be manufactured on-demand and customized to each individual user.

In-depth research, exploration, and development is being done within the context of undergraduate and graduate courses. It is also the subject of graduate level thesis projects under my direction. Many of the papers and presentations in this document are outcomes of these research efforts.

Assistive Technology Design Lab

The Assistive Technology Design Lab was created in 2014 to support the research and development effort of a design collaboration started in 2008. The collaboration included Auburn's School of Industrial and Graphic Design and The Center for Disability Research and Service. The focus of the collaboration has been the

development of assistive technology to improve the lives of those with disabilities. The research and development conducted by faculty, graduate research assistants, and undergraduate students. The backbone of the collaboration is an inter-disciplinary design studio. I have served as lead faculty for the program since 2010. Below is a summary of the focus of the collaboration since 2010.

- 2021 Collaborative studio with multiple entities including *Amputee Blade Runners, Alabama State Department of Prosthetics and Orthotics, and TRS Prosthetics*. Students developed assistive devices including bilateral amputee golf devices, pediatric prosthetic feet, and assistive devices for prosthetists.
- 2018 Collaboration with *Georgia Tech Engineering* in developing design concepts for “Musical Vision”, a device to aid the visually impaired to understand their physical surroundings through binaural audio feedback.
- 2017 Collaborative studio sponsored by *Superior Recreational Products* to develop playground equipment appropriate for children on autism spectrum.
- 2016 Specifically focused on digital fabrication (3D printing) as a means to create highly customized prosthetic devices
- 2014-2015 The focus shifted somewhat to the unique opportunities digital fabrication had in the development of assistive technology
- 2011-2013 The collaborative studio focused on developing solutions for the disabled U.S. veteran population
- 2010 The collaborative studio focused on opportunities to leverage research and exploration to develop universal design solutions

Grants

- 2021 “Measuring Trunk Stability and Range of Motion”, *National Institute on Disability, Independent Living, and Rehabilitation Research*, \$595,995 total reward. (2021-2023), Co-I
- 2021 “Perspective Design Sketching Workbook”, *College of Architecture, Design and Construction SEED Grant*, \$4820 total reward. (2021-2022), PI
- 2017 “Affordable Accessible Housing Solutions for the Aging in Place and People with Disabilities”, *Department of Housing and Urban Development*, \$633,954 total award. (2017-2018), Industrial Design Advisor
- 2016 “Touch-Voice-Eye controlled assistive technology for veterans and service members with significant disabilities”, *Department of Veterans Affairs-Veterans Health Administration*, \$199,630 total award. (2016 - 2017)
- 2015 “Exploration of Wearable Product Virtual Design Process and Cognition using 3D Parametric Modeling and 3D Printing Technology”, *Auburn University Intramural Grant Program*, \$10,000 including matching funds. (2015-2016), Co-I.
- 2010 “Assistive Technology Studio, Creating Innovative Solutions and Improving Lives”, *Auburn University Intramural Grants Program*, \$6,000 including matching funds. (2010), PI
- 2011 “Assistive Technology Studio, Wounded Warriors”, *Auburn University Intramural Grants Program*, \$94,566 including matching funds. (2011-2013), PI

Other Funding

- 2019 “Composition” and interactive art piece for the grounds of the Jule Collins Smith Museum of Fine Arts, *Auburn University Tiger Giving Day*, \$15,000 raised by crowdfunding in addition to funding provided by the Museum.
- 2017 Corporate sponsored design studio by *Superior Recreational Products* \$30,000
- 2015 “3D Printed Prosthetics”, *Auburn University Tiger Giving Day*, \$10,400 raised by crowdfunding. (2015)
- 2014 “Assistive Technology Design Lab”, *College of Architecture Design and Construction*, \$40,000 internal support for continued research and collaborative studio. (2014)