

Skills

- Product development, engineering design, rapid prototyping, material acquisition
- Project management
- Design for manufacturing, design for assembly, material selection
- Testing and validation, quality assurance, failure analysis
- Documentation and technical writing
- 3D CAD modeling, Solidworks 2022 and Visualizer, Autodesk Fusion 360
- 3D printing, Cura, Dremel, Formlab, FDM, SLA, SLS
- Laser engraving, cutting and etching, Full Spectrum, Retina Engrave, RMI
- CNC machining, CAM, G&M codes, Haas
- Programmable logic controllers: Allen and Bradley, SLC500, PLC5, RSLogix5000, ControlLogix, RSLinx
- Hydraulic/pneumatic power, prime movers, pumps, controls, and troubleshooting
- Automation control systems, troubleshooting, closed loop, sensors, routing, GPIO interface, PID control
- Controls logic diagnosis/troubleshooting, wiring diagrams, ladder logic multimeter/ oscilloscope
- Gas tungsten arc and oxy-fuel welding and cutting, brazing
- Robotic palletizing/material handling, user/tool/work frames, vision systems, simulation, RIA standards, group IO
- PCB design, schematics, board layout, wiring diagrams, ladder logic multimeter/oscilloscope: Eagle, Dip Trace
- AC/DC motors and generators, three-phase and single-phase, alternators, VFDs, synchronous, servo, and stepper
- Computer coding/programming: Python language, structured text, function block diagrams
- Rectifier and amplifier circuitry, transistors, transformers, schematic

Education

Washtenaw Community College	Ann Arbor, Michigan	
<i>Mechatronics Program concentrating in Industrial Electronics</i>		September 2018 – June 2020
<i>4.0 GPA Dean's High Honor Roll</i>		
<i>Music Production/Engineering</i>		September 2005 – May 2007
<i>3.95 GPA High Honors</i>		
University of Michigan	Ann Arbor, Michigan	
<i>B.A. in Music, Minor in German</i>		September 2000 – June 2004
<i>3.5 GPA</i>		

Professional Experience

<i>Product Engineer, Project Manager</i>		November 2018 – present
H3D, Inc.	Ann Arbor, Michigan	
A-Series handheld radioisotope identification devices product line, mechanical and electronic design, production support, process flow creation and management, quality metrics documentation and assurance, ISO compliance, ANSI standards, cross-functional collaboration.		
<i>Lead Brewer</i>		July 2011 – January 2018
Wolverine State Brewing Company	Ann Arbor, Michigan	
Recipe creation, production from grain to glass, facilities maintenance and repair, marketing and promotion, quality control, packaging, inventory.		
<i>Head Sound Engineer</i>		September 2009 – July 2018
LIVE and Goodnight Gracie's	Ann Arbor, Michigan	
Live sound design, stage reinforcement, event management and cabling.		

Complete list of experience upon request...