

TIMOTHY HUNT

MEDFORD, MA 02155

(781) 498-8570 | Timjim81502@gmail.com

PROFESSIONAL PROFILE

Vocational High School Junior with 9 years of design and manufacturing experience across disciplines from carpentry to robotics. Deep hands-on expertise with custom submersibles, having worked on the Sunk Robotics MATE ROV team and designed deep sea exploration hardware for 500-meter depth. Uses spatial reasoning skills to design solutions to complex physical problems and create jigs to assist in manufacturing. Ability to rapidly conceptualize, prototype, and iterate. Worked on high school robotics team, assuming a leadership role. Learns new skills and concepts quickly.

CORE COMPETENCIES

Rapid Prototyping | Design for Manufacture | Systems Thinking
Cross-Functional Collaboration | Troubleshooting Electromechanical Systems

TECHNICAL PROFICIENCIES

- CAD/FEA: Fusion 360
- 3D Printing: Prusa MK3S/MK4S, Formlabs Form 3
- Machines: Laser Cutter, 3-Axis Manual Mill, 3-Axis Manual Lathe, Water Jet, Belt Grinder, Drill Press
- 9+ Years Hand Tool Experience
- Furniture Making
- Wooden Boat Building
- PCB design and manufacture
- Soldering
- Coding: Python, C, Java

WORK EXPERIENCE

- Medford Recreation, Bath House Attendant - Summer 2024

SELECT TECHNICAL PROJECTS

Sunk Robotics MATE ROV Competition

Designed and manufactured thruster guards, safety handles, strain relief, tube clamps, hydrodynamic optimizations, and camera mounts for JONA ROV, a submersible made for the MATE ROV competition. Learned new skills by working in a team environment. Wrote technical documentation for competition submissions. Delivered presentations to communicate technical information to community members, younger students and experts.

Sunk Robotics Deep Sea ROV

Currently finalizing fusion 360 design for BOB ROV rated to 500 m depth. Designed fully custom electronics enclosure, external frame, syntactic foam flotation, and lighting solution. Performed Finite Element Analysis (FEA) to ensure hull integrity and to optimize for weight. Used displacement and mass distribution to calculate buoyant balance. Consulted with experienced professionals and an MIT professor to ensure safety and structural integrity.

Custom Hardwood Desk

Designed and built finish quality maple desk. Accounted for seasonal wood expansion. Managed dowel pin wood glue assembly of 31 primary pieces. Built custom jigs for drilling repeatability. Consulted with experts to ensure design viability. Sketched and drafted initial design before 3D modeling.

EDUCATION

Medford High School & Vocational Technical High School, Robotics and Engineering

Class of 2027