Ian Talbert

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Education

Bachelor of Science, Mechanical Engineering **May 2026**
Rose-Hulman Institute of Technology, Terre Haute, IN

Technical Skills

SOLIDWORKS & Creo Parametric C++ & Python
CNC Programming, 3D Printing Metal Fabrication – Mill & Lathe
Familiarity with Studio 5000, ROBOGUIDE

Work Experience

Broan-Nutone, *Automation Engineering Intern* **June ’25 – August ‘25**

- Prototyped and revised no-force retention mechanism for recessed-pin connector in high-volume manufacture environment for easy maintenance and interchangeability
- Communicated with vendors to appropriately configure and quote electric servo drive, motor, and actuators to achieve cycle time reductions
- Designed combination bend and rework jig to achieve necessary cycle time for ROI
- Drafted and revised drawings for toolroom according to department standards
- Investigated and costed potential product improvements based on consumer feedback

VEX Robotics, *Mechanical Engineering Intern* **May ‘24 – August ‘24**

- Designed and fabricated a drone thrust test stand to evaluate propulsion components and duct design
- Built and soldered drone prototypes and performed qualitative flight testing
- Ideated and prototyped magnetic and motorized object manipulators from rough prototype to drone-scale
- Optimized prototype game objects for size, clarity, and performance under prop wash
- Designed and built a drive test platform for early education product line
- Modelled parts for Nylon SLS and multicolor resin 3D printing processes

GE Appliances, *Central Materials Co-op* **August ’23 – November ‘23**

- Launched and improved autonomous finished part material movement using autonomous mobile robot (AMR)
- Developed part shortage impact dashboard in Python for materials planners and reworked older programs to have graphical UI
- Evaluated 3D scanning systems and presented findings to department management

Extracurricular Activities

Rose-Hulman Combat Robotics Team **November ’23 – September ‘25**

President, 2025-2026

- Communicated with administration, membership, and advisors to plan and receive approval for travel to competitions in IL, TN
- Introduced organizational tools – kit-of-parts inventory and check-out sheet, calendar
- Organized and participated in live and asynchronous design review of peer robot designs

Personal Projects

Combat Robots **November ’23 – September ‘25**

- Designed 9 robots from scratch in SOLIDWORKS, considering component cost, performance, and availability of materials and manufacturing methods for custom parts
- Quantitatively evaluated and optimized brushless motor controller settings for spool up time for large inertia spinning weapons while minimizing heat generation
- Designed and sold 3lb 3D printed robot kit with assembly and wiring documentation
- Reigning Midwest Combat Robot Association Champion in 1lb and 3lb weightclasses
- 29 career podiums and 13 event wins in 60 entries