Camden Kilroy

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Education

Purdue University, College of Engineering, West Lafayette, IN **August 2023 - Present**
Bachelor of Industrial Engineering, Expected May 2027

Experience

General Motors - Corvette Assembly Bowling Green, Kentucky
Industrial Engineering Intern June 2025 – August 2025

- Validated jobs using motion and time studies for operators on the chassis assembly line
- Designed and implemented a new frunk subassembly area to be able to build frunks within the cycle time
- Used AutoCAD to create layouts for various projects around the plant

Allison Transmissions Speedway, Indiana
Test Engineering Intern June 2024 – August 2024

- Assisted in running a variety of transmissions through testing
- Installation, setup, and removal of transmissions in test cells
- Created a transmission catalog that tracks transmission location, date, serial number, and work request

Purdue Baja Racing West Lafayette, Indiana
Data Acquisition Lead January 2024 – Now

- Design, prototype, test, and implement a data acquisition system into the Purdue Baja racing car to collect valuable testing and race data
- Designed and assembled several PCBs used on the 2025 Baja car, including long-range transceivers, IR temp sensors, and general nodes

Technical Skills

Lean Green Belt • CAD Modeling • Altium PCB Design • Time/Motion Study • Eagle Scout • Project Management • MATLAB • AutoCAD • Programming

Projects

Long Range Wireless Transceiver - Purdue Baja Racing

- Designed, printed, and assembled PCB with a LoRa module, RP2040 microcontroller chip, MCP 2562 CAN transceiver, and MCP 2515 microchip
- Achieved fast transmission speeds over a long distance, sharing important vehicle information with the Purdue Baja pit crew in real-time

Autonomous Table Tennis Robot - Purdue SPARK Challenge

- Work alongside a team of other Purdue Engineering students to design, manufacture, and test an automatic table tennis robot.
- Use Autodesk Inventor to design a fast, cost efficient, rail system to move a ping pong paddle
- Test and program brushless motors and brushless motor controllers with PID and hall encoder

Bicep Curl Climber Design – Ri3D RustHOUNDS

- Founding member of a “Robot in 3 Days” team, a collegiate engineering challenge to design, build, and test a competition ready First Robotics Competition (FRC) robot in 72 hours
- Conceptualized and developed the “Bicep Curl Climb”, a compact climbing mechanism adopted by 35% of the top 100 FRC teams for the 2025 season
- Published documentation with 1.9M+ views, fostering collaboration among nearly 4,000 high school robotics teams worldwide