

Trevor J Ladner

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Professional Experience

SpaceX

June 2023 – Present

Supplier Development Engineer – Starlink

- Act as the technical point of contact to suppliers, solve emerging issues at suppliers, analyze risk, and review production plans to grant PPAP for electrical harnessing and cable parts
- Perform root cause analysis of field failures to determine corrective actions for part robustness
- Delivered electromechanical parts that meet quality and design requirements for high volume consumer electronic devices
- Review CpK data, First Article Inspection Reports, Gage R&R reports, and outgoing quality check data to verify that parts are meeting production intent throughout production
- Implement manufacturing and inspection process improvements at suppliers to expedite part production rate and improve part quality for both aviation-grade and consumer components
- Conduct DFM reviews of power and ethernet cables on Starlink aero-terminal and user-terminal products, providing feedback to ensure design manufacturability and reliable part inspection
- Ensure aviation harnessing components meet the documentation and drawing requirements necessary to be compliant with FAA restrictions on air worthy components
- Develop and implement incoming inspection plans to monitor part quality and reliability according to drawing requirements following AQL standards
- Audit vendors to ensure robust quality management systems to AS9100 requirements

Rivian Automotive

Interior Materials Engineer – Rolled and Soft Goods

July 2022 – February 2023

- Owned soft goods commodity, and led material validation, prototyping, data analysis, and design of experiments for textiles, coated textiles, laminates, and other trim materials
- Investigated production issues for materials with multiple suppliers to implement preventive actions and ensure material robustness in vehicle
- Collaborated with program engineers, program management, design studio, quality engineering, and suppliers to deliver quality materials in a timely manner to meet program and design requirements
- Increased the sustainability of vehicles by driving development of 9 new materials

Interior Core Engineering Intern

Summer 2021

- Managed and analyzed test data for all interior systems (500+ components) to meet compliance with FMVSS 302 and other federal certification standards
- Oversaw deployments and part configuration for curtain airbag functionality testing

Interiors Engineering Intern

Summer 2020

- Led development of 40+ testing specifications for vehicle interiors based on ASTM, ISO, SAE, and FMVSS standards to ensure robust testing of all interior products

Design Projects

Water Temperature Control Mechanism (Senior Design)

Spring 2022

Responsibilities: Testing, Project Management, Circuit Design, Product Design, Arduino, C++, Solidworks

Runner up in the Malott Innovation Award in Mechanical Engineering

2 Player Pinball/Foosball Toy (Toy Design Course)

Spring 2021

Responsibilities: Surface Model Design, Linkage Mechanism Design, Creo

RC Car (Toy Design Course)

Spring 2021

Responsibilities: Steering Mechanism Design, Packaging Design, Creo

Skills

CAD | CATIA | Collaboration | Validation | Rapid Prototyping | Python | DFMEA/PFMEA | GD&T | Manufacturing

Education

Purdue University – Main Campus

Spring 2022

Bachelor of Science in Mechanical Engineering – Honors

3.7/4.0