

Jackson McCool

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Education

Colorado School of Mines – Golden, CO

Major: Mechanical Engineering – Automotive Focus – B.S. May 2026, GPA 3.3

Maynooth University – Maynooth Ireland

International Studies Program – Spring Semester 2024

Centaurus High School – Lafayette, CO

Diploma May 2022 – Honors: cum laude, national honor society

Projects

Senior Design, 24 Hours of Lemons - Aerodynamics lead – 2025 – Present

- Working within a team to modify and upgrade a Miata to race in the 24 hours of Lemons race series
- Planned aero package includes custom splitter, diffuser, and active rear wing. CFD done in SW Flow Simulation

Mines Formula SAE, Powertrain – 2024 – Present

- Working within a team to design and build a formula racecar to compete in FSAE
- Member of the powertrain subsystem with a focus on custom part design and fabrication
- Recent parts: Radiator fan shroud, fuel sensor bracket, catch cans, flow control valves

Off Grid Biomass Dryer – 2025

- Worked in a team to design and build a semi-portable biomass dryer that could be used off grid
- The prototype could dry 300 grams of biomass in under twenty minutes
- Manufacturing techniques used: plasma cutting, welding (TIG, Aluminum TIG, & spot), 3D printing, electrical wiring

Pint Glass Bracket – 2025

- Worked in a team to design and manufacture a bracket designed to hold a pint glass in an outdoor setting
- Prototyped in Solidworks Sheet metal with FEA done in Solidworks Simulation
- Manufacturing techniques used: plasma cutting, sheet metal bending, resin printing (SLS)

Aluminum Derby Car – 2023

- Managed a team that worked to design and manufacture an aluminum derby car
- Modeled in Solidworks – CNC programming done in HSM Works – Technical drawings done with GD&T
- Manufacturing techniques used: CNC mill (aluminum & plastic), manual lathe, manual mill, laser cutter

Employment & Internships

Teaching Assistance • FEA – Colorado School of Mines • *August 2025 – Present* | *Employment* •

Coal Creek Bowling • Front Desk & Mechanic – Part Fabrication • *March 2021 – Present* | *Employment* •

Vermont Mountaineers Baseball – Broadcasting & Stats • Produced and ran cameras for public NECBL broadcasts • Managed Synergy stat cameras • Managed pitch speed radar • *June 2023 – August 2023* | *Internship* •

Certifications & Skills

Certifications • Mines Lean Six Sigma Yellow Belt • Solidworks Professional (CSWP) • Solidworks Surfaces (CSWPA-SU) • Solidworks Associate (CSWA) • Autodesk Inventor • Autodesk Revit (Architectural) • Adobe Photoshop •

Skills • EES • GD&T • Solidworks Flow Simulation • CFD • Fluid Dynamics • Vehicle Dynamics • Solidworks Simulation • FEA • G-Code • Mathcad • Microsoft Office • Python • Arduino C • Arduino Hardware • MATLAB • LabView • Hardware integration • Public Speaking • Technical Writing • Creativity • Problem Solving • Project Management • Communication •

Volunteering & Community Involvement

Louisville Community Food Bank • **Jeffco Open Space** • **Vermont Mountaineers** – Volunteer Grounds Crew •

Town of Superior Events – 4th of July Parade floats, 2009-2025 •

Clubs & Organizations

Active Member: Mines Formula SAE - Powertrain • Mines Ultimate • Mines Juggling Club

Former Member: Mines Bowling Club • Mines Kayak Club • Mines Electronics Enthusiasts Club • Maynooth Ultimate