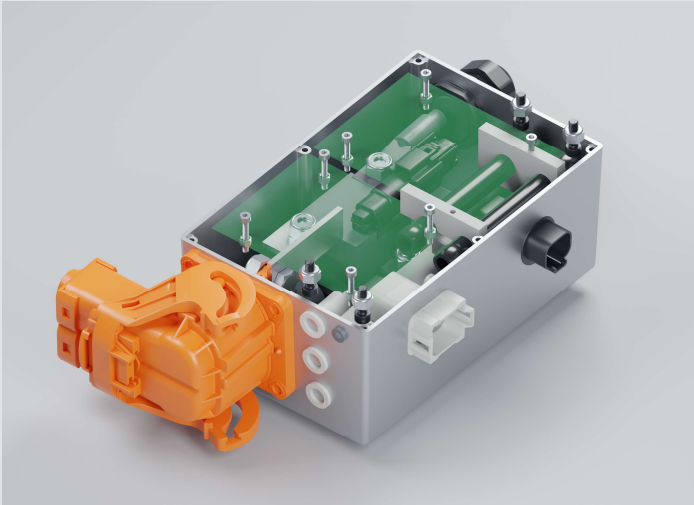


HIGH-VOLTAGE JUNCTION BOX

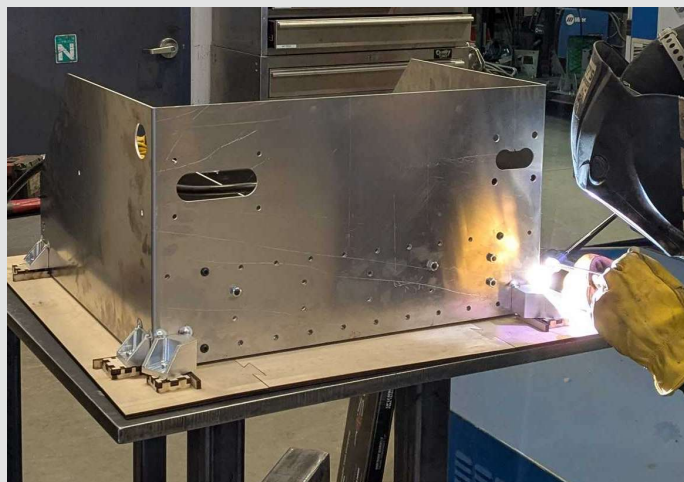
Took responsibility for the mechanical design as my first major team project, developing an initial circuit sketch into drawings ready for machining. The completed design later served as a reference for the 2026 junction box.



*Design completed, but UV24 was cancelled before manufacturing.

BATTERY HOUSING WELDING JIG

Designed and built a parametric laser-cut jig to accurately position battery housing mounts during welding.



SEGMENT STRUCTURAL CALCULATIONS

Worked through the structural requirements and consulted a competition design judge about upcoming changes, incorporating those into my calculation tool to enable our casing design through the two-year development cycle.



Other Engineering Tools

Lap-Time Simulation: Estimated duty cycles and component requirements for UV26 tractive-system components.

Kerf Compensation Macro: Automated a repetitive, error-prone laser-cutting export process in SolidWorks.

Cell and Pack Configurator: Combined cell-test data and FSAE-specific loads to compare and optimize cell and pack configurations for our next EV.

