



STUDENT SUSTAINABILITY COMMITTEE

Semesterly Report

Thank you for your commitment to green initiatives at the University of Illinois. One of the ongoing requirements listed in the terms of the funding agreement for your project is the submission of semesterly reports with key information about your project. In addition to this form, please provide additional financial documentation and/or progress photos if available.

Please be as accurate as possible in describing the project (including possible setbacks or challenges in meeting the initial goals of the project). Not fully meeting your project's goals will not disqualify you from making future funding requests as long as your reports are as complete and accurate as possible. If you have any questions, please contact the Student Sustainability Committee, at sustainability-committee@illinois.edu.

Project Name: Illini Formula Electric SiCVerter & Powertrain

Date of Report Submission: 8/12/2024

Project Purpose:

Industry leaders like GM, Ford, John Deere, and Tesla are adopting more environmentally friendly technologies. These leaders and other employers are actively recruiting students with relevant experiences designing, building, and working on electric vehicle systems. Using the SSC grant, IFE would give students experience in electric vehicle systems, helping build skills sought after in industry.

Detailed Accounting of Expenditures to Date:

Please see attached workbook.

Project Progress to Date:

We ordered revisions of the prototype for the inverter controller after multiple design reviews with graduate students and industry professionals. We have held discussions with Masters and PhD candidates specializing in power electronics regarding testing approaches and plans and have come up with solid testing programs for the inverter. We assembled the first prototypes, tested software functionality, and researched control theory.

Student Involvement and Outreach to Date:

Students have lead hardware reviews and software reviews with companies such as John Deere to get feedback on their designs. RSO members have also had hands on time designing aspects of the custom inverter and incorporating industry feedback into designs.

Marketing and Promotion Efforts to Date:

Internally we have promoted our new generation of custom inverters to appropriate subteams. Externally we continue to advertise and speak about our electric vehicle and plans for custom power electronics. Notably we have presented at events like PECE and POETS.

Additional Comments:

Any additional comments/relevant information for the semesterly report