*Please submit this completed application, the supplemental budget spreadsheet, and any relevant supporting documentation by the deadline indicated in your Step 1 notification letter to* [*Sustainability-Committee@Illinois.edu*](mailto:Sustainability-Committee@Illinois.edu)*.The Working Group Chairs will be in contact with you regarding any questions about the application. If you have any questions about the application process, please contact the SSC Program Advisor, Micah Kenfield, at* [*kenfield@illinois.edu*](mailto:kenfield@illinois.edu)

# General Information

**Project Name:** Illini Formula Electric

**Total Amount Requested from SSC:** 26,500 ($89,000 total budget)

**Project Topic Area(s):** Energy Education Food & Waste

Land Water Transportation

# Contact Information

### Project Lead

Applicant Name: Gregory Danielson

Unit/Department: Mechanical Engineering

Email Address: gedanie2@illinois.edu

Phone Number: 6308427658

### Financial Contact *(Must be Full-time University of Illinois Staff Member)*

Contact Name: Lan Li

Unit/Department: Electrical and Computer Engineering

Email Address: lanlee1995@hotmail.com

Phone Number: 2177214071

Organization Code: 389005

### Facilities Management Contact *(If Applicable)*

Contact Name: Name of Applicant or Project Lead

Email Address: Preferred Email Address

**Primary Project Team**

|  |  |  |
| --- | --- | --- |
| **Name** | **Department** | **Email** |
| Michael Philpott | MechSE/Faculty Advisor | mphilpot@illinois.edu |
| Brue Flachsbart | MechSE/Faculty Advisor | mems@illinois.edu |
| Greg Danielson | MechSE/Mechanical Captain | Gedanie2@illinois.edu |
| Keith Nixon | ECE/Electrical Captain | Kanixon2@illinois.edu |

# Project Description

**Please provide a brief background of the project, the goals, and the desired outcomes:**

Illini Formula Electric (IFE) is a student organization from the University of Illinois at Urbana-Champaign that participates in the Formula Electric competition, both hosted and sponsored by the Society of Automotive Engineers. The goal of the competition is to design, fabricate, and race an all-electric race car marketed towards the weekend autocross racer. The goal for our team is to train our members in the use of innovative technology and in the process win the competition.

**How will the project improve the sustainability of the Illinois campus and how will the project go above and beyond campus standards?**

Our team makes a fully electric race car, which produces zero carbon emissions, but runs as fast as average gasoline race cars. As a green energy and transportation project, we are not only training our team members, but also spreading the sustainability concept to more students from all majors, local community members, and also people around the world, from our project showcase events and social media. Much of automotive innovation is driven from racing, training our team members will help them innovate and develop new efficient concepts after graduation.

**Where will the project be located? Will special permissions be required to enact the project on this site? If so, please explain and submit any relevant letters of support with the application.**

We build our vehicle in the Engineering Student Project Lab. Space is allocated to us by the engineering design council and the college of engineering.

**Other than the project team, who will have a stake in the project? Please list other individuals, groups, or departments affiliated directly or indirectly by the project. This includes any entity providing funding (immediate, future, ongoing, matching, in-kind, etc.) and any entities that will be benefitting from this project. Please attach letters of commitment or support at the end of the application.**

Engineering Design council $2,000

Department of Mechanical Engineering $2,000

Department of Electrical and Mechanical Engineering - applied

SORF - applied

Ford - $1,666

John Deere - $2,666

Helukable – in kind

Sugru – in-kind

Solid thinking – in-kind

Solidworks – in-kind

Cummins - $400

OSH Park – in-kind

Campus mobile solutions – in-kind

**Please indicate how this project will involve or impact students. What role will students play in the project?**

All students are welcome to join the team. Students who join learn new design software, electrical mechanical integration techniques, design for manufacturability principles and many other aspects of practical engineering. Throughout the project, students are challenged to think critically and creatively to solve complex engineering problems. Students will design, build test and race the car. Per competition rules, all of the work is done by students.

# Financial Information

*In addition to the below questions, please submit the supplemental budget spreadsheet available on the Student Sustainability Committee website. Submission of both documents by the submission deadline is required for consideration of your project.*

**Have you applied for funding from SSC before? If so, for what project?**

No

**If this project is implemented, will there be any ongoing funding required? What is the strategy for supporting the project in order to cover replacement, operation, or renewal costs?   
  
Please note that SSC provides funding on a case by case basis annually and should not be considered as an ongoing source of funding.**

There will be no ongoing funding. We purchase parts to build the new design from scratch, in an academic year cycle. We reached out to school organizations for funding, but we get the majority of our funding from outside companies.

**Please include any other sources of funding that have been obtained or applied for. Please attach any relevant letters of support as needed in a separate document.**

Engineering Design council $2,000

Department of Mechanical Engineering $2,000

Department of Electrical and Mechanical Engineering - applied

SORF - applied

Ford - $1,666

John Deere - $2,666

Helukable – in kind

Sugru – in-kind

Solid thinking – in-kind

Solidworks – in-kind

Cummins - $400

OSH Park – in-kind

Campus mobile solutions – in-kind

# Environmental, Economic, and Awareness Impacts

*In addition to the below questions, please indicate specific measurable impacts as applicable on the supplemental budget spreadsheet.*

**Which aspects of sustainability does your project address, and how? Does the project fit within any of the iCAP goals? If so, how does the project go beyond the university status quo standards and policies.**

Our team produces a fully electric race car, which produces zero carbon emissions. Being part of the team teaches members how to use these technologies and prepares them do design electric vehicles in their careers. This will help bring electric vehicles to the masses.

**How will the environmental impacts of your project be measured in the near and long term? What specific monitoring and evaluation processes will you be using to track outcomes and progress?**

Our team educates members to design zero-emission electric vehicles. Our impact will be seen in the number of electric vehicles driving around in the future.

**What is the plan for publicizing the project on campus? In addition to SSC, where will information about this project be reported?**

Our project is publicized at several student project fairs, on social media, on our website and to numerous of organizations and companies at competitions.

**What are your specific, measurable outreach goals? How will these be measured?**

Our goal is to recruit new members and grow our team. Specifically, we hope to recruit 50 new members to the team this year.

**Do you have any additional comments or relevant information to aid in evaluation of this application?**

Due to recent budget cuts at the University of Illinois, our team funding has been cut drastically and we are in dire need of donations. The majority of our funding comes from in-kind donations form companies but there are many things that cannot be obtained through in-kind donation. Some of these components are bolts, raw materials, suspension components, tires and much more.