



Drew Sparks

SIEMENS



GreenpowerUSA Foundation

Mission Statement

To promote and to enhance the delivery of science, technology, engineering, and mathematics (STEM)-based education through a design-build-race competition of student-driven electric cars.

The GreenpowerUSA Foundation is a registered 501(c)(3) non-profit organization

GreenpowerUSA was Established in May 2014 in Concert With;

The Greenpower Education Trust



Siemens Corporation



Huntsville City Board of Education



The Greenpower Initiative is Currently Operating in 15 States Throughout the US

- Alabama
- California
- Mississippi
- Kentucky
- Florida
- Georgia
- Indiana
- Nevada
- North Carolina
- Ohio
- Pennsylvania
- Tennessee
- Texas
- Utah
- Virginia
- 150+ F24 and Goblin Teams





Why Greenpower?

SIEMENS



Greenpower Electric Car Challenge

- Project-Based Learning
 - Used extensively at all levels of education
 - Highly effective method of teaching and learning through project - based activities
 - Recognized by industry: from SMEs to OEMs
 - Focus on STEM: cross-curricula
 - Develops hard & soft skills
 - Multi-disciplinary engineering



The Next Generator of Innovators and Problem Solvers

- Solving hard problems requires having soft skills
 - Greenpower participants learn more than just STEM. Our project-based learning model also cultivates teamwork, creativity, decision making, project management skills and leadership in participants.
- Make a sustainable impact
 - Greenpower uses the technology of the future to inspire the environmentalists of the future. Our reusable electric cars are built with sustainable materials. Students are recognized for their use of recyclable materials when design their car bodies.



A Commitment to Diversity



- Women in STEM
 - According to the Congressional Joint Economic Committee, only 14% of the engineering workforce in the U.S. is female. GreenpowerUK shows that 36% of their Greenpower participants are female.
- At-risk Youth
 - The engaging nature of the Greenpower program has been shown to be particularly effective at both inspiring young people who struggle in formal education.
 - Case Study: Falmouth Cop Car Project

Greenpower Provides: Unique Opportunities to Race and Collaborate

- May 1st: Greenpower Race at the Iconic Indianapolis Motor Speedway
- Teams from 8 States; One International Team
- Opportunity to Discuss Motorsport Engineering Careers with Indiana University Purdue University Indianapolis (IUPUI) Faculty
- Opportunity to Interact with Dalton Kellert, Indy Lights Series Drive
- Opportunity for Discussion with Jim McCabe, Mechanical Engineer with Ganassi Racing
- Scholarships offered by SCCA and IUPUI to Greenpower Students

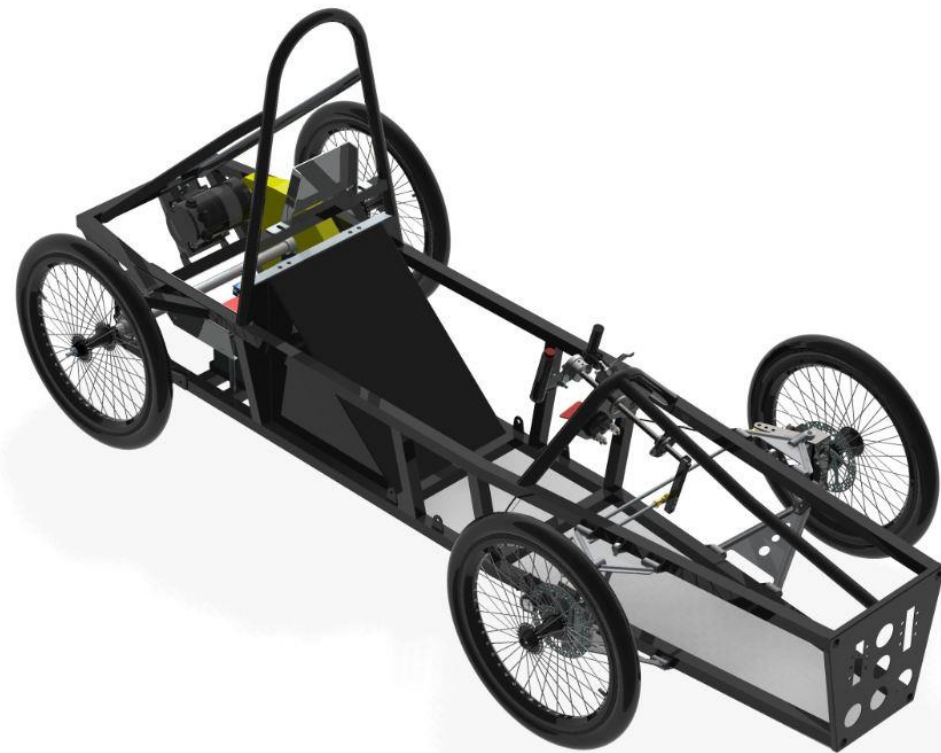


Greenpower Spans from Elementary to Secondary Education Levels (and Beyond)

Elementary School (Formula Goblin)



Secondary School (Formula 24)



Additional Needed Items

- Average Cost of Additional Materials (\$500-\$750)
- Tool Set
- Helmets
- Gloves (working and driving)
- Battery Charger(s)

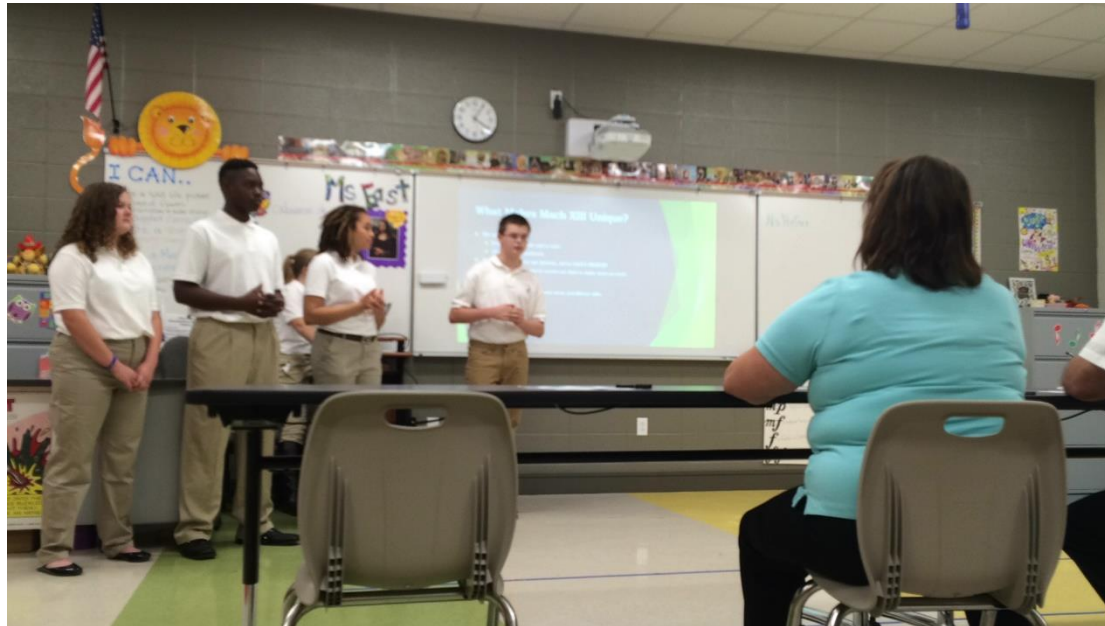
Race Weekend

- There are three major components to a race weekend:
 - Presentations
 - Technical/Safety Inspections
 - Races



Presentations

- Face-to-face, video, other formats
- Students give evidence that they have grasped the concepts behind the GreenpowerUSA program.
- Account for 50% of race weekend scoring.
- Score based upon mastery of concepts in:
 - Design
 - Mechanics
 - Business Plan
 - Innovation



Tech Inspections - Safety

- Teams go through a 52-point Safety Tech Inspection led by SCCA officials to verify Rules and Regulations have been met



Goblin Games (5th Grade)



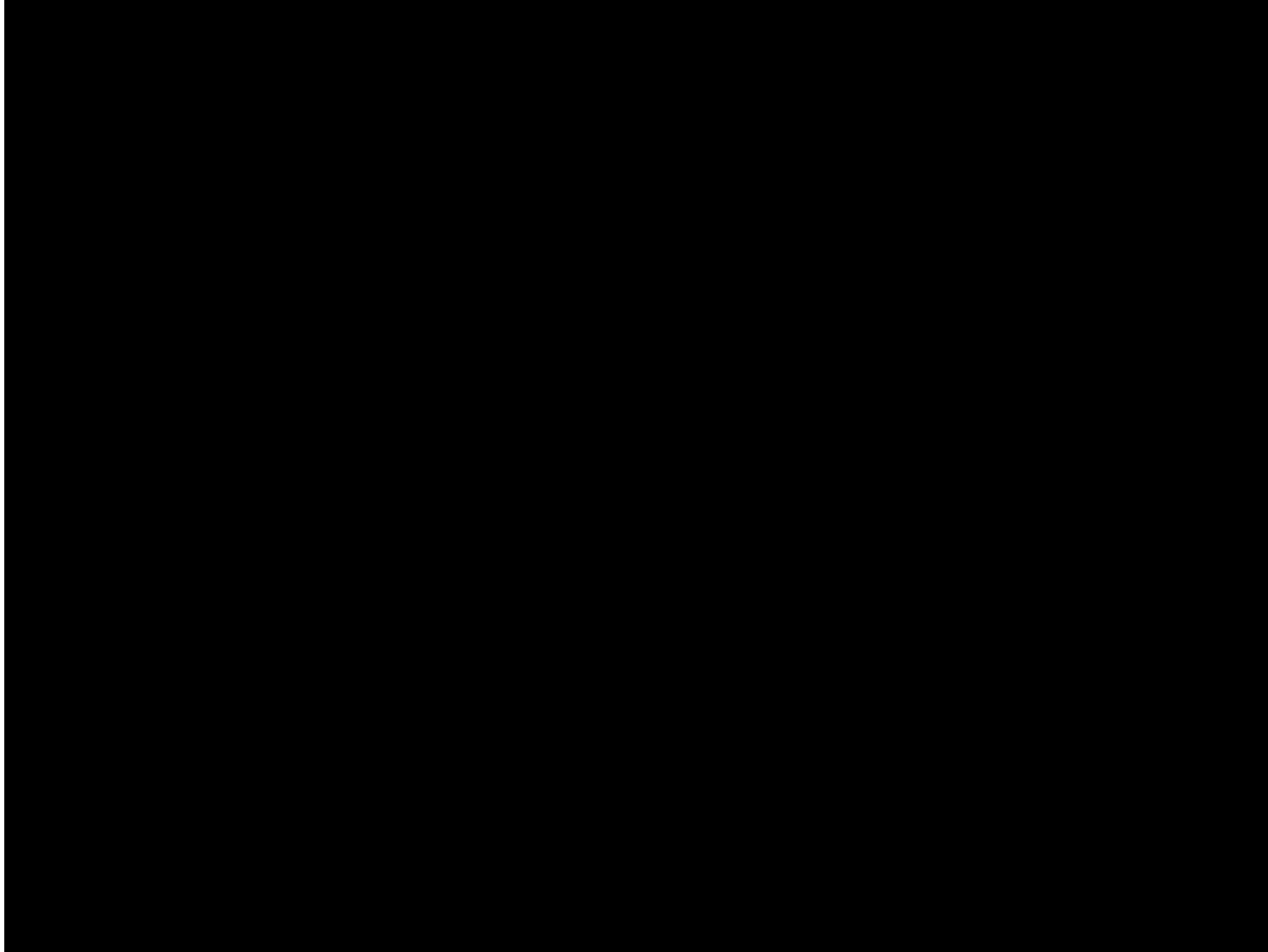
- Three types of races:
 - Sprint/Drag Race
 - Slalom Race
 - Lap/Circuit Race
- Multiple Awards Recognized

F24 (Grades 6-12/Post-Secondary/Corporate)

- 90-minute endurance race
- Winner determined by distance traveled
- Teams required to change drivers twice within 90 minutes
- Bonus points awarded for fastest qualifying lap, lap completion bonus
- Overall winner determined by combined presentation and race points
- Multiple Awards Recognized



Race Weekend Video



Learn More About Greenpower

- Visit us: www.greenpowerusa.net and
- Email us: info@greenpowerusa.net
- Facebook: GreenpowerUSA Foundation
- Instagram: greenpowerusa1
- Twitter: @Greenpower_USA



Questions?

