



# GREENPOWER

# INTERNATIONAL FINALS 2021

10th October 2021



Global partner



National partner



National partner



Global technology partner



Legal partner



Communications partner





## CONTENTS

---

01 Foreword	2	09 Volunteering opportunities	26
02 Welcome	4	10 Flags	28
03 Timetable	5	11 Key Personnel	31
04 BBL Batteries	6	12 Get in Touch	32
05 Introducing Greenpower	8	13 Partners	34
06 Case Study: Cliff Park Ormiston Academy	10		
07 IET Formula 24 & IET Formula F24+ Entries	14		
08 Awards	24		



## FOREWORD

The Greenpower challenge exists to inspire young people to enter into the fields of Science, Technology, Engineering, and Mathematics (STEM). On show today is the end result of all their work and the challenges they have overcome. I am constantly impressed with the effort, resilience, and dedication that all our competitors put into the project, but especially at these finals when the last 18 months have been so disrupted for them.

The exciting racing you will see today is the final part of the Greenpower journey, the skills our teams have picked up along the way, ranging from

technical to teamworking, or planning to PR, will equip our participants well in their future careers. The smiles on their faces will show you how much they have enjoyed themselves too!

We wish all of our competitors good luck and thank all of those that have provided assistance and support to them in getting to our Grand Finals. Time to hit the track...

*- Paul van Veggel,  
CEO of Greenpower Education Trust*



# WELCOME

Welcome to the 2021 Greenpower International Finals! We are delighted to return to our spiritual home, Goodwood Motor Circuit, for our flagship F24 and F24+ event. This year's finals will see 80 electric cars, each built by the students themselves, take to the iconic asphalt of the Goodwood Motor Circuit.

We would like to thank our partners and sponsors for their continued support, along with all our fantastic set of volunteers who bring such joy and enthusiasm to the event. We could not do it without you.

It is fantastic to see that so many others share our vision on engineering subjects and sustainability and can engage with these through the thrill of motorsport.

## TIMETABLE

10<sup>th</sup> October 2021

07:00 Teams Sign on and  
Scrutineering Opens

09:00-11:00 Practice

11:15 IET F24+ to Grid Formation

11:30-12:30 IET F24+ Championship Final

12:45 IET F24 to Parade Formation

13:00-13:30 IET F24 Parade

13:40-14:00 IET F24 Grand Final Race 1

14:40-15:00 IET F24 Grand Final Race 2

15:40-16:00 IET F24 Grand Final Race 3

16:40-17:00 IET F24 Grand Final Race 4

17:15 Final Ceremony



# BBL BATTERIES

As they enter their 50th Year trading, the BBL Batteries Team are delighted to, once again, sponsor the 2021 Greenpower International Finals Programme. Graham Bultitude, Managing Director of BBL Batteries, comments:

“BBL Batteries is a leading, UK based, battery business that is continually focused on the development, introduction and distribution of new and improved battery technologies to today’s market. The Greenpower Education Trust inspires young people to develop an interest in Science, Technology, Engineering and Maths (STEM) through a unique challenge: to design, build and race an electric car. BBL Batteries will once again supply the Yuasa batteries that power all the electric cars.

Seeing everything come together from the initial planning and design phases to the race day itself and the most fantastic racing cars that come to fruition, is truly inspiring. Once again, we are really looking forward to this year’s finals.

We take pride in working with our customers, no matter how large or small, to solve any ‘power’ problems they may have. Being independent we can truly offer the best, most suitable stored energy product for literally any conceivable application.”

**The UK's Most Diverse Stored Energy Stockist and Supplier...**

**BBL BATTERIES**  
**50 YEARS**  
**SERVICE EXCELLENCE**

**• Massive Stock Holding • Premium Brands • Multiple Technologies**



# INTRODUCING GREENPOWER

## About Greenpower

Greenpower Education Trust inspires young people aged 9-25 to excel in Science, Technology, Engineering and Mathematics (STEM), through a unique challenge - to design, build, and race an electric car.

## IET Formula Goblin age 9 to 11

The Goblin Kit Car is a great introduction to STEM for primary school children, they get hands on assembling the car and compete in slaloms, sprints, and drag races at events.



## IET Formula 24 age 11 to 16

In F24, teams have more freedom to design and build their Kit Cars or scratch builds, and students develop their STEM skills. Regional heats feature four 20 minute races, with an International Final at the end of the season.

## IET Formula 24+ age 16 to 25

F24+ is a great project as a gateway to a STEM career, and for furthering employability skills. Similarly to F24, teams compete in four 20 minute races over the course of an event.



## CASE STUDY

### Cliff Park Ormiston Academy

One of the many cars competing at this year's Greenpower International Finals will be The Cliff Park Comet, an F24 entry run by the team from Cliff Park Ormiston Academy in Great Yarmouth, Norfolk.

In 2018, the school purchased an F24 Kit Car, thanks largely to funding from the Norfolk Community Foundation's Dudgeon Fund, one of the many regional grants on offer to both aspiring and existing Greenpower teams.

"Without the grant, we would not have got the project off the ground," said Mr. Herridge, the Hard Tech and Engineering lead at Cliff Park Ormiston Academy.



The team journeyed through the building process and competed at two race events in 2019, winning Best Newcomers at both meetings. This saw them qualify for the Greenpower International Finals event, which took place at Silverstone that year.

After the 2020 season was washed out due to the COVID-19 pandemic, the team was raring to go racing again in 2021. Having made major upgrades to the car since its last outing, The Cliff Park Comet returned to the track and performed well at this year's Lotus Hethel Heat, and once again qualified for the Greenpower International Finals.

While the on-track success is great to see, it is the benefits of the entire Greenpower experience that is most important to the Cliff Park team.

"The benefits of Greenpower for the students are endless," said Mr. Herridge. "Of course it helps them

improve on their teamwork and problem-solving skills, but what I really like about it is that it really widens their perspective. Throughout the process, they get to do things that they otherwise wouldn't have the chance to do."

Since the addition of the Greenpower challenge to Cliff Park Ormiston Academy, the staff have seen an uptake in the students' interest in STEM subjects. As someone who has been involved in engineering his entire life, Mr. Herridge believes it's vital to show young people the



potential of careers in the industry: "Engineering is where the future is in terms of there being a lot of different and exciting careers to pursue. I think the earlier you can get a student into engineering and show them where STEM qualifications can take them, the better it is for them."

In just three years, Cliff Park Ormiston Academy has established a thriving Greenpower team, and offers a brilliant example of how the Greenpower grants can be used to help build something truly special.





## Anyone can be an engineer

We make science, technology, engineering and maths come to life in the classroom. Investigate potential careers and apprenticeship opportunities at Siemens UK and keep up to date with STEM-based activities events and challenges for schools and pupils.

[siemens.co.uk/education](https://www.siemens.co.uk/education)





## IET FORMULA 24

No.	CAR NAME	ORGANISATION
6	Apex	Southleigh Racing
12	Bluebird	The Weald
443	Rotary Racer F24	Sodbury Friends
461	RRX (Rotary Racer) F24	Sodbury Friends
749	Lightning 1	Slindon College
4	Zephyr	St. Georges Academy - Ruskington
16	Terazord	Bristol Grammar School
455	X-POD (PODDington Bear)	Chipping Sodbury School
8	Sirocco M3-19	St. Georges Academy - Ruskington
19	Superformance	The Royal Grammar School
11	Project X	Ysgol Uwchradd Aberteifi
10	Hummingbird	Plymouth High School for Girls

No.	CAR NAME	ORGANISATION
438	Red Shift	Bristol Grammar School
437	HWM Aston Martin	Sylvia Beaufoy Youth Centre
9	Status Quo	Collingwood College
46	Roseland Racer 5	The Roseland Academy
50	Relentless	Slindon College
472	Rudolph	Hillview School for Girls
33	Cobolt	St. Swithuns School
102	Tri-fast (Fluffy DiceVIII)	Uckfield Community Technology College
108	CCA Racing	Coal Clough Academy
87	The Stag	Derby Grammar
49	Green Goddess	Truro High School
65	Sodbury Chargers	Chipping Sodbury School

## IET FORMULA 24 WILDCARDS

No.	CAR NAME	ORGANISATION
60	Bourne Bobcat	The Bourne Academy
68	SPNI	Bryanston
88	Bourne Stannah	Bourne Community College
164	Phoenix	Wycombe Abbey
241	Kernow Kittz	Truro High School for Girls
274	Green Gladiator	Truro High School for Girls



## Bringing learning alive

We provide the tools and resources that bring learning alive and inspire the next generation to engineer a better world.

Take a look at our amazing free STEM resources for primary and secondary schools, including classroom posters, careers packs, videos, activities and lesson plans. Explore our engineering competitions for schools including the world-renowned *FIRST*® LEGO® League competition.

Find out more at

[theiet.org/education](https://theiet.org/education)

[@IETeducation](https://twitter.com/IETeducation) [f IETeducation](https://www.facebook.com/IETeducation)

The Institution of Engineering and Technology is registered as a Charity in England and Wales (No. 211014) and Scotland (No. SC038698).



## IET FORMULA 24 KIT CAR

No.	CAR NAME	ORGANISATION
439	Icicle	Ashfield Farm
25	Team Chicken	Bromsgrove School
424	The Rye Flyer	Rye St. Anthony School
32	PRT Raptor	The Priory School
30	Pugh	Torquay Academy
90	Chase	Park Community school
52	PRT Hunter	The Priory School
470	FHS	Frensham Heights School
42	SBC1	Sylvia Beaufoy Youth Centre
41	Denefield Racing	Denefield School
29	Phantom	Town Close School
479	Denefield Racing Car 2	Denefield School

No.	CAR NAME	ORGANISATION
113	Keep Up	Park Community School
171	Bindon	Torquay Academy
72	AHS2	Aylesbury High School
109	Langley Lightning	The Langley Senior School
442	Neon	St. Swithuns School
79	The Cliff Park Comet	Cliff Park Ormiston Academy
101	GO GASP	GASP Motor Project
146	Greased Lightning	Worthing High School
419	Rocketman	Orley Farm School
48	Sproket Rocket	Wycombe Abbey School
57	Rubidium	St. Swithuns School
199	Flux	Leicester Grammar School

## IET FORMULA 24 KIT CAR

No.	CAR NAME	ORGANISATION
476	Silver Duck	Norwich High School for Girls
445	Royal One	The Royal School
37	SPS Swift	Swalcliffe Park School
238	Silver Arrows	Harrow School
467	EC Racer	Epsom College
127	SBC2	Sylvia Beaufoy Youth Centre





FORD HYBRID  
NEW TRANSIT CUSTOM  
PLUG-IN HYBRID



BACKBONE OF BRITAIN  
FORD COMMERCIAL VEHICLES



## IET FORMULA 24 KIT CAR WILDCARDS

No.	CAR NAME	ORGANISATION
38	WR01	Whitgift
58	SPS Swallow	Swalcliffe Park School
61	QEHS Cadets	Queen Elizabeth High School
71	Bourne Boxer	The Bourne Academy
122	Regis Red	The Regis School
144	Framula E	Framingham Earl High School
228	Regis Blue	The Regis School
468	Brightspark	GASP Motor Project
473	HBHS1	Haydon Bridge High School
481	Beagle	Boston High School
482	Mulberry STEM Academy 1	Mulberry Schools Trust



## IET FORMULA 24+

No.	CAR NAME	ORGANISATION
6	Apex	Southleigh Racing
40	Rotary Racer	Chipping Sodbury School
48	Sprocket	Wycombe Abbey School
87	The Stag	Derby Grammar School
164	Phoenix	Wycombe Abbey School
241	Kernow Kittz	Truro High School
274	Green Gladiator	Truro High School
428	Liectreachas	Rogue Racing
473	HBHS1	Haydon Bridge High School
701	FireBird	Team Bird GP
749	Lightning 1	Slindon College
803	Icarus	Coalescence

No.	CAR NAME	ORGANISATION
807	Overtaking YUNEX	Siemens
815	Blue Lightning	Siemens plc
816	POD-SIX Independent	The POD Movement
827	Venus	Eden Engineers
828	Mercury	Eden Engineers
829	Re-Flux	Leicester Grammar School
830	Mulberry STEM Academy 2	Mulberry School for Girls





## **AWARDS**

### **Race Awards:**

---

IET F24+ Champion

IET F24+ Grand Final – 1st, 2nd, 3rd

IET F24+ Best Kit Car

IET F24 Champion

IET F24 Grand Final – 1st, 2nd, 3rd

Kit Car Champion

Kit Car Grand Final – 1st, 2nd, 3rd

### **Supplementary Awards:**

---

Best Presented Team

Best Newcomer

Portfolio Award

Siemens Sustainability Award

IET Engineering Award

Spirit of Greenpower



# VOLUNTEERS NEEDED

---

Every year, we need volunteers to help us on event days. Our event season runs from April until October and is UK wide. Volunteering at a Greenpower event can be a great way to give back, support your CV and boost your confidence.

If you feel you can spare a day to inspire the next generation of engineers then we would love to hear from you!

There's a volunteering role for everyone, from administrative to scrutineering and marshalling.

Don't panic if you do not have any experience in STEM or motorsport. We value each and every one of our volunteers' contribution. There will be a short briefing for each role on event day and we are there to support you and answer any questions you may have.

Please see our events calendar on the Greenpower website: [www.greenpower.co.uk/events](http://www.greenpower.co.uk/events). If you have any questions at all regarding volunteering or would like to sign up please contact: [poppy@greenpower.co.uk](mailto:poppy@greenpower.co.uk)

See you at the track!



# FLAGS



## Union Jack flag

Indicates the start of the race.



## Yellow flag

Indicates that there is a hazard ahead. Be extra careful, slow down, and only overtake other cars if there is a significant speed differential.



## Red flag

This means that the session is stopped until further notice. All drivers will slow immediately and continue slowly around the circuit until indicated to stop.



## Chequered flag

Each vehicle will finish the race when it first crosses the timing point after the race duration. The winning car will be presented with a waved chequered flag.



## WARNING!

### MOTORSPORT CAN BE DANGEROUS

Despite the organisers taking all reasonable precautions, unavoidable accidents can happen. Please comply with all instructions of marshals, notices and remain in permitted areas only.

They are concerned with your safety.







## KEY PERSONNEL

### Staff

Paul van Veggel - CEO  
 Nicollette Baldwin - Executive Assistant to Paul van Veggel  
 Lisa Roberts - Finance Manager  
 Olivia Procter-Moore - Head of Team Engagement  
 Gavin Woodruff - Team Liaison Officer  
 Poppy Gold - Events and Project Officer  
 Steve Newman - Stores & Technical Manager  
 Kieran Kinsella - Stores and Dispatch coordinator  
 Vaughan Curnow - Project Co-ordinator  
 Harriet Davis-White - Marketing Executive  
 Hayley Richards-Jones - Project Development & Fundraising Associate  
 Geraldine Venediger - Project Development & Fundraising Associate

### Event Staff

Stewart Coulden-Smith      Will Humphrey

### Patrons

The Duke of Richmond and Gordon      David Richards CBE      Allan Cooke CBE

### Trustees

Debbie Beale - Chair, Stuart Morgan – Vice Chair, Chris Baylis, Emma Kerr, Lisa Russell, Marcus Hall, Nash Vracas, Vaughan Clarke, Faisal Ansari, Ajai Ahluwalia



# GET IN TOUCH

---

## Greenpower Education Trust

The Greenpower Centre  
Arundel Road, Fontwell,  
West Sussex BN18 0SD

T: 01243 552 305

E: [info@greenpower.co.uk](mailto:info@greenpower.co.uk)

[www.greenpower.co.uk](http://www.greenpower.co.uk)



/GreenpowerTrust



/GreenpowerTrust



/GreenpowerTrust



/greenpower-education-trust



/GreenpowerTrust

© All Rights Reserved - Greenpower Education Trust

Greenpower Education Trust is a charity registered in England and Wales no. 1133536 and in Scotland no. SC046969



# PARTNERS



**GREENPOWER  
EDUCATION TRUST**

## Partners

Global partner



National partner



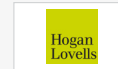
National partner



Global technology partner



Legal partner



Communications partner



## Regional partners

Event partner



Event partner



Event partner



Event partner



Event partner



Event partner



Event partner



Event partner



Event partner



Event partner



Event partner



Event partner



## Media Partners

Photographic partner



Photographic partner



Video partner



Exhibition partner



## Supporters

Project funder



Project funder



Project funder



Project funder



Grant funder



Grant funder



## Accredited by

Motorsport sector



Motorsport sector



Academic sector



Academic sector



STEM sector

