



**GREENPOWER**

# ***FORMULA 24*** **GUIDE**

**GREENPOWER EDUCATION TRUST**

Guide to running a Greenpower  
F24 project



National supporter





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## FORMULA 24

### FOR 11-16 YEAR OLDS

**Formula 24 (F24) gives secondary school age children the opportunity to design, build and race an electric, single seater car on some of the UK's top motor circuits.**

**A typical build takes 15 hours and the car can be dismantled and rebuilt each year with a new team.**

Greenpower's F24 category has a proven track record in engaging 11-16 year olds with Science, Technology and Engineering through participation in designing, building and competing in electric, single seater racing cars.

Teams of students take part in the design and building of the car and race days. F24 is geared towards secondary schools but we welcome private entries and teams from youth groups and engineering clubs within the 11-16 age range.





# THE CAR

## KIT CAR OR BUILD FROM SCRATCH?

Once you have registered your team, it is up to you to decide whether to buy a Greenpower Kit Car or design and build a car from scratch.

### KIT CAR BUILD

A Greenpower Kit Car is the perfect introduction to F24 for a team. It will engage students, teach them the principles of building a car and can be built in around 15 hours.

The F24 Kit Car is self-assembly and the kit includes everything you need to get the car up and running, except bodywork. The bodywork is easy to design using a CAD programme.

The Kit Car can be dismantled and rebuilt each year with a new team or some schools like to try and make improvements to the existing car each year. The kit comes with an easy to follow assembly manual. You will only need simple tools to build the car. These are listed in the manual.

If you would like to get a taste of Greenpower before progressing to building your own car, the Kit Car is for you.

You are always welcome to contact us for advice. Email: [helpline@greenpower.co.uk](mailto:helpline@greenpower.co.uk)

## SCRATCH BUILT CAR

If you want to build a car from scratch, you must think about how you would construct the car, what materials to use and whether it will be possible with the resources available to you.

We can't tell you exactly how long the design and build process will take for a scratch built car, or how much it will cost, as each one has a different design, materials and manufacturing period.

Building a car from scratch is a large project. Scratch built cars must be built to the regulations

of the year that you will be competing, which will be available on the Greenpower website. If you want to check whether elements of your design will comply with regulations, or you have a technical query, contact: [helpline@greenpower.co.uk](mailto:helpline@greenpower.co.uk)





## THE TEAM

A Greenpower F24 build and race project creates the opportunity to get involved through many different roles, giving experience of more than engineering and motor racing. Team members can take charge of media, sponsorship or race wear, for example.

### RUNNING A TEAM

You can recruit a team in different ways. Some organisations use Greenpower as an inclusion project. Others offer the opportunity to participate by announcing it in meetings, newsletters, or on noticeboards and social media.

There are lots of different approaches to running a Greenpower team. Some F24 teams meet during working hours, others during evenings and weekends. Most teams meet once a week, some more often, depending on how much time can be devoted to the project.

We have teams run by teachers, organisations and privately.

### HOW MANY IN A TEAM?

Teams at F24 events consist of 12 students on average, of varying ages. A minimum of three drivers is required for each race. The other team members at an event are mainly pit crew.





## COSTS

### THE CAR

As of 2024 a complete F24 Kit costs £3,275.00 +VAT Please visit: [greenpower.co.uk/shop](https://greenpower.co.uk/shop) for up-to-date costs. The cost of building your own car from scratch will vary.

To comply with regulations every team must have the same motor and batteries, which must be bought from us.

If you are building a vehicle from scratch you can buy the motor and batteries from our online shop: [greenpower.co.uk/shop](https://greenpower.co.uk/shop). Six batteries and a motor are included with the Kit Car.

Spares parts can also be purchased from our online shop.

### EVENT ENTRY

As of 2024 the cost of entering a F24 event is £105.00 + VAT per team. Please see: [greenpower.co.uk/events](https://greenpower.co.uk/events) and click on the event you are interested in to see up-to-date costs.

If your team must withdraw entry to an event for any reason, we must be advised before the closing date for entries for that event or the entry fee will be charged in full.

### LATE ENTRIES

Entries made after the entry deadline will be charged a 20% surcharge.

Teams will not be able to compete if they have not entered before the day of the event.

## FUNDING

We encourage teams to contact companies regarding potential sponsorship, in terms of services, funding and resources. This can be very successful – many companies would like to see their logo on the side of a local school or organisation’s F24 car.

Some schools are willing to contribute towards funding a Greenpower team. Team members can also help by organising fundraising events.

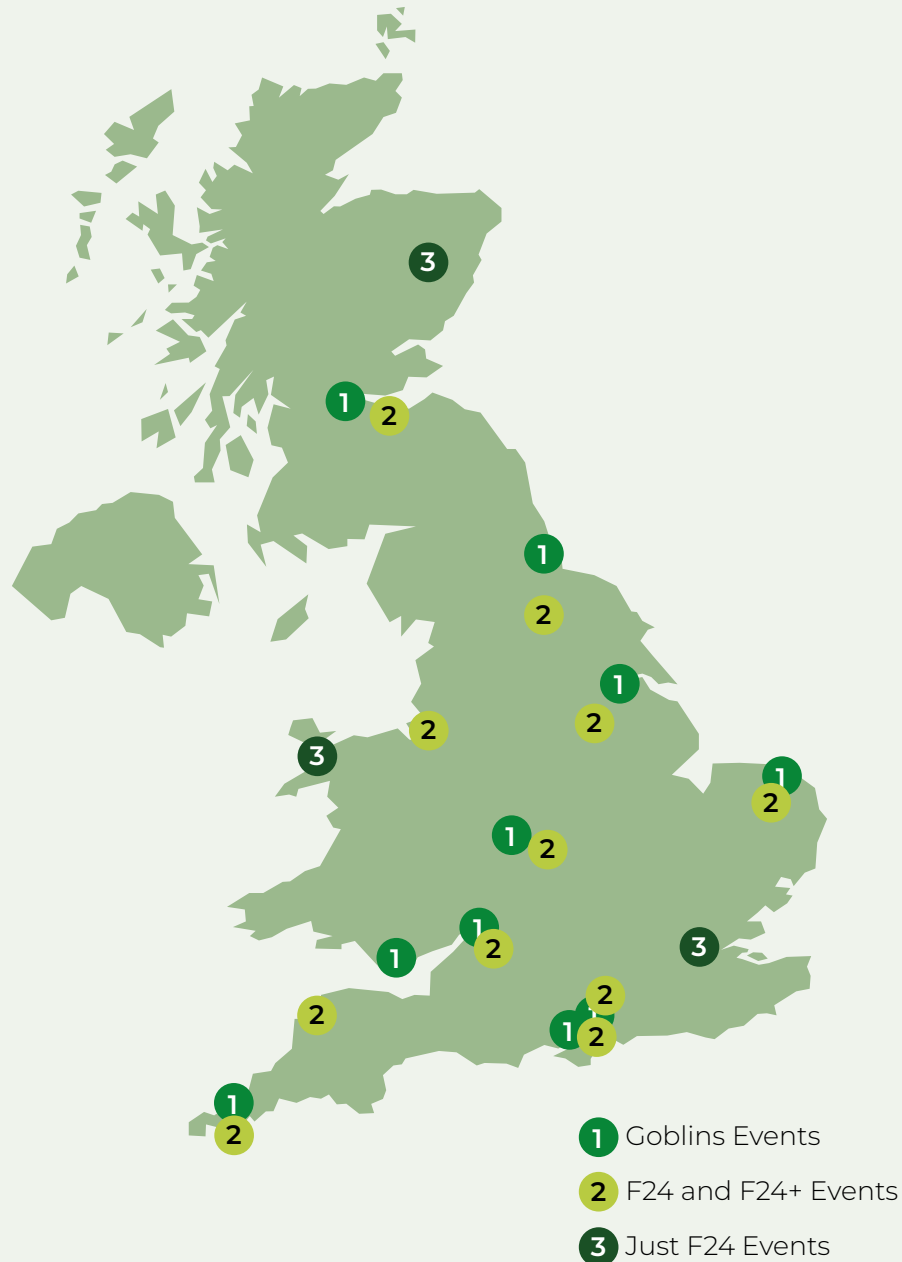
Students can help raise money by organising fundraisers such as supermarket bag packing and car washes. Your school’s Parent Teachers Association (PTA) may be able to help with funding. As well as organising their own fundraising activities (cake sales, quiz nights etc.) PTA’s may be able to raise extra money through access to funding directories.

Competing in Greenpower events could entitle you to certain grants. Organisations such as STEMNET, which supports Greenpower, regularly announce funding opportunities.

From time to time, we have grant funding available in specific areas to help teams to engage in the Greenpower challenge. Please follow the link below to find out if there is any funding available in your area:

[greenpower.co.uk/project-areas](https://greenpower.co.uk/project-areas).

# EVENTS



We have various heats held all over the UK at motor circuits such as Goodwood, Castle Combe and Croft.

The heats act as qualifying rounds for our International Final held at the world famous Goodwood motor circuit. A total of 80 cars are invited to the International Final, which include those who have qualified on mileage, International teams and Wild Cards chosen by Greenpower.

## WHEN DOES THE SEASON START?

The F24 season runs from April to October. The season starts with a test day and Season Opener. Further test days follow, then the heats start, taking place all over the country until the end of September. We hold the International Final at Goodwood in October for teams that have qualified.

The events calendar is available on the Greenpower website: [greenpower.co.uk/events](http://greenpower.co.uk/events). Events are uploaded in December or January ahead of the season.

## HOW TO ENTER AN EVENT

To enter an event, you will need to register online, then log in to your online account. You can then enter any of the F24 events listed on the Greenpower events calendar.

All events have closing dates for registration – usually around two weeks before the event. Once registration has closed all entrants will receive event information via the email address supplied and the team will be invoiced for the entry fee. All entries will be charged the full entry fee unless they are withdrawn before the closing date given on the website. See **here** for more information on Event costs.

There are a few events which are for invited teams only. All of these events state this clearly in the descriptions on the Greenpower website. If you wish to enter an invite only event you will need to contact Greenpower before entering online. There are some additional spaces at these events, but they are limited.

Before an event we will email you an information pack, listing the event's location, timetable, and other key information. A signing on form will be sent to all participating teams. This must be filled in and signed by all participating team members and countersigned by a responsible adult. Teams need to complete and hand in the form to race admin to participate in the event.

# RACE DAY

## RACES

F24 has two 90 minutes races per event. A minimum of three drivers must be used during each race. The winner is the car that goes the furthest distance in 90 minutes.

Race 1 and Race 2 are independent of each other, so you can compete in just one race on the day, or both. When you enter online you need to enter for both races if you wish to do them.

## PRACTICE

The practice sessions are open to both F24 and F24+ teams on race days. Drivers will be made aware that there will be faster F24+ cars on track with them in this session.

You are allowed to use a new set of batteries for practice and for each of the races but you cannot change batteries during a race.

## TEAM SIGN ON

The team sign on form will be included in the pre-race pack, which will be emailed to you before the event. The team must complete the sign on form with all members included and give it to staff in race admin. A countersignature from a parent or guardian is required for team members under the age of 18.



## RACE TIME TABLE

Typical race day timetable:

<b>7:30</b>	Teams arrive
<b>8:15</b>	Scrutineering opens
<b>9:00</b>	Team briefing 1
<b>09:30-11:00</b>	Practice
<b>11:10</b>	Team briefing 2
<b>11:30-13:00</b>	Race 1 (F24 Ages 11-16)
<b>13:45-14:45</b>	Round 1 (F24+ Ages 16-25)
<b>13:45-14:45</b>	Race 2 (F24 Ages 11-16)
<b>17:15</b>	Prize giving





## SCRUTINEERING

A scrutineer will check the car over to ensure it is safe to compete. The Greenpower scrutineering process checks that all elements of your car are safe and that the kit has been built according to the regulations.

The tallest driver, wearing a correctly fitting helmet, overalls, gloves and suitable footwear must be present, with the vehicle logbook and the car itself. You will need to hand in your completed scrutineering sheet and team sign on form to race admin before you will be issued with a race transponder and can go out on track. All team members must attend the team briefing before practice begins.

The race day scrutineering checklist is available on the Events page on our website: [greenpower.co.uk/events](https://greenpower.co.uk/events).

You can watch a video of the scrutineering process on our youtube channel: [@GreenpowerTrust](https://www.youtube.com/@GreenpowerTrust)

## RISK ASSESSMENTS

A risk assessment for race days is available on the Events page on our website: [greenpower.co.uk/events](https://greenpower.co.uk/events).

## INSURANCE

All Greenpower operated events are run under a Motor Sports Association (MSA) permit and are fully insured with Personal Accident and Public Liability insurance. Each race meeting will have an event permit and number that will be on display at the event. Details of our insurance are available on the Events page on our website: [greenpower.co.uk/events](https://greenpower.co.uk/events).



## AWARDS

On race days we present the following F24 awards:

**Race 1 Winner**

**Race 1 Runner Up**

**Race 1 Third Place**

**Race 2 Winner**

**Race 2 Runner Up**

**Race 2 Third Place**

**Kit Car Winner**

**Kit Car Runner Up**

**Kit Car Third Place**

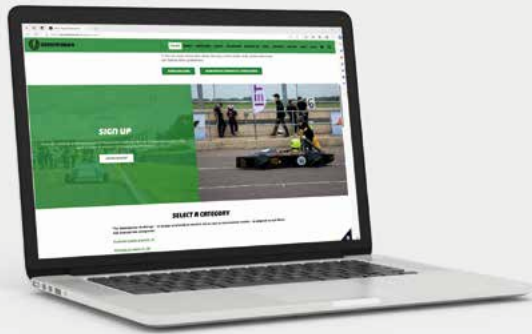
## ADDITIONAL AWARDS AT EVENTS ARE THE:

- **Ford Engineering Award**
- **Portfolio Award**
- **Sustainability award**
- **Best presented team**
- **Spirit of Greenpower**

The criteria for all these awards can be found on our website: [greenpower.co.uk/awards](https://greenpower.co.uk/awards)







## TO GET STARTED REGISTER ONLINE

To register online go to [greenpower.co.uk/start-team](https://greenpower.co.uk/start-team), scroll down the page and click the CREATE ACCOUNT button.

If you are planning on entering more than one car you only need one account per organisation. You can add another car (and contact details if they differ) on the same account.

If your organisation has registered a team with us before, please do not start a new account. Just contact us to reset the login details.

We will not automatically send you any equipment after registration. You will need to order it from our online shop: [greenpower.co.uk/shop](https://greenpower.co.uk/shop).

For more information on Costs of running a Greenpower project click [here](#).

## HOW TO ORDER

The Kit Car can be bought from our online shop: [greenpower.co.uk/shop](https://greenpower.co.uk/shop)

Or via email: [sales@greenpower.co.uk](mailto:sales@greenpower.co.uk)

Call Greenpower on **01243 552 305** if you would like to discuss your order over the phone first.





## SUPPORT

### AMBASSADORS AND INDUSTRIAL MENTORS

We have Greenpower volunteer ambassadors covering all of the UK and Ireland who can assist you. Ambassadors may be able to introduce you to local sources of support. If we have an ambassador that covers your region we will give you their details when you sign up.

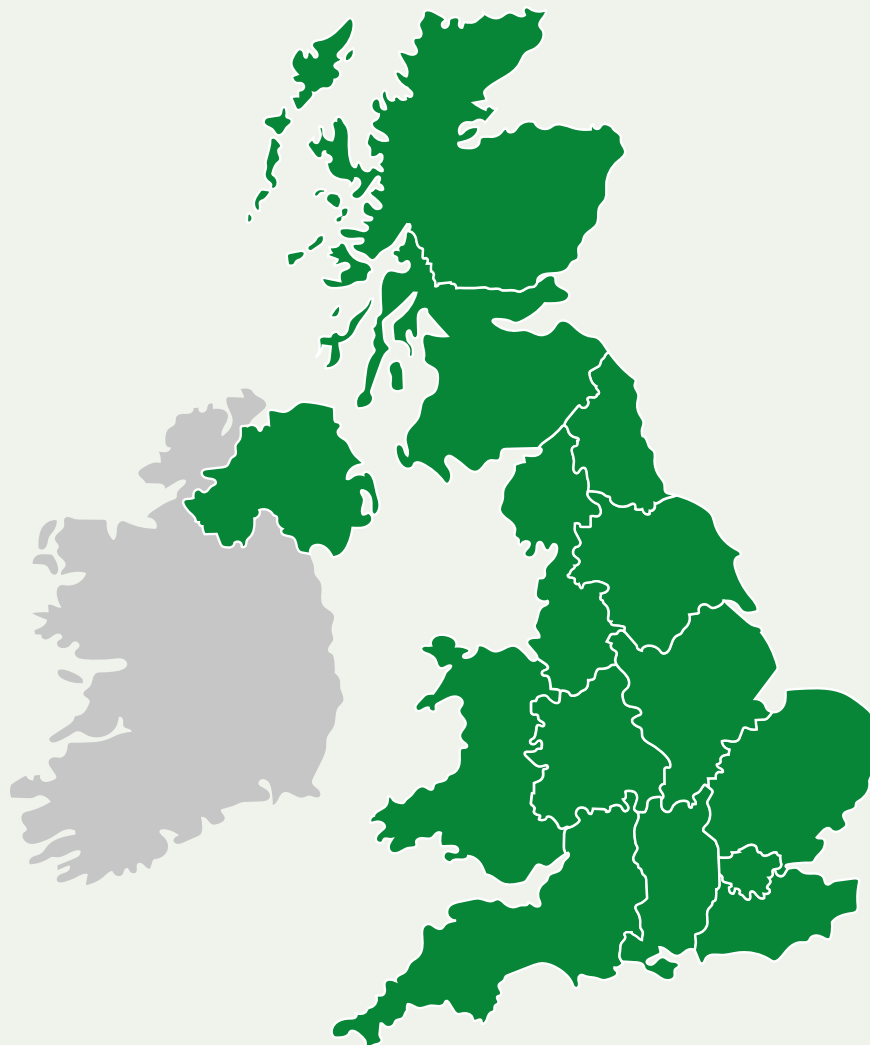
It can also be very beneficial to find a mentor to help your team during the design and building of your car. Mentors could be engineers from a local business, former Greenpower competitors or university/college students, for example. A local ambassador may be able to help you in finding a mentor.

### GREENPOWER CENTRES OF EXCELLENCE

A Centre of Excellence acts as a hub for Greenpower teams, sharing expertise or facilities. Some schools and companies become Greenpower Centres of Excellence and offer support to other schools, colleges, or teams. Why not check if there is a centre in your area.

You are always welcome to contact us for advice during the build.  
Email: [helpline@greenpower.co.uk](mailto:helpline@greenpower.co.uk)

Click here to visit the interactive Greenpower Ambassador map and find out the contact for your area



Get in touch for information on how to become a Greenpower ambassador, Industrial mentor, or a Centre of excellence: [info@greenpower.co.uk](mailto:info@greenpower.co.uk)



**GREENPOWER**

## MORE INFORMATION

If you'd like more information,  
please contact:

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

01243 552305

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

**The Greenpower Centre**  
**Arundel Road**  
**Fontwell**  
**West Sussex**  
**BN18 OSD**

Greenpower Education Trust  
registered charity no. 1133536 in  
England no. SC046969 in Scotland.



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