



GREENPOWER

FORMULA GOBLIN **GUIDE**

GREENPOWER EDUCATION TRUST

Guide to running a Greenpower
Goblin project



National supporter





Contents

3	FORMULA GOBLIN
4	THE CAR
6	THE TEAM
8	COSTS
9	FUNDING
10	EVENTS
12	RACE DAY
14	SCRUTINEERING
15	AWARDS
16	TO GET STARTED REGISTER ONLINE
16	HOW TO ORDER
18	SUPPORT
20	MORE INFORMATION

FORMULA GOBLIN

FOR 9-11 YEAR OLDS

The Formula Goblin is an electric kit car, designed to give young people the opportunity to build and race their own car at venues such as Goodwood.

A typical build takes 15 hours and the Goblin can be dismantled and rebuilt each year with a new team of children.

The Goblin Kit Car is designed for 9 to 11 year-old children and is ideal for schools and community groups. The kit comes with easy to follow instructions and the build requires only simple hand tools. Schools can run the project as part of the design and technology or science curriculum, or as a lunch time, after school or weekend club – with the possibility of parent support.

The children need to design and create their own bodywork once the kit has been assembled. This gives them the opportunity to be creative, look at a range of materials, consider recycling and of course make the car look as good as possible.

The car can be driven around the school playground and the team can participate in Greenpower events, held at a number of venues throughout the UK. The events give children the opportunity to take part in driver challenges and compete against other teams. The Goblin can be easily transported and will fit into an estate car with the Goblin's roll bar removed.



THE CAR

A Goblin kit includes everything needed to have an entire working car, the team just need to supply tools and bodywork. A battery charger will also be required – this can be purchased from Greenpower or elsewhere.

For up-to-date prices for kit cars and entry fees please see the website: www.greenpower.co.uk or contact: sales@greenpower.co.uk

KIT CAR BUILD

The build takes an average of 15 hours the first time the Goblin is built by a new team. This time scale takes into account setting up times for each new session, mistakes being made and the instructions being read for the first time. The build time will usually decrease for subsequent builds.

The kit comes with everything you need to build a Goblin car, apart from the tools. It includes simple instructions. Greenpower also provides phone and email support.

TOOLS REQUIRED FOR THE BUILD

- Metric Spanners (selection including 8,10,13, 17 and 19mm)
- Metric Allen Keys (selection)
- Hammer
- Safety Equipment
- Tyre Pump with Pressure Gauge
- Electrical Screwdriver
- Wiring Crimp Tool
- Further tools may be required

USE THE SAME KIT NEXT YEAR

After the kit has been used it can be stripped back and rebuilt. This can be done by the children or by an adult before the group starts. Some parts will wear after being taken apart and put back together multiple times.

The most common parts that will need replacing over the years are: wheels (we are not currently able to offer replacement tyres, the whole wheel will need to be purchased); washers – these only cost a few pence each.

The kit must be built following the instructions. The supplied kit cannot be modified in anyway – unless it is an authorised upgrade from Greenpower. Kit cars competing will differ very slightly, depending on when they were bought and how many upgrades have been made. Upgrades are usually optional. We will inform teams if an upgrade needs to be made for safety reasons.





THE TEAM



RUNNING A TEAM

Every team is run differently. Most are run by schools, but Greenpower has seen teams from Boy's Brigade groups, community groups working with the police, home educator groups and private teams run by keen parents.

A Greenpower Formula Goblin project creates the opportunity for students to get involved through many varied roles. Team members can take charge of Finance, Fundraising, Marketing, Photography, Build Team, Design Team, Pit Crew, Drivers and even Cheerleaders for example.

HOW MANY IN A TEAM?

The size of the team while building the car is different in every situation. Between six to 20 children is normal. On an event day up to 13 children can take part in driving the car. Most teams have six or seven drivers and a small number of pushers or pit crew.





COSTS

FUNDING

THE CAR

As of 2024 a complete Goblin Kit costs £1,735.00 +VAT. Please visit: greenpower.co.uk/shop for up-to-date costs.

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

Spares parts can also be purchased from our online shop.

EVENT ENTRY

As of 2024 the cost of entering a Formula Goblin event is: £50.00 + VAT per car per event day, additional cars from the same team will be charged the same fee to participate. Please see: 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.

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 Formula Goblin car.

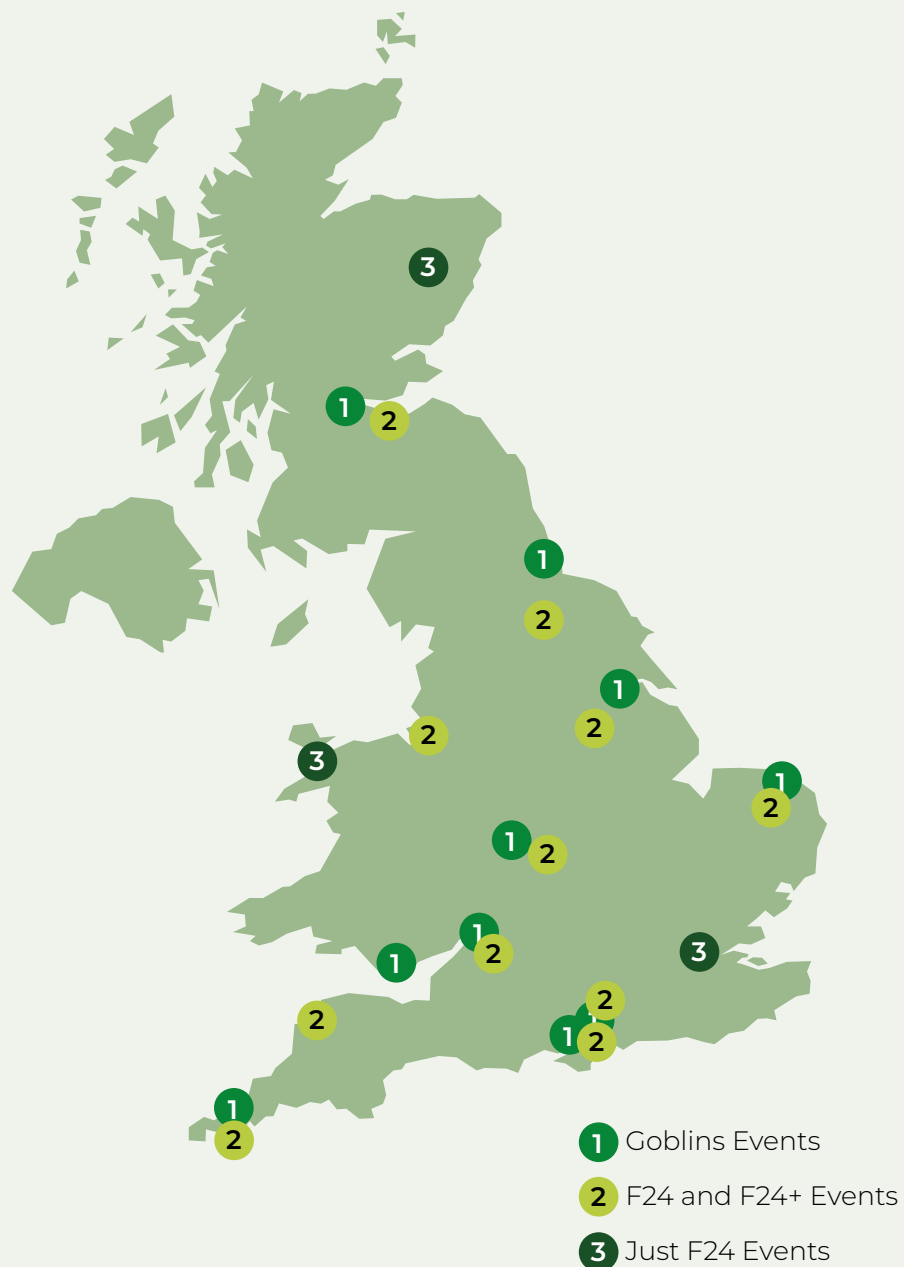
Some schools are willing to contribute towards funding a Greenpower team. Team members can also help by organising fundraising events.

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.) PTAs 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. Check our website to find out if there is any funding available in your area: greenpower.co.uk/project-areas.

EVENTS



WHEN DOES THE SEASON START?

The Goblin events start in March and run through to July, finishing before the end of the summer term with the final event held at Goodwood Motor Circuit, West Sussex. This is open to all teams, from anywhere in the country.

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

Goblin events run at a number of locations in the UK, including Northern Ireland and Scotland. New events will be added to the calendar when possible, in areas where there is the demand for them.

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 Goblin 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

Between eight and 25 cars will compete on a typical Goblin race day, although there are three larger events held during the racing season too. During a race day each car will have the opportunity to take part in drag and slalom challenges and a head-to-head sprint.

RACES

Each car has six attempts at the drag and slalom events. A minimum of one driver and one pusher and a maximum of 12 drivers and 12 pushers can take part.

Slalom event

The slalom event is a short course, driving through gates built with cones. One car runs at a time on the track and the quickest run of six attempts will go towards the final score for this event.

Drag event

The drag event is a straight line race, with two cars running as fast as they can in a straight line at any one time. Each car is timed individually on each run – the fastest run of six goes toward the final score for the event.

Head to head sprint

In the head-to-head sprint up to three cars will race on a small track in one heat each, leading to a quarter-final, semi-final and a final (dependant on number) to determine an overall winner for this event.

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:

8:30	Teams arrive
9:00	Scrutineering opens
10:00	Team briefing
10:15	Events begin
12:30	Lunch
13:00	Events recommence
15:00	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://www.greenpower.co.uk/events).

RISK ASSESSMENTS

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



AWARDS

Cars are ranked on a scoring system for each part of the event and the lowest score wins the day.

There are additional awards to be won at an event which count towards your team's overall score.

Teams which hand in a portfolio will get minus points which will help lower their score and increase their chances of winning.

ADDITIONAL AWARDS AT EVENTS ARE THE:

- **Portfolio Award**
- **Greenest Bodywork**
- **Best Bodywork**
- **Best Presented Team**
- **Spirit of Greenpower**

All these awards are judged on the day by Greenpower staff and volunteers. There will be an award for the overall winner and where relevant the regional winners too.

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





TO GET STARTED REGISTER ONLINE

To register online go to 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.

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

Or via email: 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.

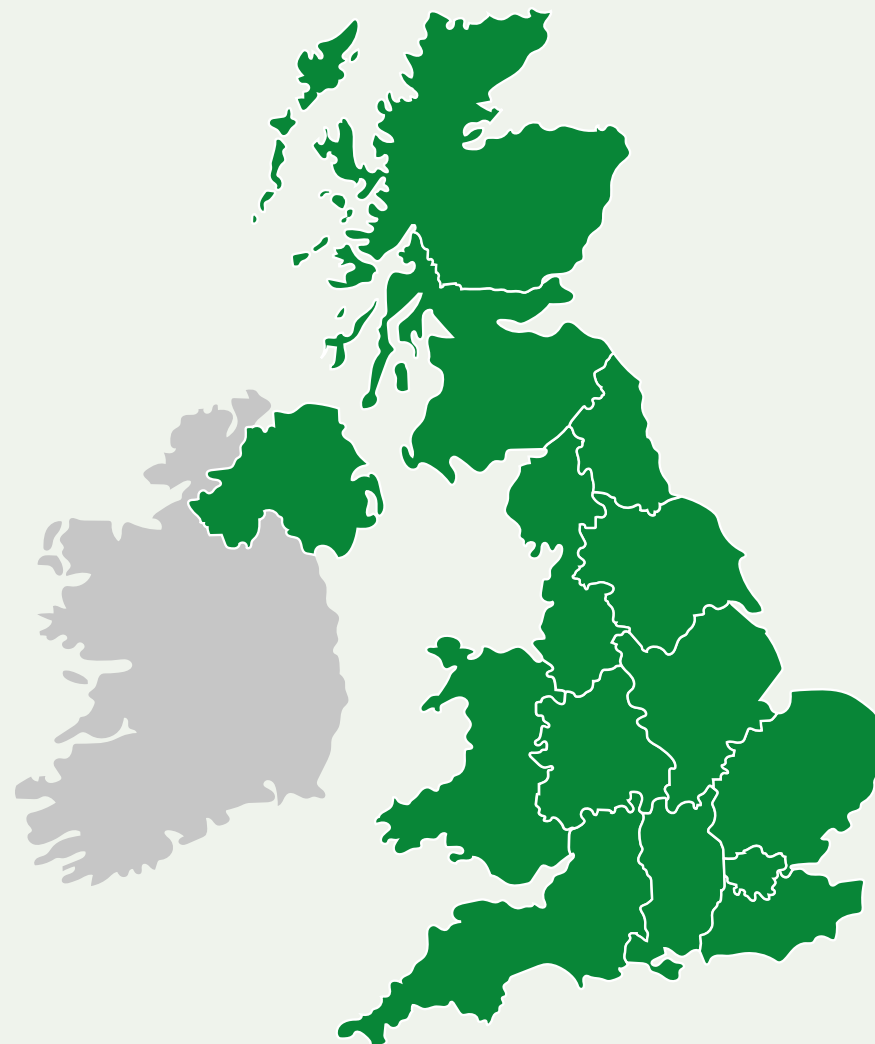
It can also be very beneficial to find a mentor to help your team during the design and building of your car. Mentors could be engineers from a local business, former Greenpower competitors or university/college students, for example. A local ambassador may be able to help you in finding a mentor.

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

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



GREENPOWER

MORE INFORMATION

If you'd like more information, please contact:

info@greenpower.co.uk

01243 552305

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.



Greenpower Education Trust



@greenpower_team



@Greenpowertrust



Greenpower Education Trust



@GreenpowerTrust



National supporter



Media, Legal and Consulting supporters



spacesuit



adbesse
consulting



Hogan
Lovells

Regional supporters



RENISHAW
apply innovation™



Perkins



Cubico
SUSTAINABLE INVESTMENTS



DUDGEON
Offshore Wind Farm
Operated by Equinor



Hull
City Council



THE
JAMES
DYSON
FOUNDATION



KMF GROUP