

STEM ON TRACK HANDBOOK

INTRODUCTION

To ensure safety, fairness, and consistency, all STEM On Track activities and events must be conducted in line with established regulations and agreed standards. It is the responsibility of school leaders, teachers, and designated responsible adults to understand and comply with these requirements before their school participates in any STEM On Track event organised by Espire Education (hereafter referred to as EE).

All participants enrolled in the programme are expected to follow the rules outlined in this Handbook. Should you require clarification on any of these rules, please contact either of the Co-Founders listed below.

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WARNING MOTORSPORT CAN BE DANGEROUS.

Despite the organisers taking all reasonable precautions, unavoidable accidents can happen. In respect of these, you and the young people you're responsible for are present at your own risk.

TECHNICAL REGULATIONS

1. Kart, Technical, Scrutineering

1.1 Any kart entered to take part at an EE STEM On Track event must comply with specifications [1.2], constructed correctly and accurately, following closely the instructional videos provided, and be in sound mechanical condition.

1.2 Any kart and engine entered to take part at a STEM On Track event must be exactly the kart kit equipment supplied by EE STEM On Track. It must have undergone NO modifications, enhancements or performance tuning outside the scope of the instructional videos provided within the programme. For the avoidance of doubt, this means that the constructed kart and engine must both be 'Box Stock', exactly as they came out of the box when delivered.

1.3 All karts must be made available for inspection by the allocated scrutineer at the start of the event. But also made available at the request of the organisers, the Chief Scrutineer, or the Chief Clerk of the Course, at any time during the event. Any inspection may include dismantling the kart or engine to any extent deemed necessary by the officials of the meeting.

1.4 A selection of the top performing karts (plus a random kart) will undergo eligibility scrutineering check at the end of the main race by the Chief Scrutineer. Where an issue arises relating to the eligibility of an entered kart, the definitive decision remains, in the first instance, with the Chief Clerk of the Course and Chief Scrutineer who will advise the EE Directors. The result of an eligibility noncompliance will likely result in disqualification from the event.

1.5 Any kart which stops out on circuit during the main race will be attended to and attempted to restart by EE STEM On Track circuit marshals. However, if the kart cannot re-join, that is the end of that team's race. The kart/team will not be permitted to participate in another later race.

1.6 Any kart which, has a technical fault out on track, has been dismantled or modified in a manner which may affect its safety, or which has been involved in an accident, shall be represented for the approval of the Chief Scrutineer.

1.7 Any scrutineering stickers/seals provided must be attached to the kart and be clearly visible at all times.

1.8 The scrutineer's tools, scales and/or check weights are deemed to be correct on the day.

1.9 Drivers must not receive assistance from professional paid kart mechanics or coaches. Former EE STEM On Track participants, siblings, parents, EE STEM On Track team members and School based staff are able to provide unpaid assistance to drivers. The penalty for breaching this rule will likely result in exclusion from the event.

2. Fuel, Oil, Lubricants

2.1 Fuel and oil will be provided to teams at the start of the event, following scrutineering. This provided fuel and oil will be the only type permitted to run at the event.

2.2 Fuel and oil compliance may be tested for at the end of the main race as part of the compliance scrutineering process.

2.3 Chain lube will be provided after scrutineering. However, other karting specific chain lubes are permitted.

2.4 Both fuel and oil will be drained from the engines (supported by EE STEM On Track officials) following the teams final competitive race.

3. Personal Protective Equipment (PPE)

3.1 PPE/Racewear (Helmet, Race Suit and Gloves) will be provided by EE STEM On Track at the events.

3.2 The Team Leader/ teacher must be fully satisfied that the helmet fits correctly and is properly fastened.

3.3 If PPE/Racewear not supplied by EE STEM On Track is being used, then it must first be presented in the morning to the Chief Scrutineer for inspection to be cleared for use. However, this process does not absolve the competitor of liability. It is the sole responsibility of the owner of the PPE/Racewear to ensure it is safe and in working order.

3.4 Only one-piece shell full face helmets are permitted. Helmets must never be dropped or placed on rough surfaces upside-down.

3.5 A visor must be used at all times and closed when driving; goggles are not permitted.

3.6 All drivers must wear flat soled, sturdy footwear that provides appropriate protection.

3.7 Long hair and hooded tops must either be tucked up into the helmet or down into the race suit.

4. Eligibility To Drive On-Track

4.1 Any driver must have successfully completed all of the following to secure their racing license: Questionnaire/written test (flags & on-track behavior), practical driving assessment, kart scrutineering, parental consent form, medical declaration form and signing-on. This will result in them securing their EE STEM On Track license. Eligibility to participate as a driver will be valid for 12 months from the Event at which a driver became eligible.

4.2 It is the responsibility of the school/organisation to ensure that their drivers arrive at the event adequately prepared. This may mean enabling them to get some prior driving experience, for example at indoor circuits.

4.3 The adult Team Leader/lead teacher of each school attending must inform the EE directors and event's chief medical officer of any medical conditions or matters relevant to their drivers prior to participating. This must also be disclosed on the Medical Declaration forms.

4.4 All persons present shall attend the safety briefing prior to the commencement of practice or race sessions. It shall be an offence not to attend the safety briefing (see Appendix A).

5. Starting Karts/Engines

5.1 Engines may be allowed to be started in an area of the paddock designated by the EE officials. This process will be guided and supported after the scrutineering process.

5.2 Starting karts and driving karts anywhere in the pits or anywhere surrounding the circuit is prohibited.

5.3 Using the HONDA Gx160 recoiled starter, drivers are not allowed to attempt to restart themselves. Circuit marshals may attempt to restart the kart if they feel it is safe to do so, and if successful you will not be disqualified. This will only happen if the circuit marshal is happy that this is safe to do.

6. Dummy Grid

6.1 Aside from spark plugs as below, no adjustments other than to tyre pressures or those capable of being performed with fingers only, will be permitted to karts on the dummy grid. (Tools will be limited to use of a tyre pressure gauge only and additional air cannot be added.)

6.2 To aid engine starting spark plugs may be replaced on the dummy grid.

7. Fuel / Re-fueling

7.1 Re-fueling whilst competing in a session may only be undertaken in the specified zones by EE STEM On Track officials.

7.2 The re-fueling area shall be designated with at least two fire extinguishers provided (minimum 2KG dry powder with annual certification that they are in working order). It is expressly forbidden to refuel karts outside of the designated zones. Drivers must not be in the kart and the engine must be switched off during re-fueling.

8. Penalties/ Appeals

8.1 The decision by the Chief Clerk of the Course or Chief Scrutineer or EE Directors is final and cannot be Appealed.

8.2 The Chief Clerk of the Course and Chief Scrutineer or EE Directors will endeavor to explain any penalties to those penalised if practical during the running of the event. If not, this will take place after the event.

9. Awards

9.1 Each year a STEM On Track Grand Final perpetual trophy will be presented to the overall winner. Three other perpetual trophies will be presented to the winners of the, Build, Learn and Race awards. All trophies must be returned on request ready for the next presentation. In the event that this has not been done, a charge will be made to the team to cover the cost of replacement.

9.2 There may also be sponsored awards/prizes presented for each element of the programme: National Champions, Build, Learn and Race. The style of which may vary each year, and not all students may be able to participate in them.

10. Track and Track Equipment

10.1 The entire circuit shall be given a safety inspection before the paddock safety briefing, and at any point during the meeting when, where the track conditions have changed, by the Clerk of the Course.

10.2 Each Flag Marshal Post will have the following flags: red, green, yellow, white, blue, black-and-yellow quartered, and red-and-yellow striped. Additionally, Marshal Posts 1 and 2 will also have a false start flag (green with a yellow chevron).

10.3 The Starter shall have starting equipment, standard marshal post flags, plus black and white chequered, black with orange disc, black, black and white diagonal, green with a yellow chevron false start, national flags, number board and also a board inscribed "Last Lap".

10.4 Fire extinguishers (minimum 2kg dry powder, with annual certification that they are in working order) shall be positioned as follows: one at the start line; min two in the grid area; min one in parc-ferme in clearly visible position; and others at agreed points on the circuit.

11. Officials

In addition to those listed, the organisers, their staff/marshals/official volunteers will all be deemed Officials.

11.1 *Clerk of the Course* is the first judicial body. The Clerk and their deputy(s) shall have the power to impose penalties. They are responsible for the conduct of the meeting and liaising with other officials as is appropriate.

11.2 *Chief Scrutineer* shall be responsible, with the help of EE recognised volunteer scrutineers, for:

Ensuring that all karts are fit to be driven and comply with current EE specifications [1.2]; and will perform a selection of compliance checks at the end of the main race.

11.3 *Chief Timekeeper*, the Timekeeper shall use appropriate certified equipment for the event in order for the authenticity of the results produced to be established.

11.4 *Chief Medical Officer(s)* - Shall be appointed in accordance with Motorsport UK guidance.

12. Insurance

12.1 In addition to the standard company insurances, EE has Public Liability Event Insurance [10M] specifically applicable to these Events.

12.2 Motorsport is dangerous and all visitors, participants and drivers do so at their own risk. By signing-on, all supporting staff, participants, volunteers and drivers accept these risks.

12.3 It is a condition of participation that each school is satisfied with their own insurance cover.

13. Safeguarding

13.1 We seek to ensure the safety and wellbeing of all children and adults and to protect them from harm or abuse when they engage in EE STEM On Track events. This safeguarding policy encompasses the Motorsport UK Safeguarding policies and procedures. EE events also operate under the guidance of Motorsport UK's 'Race with Respect' initiative. Ref. [motorsport uk.org](https://www.motorsport-uk.org)

Appendix A:

SPORTING PENALTIES

Offence	P E N A L T Y			Examples
<i>(Severity & frequency of infringement will be considered applying penalties)</i>	IN PRACTICE	IN TIMED QUALIFYING (TQ)	IN RACING	<i>(Illustrative only and not exhaustive - Clerk/ Scrutineer's discretion applies)</i>

Driving standards

Lack of Control	Black Flag	Black Flag & Time deleted	Black Flag	Inconsistent lap-times, cornering, braking or speed. Repeated exceeding of track-limits.
Gaining Unfair Advantage	Black Flag	Black Flag & Time deleted	Black Flag - 1 Lap	Contact with another kart, cutting the circuit.
Driving Dangerously 'incompatible with general safety'	Black Flag (and time deleted if TQ) & Driver/Team disqualified from next session or event			Intentional contact or after-chequered, causing collision, unsafe track entry.

Contravention of Flag/ Signals

At anytime, all flags	Black Flag	Black Flag & Time deleted	Black Flag - 1 Lap	
Ignoring the Black flag	Black Flag (and time deleted if TQ) & Driver/Team disqualified from next session or event			

General behaviour:

Failure to attend all briefings	Driver/Team disqualified from next session or event	
Failure to obey an official/ Marshal		
Misbehaviour / unfair practice (Off-track)		
Abusive language, behaviour or assault.		

Other infringements not specified above.

At the discretion of the Chief Clerk or Chief Scrutineer

Those with times deleted will be gridded in further sessions in random order as determined by the Timekeepers.

READY TO RACE

All participants, team leaders, and supervising adults are expected to ensure that these regulations are understood and followed at all times. Compliance is essential for the safety of everyone involved and the smooth running of STEM On Track events.

If you have any questions or require clarification on any rule or standard, please contact the STEM On Track team:

✉ support@espireeducation.co.uk

We look forward to seeing you on track and wish you the very best in your STEM On Track journey.