Formula Student Germany
Event Handbook 2026

Contents

Changelog

Rule	Version	Change
DE	1.0	Renamed to “Event Handbook”
DE 3.1.2	1.0	Clarified that participation in the quiz is not necessary to use tools for other competitions
DE 3.1.3	1.0	Added availability date for test registration website
DE 3.1.14	1.0	Added date for quiz repeat in case of fundamental issues
DE 3.2.1	1.0	Reduced slots to 80 (DC to 40) due to schedule constraints
DE 3.2.2	1.0	Added reserved slot for crazy20 winner
DE 3.2.2	1.0	Swapped order of DC and EV slots so duplicate teams are filled up from overall ranking
DE 3.7.5	1.0	Added validity period for health insurance without explicit validity date
DE 4.1.1	1.0.1	Fixed timezone designator
DE 4.2.1	1.0	Updated deadlines for 2026
DE 4.2.1	1.1	Added CRD deadline that was accidentally missing in v1.0
DE 4.2.4	1.0	Added template availability deadline
DE 5.5.3	1.0	Clarified procedure for picking up confiscated goods
DE 5.6	1.0	Changed welding area to power tool area
DE 5.14.1	1.0	Extended required tools for Electrical Inspection
DE 5.15	1.0	No Tilt Test at FSG 2026
DE 8.2	1.0	No Cell Temperature Monitoring Device at FSG 2026
DE 8.3.9	1.0	Clarified status signal definitions concerning actuators

Abbreviations

AMI	Autonomous Mission Indicator
AS	Autonomous System
ASES	Accumulator Structural Equivalency Spreadsheet
ASF	Autonomous System Form
ASR	Autonomous System Responsible
ASRQ	ASR Qualification
BPEFS	Business Plan Executive & Financial Summary
CEST	Central European Summer Time
CET	Central European Time
CRD	Cost Report Documents
CTMD	Cell Temperature Monitoring Device
CTS	Chassis Type Selection
DC	Driverless Cup
DCPI	Driverless Cup Participation Intention
DL	Data Logger
DLDS	Data Logger Download Station
DV	Driverless
EBS	Emergency Brake System
ESF	Electrical System Form
ESO	Electrical System Officer
ESOQ	Electrical System Officer Qualification
EV	Electric Vehicle
FSG	Formula Student Germany
HIC	Health Insurance Certificate
IAD	Impact Attenuator Data
MU	Media Uploads
NMT	Network Management Protocol (CANopen)
PDO	Process Data Object (CANopen)
RES	Remote Emergency System
SDO	Service Data Object (CANopen)
SE3D	Structural Equivalency 3D Model
SES	Structural Equivalency Spreadsheet
SESA	SES Approval
TMD	Team Member Designation
TS	Tractive System
TVSD	Technical Vehicle System Documentation
VSV	Vehicle Status Video

DE Formula Student Germany Event Handbook 2026

DE 1 General Information

DE 1.1 Event Dates and Place

DE 1.1.1 FSG 2026 will be held from 11th until 16th of August 2026 in Hockenheim, Germany.

DE 1.2 Class Availability

DE 1.2.1 The FSG 2026 event will feature a competition for the Electric Vehicle (EV) class. This will take place together with the additional Driverless Cup (DC).

DE 1.3 Applicable Rules

DE 1.3.1 The event will be held in compliance with the “Formula Student Rules 2026”.

DE 1.4 Competition Website

DE 1.4.1 The URL of the FSG competition website is https://www.formulastudent.de.

DE 1.5 Date and Time Format

DE 1.5.1 The competition date/time format is “YYYY-MM-DD hh:mm” according to ISO 8601[1].

DE 1.5.2 The competition time zone is CET[2] or CEST from last Sunday of March to last Sunday of October, Europe/Berlin.

DE 1.5.3 The time of the competition website is the official time for all deadlines and decisions:
https://www.formulastudent.de/time.

[1] https://en.wikipedia.org/wiki/ISO_8601
[2] https://en.wikipedia.org/wiki/Central_European_Time

DE 2 Emergency Information

DE 2.1 Emergency Numbers

DE 2.1.1 The official emergency number in Germany is **112**. This number works from every phone and carrier network and is always free of charge.

DE 2.1.2 During the event, you can reach a Pit Marshal or Event Support via the following numbers:

- +49 (151) 560 747 00 – Pit Marshal (Pascal Heuter)
- +49 (151) 560 747 02 – Event Support (Matthias Brutschin)

DE 2.2 Minor Injury

DE 2.2.1 Emergency aid is provided at the Medical Center whenever the pits are open. Its location is marked on the map.

DE 2.2.2 Please accompany the injured person to the Medical Center.

DE 2.3 Severe Injury

DE 2.3.1 During the dynamic disciplines, an ambulance is on standby on site. They are located next to the Medical Center and are marked in blue on the map. Every official and security has two-way radio, ask them to call the Medical Center or the ambulance on channel 16.

DE 2.3.2 Call an ambulance yourself if someone is severely injured and needs urgent help. The emergency number for every phone and mobile phone is 112.

DE 2.3.3 The closest hospital to the event site is the “Krankenhaus Schwetzingen”, Bodelschwinghstrasse 10, 68723 Schwetzingen. You can reach them via phone at +49 (0) 6202 / 84-30

DE 2.4 Clear message of zero tolerance of all forms of violence and hate crime

DE 2.4.1 We would like to preventively raise awareness and spread the clear message of zero tolerance of all forms of violence and hate crime. Should an incident occur, we will be happy to help you deal with it confidentially.

DE 2.4.2 During the event, you could also go to the Medical Center and talk to the emergency services there.

DE 2.4.3 We would also like to draw your attention to the following hotlines for professional support:

- 24-hour services of the EU-wide free helpline for women 116 016 (https://www.hilfetelefon.de/en.html)
- Nationwide victim support 116 006 (https://weisser-ring.de/english)

DE 3 Registration

DE 3.1 Team Registration

DE 3.1.1 The team registration will take place in the form of a quiz. Registration without taking part in the quiz is not possible. The quiz will require knowledge from all fields related to Formula Student.

DE 3.1.2 Teams that wish to register for the withdrawn list in order to use our review tools for other competitions should not participate in the quiz. It will be possible to add your team to the withdrawn list in the team area on the competition website after the results of the quiz have been published, see DE 3.1.13, for a period of two weeks.

DE 3.1.3 The URL of the registration website is https://reg.formulastudent.de. A representative test registration website will be made available at https://t.reg.formulastudent.de two weeks before the registration on Friday 2026-01-16 .

DE 3.1.4 Teams must create a team account on the competition website and assign a team captain. It is highly recommended to also appoint two deputies. The deadline for this is 24 h before the registration starts, see DE 4.1. Only one person, the team captain or one of their deputies, may complete the registration quiz.

DE 3.1.5 The quiz starts as defined in DE 4.1.

DE 3.1.6 Only one question will be visible at a time and can only be answered once.

DE 3.1.7 Questions will have a fixed duration during which an answer has to be provided by the team.

DE 3.1.8 When entering the quiz late, depending on the delay, the first questions will not be visible anymore.

DE 3.1.9 The ranking is determined by the teams' quiz scores, as outlined in Equation (DE 1) . A lower score corresponds to a higher position in the ranking. Each question is assigned a weight proportional to its duration, which will be displayed alongside the question.

$$
\begin{aligned}
i &:= \text{question index} \\
score_{\text{team},i} &= question_{\text{weight},i} \cdot \begin{cases} \frac{time_{\text{team},i}}{2 \cdot time_{\text{question},i}} & \text{for valid answers} \\ 1 & \text{for invalid answers} \end{cases} \\
score_{\text{team}} &= \sum_i score_{\text{team},i}
\end{aligned}
\tag{DE 1}
$$

DE 3.1.10 Once the quiz has been successfully completed, the team captain or one of their deputies must register the team for the event by agreeing to the rules and by selecting a free vehicle number between 001 and 399. Requests for changing the vehicle number are only possible within 168 h (7 d) after the start of the registration.

DE 3.1.11 The quiz will close after the time to answer the last question has expired.

DE 3.1.12 No feedback if the answer was correct will be provided until the results are published on Saturday 2026-01-31 13:00 CET on the registration quiz page, see DE 3.1.5. After the results are published, teams have 4 h until 2026-01-31 17:00 CET to hand in protest at https://www.formulastudent.de/fsg/feedback-quiz/. Protests by e-mail will be ignored.

DE 3.1.13 Quiz times and the resulting ranking will be published on Monday 2026-02-02 13:00 CET.

DE 3.1.14 Should protests reveal fundamental issues that render the results of the quiz unusable, a complete repeat will take place on Friday 2026-02-06 13:00 CET. The result publishing, protest and final ranking timeline will then be adapted accordingly.

DE 3.1.15 Reserved slots, see DE 3.2.2, will be assigned to the teams based on past achievements. All remaining and unused reserved slots will be assigned to all other teams, with regard to their quiz result.

DE 3.1.16 All assigned teams will be placed on the pending list on the competition website. In order to move to the participating list, they have 72 h to pay the registration fee, see DE 3.3. Once all slots have been filled, all additional teams will be placed on a waiting list, see DE 3.4. The period to pay the registration fee starts with the publication of the ranking on 2026-02-02 13:00 CET.

DE 3.1.17 The Technical Inspection order at the event will be based on the quiz result.

DE 3.2 Registration Slots

DE 3.2.1 FSG 2026 is limited in total to 80 EV slots. Up to 40 of the registered teams may participate in the DC.

DE 3.2.2 Reserved slots will be assigned to the following teams:

- Winner of the crazy20 special event from FSG 2025
- Five top DC teams from FSG 2025
- Five top EV teams from FSG 2025
- Five top EV teams from latest World Ranking List[3] as of 2026-01-16 13:00 CET
- Winning EV teams from all World Ranking List competitions 2025

The top team slots will be assigned in the above order. Duplicate teams will be filled up with the next team from the respective category.

DE 3.2.3 All remaining and unused reserved slots will become available for all other teams after the registration quiz has been closed on the registration website, see DE 3.1.11 .

DE 3.3 Registration Fee

DE 3.3.1 The registration fee is 1500 € and includes up to 15 team members.

DE 3.3.2 The registration fee is waived for the overall winners EV and DC and for the winner of the Sportsmanship Award from FSG 2025.

[3] https://fs-world.org

DE 3.3.3 The registration fee must be paid online within 72 h by a verified PayPal account after the team has been moved to the pending list in order to move to the participating list. Otherwise the team will be de-registered. Payment methods other than PayPal are not accepted.

DE 3.3.4 Registration fees are only refundable should unexpected entry restrictions prohibit the team from traveling.

DE 3.3.5 More team members can be registered for 50 € per participant until the TMD deadline, see DE 4.2. Unassigned spaces expire at the TMD deadline and will not be refunded. There is no limit in team size.

DE 3.3.6 After the TMD deadline, see DE 4.2, changes to the list of team members are only possible by paying a late booking fee of 100 € per participant. This also applies to teams who move up from the waiting list after the TMD deadline. There is no deadline for late bookings.

DE 3.4 Waiting List & Withdrawals

DE 3.4.1 Teams on the waiting list may move to the participating list until 2026-07-26 00:00 CEST. This is possible if registered team withdraw from the event. Once a slot on the participating list has become available again, the next team on the waiting list will move to the pending list and has 72 h to pay the registration fee in order to move to the participating list.

DE 3.4.2 Teams on the waiting list are required to submit all documents and forms by the same deadlines as teams on the participating list. This includes the TMD deadline, see DE 3.3.6.

DE 3.4.3 Teams on the waiting and participating lists who find that they will not be able to attend the event are requested to officially withdraw via the option on their event settings page. This cannot be undone.

DE 3.4.4 After the waiting list closes, execution of A 5.4.2 and A 5.3.4 is suspended and teams will no longer be de-registered.

DE 3.5 No Driverless

DE 3.5.1 Teams that do not intend to run in autonomous mode at the event must set the status “No Driverless” on their event settings page. This cannot be undone. All autonomous mode disciplines will be scored with 0 points. The team will not be allowed to run in autonomous mode.

DE 3.5.2 Teams with the status “No Driverless” are not required to upload the ASF, ASRQ and the dbc file. Therefore, if these deadlines are missed, the team will not be de-registered from the event. All correction request for these deadlines become invalid immediately. Existing penalties remain if the status “No Driverless” is handed in after a deadline already expired.

DE 3.6 Driverless Cup

DE 3.6.1 All teams must decide on their event settings page whether they wish to participate in the Driverless Cup (DC) by the DCPI deadline, see DE 4.2.

DE 3.6.2 Up to 40 DC slots will be assigned among these teams. Five slots are reserved for the five top teams from the FSG 2025 DC competition, the remaining slots will be assigned in the order of the quiz results.

DE 3.7 Team Member Designation

DE 3.7.1 Participating team members must be assigned prior to the event by the team captain or their deputies.

DE 3.7.2 Any changes after the TMD deadline, see DE 4.2, are considered late bookings according to DE 3.3.6. Registered participants cannot be swapped for other team members after the deadline.

DE 3.7.3 If there are any team members who are studying at a different university, they must choose the team's university during their registration process as a team member.

DE 3.7.4 Team members may only be selected as participants by the team captain, if they have entered the following personal information in their user profiles:

- Personal address
- Clothing size
- HIC for Germany (e.g. travel insurance)
- standard terms

It is possible to select team members as participants who have not yet passed the HIC review. New or updated HIC will only be reviewed after the team member has been selected as participant by the team captain.

DE 3.7.5 As proof of valid health insurance in Germany the following documents are accepted (English or German language only):

- For members of any EU/EWR country: the backside of their European Health Insurance Card (EHIC).
- For all other (non EU/EWR or private health insurance): a DIN A4 PDF containing the member's full name, date of birth, validity date, clear statement that insurance is valid in Germany during the time of the event. If no explicit validity date is specified, the validity is 2 years after the date of issue.

Team members have three attempts to upload a correct HIC. Ignoring the reviewer's comments more than twice will lead to an irrevocable fail.

DE 3.7.6 The submission of the signed standard terms will be handled digitally. All participants will find personalized standard terms in the **My Account** section on the competition website. This document must be signed and then uploaded using the standard terms upload in the **My Account** section.

DE 3.8 Visa for Participants

DE 3.8.1 All participants which passed the HIC-check, will find a personalized letter of invitation with a digital signature in their account overview.

DE 3.8.2 An invitation letter with a hand signature can be ordered on the competition website. Once a fee of 90 € has been paid, the letter will be sent out within two weeks.

DE 4 Important Dates

DE 4.1 Team Registration

DE 4.1.1 Team registration, see DE 3.1, for all teams starts on 2026-01-30 13:00 CET with the registration quiz and ends after the registration quiz has been closed, see DE 3.1.11.

DE 4.2 Deadlines

DE 4.2.1 All required documents and information must be uploaded to the competition website by the team captain and/or their deputies by the deadlines stated in Table 1.

Date	Deadline
2026-02-20 13:00 CET	Driverless Cup Participation Intention (DCPI)
2026-03-13 13:00 CET	Accumulator Structural Equivalency Spreadsheet (ASES)
2026-03-13 13:00 CET	Chassis Type Selection (CTS)
2026-03-13 13:00 CET	Impact Attenuator Data (IAD)
2026-03-13 13:00 CET	Structural Equivalency 3D Model (SE3D)
2026-03-13 13:00 CET	Structural Equivalency Spreadsheet (SES)
2026-03-13 13:00 CET	SES Approval (SESA)
2026-03-27 13:00 CET	Autonomous System Form (ASF)[4]
2026-03-27 13:00 CET	Electrical System Form (ESF)
2026-05-29 13:00 CEST	Business Plan Executive & Financial Summary (BPEFS)
2026-05-29 13:00 CEST	Technical Vehicle System Documentation (TVSD)
2026-05-29 13:00 CEST	Media Uploads (MU)
2026-06-19 13:00 CEST	ASR Qualification (ASRQ)[4]
2026-06-19 13:00 CEST	Electrical System Officer Qualification (ESOQ)
2026-06-19 13:00 CEST	Team Member Designation (TMD)
2026-07-03 13:00 CEST	Vehicle Status Video (VSV)
2026-07-24 13:00 CEST	Cost Report Documents (CRD)
2026-07-24 13:00 CEST	dbc file upload[4]
2026-07-24 13:00 CEST	Option to set “No Driverless” (DE 3.5)
2026-07-26 00:00 CEST	Waiting list closes (DE 3.4)
2026-08-11 20:00 CEST	On-site accumulator registration (DE 5.13.2)

Table 1: Document deadlines

[4]The ASF, ASRQ and dbc file upload is not required for teams that have selected the “No Driverless” status, see DE 3.5.

DE 4.2.2 Deadlines are specified such that documents need to have been submitted and received by the competition website **before** the time specified by the respective deadline. An upload time of 13:00:00.000 is therefore already too late if the deadline was 13:00.

DE 4.2.3 All documents must comply with a maximum size of 50 MB.

DE 4.2.4 Templates or forms required for meeting the deadlines from Table 1 will be made available on the competition website at latest 4 weeks before the deadline.

DE 5 Event Site Organization

DE 5.1 On-Site Registration

DE 5.1.1 Each team will be assigned to one of three time slots for registering on-site. The order is the same as in DE 5.10. The three slots will be published in the main schedule on the competition website[5].

DE 5.1.2 The on-site registration will take place near the south stands.

DE 5.1.3 Until Wednesday 2026-08-12 15:30 CEST, teams are limited to have only 7 members on-site.

DE 5.1.4 Until Wednesday 2026-08-12 15:30 CEST, there is a no-go area in effect. Details can be found in the map published on the competition website.

DE 5.1.5 The team captain will be handed the tickets of their team members and all other required documents for entering the venue.

DE 5.1.6 Tickets will only be handed out for team members with complete profiles on the competition website.

DE 5.1.7 All questions regarding the registration procedure must be asked via the “Event Helpdesk” on the competition website[6].

DE 5.1.8 The team must enter the event site for unloading immediately after receiving their tickets and documents.

DE 5.2 Entering the Event Site

DE 5.2.1 A pink “team truck” entrance pass with a green “unload card” attached to it is handed to each team at the registration. This entrance pass must be filled out completely and displayed behind the windscreen of the “team truck” used to transport the competition vehicle and equipment to the pits.

DE 5.2.2 The driver may queue the “team truck” only after the entrance passes are filled out.

DE 5.2.3 The total length of the “team truck” including a possible trailer must not exceed 12 m.

DE 5.2.4 The team is entitled to enter the event site only once with their “team truck” for a maximum of 30 min for the purpose of unloading their competition vehicle and equipment.

DE 5.2.5 Afterwards the “team truck” must be moved outside of the Hockenheimring.

DE 5.2.6 It is not possible to drive to the pit area again with the “team truck” during the event before loading on Sunday.

[5] https://fsg.one/schedule
[6] https://fsg.one/questions

DE 5.2.7 On Sunday 2026-08-16 the team is entitled to enter the pits once with the “team truck” for a maximum of 30 min for the purpose of loading.

DE 5.2.8 On request, teams may receive an additional yellow entrance pass that allows one passenger vehicle to enter the pit area for the next hour. These passes are only given out from Thursday 2026-08-13 until Sunday 2026-08-16 11:00 CEST.

DE 5.3 Announcements

DE 5.3.1 All announcements can be found on the competition website https://today.formulastudent.de/.

DE 5.4 Protest Procedure

DE 5.4.1 To initiate the protest procedure according to A 3.7.2, a request for clarification must be submitted via email to the address shown on https://fsg.one/protest before the announced protest deadline. The request must at least contain the following information:

- Rule interpretation, score or official action to be protested against
- Explanation of the team’s interpretation of the rules regarding the incident
- Additional material supporting the team’s interpretation

DE 5.4.2 After submitting the request for clarification, the team captain is going to be contacted by an official for an informal preliminary review. Within 2 h after the review the team can chose to continue the procedure by submitting a formal protest via email to the address shown on https://fsg.one/protest, binding 25 points to it. If no formal protest is received within 2 h after the review, the protest procedure for this incident is cancelled permanently.

DE 5.4.3 The announced protest deadline is always going to be between 10:00 CEST and 22:00 CEST.

DE 5.4.4 The protest deadline for scoring results and penalty publishings is going to be at least 2 h after publication. For protests regarding Endurance, the protest deadline may be shorter.

DE 5.4.5 If no explicit protest deadline is announced, the deadline is 24 h after the respective incident.

DE 5.5 Event Site

DE 5.5.1 The use of motorcycles, quads, bicycles, scooters, skateboards or other similar mobility devices as well as self-propelled devices in general by team members and spectators is prohibited.

DE 5.5.2 Lost & found is handled at Event Control during the opening times. Items must be picked up until Sunday 2026-08-16 18:00 CEST.

DE 5.5.3 Confiscated goods must be picked up at the Technical Inspection Info Counter after finishing Endurance on Sunday 2026-08-16 . The Info Counter closes when the Post Inspection of the last vehicle is finished. Confiscated items that are not picked up in time willthen be available for pick-up at Event Control. Anything that is not picked up when Event Control closes will not be kept.

DE 5.6 Welding and Power Tool Area

DE 5.6.1 A designated power tool area is available, as defined in A 6.4.

DE 5.6.2 FSG attempts to provide an approved welder. Outside of the opening hours it is possible to weld with own equipment in the power tool area only, using appropriate safety gear.

DE 5.7 Tires

DE 5.7.1 FSG provides a tire mounting machine and tools for changing tires. Required rim adapters must be brought by the team.

DE 5.7.2 Teams must provide a qualified person and mount the tires themselves.

DE 5.7.3 The equipment will be made available upon request via the pit marshals, which also decide on the qualification of the person.

DE 5.7.4 The use of machines and tools is at the user's own risk. The organizer is not liable for damage to materials or personal injuries. The user is liable for any damage to tools and machines.

DE 5.8 Team Briefings

DE 5.8.1 Important information for the upcoming day will be published on the competition website every evening. The team captain, their deputies and all drivers are expected to have read those briefings.

DE 5.8.2 Important information for the upcoming day will be published on the competition website every evening. The team captain, their deputies and all drivers are expected to have read those briefings.

DE 5.9 Driver Registration

DE 5.9.1 Driver registration will take place during the egress tests in the pits. All drivers must have their government issued driver's license and national ID card as well as their student ID ready for inspection.

DE 5.10 Technical Inspection Time Schedule

DE 5.10.1 The Technical Inspection parts Pre-Inspection, Accumulator Inspection, Mechanical Inspection, Electrical Inspection and Autonomous System Inspection will be conducted within a strict time schedule where every team will get a predesignated time slot. The time schedule will be published on the competition website shortly before the start of the event.

DE 5.10.2 The slots will be assigned to DC participants first and then to the other teams, based on the registration quiz order.

DE 5.11 Transponders / Timekeeping

DE 5.11.1 In order to have the vehicle be identifiable during dynamic disciplines, Timekeeping will stick three RFID tags to the vehicle. There will be one tag on the

front, center and rear of the vehicle. They will all be on the left side (as shown in Figure 2).

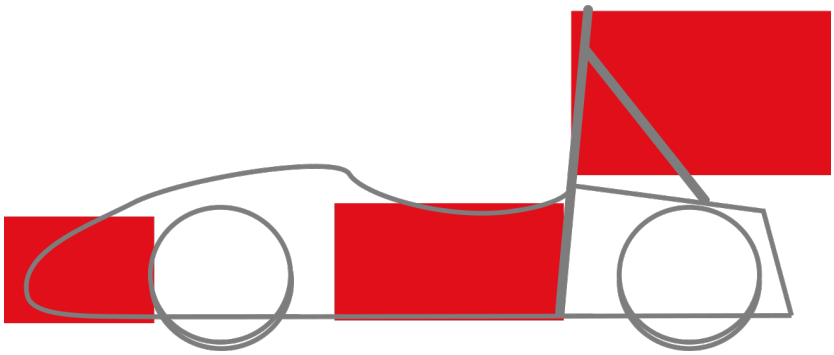

Figure 2: RFID Tag Placement Areas

DE 5.11.2 The location of the tags is decided by the officials. Areas where the driver will touch to get in or out and any sponsorship sticker will be avoided if possible.

DE 5.11.3 The area on the vehicle will be cleaned (regular window cleaner) to apply Velcro tape to mount RFID tags.

DE 5.11.4 If an RFID tag gets damaged, please contact Event Control. This will not result in a penalty.

DE 5.11.5 The RFID tags must not be fixed in any other way than done by the officials initially. This especially includes safety wiring or tape, as both interfere with the detection of the tags. In the unlikely event that a tag loosens from its mounting, this will never be treated as the team's fault.

DE 5.11.6 After the event, these tags must be returned to the Event Control by Sunday, 2026-08-16 18:00 CEST.

DE 5.11.7 Live-timing is provided at https://tk.formulastudent.de. The shown data is unofficial.

DE 5.12 Charging

DE 5.12.1 The charging area is a separated dynamic area including separate entrance restrictions.

DE 5.12.2 Only three members per team may enter the charging area at the same time. One of them must be an Electrical System Officer (ESO).

DE 5.12.3 Inside the charging area, team members must not wear any conductive jewelry and must not wear any conductive objects of any kind which could touch the accumulator.

DE 5.12.4 400 V, 50 Hz, 3-phase CEE charging connectors (3L+N+PE 6h) with 16 A and 32 A as well as 230 V, 50 Hz, 1-phase CEE 7/3 "Schuko" are available in the charing area.

DE 5.13 Accumulator Inspection

DE 5.13.1 The Accumulator Inspection will take place in the charging area.

DE 5.13.2 All teams that are allowed to enter on Tuesday 2026-08-11 and don't have their Accumulator Inspection on Tuesday must bring their accumulators to the charging area by 20:00 CEST that day. All teams that have their Accumulator Inspection on the same day of entering bring their accumulators directly to the Accumulator Inspection.

DE 5.13.3 If a team misses the aforementioned deadline, a penalty of 10 points is deducted of its overall score for every commenced 12 h up to a maximum total of 30 penalty points.

DE 5.13.4 The team has to register the accumulator delivery at the charging area.

DE 5.14 Electrical Inspection

DE 5.14.1 In addition to the tools listed in IN 3.2.2, the following tools must be brought for Electrical Inspection:

- Measurement device for isolation testing according to IN 4.1.1
- Milliohmmeter to perform tests according to EV 3.1.3
- Voltage supply to supply the TS when the TS accumulator is not connected, see IN 4.2.1
- If applicable, current source to simulate an appropriate signal that represents the current, to achieve $\leq$5 kW whilst pressing the brake pedal, see IN 4.1.3

DE 5.15 No Tilt Test

DE 5.15.1 Contrary to IN 1.2.1, there will be no Tilt Test, see IN 7, at FSG 2026. Vehicles may participate in the dynamic disciplines without having passed the Tilt Test. The responsibility remains with the team to design the vehicle and adjust the suspension so that it could have passed the Tilt Test at any time. We reserve the right to check this at random.

DE 6 Static Disciplines

DE 6.1 Bill of Material

DE 6.1.1 For FSG, the supporting material file, see S 3.6, must not exceed 20 pages of content. A title page and a table of contents page may additionally be added.

DE 6.1.2 For FSG, the cost and emissions explanation file, see S 3.7, must not exceed 20 pages of content, consisting of not more than 10 pages each for costs and for emissions. A title page and a table of contents page as well as an appendix may additionally be added. The appendix may only list input values (e.g. the price for 1 kg of aluminium). It must not contain any calculations.

DE 7 Dynamic Disciplines

DE 7.1 Dynamic Disciplines Closing Time Handling

DE 7.1.1 An audio signal (i.e. “gong”) indicates the end of the current session.

DE 7.1.2 Teams that have received a green flag or a go signal prior to the audio signal can finish their run. Directly following second runs are not allowed after the audio signal.

DE 7.1.3 Re-runs will be granted after the audio signal, if applicable.

DE 7.2 Endurance Running Order

DE 7.2.1 The running order for the Endurance according to D 7.3 will be published before the start of the Endurance.

DE 7.2.2 The running order is divided into different sessions.

DE 7.2.3 At least the five next vehicles according to the running order must queue up at any time during the Endurance.

DE 7.2.4 The queue must be continuously filled up by the following vehicles.

DE 7.2.5 When the queue runs empty (i.e. there is no vehicle in the queue) for more than 5 min, the session is finished, even if not all vehicles from this session have been running yet.

DE 7.2.6 A vehicle is defined as running out of order and penalized according to D 10.2.1 if it is missing from the queue. I.e. if there is at least one vehicle within the first 5 positions in the queue that has a later running order place or is running out of order as well.

DE 7.2.7 Running out of order is only possible at the end of the originally allocated session. There is no out of order running in or after the final session.

DE 7.3 Trackdrive Running Order

DE 7.3.1 The running order for the Trackdrive according to D 8.2 will be published before the start of the Trackdrive.

DE 7.3.2 At least the three next vehicles according to the running order must queue up at any time during the Trackdrive.

DE 7.3.3 The queue must be continuously filled up by the following vehicles.

DE 7.3.4 When the queue runs empty (i.e. there is no vehicle in the queue) for more than 5 min, the Trackdrive is finished, even if not all vehicles have been running yet.

DE 7.3.5 A vehicle is defined as running out of order and penalized by 30 s if it is missing from the queue. I.e. if there is at least one vehicle within the first 3 positions in the queue that has a later running order place or is running out of order as well.

DE 7.3.6 Running out of order is only possible at the end of the Trackdrive.

DE 7.4 Behavior Inside Dynamic Area

DE 7.4.1 Within the dynamic area, equipment that cannot be carried handheld by one team member, such as tool trolleys, jacks, etc., is only allowed in the inspection and preparation areas and not in the dynamic discipline queues.

DE 7.4.2 As soon as the vehicle moves under its own power, all associated team members within the dynamic area, with the exception of the ASR, must wait in a designated area until the run is finished. After the run, the vehicle must be collected immediately at the exit by two team members and the push bar.

DE 7.5 Autonomous Mode Disciplines Track Marking

DE 7.5.1 The markings of all dynamic disciplines will have the following characteristics:

- The track is marked with cones.
- The left borders of the track are marked with small blue cones.
- The right borders of the track are marked with small yellow cones.
- Exit and entry lanes are marked with small orange cones.
- Big orange cones will be placed before and after start, finish and timekeeping lines.
- If not defined otherwise in chapter D of the rules, the maximum distance between two cones in driving direction is 5 m. In corners, the distance between the cones is smaller for a better indication.
- The start, finish and timekeeping lines as well as keep out zones around the timekeeping equipment are marked with red, orange or pink paint.
- Additionally for Skidpad and Trackdrive, track limit lines on either side of the track and entry/exit lanes may be marked with yellow, green or white paint.
- There are no track limit lines for Acceleration and EBS-Test.
- Timekeeping equipment may be surrounded by additional cones outside of the track boundary.

DE 7.5.2 All lines are spray painted with the chalk-based marking paint “Technima - Tempo T.P.”[7].

DE 7.5.3 The cones used at the event are equal to the cones listed in Table 2 despite that there will be letters FSG on the black/white band of the cones (white/black respectively).

DE 7.5.4 The manufacturer WEMAS[8] does not sell the cones to end customers, but they may be purchased from baustellenabsicherung24.de[9].

[7] https://fsg.one/spraypaint
[8] https://www.wemas.de
[9] https://fsg.one/cones

big orange cone	small orange cone	small yellow cone	small blue cone
two white stripes	single white stripe	single black stripe	single white stripe
WEMAS 307.610500.00.00	WEMAS 400.000013.00.00	WEMAS 400.000013.01.10	WEMAS 400.000043.00.00
285 × 285 × 505 mm		228 × 228 × 325 mm	
1.05 kg		0.45 kg	

Table 2: Cone specs

DE 7.5.5 There are the following limitations mainly resulting from the Hockenheim track conditions and organizational/authorizational issues:

- The lines may not be perfectly and continuously drawn.
- There may be further markings, to those mentioned above, that are not part of the track
  (e.g. markings, including cone position markings, lines from other disciplines or different colored surface, etc.) on or close to the track which will not be removed by the officials.
- There may be (stacked) spare cones standing at the track side at distinguishable distance.
- There is time keeping equipment next to the track that could be recognized as cone.
- No special artificial landmarks are provided by officials. The team must not place additional landmarks on the track or inside the dynamic area.
- No map data is provided by the officials.

DE 7.5.6 Figures Figure 3, Figure 4 and Figure 5 visualize the track layout descriptions given in D 5.1, D 4.2.5 and D 8.1.

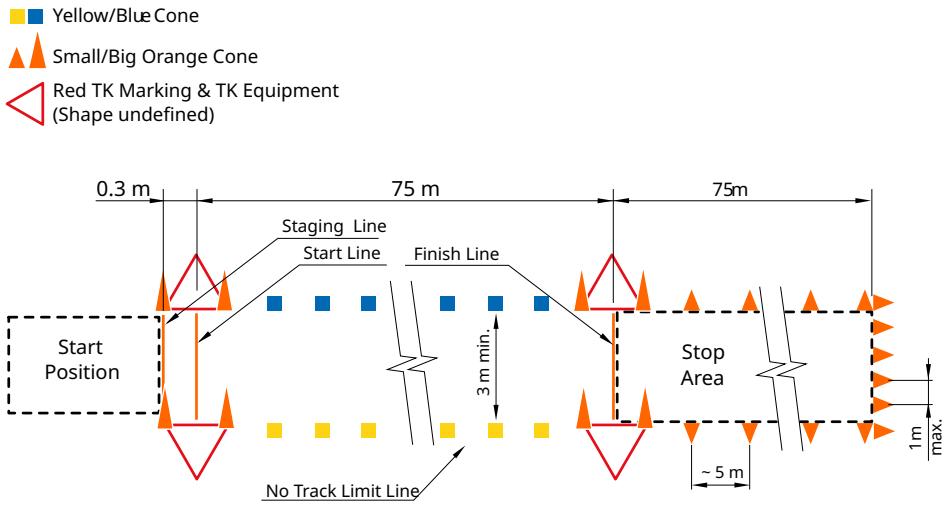

Figure 3: Acceleration according to D 5.1

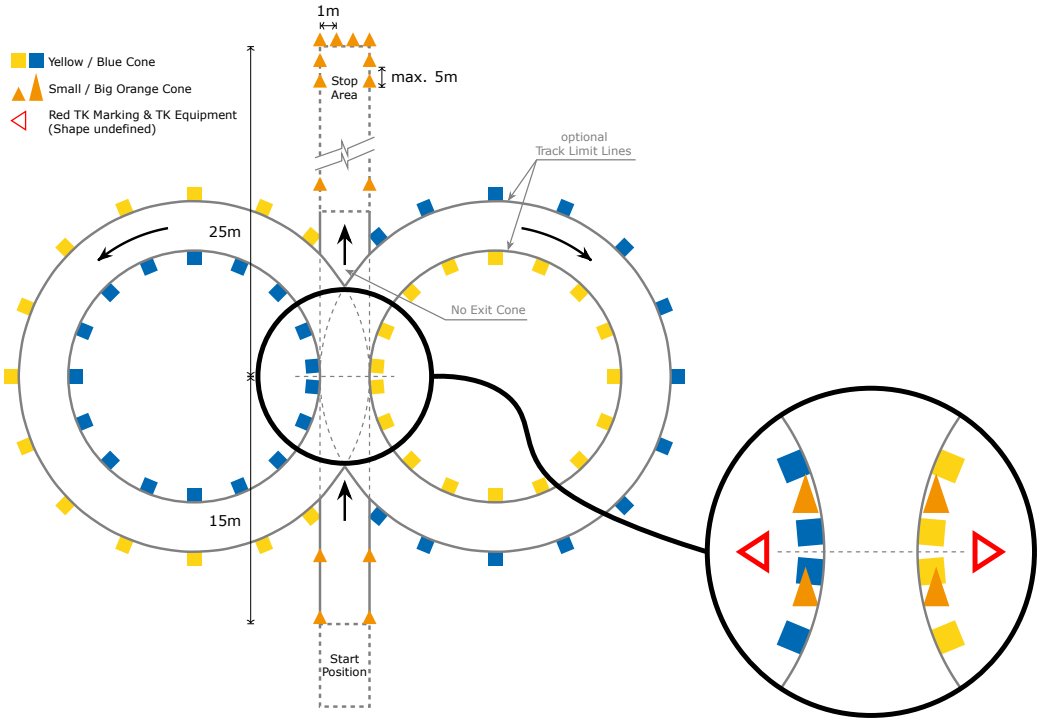

Figure 4: Skidpad according to D 4.2.5

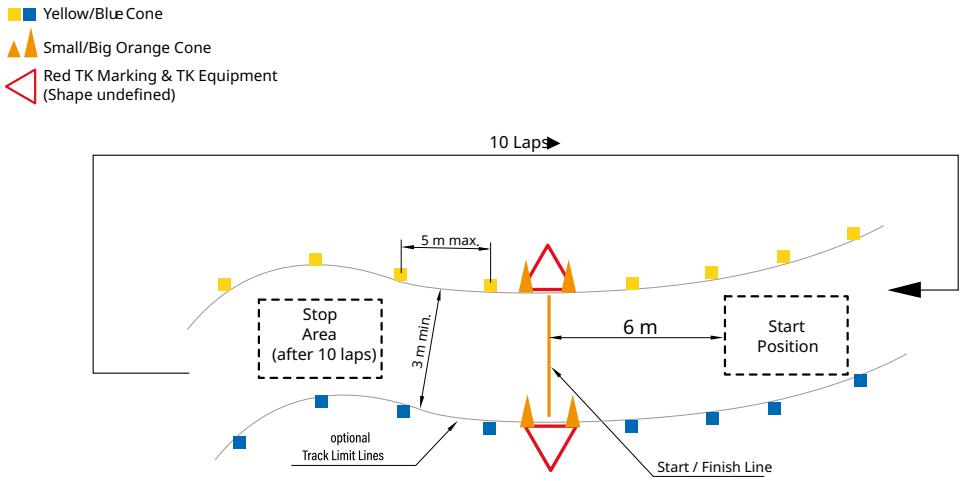

Figure 5: Trackdrive according to D 8.1

DE 7.6 [DC only] Autonomous Mode Autocross Track Walk Procedure

DE 7.6.1 Due to the manual mode Acceleration running in parallel, the dynamic area restrictions, see D 1.4, are relaxed for the track walk of the autonomous mode Autocross. Entrance to this track walk is granted to team members wearing a dynamic vest or carrying an entry card for the charging area.

DE 8 Vehicle Requirements and Restrictions

DE 8.1 Technical Inspection Sticker

DE 8.1.1 For the event's Technical Inspection sticker according to IN 1.3, a space 50 mm tall x 180 mm wide must be made available on the nose of the vehicle directly in front of the cockpit opening.

DE 8.2 No Cell Temperature Monitoring Device

DE 8.2.1 At FSG 2026, no CTMD according to EV 5.8.9 will be installed.

DE 8.3 Data Logger

DE 8.3.1 A DL according to EV 4.6 and T 14.2, described in the additionally published document "Data Logger Specification", will be mounted to the vehicle.

DE 8.3.2 At the event, several Data Logger Download Station (DLDS) will be provided as self-service terminals.

DE 8.3.3 It is the responsibility of the team to ensure that the DL data from each discipline is made available to the officials by having it downloaded at a DLDS at latest 1 h after the closing of the respective discipline.

DE 8.3.4 Failure to make the data available within the specified time period, due to the team's fault, is a violation according to D 10.4.4.

DE 8.3.5 Missing or corrupted DL data due to excessive electromagnetic emission by the vehicle is a violation according to D 10.4.4.

DE 8.3.6 The DL is based on an IVT-S from Isabellenhütte Heusler GmbH[10].

DE 8.3.7 The communication described in section DE 8.4.9 must be traceable in the logs.

DE 8.3.8 Beside RES messages, see DE 8.4.9, the messages defined in Table Table 3 must be provided to the DL with a cycle time of 100 ms each. Steering angle δ and vehicle coordinate system is defined in figure Figure 6.

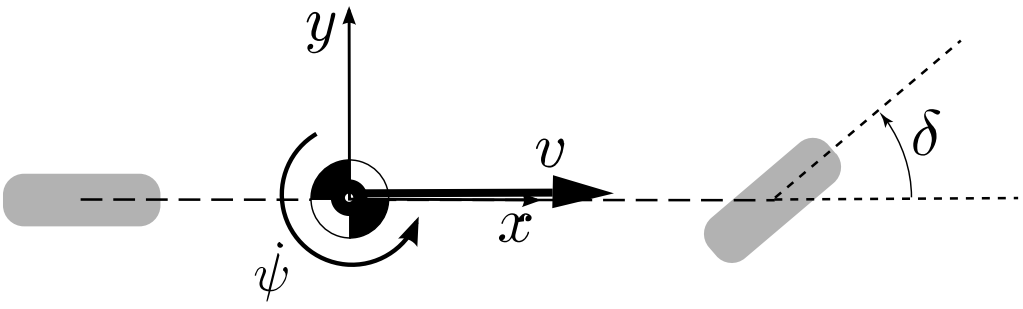

Figure 6: Bicycle model defining steering angle δ (drawn in positive direction after "ISO 8855" coordinate system → z up) and speed v.

[10] Refer to https://fsg.one/ivt-s for details. If you are interested in this component, please send an email to ISASCALE@isabellenhuette.de".

CAN-ID	Name	Length	Format	Unit	Scale
0x500	DV driving dynamics 1	8 B			
	Speed_actual	bit 0-7	unsigned	km/h	
	Speed_target	bit 8-15	unsigned	km/h	
	Steering_angle_actual	bit 16-23	signed	°	0.5
	Steering_angle_target	bit 24-31	signed	°	0.5
	Brake_hydr_actual	bit 32-39	unsigned	%	
	Brake_hydr_target	bit 40-47	unsigned	%	
	Motor_moment_actual	bit 48-55	signed	%	
	Motor_moment_target	bit 56-63	signed	%	
0x501	DV driving dynamics 2	6 B			
	Acceleration longitudinal	bit 0-15	signed	m/s^2	$\frac{1}{512}$
	Acceleration lateral	bit 16-31	signed	m/s^2	$\frac{1}{512}$
	Yaw rate	bit 32-47	signed	°/s	$\frac{1}{128}$
0x502	DV system status	5 B			
	AS_status_off		1	m/s^2	$\frac{1}{512}$
	AS_status_ready		2	m/s^2	$\frac{1}{512}$
	AS_status_driving	bit 0-2	3	°/s	$\frac{1}{128}$
	AS_status_emergency		4		
	AS_status_finished		5		
	ASB_EBS_state_deactivated		1		
	ASB_EBS_state_initial_checkup_passed	bit 3-4	2		
	ASB_EBS_state_activated		3		
	AMI_state_acceleration		1		
	AMI_state_skidpad		2		
	AMI_state_trackdrive	bit 5-7	3		
	AMI_state_braketest		4		
	AMI_state_inspection		5		
	AMI_state_autocross		6		
	Steering_state	bit 8	bool		
	ASB_redundancy_state_deactivated		1		
	ASB_redundancy_state_engaged	bit 9-10	2		
	ASB_redundancy_state_initial_checkup_passed		3		
	Lap_counter	bit 11-14	unsigned		
	Cones_count_actual	bit 15-22	unsigned		
	Cones_count_all	bit 23-39	unsigned		

Table 3: Message definition of logged general DV data

DE 8.3.9 The following definitions apply concerning actuator related status signals:

- **ASB_EBS_state_deactivated**: After vehicle startup and once brakes are released according to T 14.8.2.
- **ASB_EBS_state_initial_checkup_passed**: The initial checkup according to T 15.3 is passed after being in deactivated state. This state is active until deactivated or activated state is entered.
- **ASB_EBS_state_activated**: See T 14.8.1.
- **ASB_redundancy_state_deactivated**: See definition of ASB_EBS_state_deactivated.
- **ASB_redundancy_state_engaged**: The brake actuator is engaged, i.e. brake pressure is built up, after entering the state ASB_redundancy_state_initial_checkup_passed.

- **ASB_redundancy_state_initial_checkup_passed**: The initial checkup according to T 15.3 is passed after being in deactivated state. This state is active until deactivated or engaged state is entered.
- **Steering_state**:
  - 0 = Steering actuator is unavailable and will not actuate the steering system in any manner.
  - 1 = Steering actuator is available and responds to the commands from the AS.

DE 8.3.10 All signals are little-endian (Intel). Scale, if not defined, is 1.

DE 8.3.11 Messages 0x500 and 0x502 must be filled in any case. If some values are not directly available, they should be interpolated or calculated (i.e. target values). 0x501 depends on available sensor data.

DE 8.3.12 All signals mentioned in the team's ASF have to be provided within the up to five messages with CAN-IDs 0x511 to 0x515. Each message can be up to 8 B of data length. Cycle time is 100 .

DE 8.3.13 A valid dbc[11] file containing the message definition of the ASF messages must be uploaded until the deadline mentioned in DE 4.2.

DE 8.4 Remote Emergency System

DE 8.4.1 The RES according to T 14.3 that has to be used for the event is a GF2000i-codec/T53R98 combination from Gross-Funk GmbH[12].

DE 8.4.2 All RES must be of the latest 2022 hardware revision (with E-Key).

- SIL3 (EN61508) certified
- EMV certified
- communication in (430 – 440) MHz band
- increased signal strength of 88 mW
- (12 – 24) V supply voltage (0.26 A @ 12 V)
- 450 g, 173 × 113 × 35 mm
- IP20 (receiver) / IP65 (sender)

[11] see https://fsg.one/dbc_format for more information
[12] https://fsg.one/res

Figure 7: RES sender & receiver

DE 8.4.3 Please contact Mr. Keller (christian.keller@grossfunk.de) at Gross-Funk for purchasing.

DE 8.4.4 Regarding the increased signal strength, the BNetzA registration for Hockenheim will be provided by the officials.

DE 8.4.5 The receiver includes a normally-open (NO) relay which must be part of shutdown circuit. It opens on switching shutdown, on signal loss, and on power loss. Maximum current rating is 4 A.

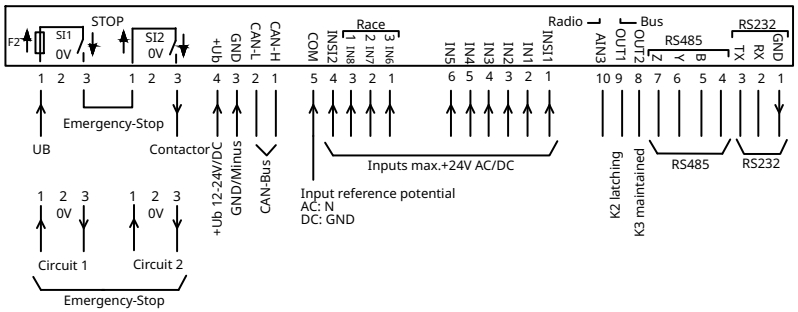

Figure 8: Connections at the RES receiver

DE 8.4.6 The CANopen interface of the receiver has the following properties:

- 1 000 $\frac{kb}{s}$, 125 $\frac{kb}{s}$, 250 $\frac{kb}{s}$, 500 $\frac{kb}{s}$ in standard configuration.
- Cyclic PDOs containing states of switches (Go-signal) and radio
- Warns if signal loss detected (200 ms in advance to shutdown, contained in cyclic PDO)

DE 8.4.7 The Node-ID and baud rate settings of the vehicle-side installed receiver can be configured with the external DIP switch:

DIP SW	1	2	3	4	5	6	7	8	Baud Rate
Note-ID	+1	+2	+4	+8	+16	+32	0	0	1 $\frac{Mb}{s}$
Bit	0	1	2	3	4	5	1	0	125 $\frac{Mb}{s}$
							0	1	250 $\frac{Mb}{s}$
							1	1	500 $\frac{Mb}{s}$
	Node-ID						Baud Rate		

Table 4: DIP switch configuration RES

DE 8.4.8 The Node-ID has to be set to 0x011 during the event. Only in severe cases, there will be an exception. Please give a detailed problem description with the request.

DE 8.4.9 The receiver is booted up and sends a message to signalize its initialization (NMT message with CAN-ID 0x700 + Node-ID and a single data byte 0x00). A CAN/CANopen master device must set the receiver to operational mode (NMT message CAN-ID = 0x000, byte 0 = 0x01 (requested state), byte 1 = addressed Node-ID or 0x00 for all). After setting to operational mode, the receiver starts sending a status message of 8 bytes containing PDOs 2000 - 2007 (one byte each, CAN-ID = 0x180 + Node-ID) every 30 ms.

DE 8.4.10 Manually resetting the RES before sending the operational mode message may be used to check if the device is online (NMT message CAN-ID = 0x000, byte 1 = 0x80 (requested state), byte 2 = addressed Node-ID). This will be answered with the boot-up message.

DE 8.4.11 Beside the CAN-IDs mentioned in DE 8.4.9 and DE 8.4.10, be aware not to use the CANopen-related IDs listed in Table Table 5 on the bus[13].

Communication object	CAN-ID	Slave nodes
NMT node control	0x000	Receive only
Sync	0x080 + Node-ID	Transmit
TimeStamp	0x100	Receive only
PDO	0x180 + Node-ID	1. Transmit PDO
	0x200 + Node-ID	1. Receive PDO
SDO	0x580 + Node-ID	Transmit
	0x600 + Node-ID	Receive
NMT node monitoring	0x700 + Node-ID	Transmit
LSS	0x7E4	Transmit
	0x7E5	Receive

Table 5: Reserved message IDs for RES.

DE 8.4.12 System misbehavior and faulty logs caused by misuse of these messages eliminates the demand for a re-run and may lead to a disqualification. Same counts for any kind of hardware manipulation to the sender and receiver or improper antennas modifications. In doubt, the logs available on the official DL count.

DE 8.4.13 The status of the switch (K2) and the button (K3) at the sender is contained in the PDO 2000 (bit 1 and 2) as well as on the digital outputs, see Figure 8. The E-Stop is

[13] https://fsg.one/canopen-poster

signalized by PDO 2000 bit 0 and PDO 2003 bit 7. PDO 2006 contains the radio quality ((0 – 100) %) whereas PDO 2007 summarizes several radio states, i.e. the pre-alarm radio communication interruption (bit 6, 200 in advance to shutdown).

DE 8.4.14 Either K2 or K3 are allowed to be used to signalize the Go-signal for switching from “Ready” to “Driving” state, see T 14.8, Figure Figure 15. Both the CAN message or the digital outs can be used.

DE 8.4.15 For dynamic disciplines, the officials will hand-out a Race E-Key that has to replace the team’s Training E-Key for the time of the run (switching the RES to a different set of frequencies within the range listed in DE 8.4.2). It must be returned to the officials immediately after the run has been finished.

DE 8.4.16 In order to enable the Race E-Key frequencies at the receiver, the input “Race 1” has to be set to high (by bridging the input with supply “+Ub”). That needs to be done upon receival of the E-Key with a flip switch in proximity to the AMI, see T 14.10. Race mode position has to be marked with an “R”. Correct mode selection can be traced via the input’s LED as well as in PDO 2007, bit 7.

DE 8.4.17 Until Thursday 2026-08-13 the Race E-Key will be available at the EBS Test, see IN 11.2, to verify the proper function within the vehicle.

DE 8.5 Maximum Sound Level

DE 8.5.1 The maximum sound level of any noise source of the vehicle is 110 dB(C) at any time.

DE 8.5.2 The sound level can be measured at any time during the event. The distance from which the measurement is taken is 0.5 m.

DE 8.6 Chassis Identification

DE 8.6.1 In accordance with other European competitions,[14] each chassis will be marked at the first competition in which it is used.

DE 8.6.2 The marking is placed on the front hoop near the inspection hole, in a 30 mm by 15 mm area.

DE 8.6.3 Chassis that were not already used at another competition will be marked with “D 26” at FSG 2026.

[14] see https://fsaustria.at/chassis-identification-rule-a2-2-2/

DE 9 Vehicle Shipping

DE 9.1 Shipping Address

DE 9.1.1 Teams that whish to ship their vehicle to the event must use the following address[15]:

Name of University
c/o Hockenheimring GmbH
Sachshaus - FSG - **Car XXX**
Am Motodrom 15
68766 Hockenheim
GERMANY

phone +49 (6205) 950141 [Hockenheimring GmbH]

DE 9.2 Incoming Shipment

DE 9.2.1 The earliest possible delivery date is Monday 2026-08-10 08:00 CEST.

DE 9.2.2 All paperwork, documentation and/or forms required for inbound/outbound shipping or customs clearance must be completed and supplied by the school/ university. The paperwork is the sole responsibility of the team.

DE 9.2.3 Inspecting shipments, reporting and documenting damage to the shipment is the sole responsibility of the receiving team.

DE 9.3 Shipping Crates/Containers

DE 9.3.1 All shipping containers must have the school's name permanently and clearly marked.

DE 9.3.2 Shipping crates/containers must have hi-low fork lift access from ends and sides.

DE 9.3.3 The forklift at Hockenheim cannot lift more than 5 metric tons.

DE 9.3.4 Crates are stored outside and should be weatherproof.

DE 9.3.5 Crating/Loading and uncrating/unloading is the sole responsibility of the team.

DE 9.4 Outgoing Shipments

DE 9.4.1 The latest possible pick-up date is Monday 2026-08-17 12:00 CEST.

DE 9.4.2 It is each university's responsibility to schedule the pick-up of your outgoing shipment and prepare the shipment and all the paperwork required for the shipment.

DE 9.4.3 All shipping and customs forms must be filled out by team/university representatives.

DE 9.4.4 All shipments must be packed and the crates properly sealed and labelled before the team leaves the site on Monday.

[15] https://fsg.one/HHR-Sachs-Haus

DE 9.4.5 If your shipment is not removed from the Hockenheimring by the date and time specified in DE 9.4.1 you will be charged at least 250 € per day for storage and handling. After 5 d our shipping company will pick it up and take the shipment into custody.

DE 9.5 Shipment Information Upload

DE 9.5.1 You must upload all information for any shipment to Hockenheim as one multipage pdf file (containing at least one page per shipment) in your team area, as a deadline upload and when the shipment has been sent. The upload must contain

- Car number, university name, university city, country, contact person(s) on site during delivery/pickup and their mobile phone number(s) and email
- Shipping company, [if available: contact name, phone number, email]
- Shipment identification number
- Important customs documents for international shipments like a copy of Carnet ATA
- Number and size of your shipments