



Formula Student Switzerland

Handbook 2025

Version 1.0

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## Contents



1	General Information     4       1.1     Competition
2	Registration82.1Main Competition and Junior Cup Registration82.2Registration Slots82.3Registration Fee and Camping Fee92.4Waiting List102.5Team Member Registration Form (TMRF)10
3	Important Dates113.1 Deadlines11
4	Competition Site Organization124.1Competition site124.2Entering the competition site134.3Camping area134.4Dynamic Area and Dynamic Vests144.5Announcements144.6Team and Driver Briefing144.7Welding and Power Tools154.8Accumulator Area and Charging154.9Technical Inspection Time Schedule164.10Driver Inspection174.12Accumulator Inspection17
<b>5</b>	Statics Events 18
-	5.1Business Plan Presentation185.2Cost and Manufacturing185.3Engineering Design19
6	Dynamics Events       20         6.1       Skid Pad       20         6.2       Acceleration       20         6.3       Endurance       20
7	Junior Cup 21   7.1 General Regulations 21





# Changelog

Version 1.0 Initial version



## CH 1 General Information

## CH 1.1 Competition

- CH 1.1.1 There are two classes in Formula Student Switzerland 2025:
  - Current Electric Vehicles (Main Competition)
  - Junior Cup (Class II)
- CH 1.1.2 In none of the classes, DV disciplines are included. Driverless Cup (DC) is not offered.
- CH 1.1.3 The competition time zone is Central European Time (CET) or Central European Summer Time (CEST) from last Sunday of March to last Sunday of October.
- CH 1.1.4 The competition language is English.

### CH 1.2 Competition Dates and Place

- CH 1.2.1 FS Switzerland 2025 will be held from 11th until 16th of July 2025.
- CH 1.2.2 The competition site address is: Hintermattstrasse 6 3985 Geschinen Switzerland

### CH 1.3 Competition Website

CH 1.3.1 The official competition website is: https://www.fsswitzerland.ch.



#### CH 1.4 Rules

- CH 1.4.1 FS Switzerland will comply with the "Formula Student Rules 2025" (FS Rules) published by Formula Student Germany. Any rule mentioned other than "CH" refers to the FS Rules.
- CH 1.4.2 The Junior Cup will comply with the FS Class II Rules 2025.
- CH 1.4.3 FS Rules and FS Class II Rules respectively, together with this handbook, form the regulations for FS Switzerland. In case of ambiguity to the FS Rules or FS Class II Rules, the FS Switzerland Handbook rules are given priority over the FS Rules or FS Class II Rules.
- CH 1.4.4 All rules questions regarding FS Rules must be asked using the FSG rules tracker. As FS Switzerland officials have access to this tool, only rules questions and FAQ from FSG will be accepted at FS Switzerland.
- CH 1.4.5 All rules questions regarding this handbook or FS Class II Rules must be asked via rules@fsswitzerland.ch.

#### CH 1.5 FSCH specific changes

- CH 1.5.1 Cars with, without or with partially installed driverless features are allowed to participate at the event. Changes after technical inspection are not allowed.
- CH 1.5.2 The ASMS, see T14.7, must be locked in the "Off" position at any time during the event.
- CH 1.5.3 The "Autonomous System Inspection", see IN1.1.1, does not apply. However, the functional safety of the deactivated autonomous system will be checked.
- CH 1.5.4 "Adjustments of AS sensors" and "(De-)Coupling of actuators as allowed in T14.7" of IN1.5.1 does not apply.
- CH 1.5.5 EBS test, see IN11.2, is not required.



- CH 1.5.6 A4.2.8 does not apply.
- CH 1.5.7 The use of FHR systems (e.g. HANS) is highly recommended.
- CH 1.5.8 If FHR is used, the following specific changes to the FS rules are applied.
  - T4.10 will be checked without the FHR system installed.
  - From the driver's shoulders rearwards to the mounting point or structural guide, the shoulder harness must be between the horizontal and 30° below the horizontal.
  - The shoulder harness mounting points may be closer together than 180 mm.
- CH 1.5.9 TSAC hand carts may be larger than the dimensions specified in EV8.1.12 without prior approval by the officials, if the hand cart is not more than 300 mm larger than the TSAC itself in any direction.

### CH 1.6 Additional Vehicle Lighting

- CH 1.6.1 Additional lights may be applied to the vehicle to illuminate itself and/or the track during disciplines in sunset or darkness. However, the track will be sufficiently illuminated by the event.
- CH 1.6.2 All additional lights must fully comply with T11.
- CH 1.6.3 Additional lights must not visibly interfere with any system status light or the TSAL.
- CH 1.6.4 Additional lights must be installed before technical inspection. The lights may be removed after approval by the technical inspectors.





## CH 1.7 Distribution of Points

CH 1.7.1	The achievable	nointa i o	D	in the Main	Competition	are listed below
$\cup \Pi 1.1.1$	The acmevable	points, i.e.	$\Gamma_{max}$ ,	m the main	Competition	are listed below.

Discipline	Points
Business Plan Presentation	75
Cost and Manufacturing	100
Engineering Design	150
Skid Pad	75
Acceleration	75
Autocross	100
Endurance	325
Efficiency	100
Overall	1000

#### CH 1.8 Visa, Vehicle Shipping & Temporary Importation

- CH 1.8.1 International teams are responsible for a successful and timely application in order to get the required visa. To receive a letter of invitation to obtain a visa, teams must send an email to info@fsswitzerland.ch.
- CH 1.8.2 Customs and other documents like ATA Carnet, inspecting shipments as well as reporting and documenting damage of the shipment have to be done by the team. See our Importation Guide for more information. Feel free to contact us on info@fsswitzerland.ch if you have any questions. We will help you as much as possible.
- CH 1.8.3 Teams are advised to consult their shipping company or freight forwarder to ensure that their shipment fully complies with all relevant customs, import/export and aviation shipping requirements.
- CH 1.8.4 Teams that can't procure an ATA carnet are advised to contact the organisers via info@fsswitzerland.ch regarding a customs declaration for temporary admission.
- CH 1.8.5 All teams using an external shipping or freight forwarder must coordinate the transport with the FS Switzerland Organisation. Contact us on info@fsswitzerland.ch.



## CH 2 Registration

## CH 2.1 Main Competition and Junior Cup Registration

- CH 2.1.1 The team registration will take place in the form of a quiz at 2025-01-31 09:00.
- CH 2.1.2 All important information regarding the registration can be found here: Registration Information.
- CH 2.1.3 The protest time starts, when the correct quiz answers are published and ends 3 hours later.
- CH 2.1.4 Teams must create a team account on the competition website until 24 hours before the registration quiz starts.
- CH 2.1.5 Once the quiz has been completed, registering for the competition is possible by agreeing to the rules. After the termination of the quiz, teams can register by notifying the officials.
- CH 2.1.6 Main Competition Teams must select a free vehicle number between 10 and 199. Junior Cup Teams must select a free team number between 200 and 299.
- CH 2.1.7 Reserved slots (see CH2.2.2) will be assigned to the teams. All unused reserved slots will be assigned to all other teams, with regard to their quiz result.
- CH 2.1.8 All assigned teams will be placed on the pending list, which can be viewed on the competition website. FS Switzerland will send invoices to all accepted teams. In order to move to the participating list, a proof of payment of the registration fee (see CH2.3.1) must be sent to the event until 2025-02-06 23:59. Once all slots have been filled, all additional teams will be placed on a waiting list (see CH2.4.1).

### CH 2.2 Registration Slots

CH 2.2.1 FS Switzerland 2025 is limited in total to 27 teams. 22 slots are reserved for the Main competition and 5 slots for the Junior Cup. There will be separate waiting lists for both classes.



CH 2.2.2 Reserved slots for the FS Switzerland 2025 Main Competition will be assigned to the top 3 overall teams of the previous Main Competition, the overall winner of the previous year's Junior Cup and all teams from Switzerland. All remaining and unused reserved slots will become available for all other teams.

## CH 2.3 Registration Fee and Camping Fee

- CH 2.3.1 The Registration fee is 2200 CHF. Every team member can be registered for 50 CHF per participant using the Team Member Registration Form (TMRF) (see CH2.5.1). Team members may be registered after this deadline for a fee of 100 CHF per participant.
- CH 2.3.2 Teams that didn't pay the registration fee will be de-registered. Teams which were previously de-registered and decide to register again will have to reapply to the event following A5.5.
- CH 2.3.3 The camping fee is 70 CHF per person for the whole event and 100 CHF per person for the whole event after the TMRF deadline. The camping fee includes the mandatory local visitor's fee of 3 CHF per person per night.
- CH 2.3.4 There will be no refund of any fee, if the team decides to withdraw its registration or is deregistered as per A5.4.2.
- CH 2.3.5 Teams will receive an invoice for the team member and camping fee after the TMRF deadline.
- CH 2.3.6 All fees must be paid within the deadline written on the invoice. The team is responsible to pay the correct amount in the currency stated in the invoice and has to cover all costs for transaction and currency conversion.
- CH 2.3.7 If the event has to be cancelled before 2025-04-30 23:59, the registration fee will be refunded. If the event has to be cancelled after 2025-04-30 23:59, the registration fee will only be refunded partly to cover the costs.



## CH 2.4 Waiting List

- CH 2.4.1 Teams on the waiting list may move to the participating list until 2025-07-07 18:00. Once a slot on the participating list has become available again, the next team on the waiting list moves to the pending list and has 2 days from the point of receiving the confirmation email to pay the registration fee in order to move to the participating list. The payment deadline may be extended by the officials in case of issues during the payment process.
- CH 2.4.2 Teams on the waiting and participating lists who find that they will not be able to attend the competition are requested to officially withdraw by notifying the officials (E-Mail to: info@fsswitzerland.ch).

#### CH 2.5 Team Member Registration Form (TMRF)

- CH 2.5.1 The Team Member Registration Form has to be uploaded until the deadline (see CH3.1.1). There will be a template on the website.
- CH 2.5.2 If there are changes to the Team Member Registration Form after the deadline, the whole Form has to be send to: info@fsswitzerland.ch.
- CH 2.5.3 With the TMRF a valid Health Insurance Certificate (HIC) for Switzerland (e.g. travel insurance) has to be attached.
- CH 2.5.4 All participants will receive a personalised standard terms to the team address given at the creation of the team account. This document must be signed by the participant and passed to the event organization by the start of the on-site registration.



## CH 3 Important Dates

## CH 3.1 Deadlines

CH 3.1.1 All required documents and information must be uploaded prior to the following deadlines by all registered teams and teams on the waiting list. Documents may be uploaded starting with the announcement of the registration results.

Date	Deadline	Submission
2025-03-14 13:00	Chassis Type Selection (CTS)	FSG Account
2025-03-14 13:00	Impact Attenuator Data (IAD)	FSG Account
2025-03-14 13:00	Structural Equivalency 3D Model (SE3D)	FSG Account
2025-03-14 13:00	Structural Equivalency Spreadsheet (SES)	FSG Account
2025-03-14 13:00	Accumulator SES (ASES)	FSG Account
2025-03-28 13:00	Electrical System Form (ESF)	FSG Account
2025-05-09 13:00	Team Member Registration Form (TMRF)	FSCH Teamaccount
2025-06-13 13:00	Business Plan Pitch Video (BPPV)	FSCH Teamaccount
2025-06-13 13:00	Design Spec Sheet (DSS)	FSCH Teamaccount
2025-06-13 13:00	Engineering Design Report (EDR)	FSCH Teamaccount
2025-06-27 13:00	Electrical System Officer Qualification (ESOQ)	FSG Account
2025-06-27 13:00	Cost Report Documents (CRD)	FSCH Teamaccount

- CH 3.1.2 All documents uploaded at the FSCH Teamaccount must comply with a maximum size of 100 MB. For the uploads at the FSG Account, the limits of FSG apply.
- CH 3.1.3 Some documents, as indicated in CH3.1.1, must be uploaded at the FSG Account. An FSG Account is required for all participating teams. Even if not interested in participating at FSG, all teams must register for the FSG 2025 competition no later than 2 weeks after the registration quiz. Withdrawn status at FSG is sufficient to be able to upload documents.



## CH 4 Competition Site Organization

### CH 4.1 Competition site

- CH 4.1.1 The competition site consists of the competition area (event control, statics bays, pits), the dynamic area (dynamics tracks, inspection area, accumulator area), the social area and the camping area.
- CH 4.1.2 The social area is a place, where teams may build up a tent at a place assigned to them.
- CH 4.1.3 No Formula Student cars and parts are allowed at the social area and camping area.
- CH 4.1.4 When cooking with an open fire in the social area, at least one suitable and usable fire extinguisher must be placed near the cooking place.
- CH 4.1.5 It is prohibited to enter the competition site in intoxicated condition. The social area, the camping area, toilets and showers are excluded from this rule. Checks will be performed to control this rule. A6.5.1 applies if a team member tests positive.
- CH 4.1.6 The use of motorcycles, quads, bicycles, scooters, skateboards, kick boards or other similar devices as well as self propelled devices in general by team members and spectators is prohibited at the whole competition site with exception of the public roads. On public roads, the mentioned devices may be used with utmost care complying with the public road rules. Competition penalties may be applied in case of non-compliance.
- CH 4.1.7 Lost and found items must be picked up until 2025-07-17 10:00 at event control.
- CH 4.1.8 Confiscated goods may be picked up after the end of the endurance and must be picked up until 2025-07-17 10:00 at the event control.
- CH 4.1.9 Drone flights are only permitted with the permission of the organiser. Restrictions imposed by the organiser must be observed.



CH 4.1.10 The event site is close to an inhabited area, which means that there is a night rest time from 00:00 - 06:00. Therefore, loud music and other noise is prohibited within that time period.

## CH 4.2 Entering the competition site

- CH 4.2.1 Initial Entry to the competition site will be possible on 2025-07-11 based on the time schedule published on the event website.
- CH 4.2.2 Teams are allowed to enter the pits every competition day based on the time schedule published on the event website. The social area, camping area and sanitary buildings are accessible during the whole event.
- CH 4.2.3 Assembly of the pits will be possible from 2025-07-11 based on the schedule published on the event website.
- CH 4.2.4 Disassembly of the pits must be completed until 30 minutes before the scheduled start of the award ceremony. The pits must be empty and broom-clean.
- CH 4.2.5 Disassembly of the social area must be completed by 2025-07-17 10:00.
- CH 4.2.6 Other dates of arrival and departure may be accepted in special cases and after approval by the officials.

#### CH 4.3 Camping area

- CH 4.3.1 The camping area is organised by Formula Student Switzerland and issues have to be communicated at the event control.
- CH 4.3.2 On the first day and last day, cars are allowed at the camping area for unloading and loading respectively. Parking is not allowed at the camping area. It is not allowed to drive on the grass with any self propelled device or vehicle.
- CH 4.3.3 Only sleeping tents are allowed at the camping area. Bigger team tents are forbidden in the camping area. Any open fire is forbidden in the camping area.



### CH 4.4 Dynamic Area and Dynamic Vests

- CH 4.4.1 Each team receives 4 dynamic vests and 1 media vest. They must be returned at the event control until 30 minutes before the scheduled start of the award ceremony.
- CH 4.4.2 Charging area and inspection area are separate dynamic areas including separate entrance restrictions. Each team receives 4 dynamic passes for the Accumulator/Charging Area.
- CH 4.4.3 Only 4 members per team in total may enter any dynamic area at the same time. One of them must be an Electrical System Officer (ESO). They have to wear the dynamic vest in these areas. However, when working at the open accumulator, the vest must not be worn.
- CH 4.4.4 An additional team member may enter the dynamic area wearing the media vest. When wearing the media vest, the team member may not perform any task related to the competition itself including but not limited to repairing, talking to scrutineers/judges, carrying materials.
- CH 4.4.5 Inside the charging area, team members must not wear any conductive jewellery and must not wear any conductive objects of any kind which could touch the accumulator.

#### CH 4.5 Announcements

- CH 4.5.1 Prior to the event all announcements will be by email.
- CH 4.5.2 During the event all announcements will be on the competition website and on the announcement board at the event control.

### CH 4.6 Team and Driver Briefing

CH 4.6.1 Briefing documents will be published on the competition website.



- CH 4.6.2 On-site briefings are scheduled in the competition schedule. Team captains must attend all on-site briefings.
- CH 4.6.3 If a Driver Briefing is scheduled, all drivers must attend the briefing. Drivers that fail to attend the briefing may be excluded from the dynamic events as a driver.

#### CH 4.7 Welding and Power Tools

- CH 4.7.1 FS Switzerland provides a welding and power tool area. It is possible to weld with team equipment and using appropriate safety gear in the welding area only.
- CH 4.7.2 The welding and power tool area will be supervised and can only be used during the announced opening hours.

#### CH 4.8 Accumulator Area and Charging

- CH 4.8.1 Teams are allowed to enter the accumulator area every competition day based on the time schedule published on the event website.
- CH 4.8.2 Charging and working on the accumulator are only allowed in the Accumulator Area.
- CH 4.8.3 The following power socket types are available for charging:
  - CEE32
  - CEE16
  - Swiss Socket SN 441011 (Type 13, Type 23, Type 25)

Socket type F (Schuko) are not available.

CH 4.8.4 Beginning of the charging process is only allowed in coordination with the officials.



### CH 4.9 Technical Inspection Time Schedule

- CH 4.9.1 Driver inspection, accumulator inspection, mechanical inspection and electrical inspection will be conducted within a time schedule, where every team will get a predesignated time slot based on the registration quiz order. The time schedule will be published on the website before the start of the competition.
- CH 4.9.2 The duration of these slots is 2 hours for accumulator inspection, 75 minutes for mechanical inspection, 40 minutes for driver inspection and 2.5 hours for electrical inspection.
- CH 4.9.3 A team can enter the inspection bay 5 min in advance of the starting time.
- CH 4.9.4 After the end of a time slot a team has 5 min to clear the inspection bay for the next team.
- CH 4.9.5 Teams that are not able to attend an inspection slot must announce at the respective technical inspection area that they need more time to prepare for technical inspection. A new time slot at the end of the inspection order will be assigned.
- CH 4.9.6 If a team shows up later than 15 min unannounced after the starting time of their slot, it will lose its time slot. The team has to queue for Re-Scrutineering to pass the inspection. Additionally, 5 penalty points will be deducted from the teams overall score.

### CH 4.10 Driver Inspection

- CH 4.10.1 Driver Inspection, including driver egress, will be conducted in the pit, where the technical inspectors will visit the teams. During that time, only the drivers and an ESO may be present.
- CH 4.10.2 Pre-inspection must be completed before the tilt test at the latest.
- CH 4.10.3 The driver egress is mandatory for all drivers. Before participating in a dynamic event, the driver must have passed the egress test.



CH 4.10.4 By participating at the event, teams agree that all equipment, which is classified unsafe by the officials, will be confiscated until the end of the competition.

#### CH 4.11 Re-Inspection

- CH 4.11.1 The mechanical and electrical re-inspection will take place in the technical inspection area and the accumulator re-inspection will take place in the accumulator area.
- CH 4.11.2 Re-inspection slots are limited to 30 min duration. If more than 30 min are needed, the team must queue again for another re-inspection slot.
- CH 4.11.3 Teams can apply for a re-inspection slot at the above designated areas. All teams must be fully ready when applying for a re-inspection slot.

#### CH 4.12 Accumulator Inspection

- CH 4.12.1 Accumulator inspection will take place in the accumulator area.
- CH 4.12.2 All TS accumulators must be brought to the accumulator area at a time announced by the event.
- CH 4.12.3 If a team misses the deadline, a penalty of 10 points is deducted from its overall score for every commenced 12 hours up to a maximum of 30 penalty points.
- CH 4.12.4 The team has to register the accumulator delivery at the accumulator area.



## CH 5 Statics Events

### CH 5.1 Business Plan Presentation

- CH 5.1.1 There will be Business Plan Presentation finals. Number of teams participating in the finals will be announced during the event.
- CH 5.1.2 The Deep Dive Topic will be announced prior to the event.
- CH 5.1.3 All teams participating on-site in the business plan presentation event have to bring three physical copies of their slide deck, printed four slides on one page (either double-sided or single-sided). If animations are used, multiple slides may be combined into one. In case of differences between the printed slides and the presented slides, the presented slides will be judged.

#### CH 5.2 Cost and Manufacturing

- CH 5.2.1 The system for DBOM (see S2.5) will be the same as announced in the FSG 2025 handbook.
- CH 5.2.2 The system for CBOM (see S2.6) will be the same as announced in the FSG 2025 handbook.
- CH 5.2.3 Changes relevant for Cost Report Documents (addition to S3.3.2): Changes to the vehicle that were made as a result of direct requests from officials at the technical inspection do not have to be documented in the changelog. Instead, the inspection sheet can be shown as proof.
- CH 5.2.4 Costed Carbonized Bill of Material (addition to S3.5.10): The cost calculations must be completed as realistically as possible and exclude research, development, and capital expenditures for real estate (e.g. plant or development hours of the team). Space requirements for machines may be included.



CH 5.2.5 An unlimited number of top teams may be chosen to participate in the cost and manufacturing finals to determine the cost and manufacturing event winner. The cost and manufacturing finals will be held separately from the initial judging and teams will be informed about their participation during the event. S3.8.5 does not apply. The best non-finalist will be the lower threshold for the scores of the finalists with 100 points being the upper threshold.

#### CH 5.3 Engineering Design

- CH 5.3.1 There will be Engineering Design finals. Number of teams participating in the finals will be announced during the event.
- CH 5.3.2 Up to 12 teams from the Main Competition and the Junior Cup may participate in an additional Autonomous Design Event to win a Special Award. The Autonomous Design Event is separate from the Main Competition and Junior Cup Design Event and is not included in either overall Score. Teams from the Main Competition have priority to participate based on the registration order.



## CH 6 Dynamics Events

## CH 6.1 Skid Pad

CH 6.1.1 Each team has four runs, driven by two drivers with two runs each. There will be no Driverless Skid Pad event.

#### CH 6.2 Acceleration

CH 6.2.1 Each team has four runs, driven by two drivers with two runs each. There will be no Driverless Acceleration event.

#### CH 6.3 Endurance

- CH 6.3.1 The running order for the endurance according to D7.3 will be published before the start of the endurance.
- CH 6.3.2 The running order may be divided into different sessions.
- CH 6.3.3 At least the 3 next vehicles according to the running order must queue up at any time during the endurance.
- CH 6.3.4 The queue must be continuously filled up by the following vehicles. When the queue runs empty, the officials may decide to end the session.
- CH 6.3.5 A vehicle is defined as running out of order and penalized according to D9.2.1 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.
- CH 6.3.6 Running out of order is intended at the end of the originally allocated session. The officials may decide to allow running out of order at a different time in their sole judgement.



## CH 7 Junior Cup

## CH 7.1 General Regulations

- CH 7.1.1 The Registration Fee is 1000 CHF. Every team member can be registered for 50 CHF per participant using the Team Member Registration Form (TMRF) (see CH2.5.1). Team members may be registered after this deadline for a fee of 100 CHF per participant.
- CH 7.1.2 The teams at Junior Cup will be assigned a space in the Social Area for their team tent. They will not have a space in the pit area.
- CH 7.1.3 If a Junior Cup team decides to bring a TS accumulator to the event, it must be stored at the accumulator inspection area during the whole event unless otherwise instructed by the officials.