The purpose of this document is to inform of the local rules that shall apply to 2018 Student Formula Japan. Any additional local rules that become necessary shall be posted on the SFJ official website as they become available. These local rules are valid for 2018 Student Formula Japan only.

2018 Student Formula Japan Rules Committee

J2018-01  Student Formula Japan Rules

2018 Student Formula Japan (hereinafter abbreviated as 2018 SFJ) shall be held based on the rules of the 2017-18 Formula SAE® Rules (hereinafter abbreviated as 2017-18 FSAE®). However, the items described in the “2018 SFJ Participation Rules” and 2018 SFJ Local Rules shall take priority over the rules of the 2017-18 FSAE®.

J2018-02  Baseline Steel Material (refer to rule T3.4.1 of 2017-18 FSAE®)

The baseline steel material shall be a material that satisfies either of the following conditions.
1. Mild or alloy steel with a minimum carbon content of 0.1% as guaranteed by a chemical composition standard.
2. Mild or alloy steel with a minimum tensile strength of 290 N/mm$^2$ as guaranteed by a mechanical strength standard.

J2018-03  Re-submission of Structural Equivalency Sheet (refer to rule T3.9.5 of 2017-18 FSAE®)

Re-submission of the Structural Equivalency Sheet shall not be permitted unless specifically instructed. In the case that the calculations are not submitted before the due date or before the re-submission due date instructed by the Inspection judge, the team shall be disqualified from participating in the technical inspection.

J2018-04  Attachment Height of Impact Attenuator (refer to rule T3.20 of 2017-18 FSAE®)

The center of the impact attenuator shall be within 350 mm from the ground.

J2018-05  Method of Inspecting Driver Leg Space (refer to rules T4.1 and T4.2 of 2017-18 FSAE®)

(1) Vertical movement within 50 mm shall be permitted for template 9 only in order to avoid interference with the rack and pinion unit.
(2) Template 9 may be split into left and right sections to enable inspection even when the rack and pinion unit is positioned on the lower frame. In other words, the slit in template 9 may be extended to the top and bottom sides.
(3) Template 9 shall be placed perpendicular to an axis formed assuming a straight line from the cockpit to the pedals and moved parallel to that axis. During this movement, template 9 may be rotated within ±45 degrees around the back and forth axis.
(4) The steering shaft spline portion is excluded from the inspection range of template 8.

J2018-06  Quick Jack (refer to rule T6.6 of 2017-18 FSAE®)

It shall be possible to move the vehicle at all times without any additional manual effort using the quick jack for which design drawings are shown in the APPENDIX J-1. It shall also be possible to utilize the quick jack
without interfering with the vehicle body (i.e., the cowling, undercover, and so on).

J2018-07  JSAE Logo (refer to rule T13.3 of 2017-18 FSAE®)

The Society of Automotive Engineers (SAE) logo as specified in the 2017-18 FSAE® rules shall be replaced by the logo of the Society of Automotive Engineers of Japan (JSAE). In other words, the teams shall display the JSAE logo in a prominent location on the front and/or both sides of the vehicle. The JSAE logo stickers to be supplied to the teams at the competition site have approximate dimensions of 210 mm (width) × 115 mm (height).

J2018-08  Size of Technical Inspection Stickers (refer to rule T13.4 of 2017-18 FSAE®)

The stickers indicating that the technical inspection has been passed are divided into four parts, with total dimensions of 150 mm (width) × 100 mm (height).

J2018-09  Fire Extinguishers (refer to rule T14.14 of 2017-18 FSAE®)

It is allowed to use a fire extinguisher without a pressure gauge. However, each fire extinguisher shall be within its expiration date and the operation lever seal shall be in place. For fire extinguishers without a displayed expiration date, less than five years shall have passed since the date of manufacture. For example, 3-ABC type fire extinguishers and CO₂ fire extinguishers are recommended.

J2018-10  Fuel Allowed at SFJ (refer to rule IC2.1 of 2017-18 FSAE®)

The only fuel that shall be permitted is unleaded gasoline with a Research Octane Number (RON) of 100.

J2018-11  Sound Measuring Procedure for CVT-Equipped Vehicles (refer to rule IC3.2 of 2017-18 FSAE®)

Teams using a vehicle equipped with a CVT without a neutral position shall prepare an apparatus that can safely hold the driving wheels in a completely floating state during sound measurement.

J2018-12  Sound Measuring Procedure (refer to rule IC3.2.4 of 2017-18 FSAE®)

There is no change to the measurement speed for engines used in 2017 Student Formula Japan. The measurement speeds for other engines shall be released separately.

J2018-13  Re-measurement of Noise (refer to rule IC3.4 of 2017-18 FSAE®)

1. The vehicle that completed the endurance event is subject to the noise test.
2. The method of the noise testing applies IC 3.2 correspondingly.
3. It calls a penalty as follows according to measurements.
   - Up to +1dB of Reference Value(RV) is no penalty.
   - Over +1dB up to +2dB of RV is a penalty of ten points.
   - Over +2dB of RV is a penalty of 20 points.

J2018-14  Fuel Supply (refer to rule IC2.1 of 2017-18 FSAE®)

It shall be permitted to obtain a full tank of fuel at the fueling station before undergoing the Technical Inspections.

The fuel that shall be permitted is supplied by the Competition Organizer only.
J2018-15  Fuel Tank and Exhaust Pipe distance (refer to rules IC2.4 and IC2.5 of 2017-18 FSAE®)

Teams shall secure the clearance of fuel tank and an exhaust pipe to be not less than 50 mm.

Otherwise (if teams cannot secure a clearance of 50mm), teams shall add heat shields with fireproof equal to that of a fire wall, which prevents the temperature of the fuel from being above 50% distillate temperature of JIS standard K2202-2012 during the vehicle is running, and also submit the document to show the evidence of that.

J2018-16  Colors of Master Switches and Shut Down Buttons (refer to rules IC4.1, IC4.2, IC4.3, EV5.2, and EV5.3 of 2017-18 FSAE®)

Master switches and shut down buttons shall be red.

Switches other than the cockpit-mounted master switch and cockpit-mounted shut down button that are installed around the driver’s seat shall be of any color apart from red.

J2018-17  Driver’s Equipment (refer to rules T14.1 of 2017-18 FSAE®)

The equipment in accordance with the latest standards which is safer than 2017-18 FSAE® is accepted.

J2018-18  Scatter Shield (refer to rule EV2.1.3 of 2017-18 FSAE®)

The gap between the hole of the motor casing and the scatter shield is allowed. As for the hole on a vertical surface to the rotation axis, the scatter shield is unnecessary.

J2018-19  Ready-To-Drive-Sound (refer to rule EV4.13, EV4.13.1 to EV4.13.5 of 2017-18 FSAE®)

The car doesn’t have to make a Ready-To-Drive-Sound.

J2018-20  Charging (refer to rule EV8.2.2 of 2017-18 FSAE®)

Accumulators do not need to be removed from the car for charging. However, the indicator in accordance with EV 3.3.9 must be visually confirmed when the charging connectors are plugged/unplugged. Structurally, rule EV 3.2.4 is still applicable. If the accumulator is not removed from the car, teams may have to wait for charging.

[NOTE] From 2019 SFJ, the competition after the next, accumulators must be removed from the car for charging, and charging shall take place with the accumulator container removed from the car.

J2018-21  Relaxation of Rules for EV Chargers (refer to rule EV8.3, EV5.8 of 2017-18 FSAE®)

Teams may be exempted from complying with the three rules described below if all of the following conditions are satisfied: The documents of 'Standard Charging Procedure' and 'Charging Abnormality Procedure' shall be submitted at the same time as the Electrical System Form, team members shall be fully trained in the application of these two documents to charging operations, these team members shall constantly monitor the state of charging while in possession of these documents, and these team members shall be capable of taking the appropriate measures if an abnormality occurs during charging.

(1) The interlock function related to the connection state of connectors described in EV8.3.3 of 2017-18 FSAE®
(However, the method used to confirm the connection state of the charger and accumulator shall be clearly stated in the Standard Charging Procedure document.)

(2) The function to turn off the charger using the AMS described in EV8.3.5 of 2017-18 FSAE®
(However, it shall be possible to visually confirm the detection state of the AMS at all times. In addition, the
abnormality types of AMS, judgment methods, and charging stop methods shall be listed in the Charging Abnormality Procedure document.

(3) The function to turn off the charger using the IMD described in EV8.3.7 of 2017-18 FSAE®
(However, it shall be possible to visually confirm the detection state of the IMD at all times. In addition, the abnormality types of IMD, judgment methods, and charging stop methods shall be listed in the Charging Abnormality Procedure document.)

(4) The discharge function when an emergency shutdown occurs described in EV5.8.3 of 2017-18 FSAE®
(However, the operation procedure after the emergency shutdown button is pressed shall be listed in the Charging Abnormality Procedure document.)

J2018-22 Failure Modes and Effects Analysis (FMEA) (refer to rule EV9.2.1 of 2017-18 FSAE®)
Only No.41 to 54 described on “FMEA” sheet of 2018 Failure Modes and Effects Analysis Template (File name: 2018-FMEA-template1.xls) are applicable.

J2018-23 Relaxation of Rules for First Year Vehicle (refer to rules A6.8 and S6.15 of 2017-18 FSAE®)

As for EV Class, teams may use their frame constructed for the 2017 Student Formula Japan event if the frame meets or is modified to meet the applicable 2017-18 FSAE®, then penalties described in S6.15 are not applicable.

However as for ICV Class, the car still must have a completely new frame at least.

J2018-24 Submission of the ESF or FMEA (refer to rules EV9.3 and EV9.4 of 2017-18FSAE® and rule 11 of SFJ)

Re-submission of the Electrical System Form (ESF) or Failure Modes and Effects Analysis (FMEA) may be requested multiple times to ensure that these materials achieve a sufficient degree of completion. In the event that re-submission is required, a maximum of fifty (50) negative points will be penalized depending on the degree of completion of these materials at the final deadline. However, the combined penalty due to the degree of completion and due to the late submission defined in rule EV9.4 of 2017-18 FSAE® shall not exceed fifty (50) negative points in total. In addition, the order of the Electrical Technical Inspection shall be determined based on the degree of completion of the ESF and FMEA, as well as the order in which the documentation is received.

J2018-25 Relaxation of Requirement for Electrical Connections to Use Positive Locking Mechanisms (refer to rule EV4.5.12 of 2017 -18FSAE®)
The requirement to use positive locking mechanisms described in EV4.5.12 of 2017-18 FSAE® shall be regarded as satisfied if the following conditions are all met.

Conditions:  
- The team can clearly demonstrate that sufficient axial force or contact pressure has been applied to the connections during the Electrical Technical inspection. (A record of the fastening torque or riveting bonding force is acceptable.)
- Furthermore, the structure shall allow no application of external force (tension, torsional, or flexural) from the wiring to the connection.
J2018-26 Relaxation of Requirement for Use of Sensors with Different Transfer Functions as Accelerator Pedal Position Sensors (APPS) (refer to rule EV2.3.4 of 2017-18 FSAE®)

There is no requirement for APPS with two different transfer functions.

J2018-27 Relaxation of Weight Rule in the Accumulator Container Section Requirements (refer to rule EV3.4.6 of 2017-18 FSAE®)

Teams may comply with the design guidelines for the 2016 Formula SAE® Rules (EV3.4.6).

[NOTE] From 2019 SFJ, the competition after the next, this will not be accepted.

J2018-28 Thickness of Accumulator Container Floor (refer to rule EV3.4.6a of 2017-18 FSAE®)

An aluminum sheet thickness of 3.2 mm (0.125 inches) shall be accepted up to a negative tolerance of 10%.

J2018-29 Relaxation of Prohibition of Cell Balancing when Accumulator Isolation Relays (AIR) Are Open (refer to rule EV5.1.3 of 2017-18 FSAE®)

This rule may be regarded as not applicable providing that the high voltage (HV) portions of the accumulator management system (AMS) are inside the accumulator container.

J2018-30 Seals after Rain Test (refer to rules EV7.3 and EV7.1.3 of 2017-18 FSAE®)

After the rain test, seals shall be applied to items attached to the vehicle for waterproofing (tape or the like).

Teams shall re-take the rain test if any of these seals are peeled off.

J2018-31 Submission Items for Business Logic Case (refer to rules 11 and 12 of 2018 SFJ Participation Rules and rule S3.3 of 2017-18 FSAE®)

The Business Logic Case shall be submitted as electronic data using SFJ format that can be downloaded from the team page on the website. In some cases, submissions in other formats may not be accepted for entry into the Presentation event.

[NOTE] The accepted font size in the Business Logic Case format shall be more than 10-points for English and Japanese.

J2018-32 Document Screening for Presentation Event (refer to rules S5.1.6, S5.2.2, and S5.6.3 of 2017-18FSAE®, 11 and 12 of 2018 SFJ Participation Rules, and 2018 SFJ Local Rule J2018-31 above)

Even if the Business Logic Case is submitted on time, the screening procedure may determine the BLC to be unacceptable and teams may not be permitted to participate in the Presentation Event. In this case, the team shall be scored 0 points in Presentation Event. In addition, the points shall be deducted appropriately if the contents of the submitted Business Logic Case are judged to be insufficient (including format errors, as well as issues with the Design Report or Cost Report). In this case, the point deduction shall be applied to the score of the Presentation Event. However, if the point deduction results in a negative score for the Presentation Event, the score of it shall be 0 points.
J2018-33  Document Screening for Cost and Manufacturing Event (refer to rules A8.4.3, S4.16, and S4.22.2 of 2017-18FSAE®, 10 and 11 of 2018 SFJ Participation Rules)

Even if the Cost Report is submitted on time, the Cost Report will be judged as “not submitted” and teams may not be permitted to participate in the Cost and Manufacturing Event. In this case, the Cost and Manufacturing Event score shall be minus 100 points. In addition, if teams which have accepted the Cost Reports are absent from the Cost and Manufacturing Event during the competition in spite of the scheduled of them, they shall be judged as “unable to participate” and scored 0 points at the Cost, Accuracy, and Real Case items.

Typical unacceptable cases in the screening procedure: (The Cost Report as “not submitted”):
- If any items for submission to the Cost and Manufacturing Event as defined in J2018-35 are omitted (The Bill of Material (BOM), cost calculation data for each part (FCA), and supporting documentation for cost calculation).
- If the BOM is incomplete.
- If the FCA is incomplete.

J2018-34  Scoring of Cost Report (refer to rule S4.8 of 2017-18 FSAE®)

If the Adjusted Cost (including penalties) is found to exceed $45,000 in the pre-screening procedure of the Cost Report, the Adjusted Cost will be defined as exactly $45,000 and it will be scored 0 points at the Accuracy item.

J2018-35  Submission Items for Cost and Manufacturing Event (refer to rules S4.9 and S4.13 of 2017-18 FSAE®)

The Cost Report shall consist of the items below, which shall be submitted in both electronic data (CD-ROM) and printed formats.

(1) Bill of Material (BOM)

This consists of a sheet or sheets for calculating the cost of one whole vehicle unit. These sheets shall be submitted using FSAE_Cost_eBOM_Template.xls format that can be downloaded from “FSAE Cost eBOM Template” on the FSAE website (http://www.fsaeonline.com/). In some cases, submissions in other formats may not be accepted for entry into the Cost and Manufacturing Event.
* File name and file format: carnumber_schoolname_SFJ_CR_BOM.xls(x)
  (The school name may be abbreviated and shall consist of no more than 30 letters.)

(2) Cost calculation data for each part (FCA)

This consists of a sheet or sheets for calculating the cost of each assembly or part. These sheets shall be submitted using FSAE_Cost_Inputs.xls format that can be downloaded from “FSAE Cost Inputs” on the FSAE website (http://www.fsaeonline.com/). In some cases, submissions in other formats may not be accepted for entry into the Cost and Manufacturing Event.
* File name and file format: carnumber_schoolname_SFJ_CR_FCA.xls(x)
  (The school name may be abbreviated and shall consist of no more than 30 letters.)

As the 2017-18 FSAE®Rules, the BOM and FCA may be submitted as “CR_BOM” in a single Excel file.
(3) Supporting documentation for cost calculation

These are materials that provide evidence to support the accuracy of the figures required to calculate the costs of each part. Any format is acceptable.

* File name and file format: carnumber_schoolname_SFJ_CR_Supplement.pdf

(The school name may be abbreviated and shall consist of no more than 30 letters.)

The supporting materials shall include the followings as a minimum requirement at least.

a. Three-view drawings or materials equivalent to three-view drawings of parts defined as “Made” in rule S4.13 of 2017-18 FSAE® (see the Cost Tables, APPENDIX S-3 of 2017-18 FSAE®, and 2018 SFJ Local Rule J2018-38 below).

b. For composite parts, in addition to three-view drawings or materials equivalent to three-view drawings, materials that show the material, composition and manufacturing method of individual parts.

c. For wire harnesses, in addition to three-view drawings or materials equivalent to three-view drawings, wiring diagrams.

Please note that Excel files submitted as electronic data must not be converted to pdf. Any BOM or FCA converted into pdf and submitted as electronic data will not be accepted.

J2018-36 Requests for Additional Items to Cost Tables (refer to rule S4.14 of 2017-18 FSAE®)

The first version of the official Cost Tables for the SFJ will be released at the beginning of April 2018. In the event that a “Bought” part, fabrication method, or the like adopted for the vehicle is not included in these Cost Tables, the team shall submit an “Add Item Request” via the “Cost Table Add Item Request Q&A” page of the Q&A system. The completed “Add Item Request” Excel file (to be specified separately) and supplement materials shall be compressed using the .zip or .lzh format and submitted by 14:00, May 11, 2018, JST. The final version of the Cost Tables incorporating this information shall be issued at the beginning of June, and their details shall be frozen at this time.

In the event that cost information shown in the final JSAE Cost Tables differs from that in the FSAE® Cost Tables, the JSAE version shall be given priority, even if the FSAE® Cost Tables feature an additional part.

If the Add Item Request could not be completed before preparation of the Cost Report and parts not listed in the Cost Tables need to be entered in the report, the team shall appraise the cost of these items and identify them clearly in the Cost Report (e.g., through the use of colored cells). Cost judges will assess again and there are cases where penalty points are given according to need.

J2018-37 Addenda to the Cost Report (refer to rule S4.17.1 and APPENDIX S-5 of 2017-18FSAE®)

Addenda reflecting design changes implemented after the submission of the original Cost Report shall use the SFJ format (posted on the team page). Addenda submitted in any other format shall not be accepted.

J2018-38 Organized List of EV Systems and Assemblies (refer to APPENDIX S-3 of 2017-18FSAE®)

In the cost report, dedicated EV parts shall be categorized following the list of system 4) Electrical – EL as described below.

4) Electrical – EL
  ● Motor, Tractive
- Battery, Tractive
- Accumulator Container
- Wiring HV
- Conduit
- Electronic Control Unit (ECU)
- Chassis Control Module (CCM)
- Accumulator Management System (AMS) (Battery Management System (BMS))
- Motor Controller (MC)
- Power Distribution Module (PDM)
- Tractive System Active Light (TSAL)
- Isolation Monitoring Device (IMD)


On the day of the Cost Report review, if requested by a Cost Report Judge, photographs of dedicated EV parts that are not visible due to enclosure within a sealed structure or the like shall be submitted as evidence of the cost calculation for those parts.

Teams unable to submit photographs on request shall be penalized by a maximum of 20 points.


The Ready-To-Drive-Sound (Tractive System Active Sound (TSAS)) does not have to be included on the Cost Report.

**J2018-41  Submission Items for Design Event (refer to rules S6.2 and S6.11 of 2017-18 FSAE®)**

Since the time limit of the Design event in SFJ is 30 minutes, pre-screening of the design documents is emphasized to ensure that the event is productive. The relevant rules shall be fully understood to ensure submission of design documents with a high degree of completion.

The font size on the text pages of the Design Report shall be no smaller than 8-point in the desktop publishing (DTP) software for both English and Japanese characters. The margins at the top, bottom, left, and right of each page shall be 10 mm or more. The spacing between characters shall not be too narrow.

The following dimensions shall be included on the three-view drawings as a minimum requirement: overall length, overall width, overall height, wheelbase, front and rear track, and minimum ground clearance.

All paper for design documents shall be A4- or letter-sized (8.5×11 inches).

Teams shall comply with the S6.5 of 2017-18 FSAE®Rules as the submission format of design documents. Teams that fail to follow the formatting rules for their file names and the like may be penalized by a maximum of 20 points.


The procedure for the Design event is described in “FSAE Design Judging, A Student Guide to Understanding the Process”, which is available on the FSAE website. (http://www.sae.org/students/fsaedesignjudge.pdf)

The time allocation is as follows (total 30 minutes): Setup (introduction of specialist fields of Judges, 2 minutes), Introduction (explanation from team, 3 minutes), Questioning (Q&A, 22 minutes), Closing (simple
comments, 3 minutes). Photographs will be taken five minutes before judging starts. Since the judges would like to confirm and photograph the car both with and without the cowl attached, teams shall make preparations (i.e., design considerations) to allow the cowl to be removed within 5 minutes.

During the setup and Introduction steps, team members other than those presenting the vehicle shall be permitted to film or take photographs of the general scene from outside the judging area.

Filming, photography, or sound recording by team members presenting the vehicle within the judging area shall be prohibited. All filming, photography, and recording shall be prohibited from the Questioning step.

Scoring shall not be carried out at the judging site. Score sheets shall be sent to the teams after the Competition has ended and shall not be handed over at the judging site.

Judging shall take place in two stages: the Design event for all teams, and the Design Final for two to four teams selected in the Design Event.


Any changes in the vehicle condition between the submission of the design documents and the time when the actual vehicle is judged in the Design Event will be noticed by the judges. In the case of large-scale changes, including differences in the configuration of components, the details of the changes shall be declared by the team and explained via documentation when registering at the Competition Site. The Form of declaration will be released on team page by 17:00, July 27, 2018. If unsure whether declaration is required, the team in question shall confirm in advance by submitting a formal Q&A. Please note that this does not apply to tuning elements for wheel rates, shock absorber damping, and the like.

**J2018-44  Interpretation of Insufficient Redesign (refer to rule S6.15 of 2017-18 FSAE®)**

Cars that retain and improve upon sophisticated concepts resembling designs in previous years shall not be penalized for insufficient redesign, and shall be awarded points equivalent to wholly new designs.

However, copy and pasting of content from a previous year’s Design Report, or expressions that closely resemble previous content shall result in the corresponding components being defined as insufficiently redesigned, and points shall not be awarded.

**J2018-45  Destination for the Static Documents (refer to rule 11 of 2018 SFJ Participation Rules)**

Login Team page: https://tech.jsae.or.jp/formula/2018team/login.aspx
Postal Address: Attn.: Secretariat of Student Formula Japan, 10-2 Gobancho, Chiyoda-ku, Tokyo, 102-0076, Japan
Society of Automotive Engineers of Japan, Inc. (JSAE) tel.: 03-3262-8214
Email: formula@jsae.or.jp

[NOTE] We cannot accept your any questions by telephone. Teams have to send an email or use Q&A system on team page anytime you want to ask, because we have to leave an evidence of the conversation.

**J2018-46  Push Bar (refer to rule D12.2.3 of 2017-18 FSAE®)**

Although it is recommended that a fire extinguisher shall be mounted to the push bar, this is not a requirement.
J2018-47  Understanding of Flags Used in Dynamic Events (refer to rule D9 of 2017-18 FSAE®)  
Only team members that pass the Flag Test* in Technical Inspections shall be permitted to drive in Dynamic Events. Team members that have passed the Flag Test get a driver’s wristband. Drivers without a wristband shall not be permitted to participate in Dynamic Events. The maximum penalty for any irregularity shall be disqualified from the relevant events.  
*Flag test: Team members shall be shown several types of flags and asked to promptly describe in words the actions that must be taken in reaction to the flag (e.g., red flag = come to an immediate safe controlled stop, etc.).

J2018-48  Participation in the Acceleration, Skid-Pad, and Autocross Events (refer to rules D4, D5, D6 and D7 of 2017-18 FSAE®)  
1. Cars in ICV and EV Class shall participate together in these events under mixed running conditions (these cars shall not participate in these events at separate times).  
2. In the heats of each event, one driver shall perform two runs. After completing the first run, the driver shall join the line of cars waiting in the start lane. Therefore, if a car pulls out due to mechanical problems or the like during the first run, the car shall not be permitted to make the second run.  
3. In the event that a car pulls out before receiving the instruction to begin the first run (i.e., the official start instruction), the car shall be permitted to start by re-joining the waiting line for the start lane.

J2018-49  Participation in the Endurance and Efficiency Events (refer to rule D8 of 2017-18 FSAE®)  
1. Cars that fail to record a lap time in the Autocross event within 133% (in the case of ICVs) or 145% (in the case of EVs) of the fastest lap time (all times in this section include penalties) recorded by all ICVs and EVs shall not be permitted to participate in the Endurance and Efficiency events.  
2. ICVs and EVs shall be divided respectively into Groups A, B, and C in order of the faster lap times recorded in the Autocross event. The Endurance and Efficiency events shall be held on Friday, September 8 for Groups B and C, and on Saturday, September 9 for Group A.  
3. The running order for Groups B and C shall start from the cars with the faster laps recorded in the Autocross event. The running order for Group A shall start from the car with the slower lap recorded in the Autocross event.  
4. The 145% lap time requirement described in rule D8.15.1 of 2017-18 FSAE® shall be applied as follows. The “fastest lap time” described in this rule shall be defined using a correction coefficient based on the fastest lap time of the Autocross event. The reference time for the 145% rule shall be announced in advance.  
5. Only 2 or 3 cars shall be permitted to be on the course at the same time.  
* However, it may be necessary to change rule J2018-49 because of the weather or other circumstances, in this case, any changes of the rule shall be announced in advance, (refer to PART D Article 2 of 2017-18 FSAE®).

J2018-50  Cone Penalties in Endurance Event (refer to rule D8.18 of 2017-18 FSAE®)  
In Endurance Event, if a car incurs more than 9 cone penalties, the number of penalties shall be rounded up to the nearest ten and the car shall be penalized by 30 seconds for each multiple of ten penalties.  
However, any car that incurs more than 30 cone penalties shall be classified as DNF.  
*1 to 9 cone penalties = number of penalties × 2 seconds  
*10 cone penalties = 30 seconds  
*11 to 20 cone penalties = 60 seconds  
*21 to 30 cone penalties = 90 seconds
J2018-51  Driver Change for EV Class (refer to rule D8.12.3 of 2017-18 FSAE®)

In EV Class, three team members that can be in the Driver Change Area may consist of (1) an ESO and two drivers, or (2) an ESO, a driver and a member.
APPENDIX  J-1 (J2018-06) Quick Jack