

# 2026 ルール変更・ローカルルール解説

2026 Rule Changes & Local Rules

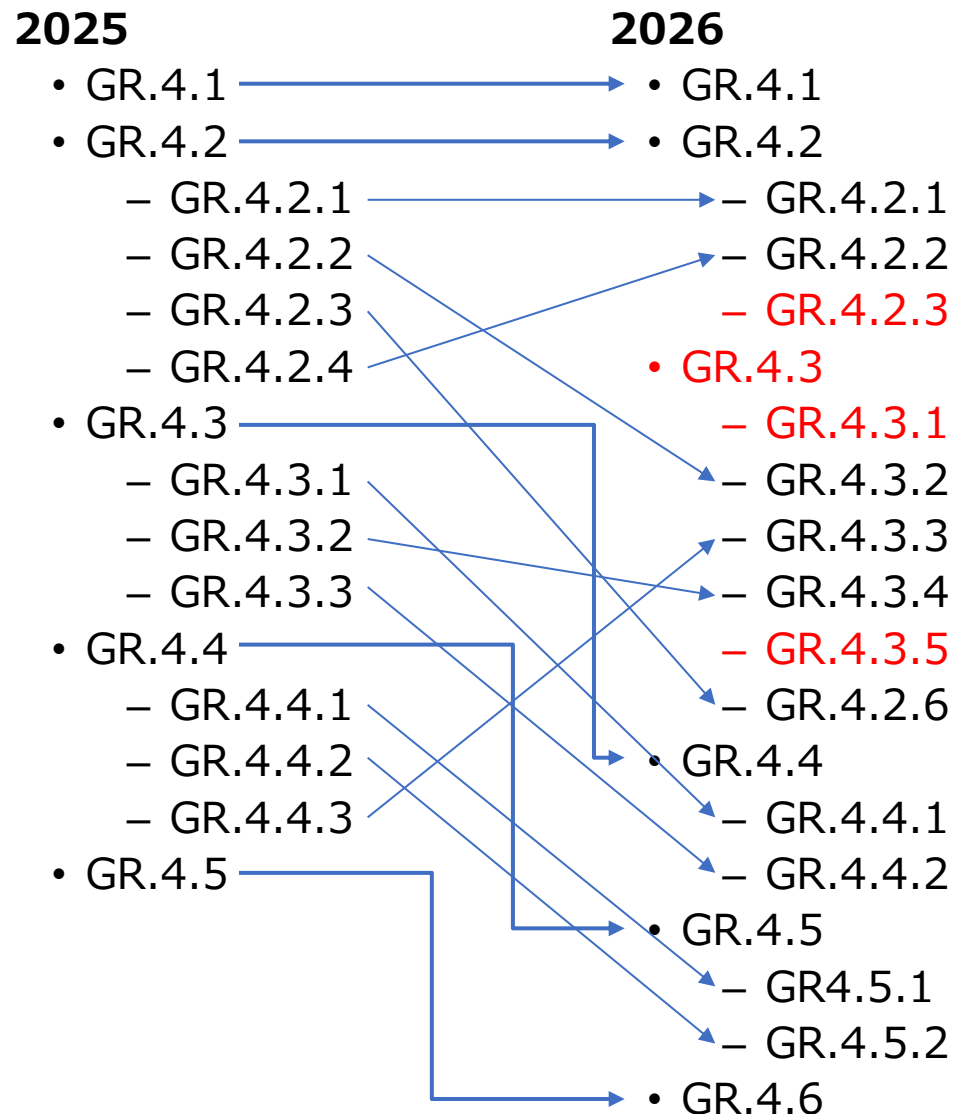
## Part 1

- Part 1
  - 本講習概要 / Overview
  - About 2026 Local Rules
  - 2026 FSAE Rule Changes and Local Rules
    - GR - General Regulations -
    - V - Vehicle Requirements -
    - F - Chassis and Structural -
  
- Part 2
  - 2026 FSAE Rule Changes and Local Rules
    - T - Technical Aspects -
    - VE - Vehicle and Driver Equipment -
    - IC - Internal Combustion Engine Vehicles -
    - IN - Technical Inspection -

- 目的 / Purpose  
2026年大会機械技術車検審査に向けたルール変化点・ローカルルールの周知と解説  
Notification and explanation of rule changes and local rules for the 2026 FSAEJ Technical Inspection (Mechanical Part only)
- 解説について / About Explanations
  - 関連項目ごとにまとめて解説 (関連するLocal Rulesも含わせて解説)  
Explanations for each related item (including related Local Rules)
  - “allowed” -> “permitted” のような意味が変わらない変化点は省略する  
Omit changings that do not change the meaning, such as "allowed" -> "permitted"
- 2026 FSAE Rules全体の解説は行わない  
No explanation for not changed items in 2026 FSAE Ruled
  - 変化点以外のFSAE Rulesに関しては2025年のルール解説を参照のこと  
Refer to 2025 Rules Explanation for not changed items.

- 2026 Local Rulesの目的 / Purpose of 2026 Local Rules
  - 日本大会特有の事象や慣習の反映  
To reflect the unique circumstances and customs of Japan Competition.
  - FSAE Rulesの抽象的な条項についての判断基準の明確化  
To clearly define the judging criteria for the abstract provisions of the FSAE Rules.
  - **2026年度大会特有の時限緩和措置**  
Temporary relaxation only for 2026 Japan Competition
- ルールの優先度 / Rules Priority
  - Local RulesはFSAE Rulesよりも優先される  
Local rules take priority over the FSAE rules.
- 注 / Note :  
2025年ルール解説で解説済 or 解説不要な Local Rule についても省略する  
Local rules that have already been explained in the 2025 rule explanation or do not require explanation will also be omitted.

- **Rules Authority and Issue** GR.4
- **Vehicle Year & Eligibility** GR.9.2.1, GR.9.3, J2026-GR-01 , (J2026-F-12)



## GR.4.2 Rules Validity

GR.4.2.3 All or part of specified documents may be **Incorporated by Reference**. These documents or parts have the same validity as the Formula SAE Rules

参照によりルールに組み込まれた文書や部分は  
FSAE Rulesと同等の効力をもつ

## GR.4.3 Rules Hierarchy

GR.4.3.1 The Formula SAE Rules are the top level document and have priority over other levels of documents

FSAE Rulesがトップレベル

注：日本大会規則・ローカルルールもトップレベル(GR.4.3.4)

日本大会規則・ローカルルールが最優先される

Participant Rules and Local rules take priority over the FSAE rules.

GR.4.3.5 A Handbook may be published or made available to give procedures and other requirements specific to each Formula SAE Competition

チームハンドブックが参照によりルールに組み込まれた  
FSAE Rulesと同等の効力をもつ

Team Handbook has the same validity as the FSAE Rules

- GR.9.2.1 Vehicle Year の定義明確化 / Clarification of Vehicle Year definition

- GR.9.2.1 **Competition Year**

- The period beginning at the first event of the Formula SAE series where the vehicle is onsite and begins Technical Inspection or Static events and continuing until the start of the corresponding event held approximately 12 months later

- J2026-GR-01 2026 日本大会参加資格 / 2026 Formula SAE Japan Eligibility

- J2026-GR-01 Formula SAE Japan Eligibility

- (refer to Formula SAE® Rules 2026 GR.9.3)

- Special rule only for 2026

- Replace GR.9.3 with the following.

- For both the ICV and EV class, the vehicles that participated in 2025 Formula SAE Japan may enter 2026

- Formula SAE Japan, if they meet or are modified to meet all the rules of 2026 Formula SAE Japan.

2025年に大会に出場した車両も2026年のルール(2026 Local Rules含む)に合致していれば出場可

Vehicles competed in the 2025 FSAEJ will be eligible if they comply with the 2026 Rules.

1年目/の判断基準 / Criteria first year vehicle

2025年出場Chassisと2026年出場車両を並べて1枚の写真に撮れるかどうか

Can the 2025 Chassis and the 2026 Vehicle be photographed in ONE picture?

撮影できる⇒1年目 / 撮影できない⇒2(3)年目

Yes ⇒ First year vehicle / No ⇒ 2nd (or 3rd) year Vehicle

- J2026-F-12

## J2026-F-12 Structural Equivalency Spreadsheet - SES

(refer to Formula SAE® Rules 2026 F.2.1)

### Special rule only for 2026

Vehicle year (First, Second or Third Year Vehicle : Third is only for EV) MUST be described in SES. It should be written in the remarks section of the top sheet.

## T3.5-6 Tube Chassis sheet

University Name					BLANK
Team Name					BLANK
Competitions	May - IC	June - EV	Other - Edit	Other - Edit	EQ
Car Numbers					BLANK
Team Contact(s)					BLANK
Email Address(es)					BLANK
Faculty Advisor	Email Address	Chassis Rules	Powertrain		EQ
		All Steel Tube	EV - Other Equivalence		BLANK

Overall	Ready to submit for review?	NO
F.3.5-6 Tube Chassis	BLANK	BLUE: NO, BLANK ENTRY, INCOMPLETE. CHECK ALL TABS.
7.1-5 Composite Chassis	BLANK	This will not change until all required entries are filled out. Check all tabs.
F.7.6-9 Mono Attach	BLANK	Incomplete submissions will incur a penalty.
10.1-4 Module&Contain	EQ	RED ORANGE: NO, GROUNDS FOR REJECTION, CHECK ALL TABS.
F.10.5 Batt Attach	BLANK	The SES will permanently REJECT for removing any tab except composite testing.
F.8 Front Protection	BLANK	Locate all violations and bring the design into compliance before submitting.
F.3.4.3 Welded Inserts	BLANK	Grounds for rejection could be considered incomplete and incur a penalty.
F.5.12 Bolted Members	BLANK	SKY: YES, RULES EQUIVALENCE.
	BLANK	Document is ready for review. Double check triangulation.
	BLANK	Sheet protection must still be active when submitted, or the SES will be rejected.
	BLANK	YELLOW: YES, CHECK ADDITIONAL EQUIVALENCIES.
	BLANK	Some entries require additional tubes or documentation.
	BLANK	Entries between 95% and 100% equivalence will receive extra scrutiny.

mm	Units
Use the space below to list changes between uploads, rules inquiries, and any other information.	
<div style="border: 2px solid red; padding: 10px; height: 150px;"> <p style="color: red; font-size: 1.2em; text-align: center;">Remarks section</p> </div>	

Vehicle yearを記述すること  
(注釈欄への記述が望ましい)  
Describe the vehicle year.  
(It should be in the remark section)



## • **Wheels V.4, J2026-V-01**

### J2026-V-01 Wheel Restrictions

- Magnesium wheels MUST be proven by **the evidence that describes the purchase date and that in service life.**
- Magnesium wheels **that have had the bare metal exposed even once MUST NOT be used.** Touch-ups after passing inspection are permitted only for the current competition.
- Wheels made of other material also may be prohibited if judged dangerous.(IN.1.2.2)
- **Officials will impound any non approved wheels until the end of the competition.**

*ASE (FSAEJ competition site) is a seaside area, so highly corrosive materials are not suitable for use. Painting magnesium requires special equipment and paints, which are not commonly available.*

***Understand the material properties well.***

### マグネシウム製ホイール

- **入手時期と有効期限内であることを証明するEvidenceの提示が必要**
- **一度でも地金が露出したマグネシウム製ホイールの使用は禁止**

(車検通過後のタッチアップは当年大会に限り許容 次年度以降使用不可)

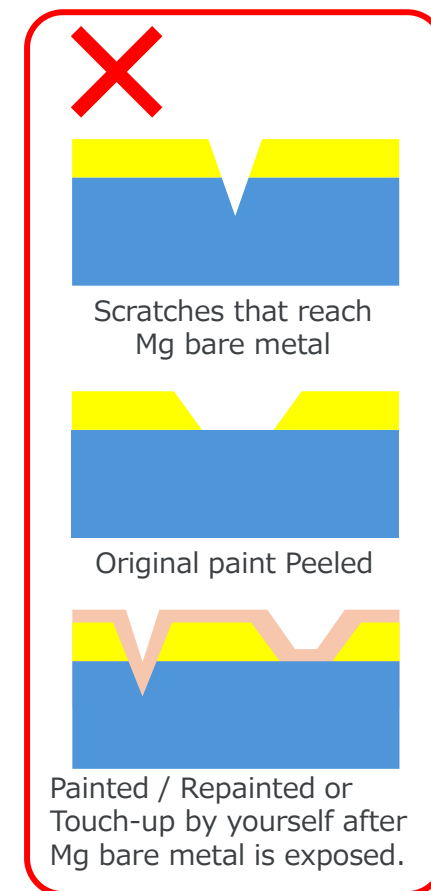
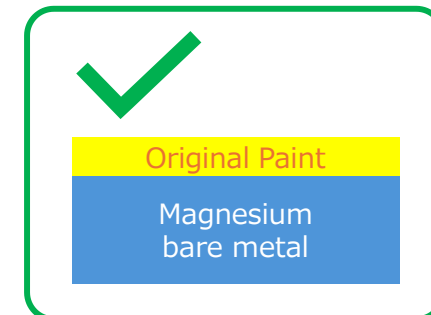
他の材質のホイールも危険と判断される場合は使用不可

**使用不可と判断されたホイールは大会期間中車検にて預かる**

ASEは海辺であり、腐食性が高い材料の使用は不適

マグネシウムの塗装には専用設備と専用の塗料が必要 → 一般での塗装は非現実的

**材料特性をよく理解すること**



- **Welded Tube Insert** F.3.4.3
- **Alternative Tubing -> Aluminum Tubing** F.3.5
- **Multiple Tube Connection** F.5.2.4, F.6.6.3
- **External Items & Camera Mount** F.5.11
- **Hight Reference Point Change** F.6.4.4, F.7.5.1, F.7.5.3, F.8.5.6, F.11.3.2, J2026-F-02
- **FBHS Rationalization** F.6.2.3
- **FHB Connection** F.6.3.3
- **Laminate Test** F.4.2.1, F.4.2.4, J2026-F-08
- **Monocoque Chassis & Attachments** F.7.1.6-7, F.7.8, J2026-F-08
- **AIP Tearout Strength** F.8.2.3, J2026-F-13
- **Rivet in Tractive Battery Container** F.10.1.6
- **Tractive Battery Container Structure** F.10.2
- **Cell and Modules** F.10.3
- **Tractive Battery Container Attachments** F.10.5.2
- **Rear Impact Protection** F.11.3
- **Standard Foam Impact Attenuator** J2026-F-04
- **Impact Attenuator Test data** J2026-F11

2025

F.3.4.3 Where Welded tubing reinforcements are required (such as inserts for bolt holes or material to support suspension cutouts), Equivalence of the Welded tube and reinforcement must be shown to the original Non Welded tube in the SES

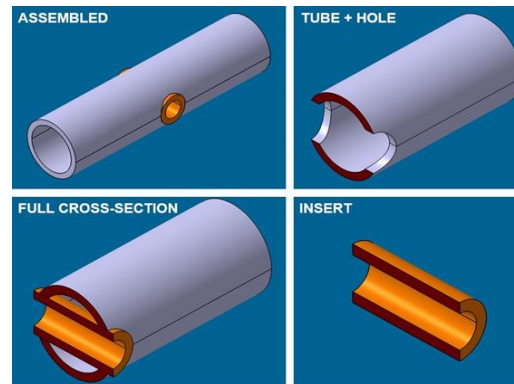
2026

F.3.4.3 If welded tubing reinforcements are required (such as inserts for bolt holes or material to support suspension cutouts):

- Equivalence of the Welded tube and reinforcement must be shown to the original Non Welded tube in the SES
- Welded inserts must use a wall thickness greater than the original Non Welded tube
- Welded Inserts must use an outer diameter less than the original Non Welded tube diameter or square side



- Insertの肉厚は元のTubeの肉厚よりも厚くなくてはならない
- Insertの外径は元のTubeの外径か、四角Tubeの場合は2面幅よりも小さくなくてはならない



REPLACE THIS EXAMPLE WITH YOUR OWN CAD  
F.3.3.1, F.3.4.3 - HOLES OVER 4mm, STEERING RACK PASS THROUGH  
INSERT, OUTSIDE COLLAR, OR PLATE REQUIRED

2025

**F.3.5 Alternative Tubing Materials**

F.3.5.1 Alternative Materials may be used for applications shown as permitted in **F.3.2.1**

F.3.5.2 If any Alternative Materials are used, the SES must contain:

- Documentation of material type, (purchase receipt, shipping document or letter of donation) and the material properties.
- Calculations that show equivalent to or better than the minimum requirements for steel tubing in the application as listed in **F.3.4.1** for yield and ultimate strengths matching the Non Welded Steel properties from **F.3.4.2.a above** in bending, buckling and tension, for buckling modulus and for energy dissipation
- Details of the manufacturing technique and process



2026

**F.3.5 Aluminum Tubing**

F.3.5.1 Aluminum Tubing may be used for applications shown as permitted in **F.3.2.1**

F.3.5.2 If any Aluminum Tubing is used, the SES must contain:

- Documentation of material type, (purchase receipt, shipping document or letter of donation) and the material properties.
- Calculations that show equivalent to or better than the minimum requirements for steel tubing in the application as listed in **F.3.4.1** for yield and ultimate strengths matching the Non Welded Steel properties from **F.3.4.2.a above** in bending, buckling and tension, for buckling modulus and for energy dissipation
- Details of the manufacturing technique and process

**Tubing Chassisに用いてよいのはSteel Tubeと Aluminum Tubeのみ**  
Only Steel tube and Aluminum tube can be used for the tubing chassis

補足 : Steel tubeはSTKM11A以上の鋼製のものであればOK (J2026-F-01)

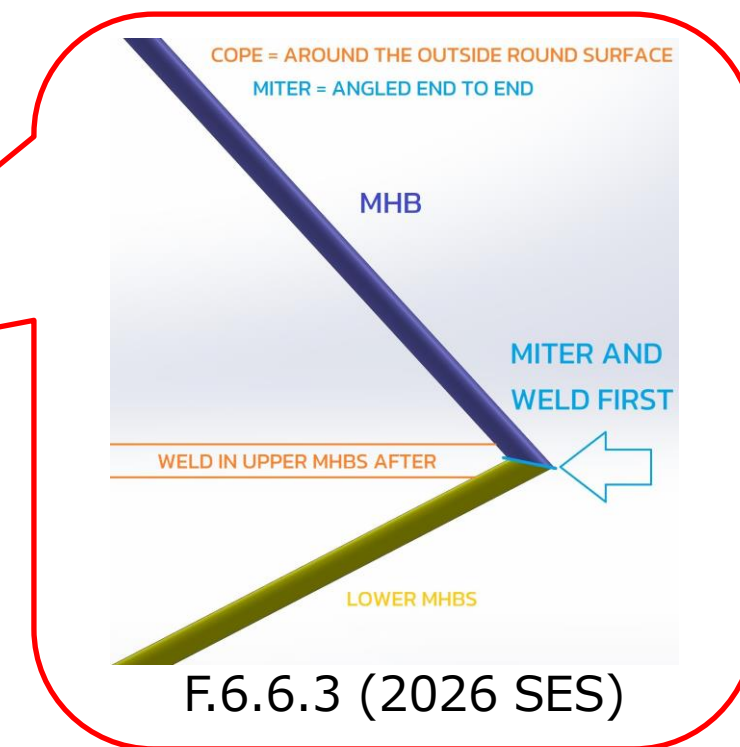
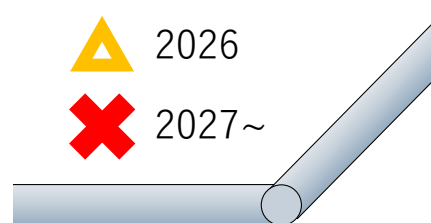
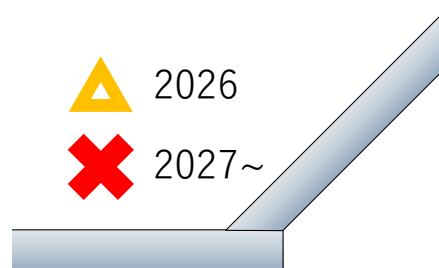
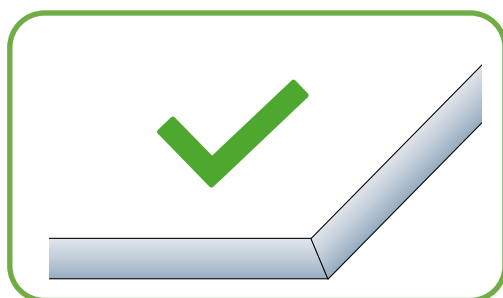
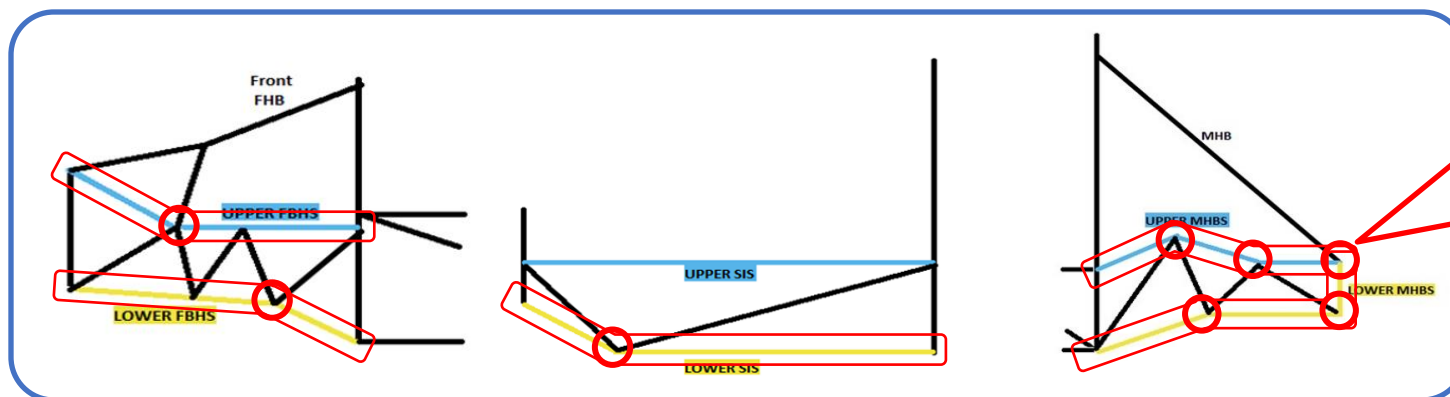
J2026-F-01

The baseline steel material must be a material that satisfies the following condition.

Mild or alloy steel with a minimum tensile strength of 290 N/mm<sup>2</sup> as guaranteed by a mechanical strength standard. The "STKM11A" is one of them

- F.5.2.4 If multiple tubes are used in place of a bend, the ends should be mitered together for a continuous load path. No open tube ends are allowed in regulated load paths.
- F.6.6.3 The lower ends of the Main Hoop Brace tubes should be mitered to the Lower Main Hoop Brace Support tubes for a continuous load path

Load Pathを構成している接続Tubeの接合方法が指定された  
The Welding method in Load Path is specified  
2026 should -> 2027 must (announced)



2025

F.5.11.2 External Items may be mounted on the outside of the Main Hoop or Main Hoop Brace tubes if the mount is one of the two:

- Located at the Main Hoop to Main Hoop Brace node and is rotationally free about an axis
- Above additional bracing meeting **F.3.2.1.o**, with calculations that show the mount will fail below the allowable load as calculated by the SES

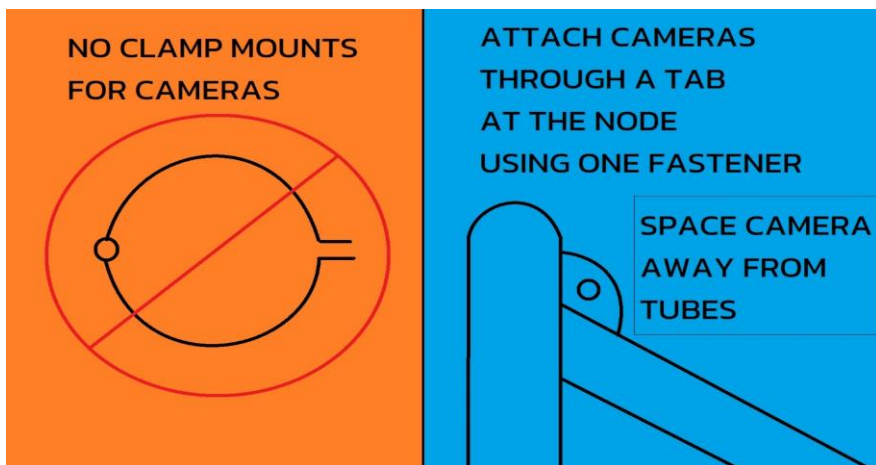
F.5.11.4 Engine mount, motor mounts, or Accumulator Containers should not mount to the span of the Main Hoop Braces or Main Hoop above other tube nodes or composite attachments

2026

F.5.11.2 External Items may be mounted on the outside of the Main Hoop or Main Hoop Brace tubes if the mount is one of the two:

- With tabs located at the Main Hoop to Main Hoop Brace node and is rotationally free about an axis
- Above additional bracing meeting **F.3.2.1.o**, with calculations that show the mount will fail below the permitted load as calculated by the SES

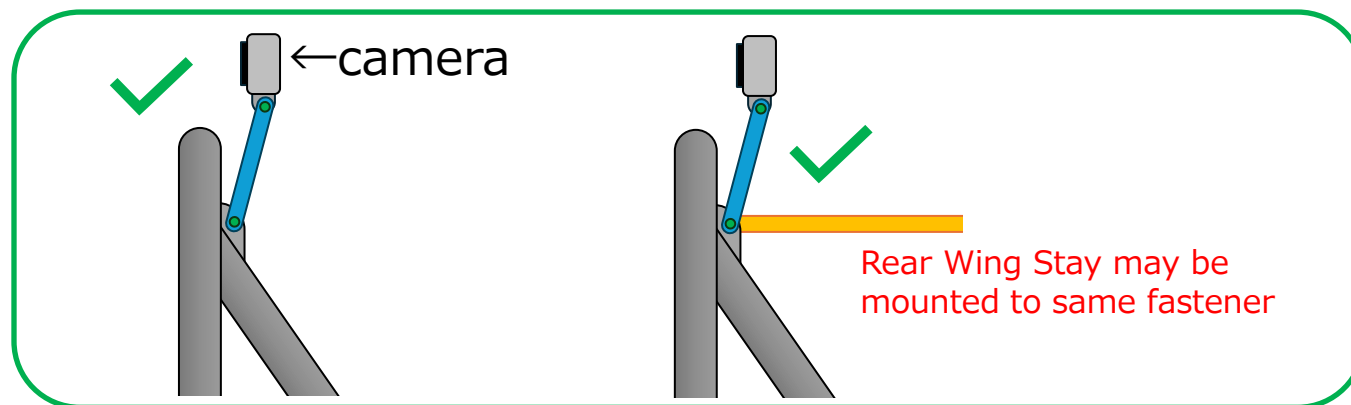
F.5.11.4 Mounts for engine, motor, suspension or Tractive Battery Pack must not attach to the span of the Main Hoop Braces or Main Hoop above other tube nodes or composite attachments



F.5.11.2a Tabで回転自在に取り付けるよう指定

F.5.11.4 Suspensionの取り付けも対象化

CameraのMH/MHBへの取り付け ⇒ External Itemに該当  
Cameras Mounted to MH/MHB are "External Items"

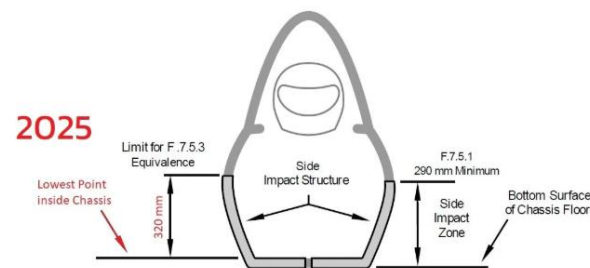
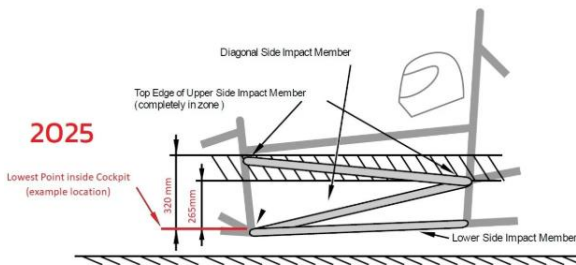




## 2025

F.6.4.4 The Upper Side Impact Member must:

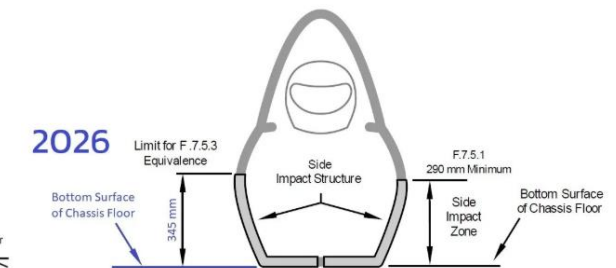
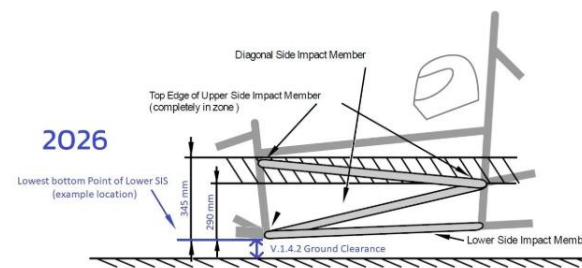
- Connect the Main Hoop and the Front Hoop.
- Have its top edge entirely in a zone that is parallel to the ground between 265 mm and 320 mm above the lowest point of the top surface of the Lower Side Impact Member



## 2026

F.6.4.4 The Upper Side Impact Member must:

- Connect the Main Hoop and the Front Hoop.
- Have its top edge entirely in a zone that is parallel to the ground between 290 mm and 345 mm above the lowest point of the bottom of the Lower Side Impact Member



参照点がLower Side Impact Member / SIS Floor(Monocoque) 上面最下点から下面最下点に変更  
Reference Point is changed from top surface to bottom of lower SIS member / Floor(Mono)

合わせて各寸法が+25mmされた  
Then, each height is +25mm

Lower SISがΦ25.4mmのTube Chassis、SIS Floorの厚さが25mm以下のMonocoque chassisへの影響軽微  
Few effect on a lower SIS of Φ25.4mm or SIS floor thickness of 25mm or less(Mono)

## 2025

- F.6.2.3 The Front Bulkhead must be supported back to the Front Hoop by a minimum of three Frame Members on each side of the vehicle; an upper member; lower member and diagonal brace to provide Triangulation.
- The top of the upper support member must be attached 50 mm or less from the top surface of the Front Bulkhead, and attach to the Front Hoop inside a zone extending 100 mm above and 50 mm below the Upper Side Impact member.
  - If the upper support member is further than 100 mm above the top of the Upper Side Impact member, then properly Triangulated bracing is required to transfer load to the Main Hoop by one of:
    - the Upper Side Impact member
    - an additional member transmitting load from the junction of the Upper Support Member with the Front Hoop
  - The lower support member must be attached to the base of the Front Bulkhead and the base of the Front Hoop
  - The diagonal brace must properly Triangulate the upper and lower support members



## 2026

- F.6.2.3 The Front Bulkhead must be supported back to the Upper and Lower Side Impact Structure at the Front Hoop by a minimum of three Frame Members on each side of the vehicle; an upper member; lower member and diagonal brace to provide Triangulation
- The top of the upper support member must be attached 50 mm or less from the top surface of the Front Bulkhead, and attach to the Front Hoop no more than 50 mm below the top of the Upper Side Impact member
  - If the upper support member is further than 100 mm above the top of the Upper Side Impact member, then properly Triangulated bracing is required to transfer load to the Main Hoop by one of:
    - the Upper Side Impact member
    - an additional member transmitting load from the junction of the Upper Support Member with the Front Hoop
  - The lower support member must be attached to the base of the Front Bulkhead and the base of the Front Hoop
  - The diagonal brace must properly Triangulate the upper and lower support members

F.6.2.3aとF.6.2.3bが同時に満たせない論理矛盾が解消された

A logical contradiction in which F.6.2.3a and F.6.2.3b could not be satisfied simultaneously has been resolved.

FBHS設計への影響はない

No Effect on FBHS design



2025

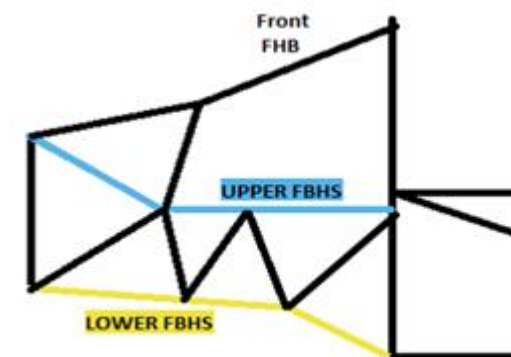
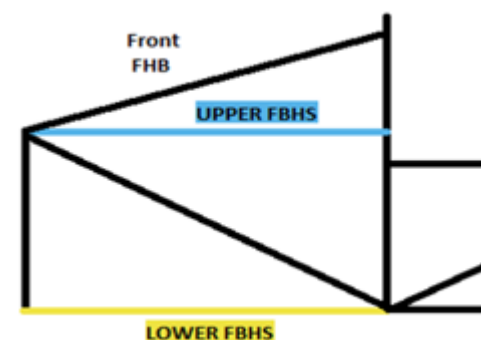
F.6.3.3 The Front Hoop Braces must be constructed to protect the driver's legs and should extend to the structure in front of the driver's feet.

FHBの接続先が明確化された  
FHB connection destination has been clarified

設計への影響なし  
No effect on Frame Design

2026

F.6.3.3 The Front Hoop Braces must extend to one of the two:  
a. The Front Bulkhead  
b. A triangulated structural node



余談 / A side note  
2005年のルール文言から20年を経て改定  
Revised 20years after the 2005 rule text

## 2005 FSAE Rules

### 3.3.5.2 Front Hoop Bracing

(C) The Front Hoop braces must be constructed such that they protect the driver's legs and should extend to the structure in front of the driver's feet.

## 2025

### F.4.2.1 Testing Requirements

- Any tested samples must be engraved with the full date of construction and sample name
- The same set of test results must not be used for different monocoques in different years.

*The intent is for the test panel to use the same material batch, material age, material storage, and student layup quality as the monocoque.*

### F.4.2.2 a. Test panels must:

- Be supported by a span distance of 400 mm

### F.4.2.4 Test Conduct

- The Laminate test **F.4.2.2** and the Comparison test **F.4.2.3** must use the same fixture
- The load applicator used to test any panel/tubes as required in this section **F.4.2** must be:
  - Metallic
  - Radius 50 mm
- The load applicator must overhang the test piece to prevent edge loading
- Any other material must not be put between the load applicator and the items on test

試験順序が指定された  
Test order specified

試験治具の形状に指定追加  
Add Requirements for Test Rig

## 2026 FSAE Rules

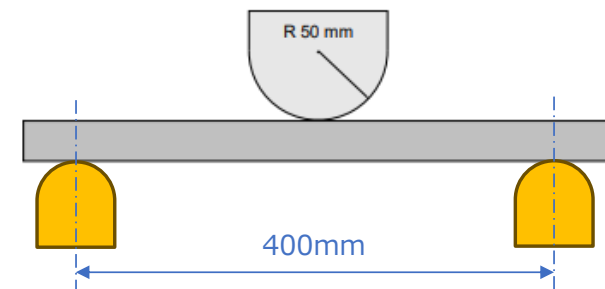
### F.4.2.1 Testing Requirements

- Any tested samples must be engraved with the full date of construction and sample name
- The same set of test results must not be used for different monocoques in different years
- A new Comparison Test **F.4.2.3** must be done before the laminate tests **F.4.2.2**

*The intent is for the test panel to use the same material batch, material age, material storage, and student layup quality as the monocoque, and to make sure the calibration of the test machine is accurate*

### F.4.2.4 Test Conduct

- The Laminate test **F.4.2.2** and the Comparison test **F.4.2.3** must use the same fixture
- The load applicator used to test any panel/tubes as required in this section **F.4.2** must be:
  - Metallic
  - Radius 50 mm
- Test sample supports must:
  - Have a center to center span distance of 400 mm
  - Be round where the supports touch the sample
- The load applicator must overhang the test piece to prevent edge loading
- Any other material must not be put between the load applicator and the items on test



## 2025

### F.4.2.1 Testing Requirements

- Any tested samples must be engraved with the full date of construction and sample name
- The same set of test results must not be used for different monocoques in different years.

*The intent is for the test panel to use the same material batch, material age, material storage, and student layup quality as the monocoque.*

### F.4.2.2 a. Test panels must:

- Be supported by a span distance of 400 mm

### F.4.2.4 Test Conduct

- The Laminate test **F.4.2.2** and the Comparison test **F.4.2.3** must use the same fixture
- The load applicator used to test any panel/tubes as required in this section **F.4.2** must be:
  - Metallic
  - Radius 50 mm
- The load applicator must overhang the test piece to prevent edge loading
- Any other material must not be put between the load applicator and the items on test



## 2026 FSAE Rules + J2026-F-08

### F.4.2.1 Testing Requirements

- Any tested samples must be engraved with the full date of construction and sample name
- The same set of test results must not be used for different monocoques in different years
- A new Comparison Test F.4.2.3 *should* be done before the laminate tests F.4.2.2**

*The intent is for the test panel to use the same material batch, material age, material storage, and student layup quality as the monocoque, and to make sure the calibration of the test machine is accurate*

### F.4.2.4 Test Conduct

- The Laminate test **F.4.2.2** and the Comparison test **F.4.2.3** must use the same fixture
- The load applicator used to test any panel/tubes as required in this section **F.4.2** must be:
  - Metallic
  - Radius 50 mm
- Test Sample supports:**
  - Must have a support span distance of 400mm**
  - Should be round where the supports touch the sample**
- The load applicator must overhang the test piece to prevent edge loading
- Any other material must not be put between the load applicator and the items on test

## 2026年大会のみLocal Rulesにて緩和 / Relaxation only for 2026 by Local Rules

### 理由 / Reason

車両とテストサンプルは同じ年度でなければならない(F.4.2.1b) ⇒ 2026年度2年目車両の再テスト不可

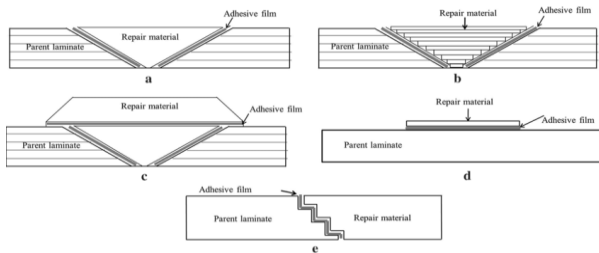
The Monocoque and test sample must be made in same year (F.4.2.1b)

⇒ Retesting for second-year vehicles in 2026 is not permitted.

## 2026 FSAE Rules

- F.7.1.6 Composite monocoques made in two or more pieces must use scarf joints with structural adhesive for the length of the seam
- F.7.1.7 Core splice must be used between all adjacent core sections
- F.7.8.2 If a tube frame ( F.6, F.11.2 ) meets the monocoque at the Attachments, the connection must
- a. Be 25 mm or less from a node
- F.7.8.8 Load paths between attachments and the monocoque Side Impact Structure F.7.5 must use continuous laminates F.4.3 with core

Composite monocoques made in two halves must use scarf joints with structural adhesive for the length of the seam.



F.7.1.6 Scarf joint



F.7.1.7 Core Splice

[3M™ Scotch-Weld™ Structural Core Splice](#)  
[Adhesive Film AF 3074 FST | 3M United Kingdom](#)

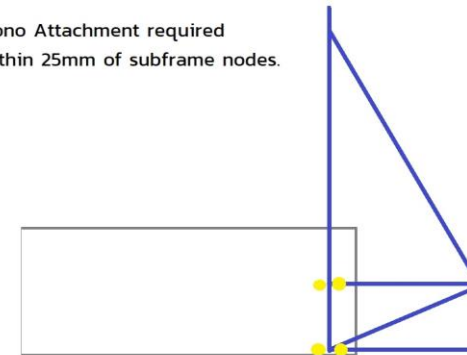
## 2026 Local Rules J2026-F-08

- F.7.1.6 Composite monocoques made in two or more pieces **should** use scarf joints with structural adhesive for the length of the seam
- F.7.1.7 Core splice **should** be used between all adjacent core sections

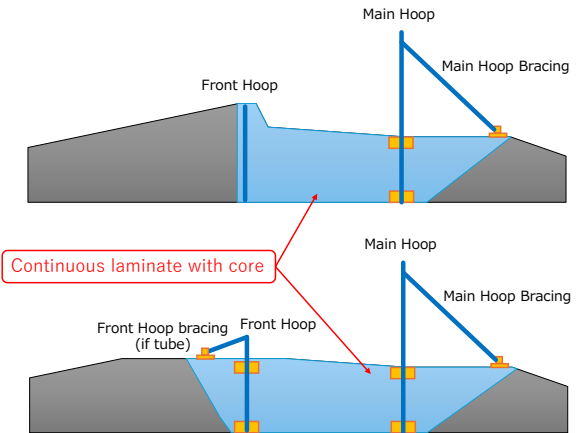
← 要対応 / obey 2026 FSAE Rules

- F.7.8.8 Load paths between attachments and the monocoque Side Impact Structure F.7.5 **should** use continuous laminates F.4.3 with core

Mono Attachment required within 25mm of subframe nodes.



F.7.8.2a  
Except for SHB node  
(GR.4.6, F.5.6.3)



F.7.8.8

2026年大会のみ一部Local Rulesにて緩和  
Partially Relaxation only for 2026 by Local Rules

## 2025

F.8.2.3 Attachment of the Anti Intrusion Plate directly to the Front Bulkhead must be documented in the team's SES submission. The accepted methods of attachment are:

- b. Bolted joints
  - Using no less than eight 8 mm or 5/16" minimum diameter **Critical Fasteners, T.8.2.**
  - The distance between any two bolt centers must be 50 mm minimum.
  - Each bolt attachment must have pullout, tearout and bending capabilities of 15 kN

AIP Bolt mount時のTearout強度が別で規定された  
Tearout Strength is redefined for bolt mounted AIP

元々15kN/Attachment を満たすには  
To satisfy 15kN/Attachment

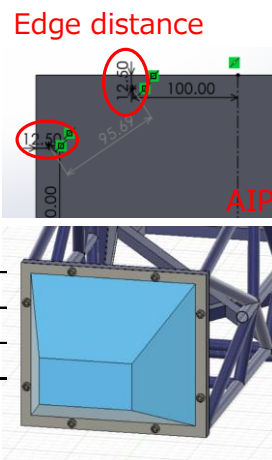
Edge Dist. vs Thickness requirement(15kN/Attach)

	UTS (MPa)	Thickness (mm)		Minimum EdgeDist (mm)	EdgeDist (mm)		Minimum Thickness (mm)
A6061-T6	290	4	->	11.3	12.5	->	4
A5052-O	195	4	->	<b>16.7</b>	12.5	->	<b>5.4</b>
Steel	365	1.5	->	<b>23.8</b>	12.5	->	<b>2.9</b>

\* Minimum Thickness is regulated by F.8.2.1

$$\text{Tearout\_Strength(N)} = 2 * \text{thickness(mm)} * \text{Edge\_Distance(mm)} * 0.577 * \text{UTS(MPa)}$$

Edge Distance may be measured from hole center to Edge



## 2026 FSAE Rules

F.8.2.3 Attachment of the Anti Intrusion Plate directly to the Front Bulkhead must be documented in the team's SES submission. The accepted methods of attachment are:

- b. Bolted joints
  - Using no less than eight 8 mm or 5/16" minimum diameter **Critical Fasteners, T.8.2.**
  - The distance between any two bolt centers must be 50 mm minimum.
  - Each bolt attachment must have pullout and bending capabilities of 15 kN
  - Bolt tearout capability must meet one of the two:
    - Each bolt attachment has tearout capability of 15 kN
    - The total tearout strength of the mounting (not individual bolts) must be more than the attachment strength of the Impact Attenuator in **F.8.5.3.b**

トータルでF.8.5.3bの荷重を満足すること  
The total tearout strength must be more than load in F.8.5.3b

F.8.5.3.b

- 95 kN for foam Impact Attenuators
- 38.5 kN for honeycomb Impact Attenuators
- The maximum compressive force for custom Impact Attenuators

注：  
STD-Form(95kN)に  
Steel t1.5 AIP centerline mount で8本留め(63kN) では不足  
(A5052-O t4も不可)

AIP側tearout強度がSESで評価されていない…



2025

- F.8.2.3 Attachment of the Anti Intrusion Plate directly to the Front Bulkhead must be documented in the team's SES submission. The accepted methods of attachment are:
- b. Bolted joints
    - Using no less than eight 8 mm or 5/16" minimum diameter **Critical Fasteners, T.8.2.**
    - The distance between any two bolt centers must be 50 mm minimum.
    - Each bolt attachment must have pullout, tearout and bending capabilities of 15 kN

AIP Bolt mount時のTearout強度が別で規定された  
Tearout Strength is redefined for bolt mounted AIP

元々15kN/AIPのTearout強度は規定されていなかった

To satisfy

Edge Dist. v

	UT (MPa)
A6061-T6	29
A5052-O	19
Steel	36

Tearout\_Strength

Edge Distance m

2026 FSAE Rules + J2026-F-13



- F.8.2.3 Attachment of the Anti Intrusion Plate directly to the Front Bulkhead must be documented in the team's SES submission. The accepted methods of attachment are:
- b. Bolted joints
    - Using no less than eight 8 mm or 5/16" minimum diameter **Critical Fasteners, T.8.2.**
    - The distance between any two bolt centers must be 50 mm minimum.
    - Each bolt attachment must have pullout and bending capabilities of 15 kN
    - Bolt tearout capability should meet one of the two :**
      - Each bolt attachment has tearout capability of 15 kN
      - The total tearout strength of the mounting (not individual bolts) must be more than the attachment strength of the Impact Attenuator in **F.8.5.3.b**

8.5.3b

は不足

J-2026-F-13 でF.8.2.3bを緩和  
J-2026-F-13 relaxes F.8.2.3b

7.4.1 規定のTearout強度がSESで評価されている...  
7.4.1 規定のTearout強度がSESで評価されている...ない...

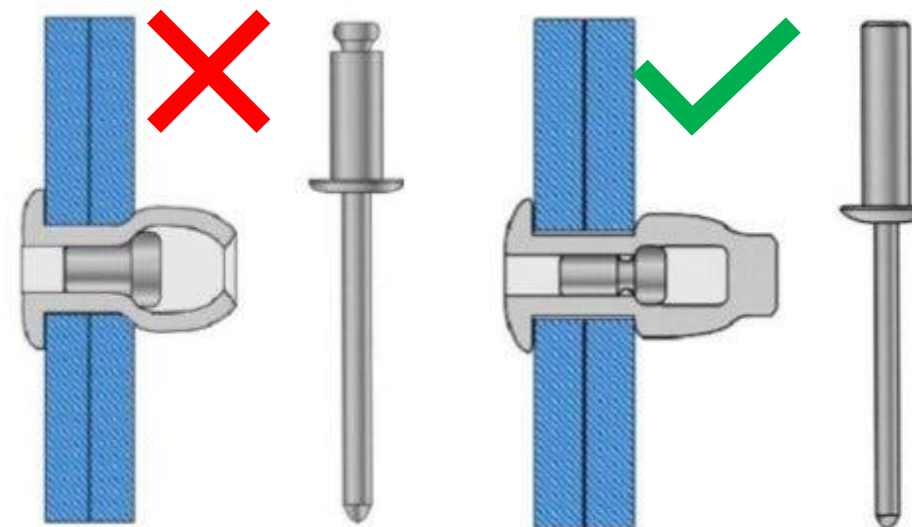
名称変更 / Name Changes

**Accumulator Container ⇒ Tractive Battery Container/Pack**

F.10.1.6 Open ended pop rivets must not be used in the Tractive Battery Container



日本ではブラインドリベットと呼ばれる  
Pop rivet called "Blind Rivet" in Japan



Open Ended

Close Ended

オープンエンドタイプのTractive Battery Containerでの使用禁止  
Open ended pop rivet MUST NOT be used in the Tractive Battery Container

**マンドレル脱落 ⇒ 短絡 の危険性**

The mandrel may fall off to the inside, causing a short circuit

## 2025

F.10.2.2 Walls, Covers and Lids must be made from one of the three:

- Steel 0.9 mm minimum thickness
- Aluminum 2.3 mm minimum thickness
- Equivalent Alternate / Composite materials ( F.4.1, F.4.2 )

F.10.2.5 Floors and all Wall sections must be joined on each side

The accepted methods of joining walls to walls and walls to floor are:

- Welding
  - Welds may be continuous or interrupted.
  - If interrupted, the weld/space ratio must be 1:1 or higher
  - All weld lengths must be more than 25 mm
- Fasteners

Combined strength of the fasteners must be Equivalent to the strength of the welded joint ( F.10.2.5.a above )
- Bonding
  - Bonding must meet F.5.5
  - Strength of the bonded joint must be Equivalent to the strength of the welded joint ( F.10.2.5.a above )
  - Bonds must run the entire length of the joint

*Folding or bending plate material to create flanges or to eliminate joints between walls is recommended.*

## 2026

F.10.2.2 All Walls (Internal and External), Covers and Lids must be made from one of the three:

- Steel 0.9 mm minimum thickness
- Aluminum 2.3 mm minimum thickness
- Equivalent Alternate / Composite materials ( F.4.1, F.4.2 )

F.10.2.5 Floors and all Wall (Internal and External) sections must be joined on each side

The accepted methods of joining Walls to Walls and Walls to Floor are:

- Welding
  - Welds may be continuous or interrupted.
  - If interrupted, the weld/space ratio must be 1:1 or higher
  - All weld lengths must be more than 25 mm
- Fasteners

Combined strength of the fasteners must be Equivalent to the strength of the welded joint ( F.10.2.5.a above )
- Bonding
  - Bonding must meet F.5.5
  - Strength of the bonded joint must be Equivalent to the strength of the welded joint ( F.10.2.5.a above )
  - Bonds must run the entire length of the joint

*Folding or bending plate material to create flanges or to eliminate joints between walls is recommended.*

Wallsが“Internal wallとExternal wall”と明確化  
Walls clarified as "Internal wall" and "External wall"



## 2025

### F.10.3 Cells and Segments

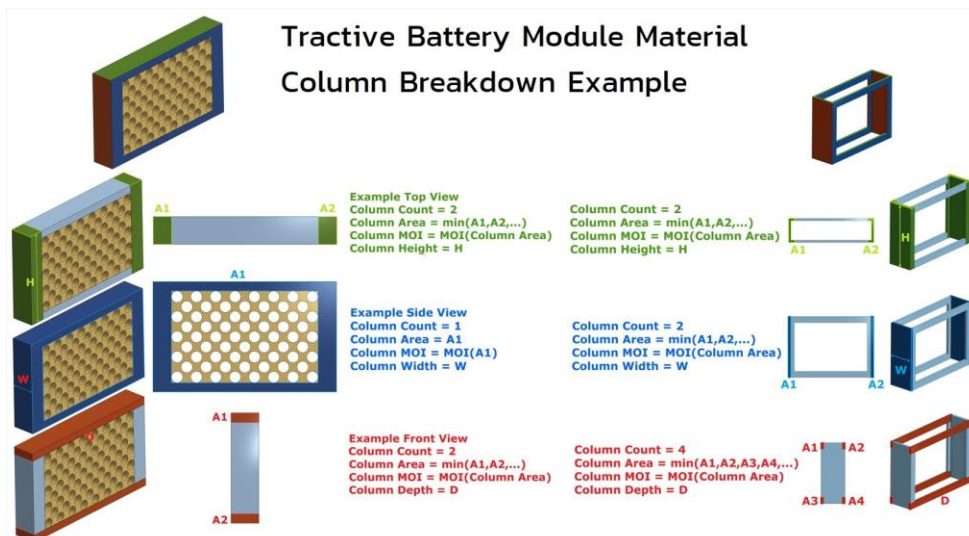
F.10.3.1 The structure of the Segments (without the structure of the Accumulator Container and without the structure of the cells) must prevent cells from being crushed in any direction under the following accelerations:

- 40 g in the longitudinal direction (forward/aft)
- 40 g in the lateral direction (left/right)
- 20 g in the vertical direction (up/down)

F.10.3.2 Segments must be held by one of the two:

- Mechanical Cover and Lid attachments must show equivalence to the strength of a welded joint **F.10.2.5.a**
- Mechanical Segment attachments to the container must show they can support the acceleration loads **F.10.3.1 above** in the direction of removal

F.10.3.3 Calculations and/or tests proving these requirements are met must be included in the SES



## 2026

### F.10.3 Cells and Modules

F.10.3.1 The structure of the Modules (without the structure of the Tractive Battery Container and without the structure of the Cells) must prevent Cells from being crushed in any direction under the following accelerations:

- 40 g in the longitudinal direction (forward/aft)
- 40 g in the lateral direction (left/right)
- 20 g in the vertical direction (up/down)

F.10.3.2 Modules must be held by one of the two:

- Mechanical attachment to the Tractive Battery Container  
Attachments to the Tractive Battery Container must show they can support the acceleration loads **F.10.3.1 above** in the direction of removal
- Mechanical Cover and Lid attachments  
Attachments must show equivalence to the strength of a welded joint **F.10.2.5.a** around the entire perimeter

*Modules should meet F.10.3.2.a. Use of cover/lid F.10.3.2.b may not be allowed past 2026*

F.10.3.3 Module attachments must include **Positive Locking Mechanisms**

F.10.3.4 Cross sectional properties of Module structures must be used for SES loads **F.10.3.1**

- A cross section must be continuous in area and continuous along its normal to be counted toward equivalence
- Enter the minimum principal moment of inertia for each cross section

Segment -> Modules

コラムの計数方法、最弱主断面二次モーメントが指定された  
Column count method & MOI is specified (F.10.3.4)

2025

F.10.5.2 Accumulator Containers must:

- a. Attach to the Major Structure of the chassis  
A maximum of two attachment points may be on a chassis tube between two triangulated nodes.
- b. Not attach to the Shoulder Harness Mounting, Main Hoop or Main Hoop Bracing



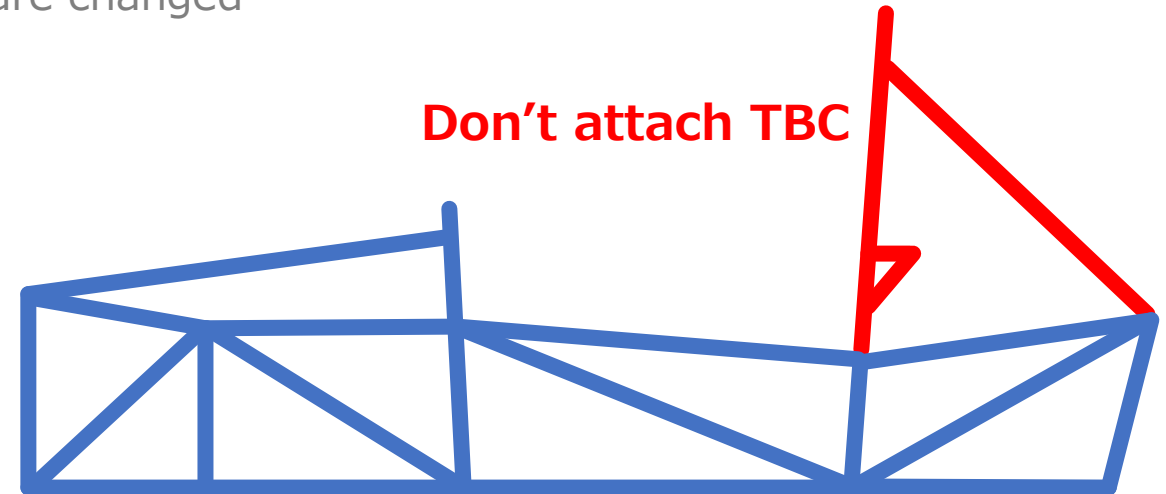
2026

F.10.5.2 Tractive Battery Containers must:

- a. Attach to the Major Structure of the chassis
- b. Use a maximum of two attachment points on a chassis tube between two triangulated nodes
- c. Not attach to the Shoulder Harness Mounting Bar or Braces, Main Hoop Braces or Main Hoop above other tube nodes or composite attachments

Tractive Batter ContainerのAttachment取り付けの変更

Tractive Battery Container Attachment points to structure are changed



## 2025

F.11.3.2 The entire top edge of the Rear Bulkhead must go to a minimum height of the Upper Side Impact Structure **F.6.4.4 / F.7.5.1**

F.11.3.3 The top of the Rear Bulkhead must be vertically above the bottom of the Rear Bulkhead

F.11.3.5 In rear view, the Rear Bulkhead must protect the Tractive System components with a diagonal structure or X brace that meets **F.11.3.1 above**

- a. Differential mounts, two vertical tubes with similar spacing, a metal plate, or an Equivalent composite panel may replace a diagonal

If used, the mounts, plate, or panel must:

- Be aft of the upper and lower Rear Bulkhead structures
- Overlap at least 25 mm vertically at the top and the bottom

## 2026

F.11.3.2 The entire top edge of the upper Rear Bulkhead tube or monocoque equivalent must be in the Upper Side Impact Structure zone F.6.4.4 / F.7.5.1

F.11.3.3 The top of the Rear Bulkhead must be vertically above the bottom of the Rear Bulkhead. Vertically above is defined as the upper and lower cross sections partially or fully overlapping in top view.

F.11.3.5 In rear view, the Rear Bulkhead must protect the Tractive System components with a diagonal structure or X brace that meets **F.11.3.1 above**

- a. Differential mounts, two vertical tubes with similar spacing, a metal plate, or an Equivalent composite panel may replace a diagonal

If used, the mounts, plate, or panel must:

- Be aft of the upper and lower Rear Bulkhead structures
- Go to the top and bottom edges of the Rear Bulkhead structures

F.11.3.6 Tractive System components and mounts must be forward of the rear plane of the Rear Bulkhead



F.11.3.2 Rear Impact Protectionの高さが厳格化(Upper SISと同様に)  
Height of Rear Impact Protection is changed (same as Upper SIS)

F.11.3.3 Vertically aboveが定義  
The term “Vertically above” is defined.

F.11.3.5a Diagonal代替の寸法が上下25mm⇒上下端までに変更  
Height of Diagonal Alternation is changed from “25mm overlap” to “go to the top & bottom edge”

F.11.3.6 Tractive SystemのLocationを規定  
Tractive System Location is defined

## J2025-F-04 Standard Foam Impact Attenuator (refer to Formula SAE® Rules 2025 F.8.4.1)

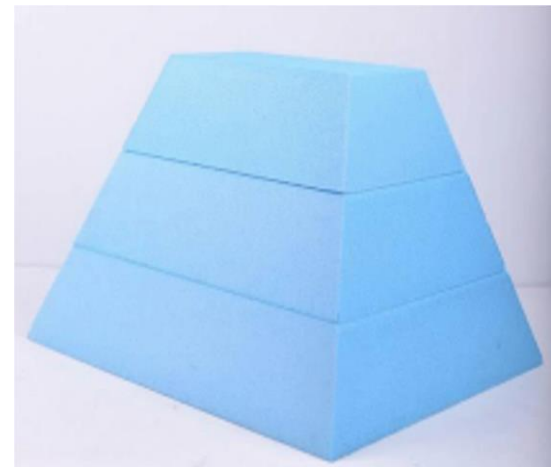
DuPont Styro Corporation's DX-45 is considered equivalent material to IMPAXX™ 700 for Standard Foam Impact Attenuator.

購入先などは、ネット検索などで調べてください。

Please search the internet to find out where to purchase.

購入は4個単位となっていますので近隣のチームと共同購入するなど活用してみてください。

Purchases are in units of four, so please consider purchasing them together with a nearby team.



## **J2026-F-11 Impact Attenuator Test data**

**(refer to Formula SAE® Rules 2026 F.8.8.5)**

### **Special rule only for 2026**

F.8.8.5 does not apply to Second/Third Year Vehicle. When participating with a Second/Third Year Vehicle, it is acceptable to reuse the test data from the previous year.

2025年日本大会に参戦した車両 + Custom IAの場合は、昨年度のPhysical Testのデータを用いても良い  
For vehicles participated in the 2025 FSAEJ with Custom IA, Physical test data from the previous year may be used.

