

COSTS AND MANUFACTURING

22nd Formula SAE BRASIL Competition

Technical Committee

Ruriá Almeida

Pedro Almeida

Matheus Cunha

Ana Clara Damasceno





PENALTIES

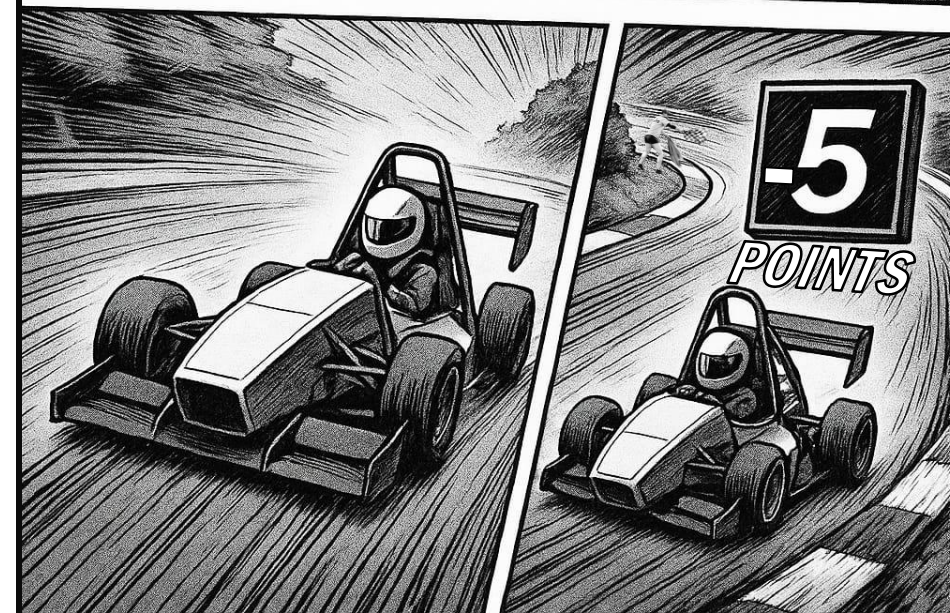
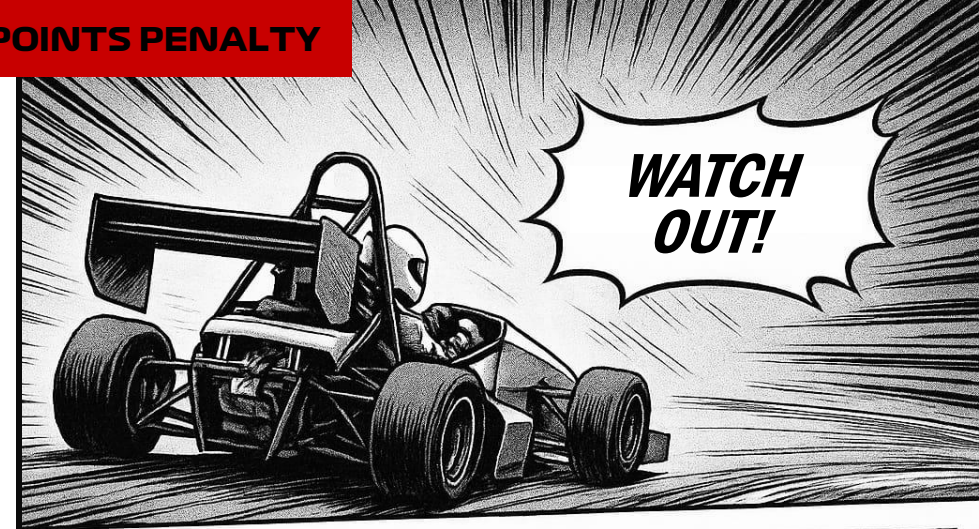
S.3.12 Cost Report penalties process

Two criteria will be used to evaluate the mistakes made: differentiating between "small and big mistakes".

- Small errors lead to a loss of points for correctness;
- Large errors are penalized at twice the cost of the omission;

- **Read and understand the rules: item S.3.12.4 AND S.3.12.5;**

- **More information on FSAE Online website**



GOOD rating

S.3.4 Cost Report

The test consists of two stages:

1. **Analysis of the BOM report**
2. **Cost inspection:** checking the correlation between the physical vehicle and the report

Optimizing time is crucial for the race!

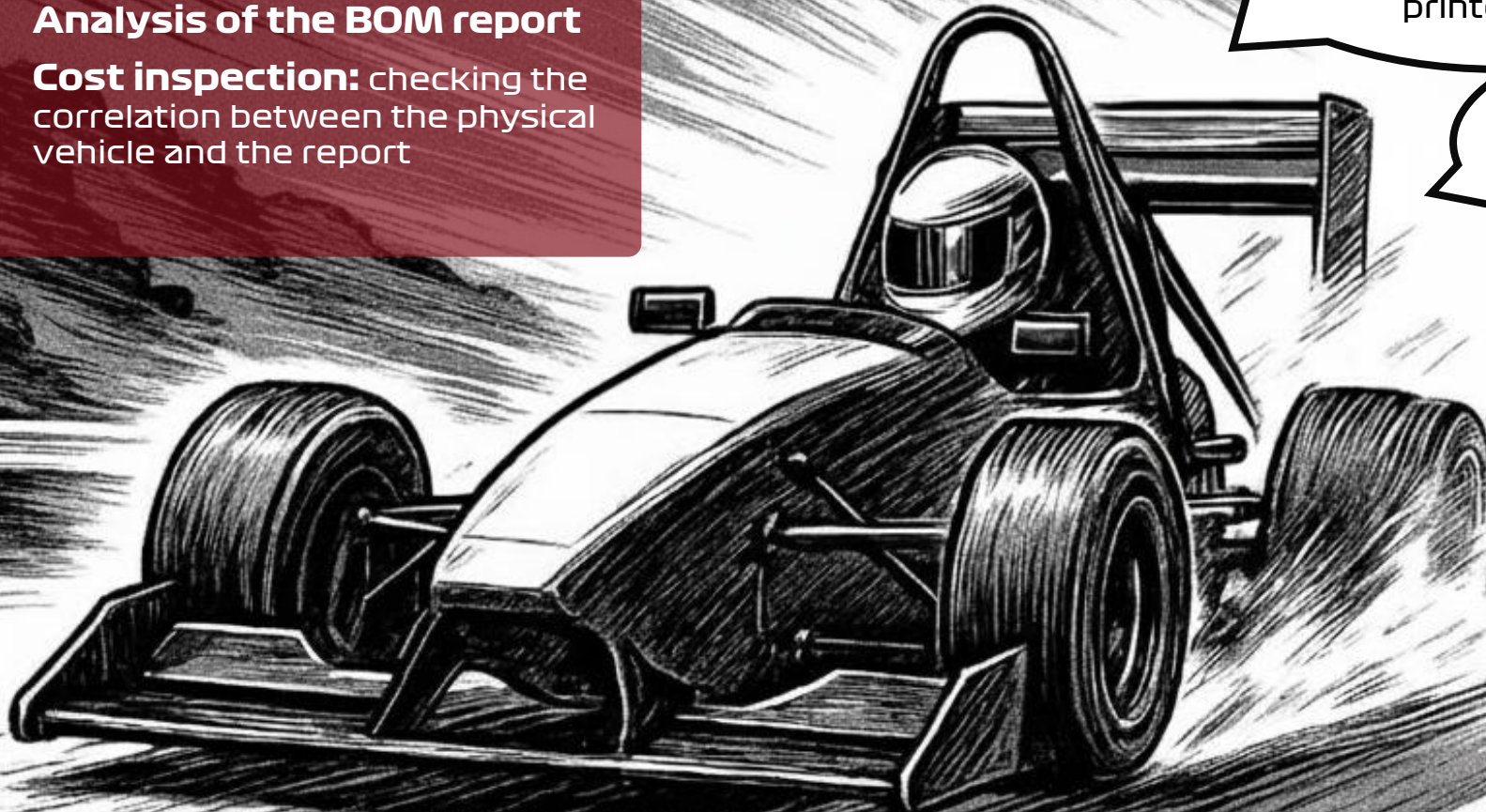
Team organization is key.

Use a **CHARGED** laptop or tablet.

The team will **NOT** be required to present the printed list.

Make sure the file is **available offline** since there's **no network on site**.

The BOM reports submitted to the competition will be evaluated according to the structure described in Appendix S.3.5, and completed according to the Cost Event Supplement.



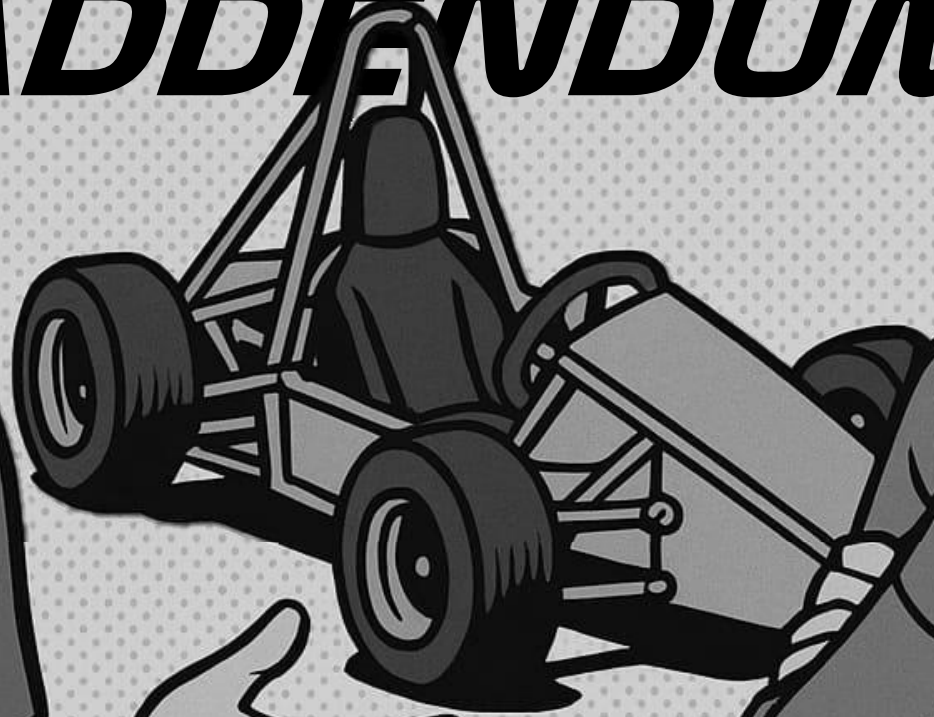
Since the deadline for the Cost Report upload, we have changed the project, hence the car cost.

What should we do?

I have read the **new procedure** and there's a **form** to be filled.

It's important to let the team know that the addendum will only be accepted if the team **submits it online**

COST ADDENDUM



TIPS

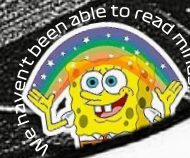
It is **strictly forbidden** to alter the Bill of Material after submission. The smallest alteration is grounds for **disqualification**

Be aware of **deadlines** and **guidelines** on the Submissions Document

You **can** and **should** bring the addendum to the Cost Audit

The addendum is a **correction** of the Bill of Material, not the revised BOM

Practice empathy: how can the modification we applied be **understood** by the judges? Before and after drawings can be very helpful



MANUFACTURING FEASIBILITY

The student must **clearly and objectively** demonstrate the information requested by the Judges, in order to verify the Project's quality in regards of:



Processes involved on **assembly/pre-assembly** of the components described in the BOM

Reliability, availability, serviceability, etc.

And we should not forget about **interchangeability** of parts



SAE BRASIL

POTENTIAL PENALTY

You may be asked to demonstrate possible repairs / maintenance on the product, as well as the arrangement and organization of parts.

COST SCENARIO

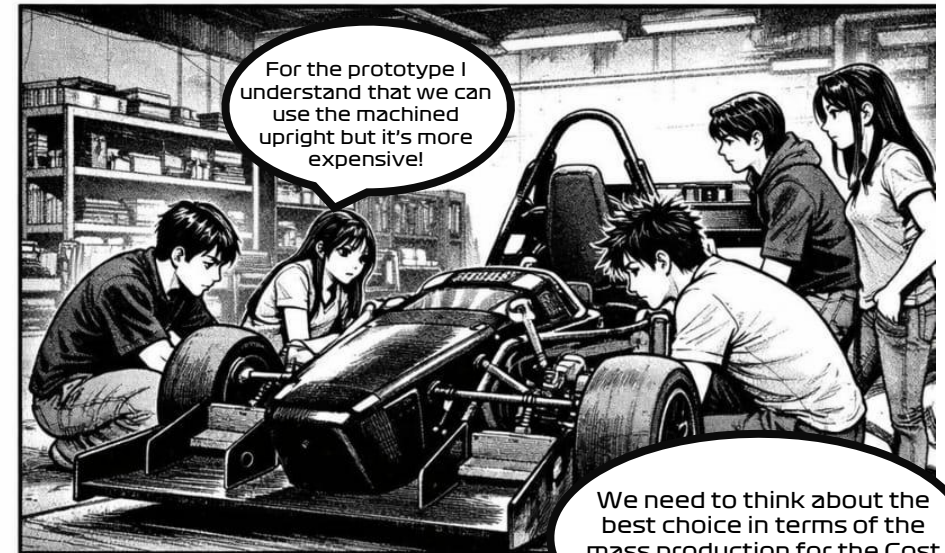
The aim of this test is for students to present in depth the rationale for selecting materials, manufacturing processes and costs for the part drawn within 2 scenarios:

1. Prototype
2. Large-scale production (following the rules of the cost test - B.O.M).

NOT
part of the
Business Plan!

You will be evaluated on:

- **Technical knowledge**
- **Decision-making process**
- **Clarity, quality and objectivity of the presentation**



COST SCENARIO SCHEDULE



Arrive at least 10 minutes early with everything set up



**10min presentation
+
5min of feedback**

In 2026, there will be NO DRAW.

The selected part for analysis is:

— **Impact Atenuator**

TIPS



Focus on showing **the entire decision-making process** for the construction of your piece, with a wealth of detail and explaining why the final decision was the most coherent for your context

Use **whatever** you think is necessary to get your message across (flipchart, presentations)

Demonstrate that your team has mastered a variety of materials and processes, **not just the implemented one**

Compare the current decision against the one made last year and against the other options on the market by analyzing the **prototype and possible large-scale construction**

Last, but not least: this is a cost test, and **you are not expected to show profit and sales projections**

TIPS, DO NOT RUN

GENERAL ADVISES

Arrive at least
10 minutes
early in line with everything ready

Only the people who will be giving the presentations will be allowed to watch the races! Keep your badge and wristband in sight at all times!

The reports delivered will be evaluated on the basis of quality, content and accuracy (supporting materials, reports, drawings, photos, etc.)

**USE DIGITAL MEDIA
DO NOT PRINT**





**Have a
good
race!**

Questions, suggestions: <https://fsaebrasil.online/>