

COST EVENT GUIDELINE

NOVEMBER 2021

EVENT DESCRIPTION

The cost event evaluates the ability of the teams to integrate the design elements with the cost of the prototype.

The following guideline describe the details of the cost reduction section, the evaluation of the event and some useful advises to improve the cost report.



Cost report

The cost report must be delivered covering the following format:

The name of the cost report file is a concatenation of the

- Vehicle number
- University name
- Event and year (MX2021)
- Driveline
- System specification

Example:

- Vehicle number → 06
- University name → BSAE
- Event and year (MX2021)
- Driveline → 4WD
- System specification

A total of 10 files must be sent to cover all the systems of the cost report, the Bill of Materials and the pdf version which cover all the report.

- ✓ 06_BSAE_MX2021_4WD_BR.xlsx
- ✓ 06_BSAE_MX2021_4WD_EN.xlsx
- ✓ 06_BSAE_MX2021_4WD_FR.xlsx
- ✓ 06_BSAE_MX2021_4WD_EL.xlsx
- ✓ 06_BSAE_MX2021_4WD_MS.xlsx
- ✓ 06_BSAE_MX2021_4WD_ST.xlsx
- ✓ 06_BSAE_MX2021_4WD_SU.xlsx
- ✓ 06_BSAE_MX2021_4WD_WT.xlsx

- ✓ 06_BSAE_MX2021_4WD_BOM.xlsx
- ✓ 06-BSAE_MX2021_4WD_Complete.pdf



Cost Documents

Baja SAE Cost Event documentation

→ [Baja SAE México](#)

Excel template for parts and assemblies

Catalogs document (Macros in Excel must be enabled)

Bill of Materials template

Cost report example

2021 Baja SAE Cost system

DOWNLOAD

2021 Baja SAE Cost Addendum

DOWNLOAD

2021 Baja SAE Cost Tables

DOWNLOAD

2021 Baja SAE Cost Instructions

DOWNLOAD

2021 Baja SAE Cost EBOM Template

DOWNLOAD

PPT Cost Report

DOWNLOAD

VIDEO

Cost report Example

DOWNLOAD

Cost event score

The cost event considers two events: The cost reduction scenario and the cost report.

Score:

Cost report

80 pts for Price

20 pts for document format

Cost reduction scenario

20 pts based on the judging score sheet

+5 pts Finals presentation 1st place

+3 pts Finals presentation 2nd place

+1 pts Finals presentation 3rd place

The maximum scored that can be obtained is 125 points considering the final event bonus.



Cost reduction scenario

The cost reduction scenarios will be assigned randomly considering the following options:

- Front suspension
- Brake system
- Rear suspension
- Steering system (Steering Wheel, steering column, tie rods, rack and pinion, etc...)
- Transmission (Only gearbox)

All the components covered in the cost report can be included for the assigned system.

Vehicle number	Team	University	Assigned scenario
1	Puma offroad	UNAM	Front suspension
2	Felinos	La Salle Bajio	Rear suspension
3	Halcones ITT	ITT	Front suspension
4	Madrams	ITESM GDL	Steering
5	Exergia	ITESM Queretaro	Brake system
6	UANL Racing	UANL	Rear suspension
7	Marabunta	ESIME Azcapo	Brake system
8	BTBR	ITESM Tol	Brake system
9	<i>KI Racing</i>	<i>VIT</i>	Tramission / Gearbox
10	Sara Juana	UAEMex	Steering
11	Anahuac Racing	Anahuac Queretaro	Front suspension
12	RamVolution	ITESM Tampico	Brake system
13	Rakan	UTEC	Suspension trasera
14	Tigre Motors	UANL	Steering
15	Dragon Breath	ITSES	Front suspension
16	Storm RT	Tec Milenio Toluca	Tramission / Gearbox
17	Maju Racing	UAQ	Rear suspension
18	Ocelot racing	UPIITA	Front suspension
19	<i>Jugernaut Racing</i>	<i>KIIT</i>	Rear suspension
20		ITESM CDMX	Steering
21		U Politecnica de Tlaxcala	Tramission / Gearbox
22	Panteras UP	U. Panamericana CDMX	Steering
23	GX Racing	U. Modelo de Merida	Brake system



Cost reduction evento - Score

The cost reduction evaluation is defined by the “Judging score sheet” that can be find in bajasae.net

There isn't a specific presentation template, however, it is recommended to create a presentation with diagrams and images that helps the judges to understand the ideas presented.

The objective of the scenario is to evaluate the quality of the ideas, the number of them and the analyses presented to validate them. The amount of reduction is not a factor for the evaluation. If the ctos reduction is not significat it can reduce te final score.

Cost Reduction Report Judging Score Sheet

University:

Car #:

0% of possible points = inadequate or no attempt

25% of possible points = attempted but below expectation

50% of possible points = average or expected

75% of possible points = above average but not perfect

100% of possible points = excellent, perfectly meets intent

_____ **Format (1 point):** Teams will be judged if the cost reduction idea(s) are presented in clear and concise manner.

_____ **Research (4 points):** Teams will be judged on the various idea(s) that they have come up for possible cost reduction ideas. It is encouraged to share several ideas that might not be fully studied but the team feels is a potential cost reduction opportunity.

_____ **Design (2 points):** Teams will be judged on how well they explain and how fully developed their cost reduction ideas are. One example would be to include a decision matrix and a brief explanation of their categories and how they decided to rank them.

_____ **Analysis/Testing (3 points):** Teams will be judged on the virtual analysis and/or real-world testing that they have completed on the cost reduction proposals. Teams should show how component performance, durability and other factors have been affected by their cost reduction design proposal.

Cost reduction Finals

The three teams with the highest score in the cost reduction presentation will pass to the finals. The cost report score do not have an influence in this part of the event.

During the finals, the teams can repeat the speech presented before or improve their presentation based on the judge's questions. As a result of the presentation improvement between the ordinary evaluation and the final evaluation the winner of the finals might not win the event.

Example:

Team	Ordinary evaluation	Finals	Bonus points	Final score
01	19	3 rd	1	20
02	17	2 nd	3	20
03	16	1 st	5	21

The time for the ordinary evaluation and finals evaluation will be the same.

- 10 min for presentation
- 5 min for Judges questions



Tank You!

For any question or concern please refers to:

cost@bajasaemexico.com