



2020 Baja SAE *Virtual* Design Evaluation Procedures

The Design Evaluation for 2020 will follow a virtual format, but the content and judging criteria of the evaluation will be essentially the same as the on-site events in the past with a small change to the score percentages (details below). Below you will find the procedure and general information regarding the Design Evaluation portion of the competition. Please familiarize yourself and your team with the process and the design section of the rules (C3.1) for an effective and efficient Design Evaluation.

Procedures

In initial (pre-Finals) Evaluation, each team will be evaluated once, at one bay, by one integrated panel of Design Judges. The score sheet is posted at www.bajasae.net/go/downloads. However, the total points will be determined by the judging panel as a whole, since the vehicle is judged as whole, and therefore may not match the sum of the categories.

The virtual design evaluation will be presentation format using a WebEx Teams meeting. A recommended .ppt template is posted at www.bajasae.net/go/downloads. If your team prefers to use a different format, that is allowed, but it is encouraged that the presentations follow a similar flow. Please convert the .ppt to a .pdf and submit on BajaSAE.net by May 28, 2020. There aren't any points specifically tied to this submission, however it will mitigate potential challenges should they arise.

The overall flow of the design evaluation should be like previous onsite events. Each competition team will begin its evaluation period by presenting a design overview of the car, delivered by one (or more) person (probably the Captain) to the entire judging panel (covering users, needs, specifications and values that guided the design process; key concept and configuration outcomes).

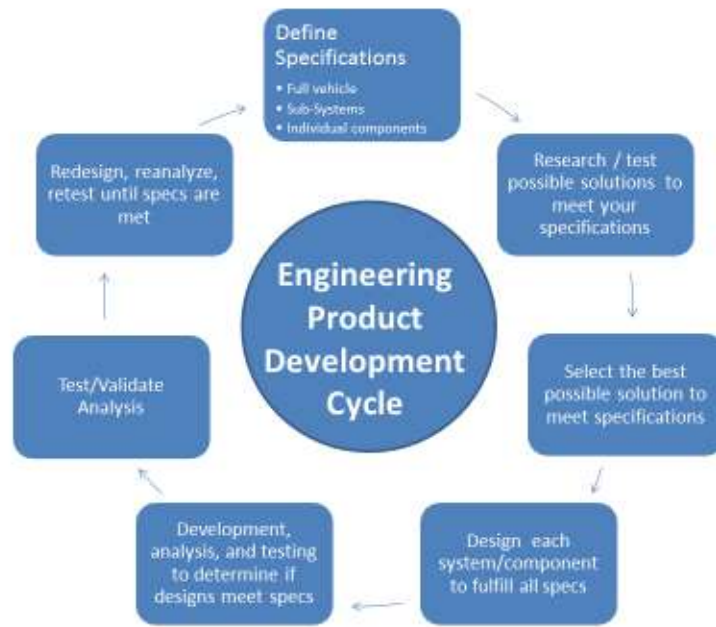
The members of the judging panel each have a specialty: drivetrain, chassis/ergonomics, steering/suspension/brakes, and the bay leader (which will be evaluating the whole vehicle as well as system integration). "Students will be judged on the creation of design specifications and the ability to meet those specifications, computer aided drafting, analysis, *testing and development*, manufacturability, serviceability, system integration and how the vehicle works together as a whole. Each of these parts of the engineering product development cycle will be judged within the following subsystems: Suspension, Steering, Brakes, Drivetrain/Powertrain, Chassis and ergonomics." (Baja SAE Rule C3.1). Each of these parts of the engineering product development cycle will be judged within the categories mentioned above.

Note on Testing/Validation and Correlation of Analysis and Testing:

We realize that many Baja SAE cars were not finished and thus much of the planned full vehicle testing could not be completed. Instead of evaluating testing and validation that was executed as we typically would during an onsite event, we will be evaluating the teams' testing and validation plans and how the teams planned to correlate their analysis and testing. The scoring percentages have been adjusted as a result. Please see Virtual Design Event Score Sheets at www.bajasae.net/go/downloads

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Important note!!! Virtual Baja SAE plans continue to evolve, so the times and other details may change slightly



The Design Judges all have significant engineering experience and most have substantial experience in the design of Baja SAE vehicles. One advantage of a virtual event is the ability to have judges from all over the United States participate in the design event, however keep in mind each judge has dedicated a significant time commitment in order to contribute to Baja SAE educational outcomes in engineering education. Competition teams should strive to give the judging panels their professional best. Each competition team's Design Report has been read and scored by the same Design Judges as will staff that team's judging panel for Design Evaluation at competition.

Staging and Timeline

All teams will be assigned a Design Evaluation time, date (June 1st, 2nd or 3rd) and Bay. **Please join the WebEx and be ready for the event at least 15 minutes prior to your design time.** In the event that a team misses their time slot, there is no guarantee that the team will be evaluated, so please be prompt. We will do our best to accommodate changes, but there is no guarantee that we can change your time slot.

Evaluation Layout

There will approximately 14 design evaluation bays. Judging panels will remain in one bay, and will not interchange members. Each team will be evaluated in a 45-minute period. Details of that period are listed below.

- Format
 - 5 minutes for a vehicle overview (whole team and all 4 judges in same WebEx).
 - 10 minutes for subsystem presentations (students and judges go into breakout rooms for each subsystem; Overall Package / System Integration, Suspension, Steering, Brakes, Drivetrain/Powertrain, Chassis and Ergonomics)
 - 5 minutes for questions from judges (students and judges stay in breakout rooms)
 - 15 minutes for judges to score students (judges go to scoring breakout room)
 - 10 minutes for feedback (whole team and all 4 judges in same WebEx).
- Example queue with timing:

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Start Time	End Time	Description			
3:00 PM	3:05 PM	Overview			
3:05 PM	3:15 PM	Overall Breakout Presentation	SSB Breakout Presentation	Drivetrain Breakout Presentation	C/E Breakout Presentation
3:15 PM	3:20 PM	Overall Breakout Questions	SSB Breakout Questions	Drivetrain Breakout Questions	C/E Breakout Questions
3:20 PM	3:35 PM	Scoring			
3:35 PM	3:45 PM	Feedback			

Design Finals

Teams with the top Design Evaluation scores will compete in Design Finals. Design Finals will be held on June 4th and after all initial design evaluations have occurred.

The Virtual Design Finals procedure will be slightly different than the previous onsite events and will follow a similar format to 2020 Virtual Initial Design. Each team will be evaluated in a 20-minute period. Details of that period are listed below.

- Format
 - 5 minutes for a vehicle overview. This is expected to be the same presentation that was given during initial design (whole team and all design final judges in same WebEx).
 - 10 minutes for Overall Package / System Integration presentations. This is expected to be the same presentation that was given during initial design (whole team and all design final judges in same WebEx).
 - 5 minutes for questions from judges (whole team and all design final judges in same WebEx).
 - Scoring will take place after all design finals presentations have been given.
 - There will not be additional design finals feedback.

The panel of finals judges will examine each finalist team from an overall perspective and determine the ranking of the finalists and bonus points.

4wd / Awd

2020 Bonus points: If your team planned to compete with a 4wd/Awd vehicle in the 2020 season there are still 25 bonus points up for grabs. Each team that presents a 4wd/Awd vehicle in the design competition will be awarded 25 bonus points.

4wd / Awd Design Evaluations

The Virtual 4wd / Awd Design Evaluation procedure will follow a similar format to 2020 Virtual Initial Design. Each team will be evaluated in a 20-minute period. Details of that period are listed below.

- Format
 - 10 minutes for 4wd / Awd presentations (students and judges in same WebEx).
 - 5 minutes for questions from judges (students and judges in same WebEx).
 - 5 minutes for feedback (students and judges in same WebEx).

Important Note:

- The bonus points will be applied to your **Overall score**, not the design event score.

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