

2020 Baja SAE Design Comparison Document

[Insert School Name]

2019 Car Number

2020 Car Number

[Insert 2019 Car Number]

[Insert 2020 Car Number]

[Insert Baja SAE Series]



Instructions

1. *All teams that finished with a top 10 position in ANY of the North America Baja SAE Events the previous year are required to complete this document and provide a hard (paper) copy at each event they are attending to a Polaris design judge at the time of design judging.*
2. *For each system, insert a photograph or CAD rendering that shows detail of both the previous year's design and the current year's design in the appropriate box*
3. *The "Other Systems" section is for other major systems not included like flotation, electronics, etc.*
4. *Respond to each of the four questions below the two photos or renderings*
5. *After each subsystem that was responded to as having design changes, you must add 1-6 pages discussing in detail:*
 - a. *Any Failures or design flaws with the previous year's system-justification for making changes*
 - b. *The analysis conducted to support the current year's system redesign*
 - c. *How the current year's system was evaluated and validated*
 - d. *How the system changes affect the overall vehicle performance, reliability, and driving experience*
6. *In this section, you may include up to two pages of text and four pages of figures, tables, and images for each section for a total of up to six pages of text and figures after each system.*
7. *This document will not be used for design judging, only for determining design change significance*
8. *Significance will be determined based on: system content change, quantity/quality of documented analysis and validation, and impact changes have to the overall vehicle*

Frame

Previous Year's Design

*Insert a Photograph or Rendering
of the Previous Year's Frame
Design*

New Design

*Insert a Photograph or Rendering
of the New Frame Design*

What design changes (if any) were implemented this year?
[Please list any design changes to this system]

Describe the analysis that was conducted to support the new
design?
[Please list the analysis conducted]

Describe any failures or design flaws with last year's design.
[Please list any failures or design flaws with last year's design]

How has the new design been validated to ensure that design
flaws have been corrected?
[Please list how the new design was validated]

Suspension

Previous Year's Design

*Insert a Photograph or Rendering
of the Previous Year's Suspension
Design*

New Design

*Insert a Photograph or Rendering
of the New Suspension Design*

What design changes (if any) were implemented this year?
[Please list any design changes to this system]

Describe the analysis that was conducted to support the new
design?
[Please list the analysis conducted]

Describe any failures or design flaws with last year's design.
[Please list any failures or design flaws with last year's design]

How has the new design been validated to ensure that design
flaws have been corrected?
[Please list how the new design was validated]

Steering

Previous Year's Design

*Insert a Photograph or Rendering
of the Previous Year's Steering
Design*

New Design

*Insert a Photograph or Rendering
of the New Steering Design*

What design changes (if any) were implemented this year?
[Please list any design changes to this system]

Describe the analysis that was conducted to support the new
design?
[Please list the analysis conducted]

Describe any failures or design flaws with last year's design.
[Please list any failures or design flaws with last year's design]

How has the new design been validated to ensure that design
flaws have been corrected?
[Please list how the new design was validated]

Drivetrain/Powertrain

Previous Year's Design

*Insert a Photograph or Rendering
of the Previous Year's
Drivetrain/Powertrain Design*

New Design

*Insert a Photograph or Rendering
of the New Drivetrain/Powertrain
Design*

What design changes (if any) were implemented this year?

[Please list any design changes to this system]

Describe the analysis that was conducted to support the new design?

[Please list the analysis conducted]

Describe any failures or design flaws with last year's design.

[Please list any failures or design flaws with last year's design]

How has the new design been validated to ensure that design flaws have been corrected?

[Please list how the new design was validated]

Operator Comfort

Previous Year's Design

*Insert a Photograph or Rendering
of the Previous Year's Ergonomics
Design*

New Design

*Insert a Photograph or Rendering
of the New Ergonomics Design*

What design changes (if any) were implemented this year?
[Please list any design changes to this system]

Describe the analysis that was conducted to support the new
design?
[Please list the analysis conducted]

Describe any failures or design flaws with last year's design.
[Please list any failures or design flaws with last year's design]

How has the new design been validated to ensure that design
flaws have been corrected?
[Please list how the new design was validated]

Brakes

Previous Year's Design

*Insert a Photograph or Rendering
of the Previous Year's Brakes
Design*

New Design

*Insert a Photograph or Rendering
of the New Brakes Design*

What design changes (if any) were implemented this year?

[Please list any design changes to this system]

Describe the analysis that was conducted to support the new design?

[Please list the analysis conducted]

Describe any failures or design flaws with last year's design.

[Please list any failures or design flaws with last year's design]

How has the new design been validated to ensure that design flaws have been corrected?

[Please list how the new design was validated]

Other Systems

Previous Year's Design

*Insert a Photograph or Rendering
of the Previous Year's Design*

New Design

*Insert a Photograph or Rendering
of the New Design*

What design changes (if any) were implemented this year?
[Please list any design changes to this system]

Describe the analysis that was conducted to support the new
design?
[Please list the analysis conducted]

Describe any failures or design flaws with last year's design.
[Please list any failures or design flaws with last year's design]

How has the new design been validated to ensure that design
flaws have been corrected?
[Please list how the new design was validated]