

In This Document

- How to access the Online Cost System
- How to Create a Vehicle BOM
 - Assemblies and Parts
- How to Request items be **added** to the Catalog

Accessing the Online Cost System

Click Online Cost Report System on your Team Member menu

Welcome to the BajaSAE.net CdsWeb site. Please choose from the menu options:

TEAM MEMBER- BAJA TEAM

- My Team's Report & Document Submissions
- Ask a Rules Question
- My Team's Rules Questions
- Search All Rules FAQs
- Browse All Rules FAQs
- Online Cost Report System
- My Team's Cost Catalog Requests
- Leave this Team

COMMUNITY MEMBER

- Change My Password
- Update My CdsWeb User Account
- Manage Email Preferences

Creating a Vehicle BOM

Insert car name here and then
click “Create a New Vehicle”

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Manage Vehicles

Vehicle Title	Date Created	Last Modified	Total Cost	Actions
2018 Car	11/27/2017 5:47:00 PM	11/27/2017 5:47:00 PM	\$0.00	<input type="button" value="Manage Cost Report"/> <input type="button" value="Export/Print ▾"/> <input type="button" value="Other Actions ▾"/>
2017 Car	11/27/2017 5:46:51 PM	11/27/2017 5:46:51 PM	\$0.00	<input type="button" value="Manage Cost Report"/> <input type="button" value="Export/Print ▾"/> <input type="button" value="Other Actions ▾"/>

ⓘ ALL TEAMS are now allowed (and required) to use this Online Cost Report System for the 2017 season.

Manage Competitions

Registered Competition	Car Number	Report Due	Vehicle attending as this Car Number	Cost Report Status	Actions
Baja SAE Maryland	151	3/1/2018 11:59:00 PM EST	<input type="text" value="2018 Car"/> ▾	<input type="button" value="Not Submitted"/>	<input type="button" value="Submit Now"/>
Baja SAE Kansas	160	3/1/2018 11:59:00 PM EST	<input type="text" value="2018 Car"/> ▾	<input type="button" value="Not Submitted"/>	<input type="button" value="Submit Now"/>
Baja SAE Oregon	140	3/1/2018 11:59:00 PM EST	<input type="text" value="2018 Car"/> ▾	<input type="button" value="Not Submitted"/>	<input type="button" value="Submit Now"/>

Browse the Current Cost Catalog Tables

Creating a Vehicle BOM

After clicking on create new vehicle, it will be added to your vehicle list

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Manage Vehicles

Cost Example

Create a New Vehicle

Vehicle Title	Date Created	Last Modified	Total Cost	Actions		
Cost Example	11/28/2017 9:51:30 AM	11/28/2017 9:51:30 AM	\$0.00	Manage Cost Report	Export/Print ▾	Other Actions ▾
2018 Car	11/27/2017 5:47:00 PM	11/27/2017 5:47:00 PM	\$0.00	Manage Cost Report	Export/Print ▾	Other Actions ▾
2017 Car	11/27/2017 5:46:51 PM	11/27/2017 5:46:51 PM	\$0.00	Manage Cost Report	Export/Print ▾	Other Actions ▾

ⓘ ALL TEAMS are now allowed (and required) to use this Online Cost Report System for the 2017 season.

Creating a Vehicle BOM

After selecting “Manage Cost Report” on the managed vehicle page, the vehicle systems page will load. In this example, we will be adding the front right a-arms and knuckles to the model.

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Vehicle: Cost Example

Vehicle Systems

System	System Cost	Actions
Brake System	\$0.00	Manage Assemblies
Engine & Drivetrain	\$0.00	Manage Assemblies
Frame & Body	\$0.00	Manage Assemblies
Instruments, Wiring & Accessories	\$0.00	Manage Assemblies
Miscellaneous, Safety, Finish and Assembly	\$0.00	Manage Assemblies
Steering System	\$0.00	Manage Assemblies
Suspension & Shocks	\$0.00	Manage Assemblies
Wheels, Wheel Bearings & Tires	\$0.00	Manage Assemblies

Attachments

Title	Type	Actions
<div></div>		

Upload Attachment

File

Choose File

No file chosen

Title

Type

Drawing

Upload

Creating a Vehicle BOM

When entering one of the assembly pages for the first time, there will be no assemblies listed in it. Adding an assembly, “Front Right,” will add it to list, after selecting create assembly.

Suspension Assemblies

Create AssemblyCreate and Open

Title	Part #	Quantity	Total Cost	Actions
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Attachments

Title	Type	Actions

Upload Attachment

File

Choose File

No file chosen

Title

Type

Drawing

Upload

Creating a Vehicle BOM

We have created two assemblies for the front left and front right of the vehicle. Selecting View/Edit will lead you to the bill of materials page for this assembly.

Suspension Assemblies

Create Assembly

Create and Open

Title	Part #	Quantity	Total Cost	Actions
Front Left	-	1	\$0.00	View / Edit Delete
Front Right	-	1	\$20.12	View / Edit Delete

Attachments

Title	Type	Actions

Upload Attachment

File

[Choose File](#) No file chosen

Title

Type

Drawing

[Upload](#)

Creating a Vehicle BOM

The five sections in the bill of materials can be seen.

Parts – This is where purchased and fabricated parts will be listed.

Materials – Any raw materials or purchased parts can be listed here that is used at this level

Processes – Any work done to the assembly, for example assembling, ratching, welding, cutting

Fasteners – Any bolts, nuts, washers should be listed here

Tooling – Ignore this section on the page

Front Right – Bill of Materials

Title	Description	Part # Base	Part # Suffix	Quantity
Front Right				1
Edit Info				

Assembly Cost \$0.00

Total \$0.00

Parts

Part	Part #	Op Num	Part Cost	Quantity	Subtotal
No data available in table					
					Subtotal \$0.00

[Add Part](#)

Materials

Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit Cost	Subtotal
No data available in table											
											Subtotal \$0.00

[Add Material](#)

Processes

Process	Use	Op Num	Quantity	Multiplier	Mult. Val.	Unit Cost	Subtotal
No data available in table							
							Subtotal \$0.00

[Add Process](#)

Fasteners

Fastener	Use	Op Num	Size 1	Size 2	Quantity	Unit Cost	Subtotal
No data available in table							
							Subtotal \$0.00

[Add Fastener](#)

Tooling

Tooling	Use	Op Num	Quantity	PVF	Fraction Incl.	Unit Cost	Subtotal
No data available in table							
							Subtotal \$0.00

[Add Tooling](#)

Browse the Current Cost Catalog Tables

Materials

Fasteners

Processes

Processes Multipliers

Tooling

Creating a Vehicle BOM

At the bottom of the bill of material page, there is a link to the various cost table. If you are having difficulty finding the name of the material, fastener, process that need to be listed. Selecting here will bring up the full catalog listing that can be browsed or key word searched.

The screenshot displays two main sections of the BOM creation interface. The top section, titled 'Browse the Current Cost Catalog Tables', contains five buttons: 'Materials', 'Fasteners', 'Processes', 'Processes Multipliers', and 'Tooling'. A red arrow points to the 'Browse the Current Cost Catalog Tables' header. The bottom section, titled 'Attachments', features a table with columns 'Title', 'Type', and 'Actions'. A red arrow points to the 'Title' column header. To the right of the table is an 'Upload Attachment' form with a 'File' input (containing a 'Choose File' button and 'No file chosen' text), a 'Title' input, a 'Type' dropdown menu (set to 'Drawing'), and an 'Upload' button. Below these sections is a green 'Save & Close' button.

Browse the Current Cost Catalog Tables				
Materials	Fasteners	Processes	Processes Multipliers	Tooling

Attachments		
Title	Type	Actions

Upload Attachment

File: No file chosen

Title:

Type:

Also, there is an attachment box at the bottom. There are no requirements to add anything to this section. However, if you want to show a drawing or exploded view of a part or assembly, feel free to upload it.

Creating a Vehicle BOM

On the bill of materials page, you can add parts and name them.

To open a parts bill of material, select the blue folder on the right.

It will lead to a page that looks the same as the assembly bill of materials, except there is no parts section.

Title	Description	Part # Base	Part # Suffix	Quantity
Front Right				1

[Edit Info](#)

Assembly Cost \$0.00
Total \$0.00

Parts

Part	Part #	Op Num	Part Cost	Quantity	Subtotal
Lower A-Arm	-			1	
Upper A-Arm		Operation #		1	

[Save](#)
Ctrl+Enter for "Save & New"
Enter for "Save"

Materials

Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit	Subtotal Cost
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Creating a Vehicle BOM

Adding raw material or a purchased part is done in the material section.
As you can see below, we are adding steel alloy and have to option of by mass or dimensions.

If you choose a Raw Material **Per Kg**, the system will simply ask for the mass.

Part Cost \$20.12

Materials

Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit Cost	Subtotal Cost
Steel, Alloy (per kg)			3 lb						1	3.0617	3.06
											Subtotal \$3.06

[Add Material](#)

Processes

If you choose a Raw Material **By Dimensions**, the system will ask you to enter the cross sectional area of the material and the length to get the cost.

Materials

Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit Cost	Subtotal Cost
No data available in table											
Steel	Use	Operation #			Area Name	Area	Length	Density	1	0	0.00

Raw Material
Steel, Alloy (by Dimensions)

Raw Material (per kg)
Steel, Alloy (per kg)

Raw Material
Steel, Mild (by Dimensions)

Raw Material (per kg)
Steel, Mild (per kg)

[Save](#)

Ctrl+Enter for "Save & New"
Enter for "Save"



Multiplier	Mult. Val.	Unit Cost	Subtotal

Creating a Vehicle BOM

The next step is adding processes that are used to fabricate the part.

In this example, you can see the numerous processes to fabricate the part.














Materials

Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit Cost	Subtotal	
↑1 Steel, Alloy (per kg)			3 lb						1	3.0617	3.06	 

+ Add Material

Subtotal \$3.06

Processes

Process	Use	Op Num	Quantity	Multiplier	Mult. Val.	Unit Cost	Subtotal	
↑1 Tube cut			2.54	Repeat 3x	3	0.15	1.14	 
↑2 Tube end preparation for welding			1	Repeat 4x	4	0.75	3.00	 
↑3 Tube bends			1	Repeat 2x	2	0.75	1.50	 
↑4 Plasma Cutting			38.6		1	0.1	3.86	 
↑5 Drilled holes < 25.4 mm dia.			1		1	0.35	0.35	 
↑6 Weld			50.8		1	0.15	7.62	 
↑7 Tapping holes			1		1	0.35	0.35	 

+ Add Process

Subtotal \$17.82

Creating a Vehicle BOM

If you perform a process multiple times when creating an item, type in “Repeat” and the number of times the same process was done into the Process Multiplier box so that you don’t have to enter the same process on multiple lines.

We cut 3 sections of tube in this example so it would be repeat 3x.

Processes

Process	Use	Op Num	Quantity	Multiplier	Mult. Val.	Unit Cost	Subtotal
Tube cut	Use	Operation #	2.5400000000	repe	1	0.1500	0.38
Tooling Required: No Near Net Shape: No Description:				Multiplier Notes:			
2	Tube end preparation for welding		4	Any Repeat 10x			
3	Tube bends		2	Any Repeat 2x			
4	Plasma Cutting		38.6	Any Repeat 3x			
				Any Repeat 4x			
				Any Repeat 5x			
				Any Repeat 6x			
5	Drilled holes < 25.4 mm dia.		1		1	0.35	0.35

Creating a Vehicle BOM

As you can see once all the work that was done in the lower a-arm section is added, the cost will carry up to the next level, where the part cost is listed. If the part is used multiple times, then the quantity can be edited.

Next, we purchased rod ends and they are just bolted into the assembly so they can be added to bill of materials for the front right in the materials section.

Front Right – Bill of Materials

Title	Description	Part # Base	Part # Suffix	Quantity
Front Right				1

Edit Info

Assembly Cost \$50.93
Total \$50.93

Parts

Part	Part #	Op Num	Part Cost	Quantity	Subtotal	
1 Lower A-Arm	-		20.12	1	20.12	 
2 Upper A-Arm	-			1		 
3 Knuckle	-			1		 

Add Part

Subtotal \$20.12

Materials

Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit Cost	Subtotal	
2 Rod End, Suspension			0.5 in						1	13.0645	13.06	 

Add Material

Subtotal \$13.06

Processes

Creating a Vehicle BOM

Next, we added assembly processes. We assemble the a-arms to the frame and the part is a tight but not interference fit, so we selected line on line. There are options for interference and lose fits as well. Then we also tightened the bolts using a ratchet wrench and the fastener was 12.7 mm bolt.

Finally, we added all the bolts, nuts and washers we used in this assembly.

This bill of materials should contain all the parts, materials, processes and fasteners that is attached to its parent assembly.

Front Right – Bill of Materials

Title	Description	Part # Base	Part # Suffix	Quantity
Front Right				1

[Edit Info](#)

Assembly Cost \$50.93
Total \$50.93

Parts

Part	Part #	Op Num	Part Cost	Quantity	Subtotal	
1 Lower A-Arm	-		20.12	1	20.12	Edit Delete
2 Upper A-Arm	-			1		Edit Delete
3 Knuckle	-			1		Edit Delete

[Add Part](#)

Subtotal \$20.12

Materials

Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit Cost	Subtotal	
2 Rod End, Suspension			0.5 in						1	13.0645	13.06	Edit Delete

[Add Material](#)

Subtotal \$13.06

Processes

Process	Use	Op Num	Quantity	Multiplier	Mult. Val.	Unit Cost	Subtotal	
8 Assemble, 3 kg, Line-on-Line			4		1	0.38	1.52	Edit Delete
9 Ratchet <= 25.4 mm			4		1	0.75	3.00	Edit Delete

[Add Process](#)

Subtotal \$4.52

Fasteners

Fastener	Use	Op Num	Size 1	Size 2	Quantity	Unit Cost	Subtotal	
1 Bolt, Grade 10.9 (SAE 8)			0.5 in	6 in	4	3.1156	12.46	Edit Delete
2 Nut, Grade 10.9 (SAE 8)			0.5 in		4	0.1522	0.61	Edit Delete
3 Washer, Grade 10.9 (SAE 8)			2 in		8	0.02	0.16	Edit Delete

[Add Fastener](#)

Subtotal \$13.23

Adding to the Catalog

To request a part to be added to the catalog, select My Team's Cost Catalog Requests on your Team Member menu.

Welcome to the BajaSAE.net CdsWeb site. Please choose from the menu options:

TEAM MEMBER- BAJA TEAM

- My Team's Report & Document Submissions
- Ask a Rules Question
- My Team's Rules Questions
- Search All Rules FAQs
- Browse All Rules FAQs
- Online Cost Report System
- My Team's Cost Catalog Requests
- Leave this Team

COMMUNITY MEMBER

- Change My Password
- Update My CdsWeb User Account
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Adding to the Catalog

Select Create Add-Item Request

My Team's Cost Catalog Requests

Create Add-Item Request



Item Title	Supplier	Status	Closed	Outcome
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Adding to the Catalog

Item Title – Part name

Category – select from drop down list

Supplier – list the manufacturer

Reference URL – website showing support for MSRP
MSRP – manufacturer suggested retail price

Create a Catalog Request

Item Title

Fox Shock Float 3 Evol R

Category

Bearings ▼

Supplier

Fox Shocks

Reference URL

<https://www.ridefox.com/2016/product.php?m=atv&t=shocks&p=1148&ref=family>

Item's unit MSRP (USD)

1095

'Street' Price (USD, optional)

Save

My Team's Cost Catalog Requests

Create Add-Item Request

Item Title

Supplier

Status

Closed

Outcome

Fox Shock Float 3 Evol R

Fox Shocks

New

The request will be added to our lists and processed in the order received. The cost team will review and update the catalog or provide guidance on how to properly cost the item requested.

You will be notified via email when the request has been processed and the outcome.

Thanks!

Remember to check for updated info at <https://bajasae.net/go/cost> and follow Baja SAE on social media to make sure you don't miss any updates as we transition this season!
