SAE INTERNATIONAL

FORMULA SAE SERIES

COST MODULE OPERATIONS

2020 UPDATES

- Added more repeat operations to the process multiplier
- Brush apply unit cost reduced from $.02/cm^2 to $.002/cm^2 ($20/m^2)

COMMON MISTAKES

- Forgetting to add length to a bolt
- Improper raw material cost: 1mm added to outside and is not hollow (example gun drilled axles are not tubes). The only time tubing should be used as raw material is if it is a common tube size and common material.
  - You can only forgo the 1mm added dimension if the part shows up to competition with a mill formed surface
- Wheel bearings and suspension rod ends have their own special parts
- Using “Weld round tubing” improperly (read process description)
- Monocoque Production Volume Factor (PVF) is always 120
- Forgetting the reaction tool when a counterforce is needed to install a fastener

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

SUPPORTING DOCUMENTATION

- Drawings are absolutely critical to document how parts are made.
- Drawings and images are an integral part of the cost accuracy score

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

WHERE TO ATTACH DRAWINGS

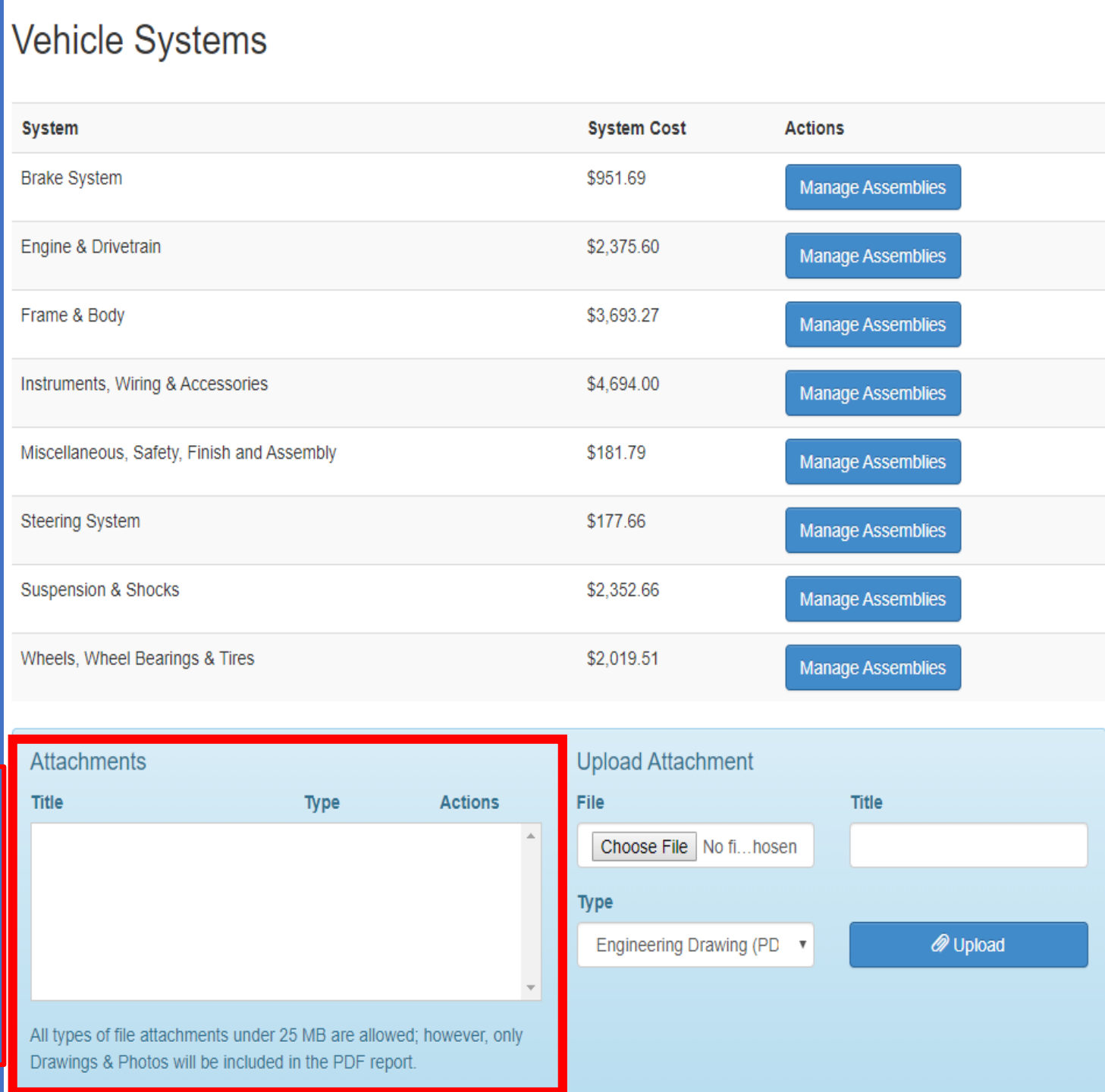
- Assemblies: Attach a CAD or actual picture of the assembly on the same page as the assembly
- Parts: Attach a drawing (preferred) or CAD picture or actual picture(bought parts) of the individual part in the same page that makes the part
- Note that only .pdf, .jpeg and .png will export images to the exported pdf report
- Be careful not to make the file sizes too large

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

WHERE TO ATTACH DRAWINGS

Vehicle Views

Vehicle Systems page should have the same drawing views as the design report



RAW MATERIALS

- Label material dimensions when possible
  - One exception would be near net shape parts such as 3d printed and castings
- Sheet thickness should always be noted
- Sheet area should be listed especially if it is CAD modeled
- Tubing can easily list diameter, wall thickness and length

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

TUBING

Cutting tubes:

- All tubes need at least 1 cut (assume it is cut from full length stock) Process multiplier repeat can be used on tubes of same diameter in the same assembly
- All complex shape tube ends that get welded need surface prep for welding

Welding tubes:

- Weld round tubing is intended for butt welded custom tube welding that would be difficult to use welding jigs such as exhaust manifolds. Tooling is not required.
- Spaceframe tubing should use Weld and be cost per linear distance of weld. Tooling “Welds-Welding Fixture” must be used.

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

OP NUMBER

- OP number is purely for organizing purposes and teams can use any way they want.
  - For example if multiple parts are in the same assembly the OP numbers can be numbered in a way to show relationships between different processes
  - One part is 10.1, 10.2, 10.3 etc.
  - Another part could be 20-1, 20-2, 20-3 etc.
- Fasteners and installation processes should be with the part itself
  - Ex. the control arm bolts and installing the bolts should be listed on the control arm page

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

FRONT LOWER CONTROL ARM - EXAMPLE

- **Lower control arm**
  - Parts
    - Machined components in parts
    - Control arm tubes in parts
  - Materials
    - Rod end, Suspension
    - Bearing, Spherical
  - Process
    - Weld
    - Assembly of control arm itself (install rod ends and bearing)
    - Assembly of control arm to vehicle (This could also be put in a different assembly page)
    - Hand start
    - Ratchet
    - Reaction tool
  - Fasteners
    - Bolt
    - Nut
    - Washer
  - Tools
    - Welds-Welding Fixture
  - Attachments
    - Drawing(s) of control arm assy
    - Drawing(s) of individual machined components

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

FRONT LOWER CONTROL ARM – EXAMPLE
Materials

Tubing dimensions listed in description. List the length of tubing when possible.

Machined part raw materials are solid round bar with 1mm added to all surfaces.

All material dimensions are listed.

Materials

	Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit Cost	Subtotal	
↕1	Tubing, Steel	Front Lower A-Arm Tubes 0.75" x 0.035" x 1m length	10	0.398 kg						1	0.8955	0.90	
↕2	Steel, Mild (per kg)	Front Lower A-Arm Inserts 21mmDia x 20mmLong	20	0.054 kg						2	0.1215	0.24	
↕3	Steel, Mild (per kg)	Spherical Housing 32mmDia x 16mm Long	30	0.1 kg						1	0.225	0.22	
↕4	Steel, Mild (per kg)	Gusset	40	0.026 kg						1	0.0585	0.06	
↕5	Rod End, Suspension	Rod Ends 1/4"	50	6.35 mm						2	7.0161	14.03	
↕6	Bearing, Spherical	Front Lower A-Arm Bearing 3/8" ID	60	9.54 mm						1	7.7303	7.73	

Add Material

Subtotal $23.18

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

FRONT LOWER CONTROL ARM – EXAMPLE
Processes

Processes section contains the processes for making several different parts of the assembly.

This is ok as long as the processes are labeled.

Fastener installation processes are in the same Assembly BOM location as the fasteners

Processes

	Process	Use	Op Num	Quantity	Multiplier	Mult. Val.	Unit Cost	Subtotal
1	Tube cut	Cut Front Lower A-Arm Tubes	10-1	1.9	Repeat 2	2	0.15	0.57
2	Tube end preperation for welding	Prepare Front Lower A-Arm Tubes for Welding	10-2	4		1	0.75	3.00
3	Machining Setup, Install and remove	Front Lower A-Arm Inserts, Self-Feeding Lathe, 2 per Lower A-arm. 8 inserts per vehicle	20-1	0.1		1	1.3	0.13
4	Machining	Front Lower A-Arm Inserts outer dimensions, quantity=2	20-2	3.32	Material - Steel	3	0.04	0.40
5	Drilled holes < 25.4 mm dia.	Front Lower A-arm insert, 1/4"-28 tap drill hole, .75" hole length (< 4x diameter)	20-3	2		1	0.35	0.70
6	Tapping holes	Front Lower A-Arm insert, 1/4"-28 tap, .75" hole length (< 4x diameter)	20-4	2		1	0.35	0.70
7	Machining Setup, Install and remove	Spherical Housing, Self-Feeding Lathe, 1 per lower A-arm, 10 parts can be made from 1 bar stock	30-1	0.1		1	1.3	0.13
8	Machining	Spherical housing, quantity =1	30-2	5.5	Material - Steel	3	0.04	0.66
9	Machining Setup, Install and remove	Install gusset sheet metal onto laser cut machine, 10 gussets can be cut from 1 sheet	40-1	0.1		1	1.3	0.13
10	Laser Cut	Gusset	40-2	24.745	Material - Steel	3	0.01	0.74
11	Weld	TIG Weld Front Lower A-Arm Tubes, Inserts and spherical housing	70-1	52.25		1	0.15	7.84
12	Weld	TIG Weld Gusset to Front Lower A-Arm Tubes	70-2	18.559		1	0.15	2.78
13	Assemble, 1 kg, Interference	Press Fit Spherical Bearing into A-Arm spherical bearing housing	60-1	1		1	0.19	0.19
14	Assemble, 1 kg, Line-on-Line	Install spherical bearing retaining ring	60-2	1		1	0.13	0.13
15	Assemble, 1 kg, Loose	Loose Install jamb nut onto Rod End	50-1	1		1	0.06	0.06
16	Assemble, 1 kg, Loose	Fasten Rod Ends into Front Lower A-Arm Inserts	50-2	2		1	0.06	0.12

Add Process

Subtotal $18.28

FRONT LOWER CONTROL ARM – EXAMPLE

Materials

Make sure to put a number in Fraction Incl. Usually 1 unless the tooling is used on multiple parts.

Drawing or picture of the CAD assembly model.
Drawings of individual machined parts.
PDF or JPEG

Fasteners

	Fastener	Use	Op Num	Size 1	Size 2	Quantity	Unit Cost	Subtotal
↕1	Retaining Ring, Spiral	Retain Spherical Bearing	10	25.4 mm		1	0.154	0.15
↕2	Nut, Grade 8.8 (SAE 5)	jamb nut for 1/4" rod ends		6.35 mm		2	0.032	0.06

Add Fastener

Subtotal $0.21

Tooling

	Tooling	Use	Op Num	Quantity	PVF	Fraction Incl.	Unit Cost	Subtotal
↕1	Welds - Welding Fixture	TIG Weld Front Lower A-Arms, tubes, spherical housing, gusset	10	5	3000	1	500	0.83

Add Tooling

Subtotal $0.83

Browse the Current Cost Catalog Tables

Materials | Fasteners | Processes | Processes Multipliers | Tooling

Attachments

Title	Type	Actions

All types of file attachments under 25 MB are allowed; however, only Drawings & Photos will be included in the PDF report.

Upload Attachment

File: Choose File | No file chosen

Title:

Type: Engineering Drawing (PDF or JP(

Upload

Only PDF and JPEG will export to the PDF cost report.

✔ Save & Close

MAKE SURE TO SAVE AND CLOSE!!

Frame Assembly typically consists of the Tube frame, Monocoque, any permanent attachments and fasteners that join any sub frames

- Frame assembly
  - Parts
    - Tube Frame
    - Tube Frame weld on attachment brackets
    - Monocoque
    - Monocoque permanent attachments (example: bonded on components)
  - Materials
    - Paint for rust prevention
  - Process
    - Aerosol or brush apply for paint
    - Any process to connect the frame sub assemblies together
  - Fasteners
    - Any fasteners that connect the frame sub assemblies together
  - Tools
    - Welds-Welding Fixture
    - Lamination – Mold Tool for Monocoque with PVF of 120
  - Attachments
    - Drawing or picture of CAD model of the assembly
    - The same drawing(s) submitted for SES with tubes labeled by thickness and color coded.

Tube Frame Assembly typically consists of the Tubing (welded on tabs could also be included)

- Tube Frame
  - Parts
    - Probably none but parts are allowed
  - Materials
    - Tubing (separate each individual size)
  - Process
    - Tube cut (separate operation for each tube diameter)
    - Tube bends
    - Tube end preparation for welding (usually 2x tube cut)
    - Weld
  - Fasteners
    - Probably none but it is allowed
  - Tools
    - Welds-Welding Fixture
  - Attachments
    - Drawing or CAD picture (should identify tube sizes)

Monocoque typically consists of the composite materials and inserts

- Tube Frame
  - Parts
    - Probably none but parts are allowed
  - Materials
    - Composite raw materials
    - Insert raw material
  - Process
    - Lamination, Manual
    - Curing
    - Hand Finishing
    - Assembly
    - Cutting holes
    - Fabrication of inserts
    - Installing inserts
  - Fasteners
    - Probably none but it is allowed
  - Tools
    - Lamination- Mold Tool (PVF=120 for the monocoque)
  - Attachments
    - Drawing or CAD picture (should identify layers and thicknesses)

REAR SUBFRAME – EXAMPLE

- This example is of a rear subframe that would attach to a front monocoque (not pictured)
- Rear subframe has been divided into 2 parts to more easily organize(could be 1 part).

	Part	Part #	Op Num	Part Cost	Quantity	Subtotal	
↕1	Rear Tube Frame	31000-AA	10	223.52	1	223.52	
↕2	Frame Tabs	31001-AA	20	174.03	1	174.03	

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

REAR SUBFRAME – EXAMPLE
Tube Frame

Each tube size cost separately.

Tube size and length listed.

Each tube cut diameter cost separately.

CAD model or drawing of the tube frame assembly (should identify tube sizes)

Materials

	Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit Cost	Subtotal
1	Tubing, Steel	Round 0.75" x 0.035" x 46"	10	0.471 kg						1	1.0598	1.06
2	Tubing, Steel	Round 1" x 0.035" x 63"	20	0.8824 kg						1	1.9854	1.99
3	Tubing, Steel	Round 1" x 0.049" x 232"	30	4.3595 kg						1	9.8089	9.81
4	Tubing, Steel	Round 1" x 0.065" x 78"	40	1.9417 kg						1	4.3688	4.37
5	Tubing, Steel	Round 1" x 0.095" x 116"	50	4.0659 kg						1	9.1483	9.15

Processes

	Process	Use	Op Num	Quantity	Multiplier	Mult. Val.	Unit Cost	Subtotal
1	Tube bends	DOM Bend Frame Tubes	10	16		1	0.75	12.00
2	Tube cut	0.75" Tubing	20	1.905	Repeat 6	6	0.15	1.71
3	Tube cut	1" Tubing	30	2.54	Repeat 28	28	0.15	10.67
4	Tube end preperation for welding	Prepare Frame Tubes for Welding	40	68		1	0.75	51.00
5	Weld	TIG Weld 0.75" Tubing for Frame	50	45.72		1	0.15	6.86
6	Weld	TIG Weld 1" Tubing for Frame	60	726		1	0.15	108.90

Tooling

	Tooling	Use	Op Num	Quantity	PVF	Fraction Incl.	Unit Cost	Subtotal
1	Welds - Welding Fixture	Tube Frame weld fixture, no tabs		36	3000	1	500	6.00

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

REAR SUBFRAME – EXAMPLE
Frame Tabs Materials

Each tab is labeled individually with material thickness noted.

Op numbers used to distinguish thicknesses

Materials

	Material	Use	Op Num	Size 1	Size 2	Area Name	Area	Length	Density	Quantity	Unit Cost	Subtotal	
1	Steel, Alloy (per kg)	Body Tabs .050" thick	10-2	0.0039 kg						7	0.0088	0.06	
2	Steel, Alloy (per kg)	Side Wall Tab .050" thick	10-3	0.0048 kg						16	0.0108	0.17	
3	Steel, Alloy (per kg)	Sensors and Electronics Tabs .050" thick	10-4	0.0028 kg						2	0.0063	0.01	
4	Steel, Alloy (per kg)	Starter Relay and Connector Base Mount .050" thick	10-5	0.0167 kg						1	0.0376	0.04	
5	Steel, Alloy (per kg)	Bell Crank Tab .080" thick	20-2	0.0205 kg						4	0.0461	0.18	
6	Steel, Alloy (per kg)	Damper Tab .080" thick	20-3	0.0144 kg						4	0.0324	0.13	
7	Steel, Alloy (per kg)	Air Tank Tabs .080" thick	20-4	0.0158 kg						2	0.0356	0.07	
8	Steel, Alloy (per kg)	Rear ARB Tab .080" thick	20-5	0.027 kg						2	0.0608	0.12	
9	Steel, Alloy (per kg)	Rear Wing Mounting Tabs .080" thick	20-6	0.0044 kg						8	0.0099	0.08	
10	Steel, Alloy (per kg)	Marriage Tabs .080" thick	20-7	0.046 kg						2	0.1035	0.21	
11	Steel, Alloy (per kg)	A-Arm Tab	20-8	0.0158 kg						16	0.0356	0.57	
12	Steel, Alloy (per kg)	Differential Tab .0125" thick	30-2	0.0103 kg						4	0.0232	0.09	
13	Steel, Alloy (per kg)	Bottom Engine Tab .0125" thick	30-3	0.0213 kg						2	0.0479	0.10	
14	Steel, Alloy (per kg)	Jacking Bar Tabs .0125" thick	30-4	0.0045 kg						8	0.0101	0.08	

REAR SUBFRAME – EXAMPLE
Frame Tabs Processes

1 machine setup process is used per thickness since the raw material weight can be moved by 1 operator.

The other option would be to cost the machine setups for each part but amortize based on how many pieces could be handled together

Processes

	Process	Use	Op Num	Quantity	Multiplier	Mult. Val.	Unit Cost	Subtotal
1	Machining Setup, Install and remove	Install .050" thick material into laser cutter	10-1	1		1	1.3	1.30
2	Laser Cut	Body Tabs	10-2	17.71	Material - Steel	3	0.01	0.53
3	Laser Cut	Side Wall Tab	10-3	221.76	Material - Steel	3	0.01	6.65
4	Laser Cut	Sensors and Electronics Tabs	10-4	55.92	Material - Steel	3	0.01	1.68
5	Laser Cut	Starter Relay and Connector Base Mount	10-5	24.77	Material - Steel	3	0.01	0.74
6	Machining Setup, Install and remove	Install .080" thick material into Laser cutter	20-1	1		1	1.3	1.30
7	Laser Cut	Bell Crank Tab	20-2	49.24	Material - Steel	3	0.01	1.48
8	Laser Cut	Damper Tab	20-3	40.8	Material - Steel	3	0.01	1.22
9	Laser Cut	Air Tank Tabs	20-4	49.6	Material - Steel	3	0.01	1.49
10	Laser Cut	Rear ARB Tab	20-5	41.18	Material - Steel	3	0.01	1.24
11	Laser Cut	Rear Wing Mounting Tabs	20-6	115.84	Material - Steel	3	0.01	3.48
12	Laser Cut	Marriage Tab	20-7	60.6	Material - Steel	3	0.01	1.82
13	Laser Cut	A-Arm Tab	20-8	251.2	Material - Steel	3	0.01	7.54
14	Machining Setup, Install and remove	Install .125" thick material into laser cutter	30-1	1		1	1.3	1.30
15	Laser Cut	Differential Tab	30-2	44.2	Material - Steel	3	0.01	1.33
16	Laser Cut	Bottom Engine Tab	30-3	33.94	Material - Steel	3	0.01	1.02
17	Laser Cut	Jacking Bar Tabs	30-4	88.4	Material - Steel	3	0.01	2.65
18	Weld	TIG Weld Tabs to Tube Frame	40	750.1		1	0.15	112.52

REAR SUBFRAME – EXAMPLE
Frame Tabs Tooling & Drawings

Each tab needs locating tooling

Quantity needs to match how many tabs you have on the car

Drawings of every tab, photos of every tab on the car, or a CAD model showing tabs on tube frame

Tooling

	Tooling	Use	Op Num	Quantity	PVF	Fraction Incl.	Unit Cost	Subtotal	
↕1	Welds - Welding Fixture	TIG Weld Tabs to Tube Frame	40	80	3000	1	500	13.33	

Add Tooling

Subtotal $13.33

Browse the Current Cost Catalog Tables

Materials | Fasteners | Processes | Processes Multipliers | Tooling

Attachments

Title	Type	Actions

All types of file attachments under 25 MB are allowed; however, only Drawings & Photos will be included in the PDF report.

Upload Attachment

File: Choose File | No file chosen

Title

Type: Engineering Drawing (PDF or JP(

Upload

Save & Close

SUBMIT eAIR

Teams entering any international competition prior to competitions in North America must first inquire with those organizing bodies via their process found online their competition websites.

With the online question and answer system teams should submit requests for additional items to be added to the cost tables through the Rules Q&A system.

To find out how to do this follow this link. However, you must include documentation to support the retail price for the item or we will not be able to add it to the tables.

Excel format AIR - please attach to the online submission through the Rules Q&A system

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

GENERAL RULES QUESTION

With the online question and answer system teams should submit inquiries regarding the rules or onsite operations via the Rules Q&A system.

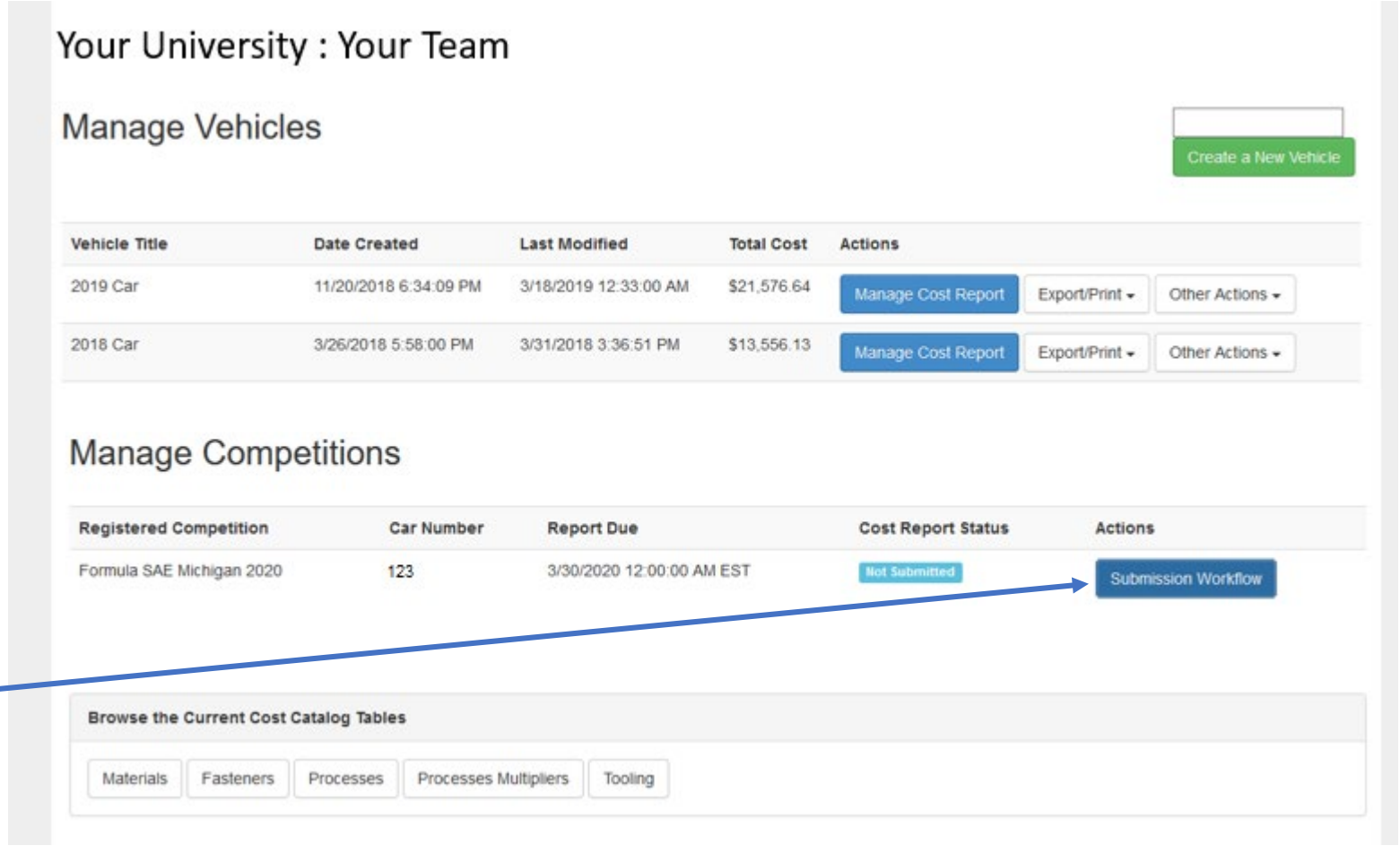
To find out how to do this follow this link.

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

Start at the main page for the Online Cost Report System.

Note the Title of the Vehicle you intend to turn in. The BOM should be completed and all supporting drawings/photos attached at the appropriate levels within the BOM by this point.



In the Manage Competitions section, click the “Submission Workflow” button for the appropriate competition

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

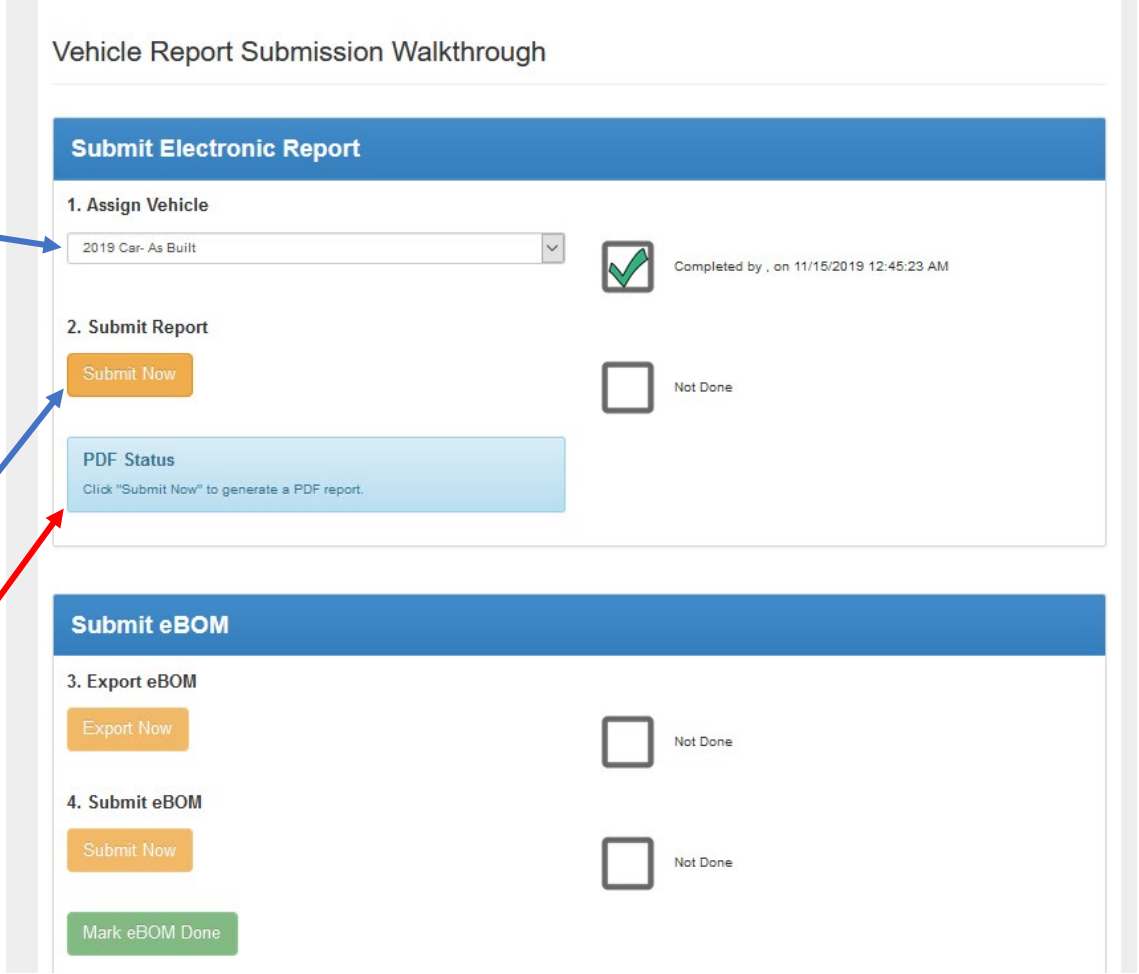
This page walks you through all steps for turning in your cost report for the competition you selected.

First, choose which Vehicle (BOM) will be submitted to this competition

NOTE: Many teams who are attending more than one competition will select the same vehicle here for each competition. That is OK, but in that case, submitting the electronic report for any competition submits it to ALL competitions because the vehicle is shared among them. You still need to export and turn in eBOMs for each competition individually and this page helps ensure that you have done that.

Next, click the Submit Now button.

New in 2020, immediately after you click Submit Now, the system will automatically begin generating a PDF version of your report that will be available to both your team and the cost judges. Therefore, YOU DO NOT NEED TO UPLOAD A PDF REPORT before the due date any longer. Your team will get an email as soon as your PDF has finished and is available.

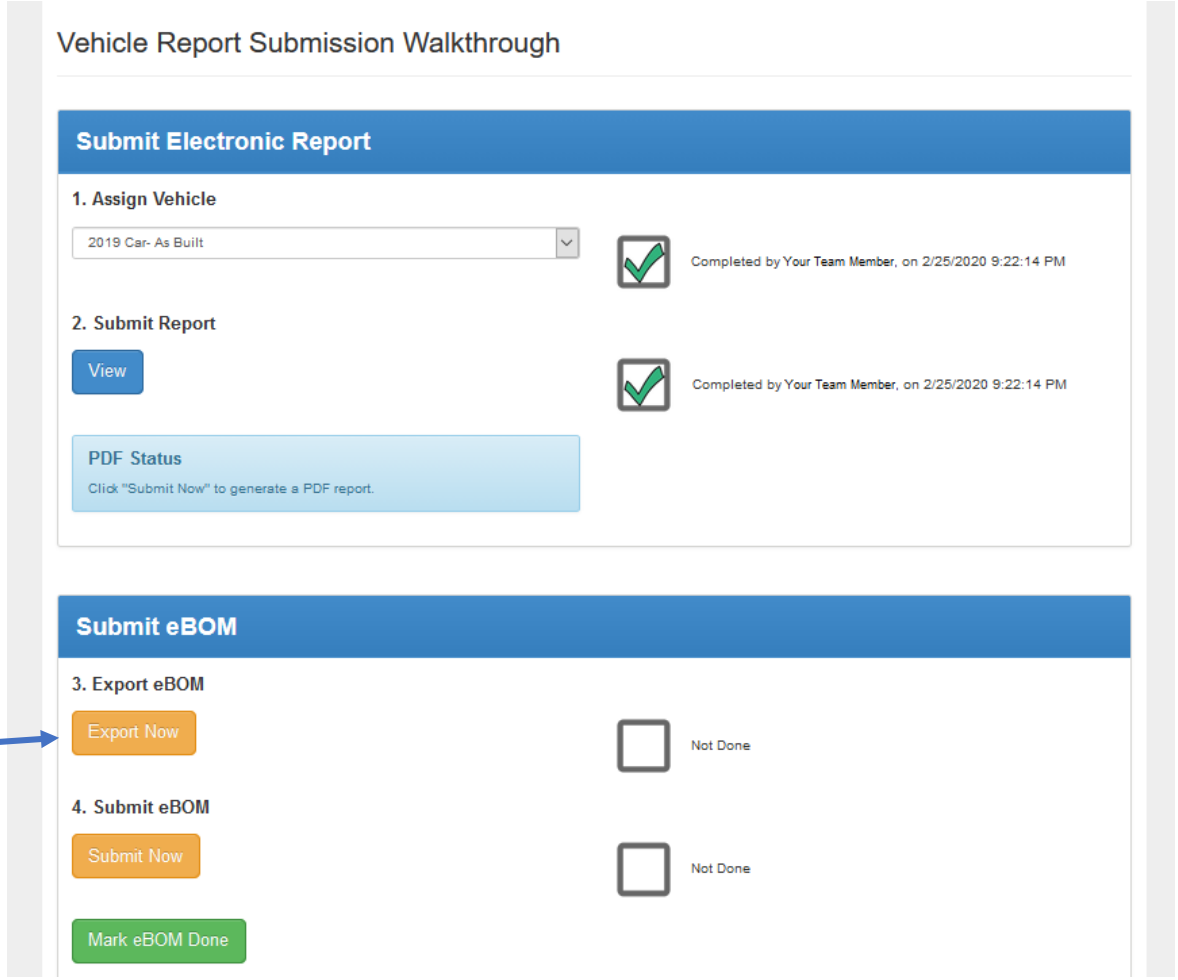


Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

Next, Export your eBOM data into the eBOM template.

Click Export Now to export your eBOM file



Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

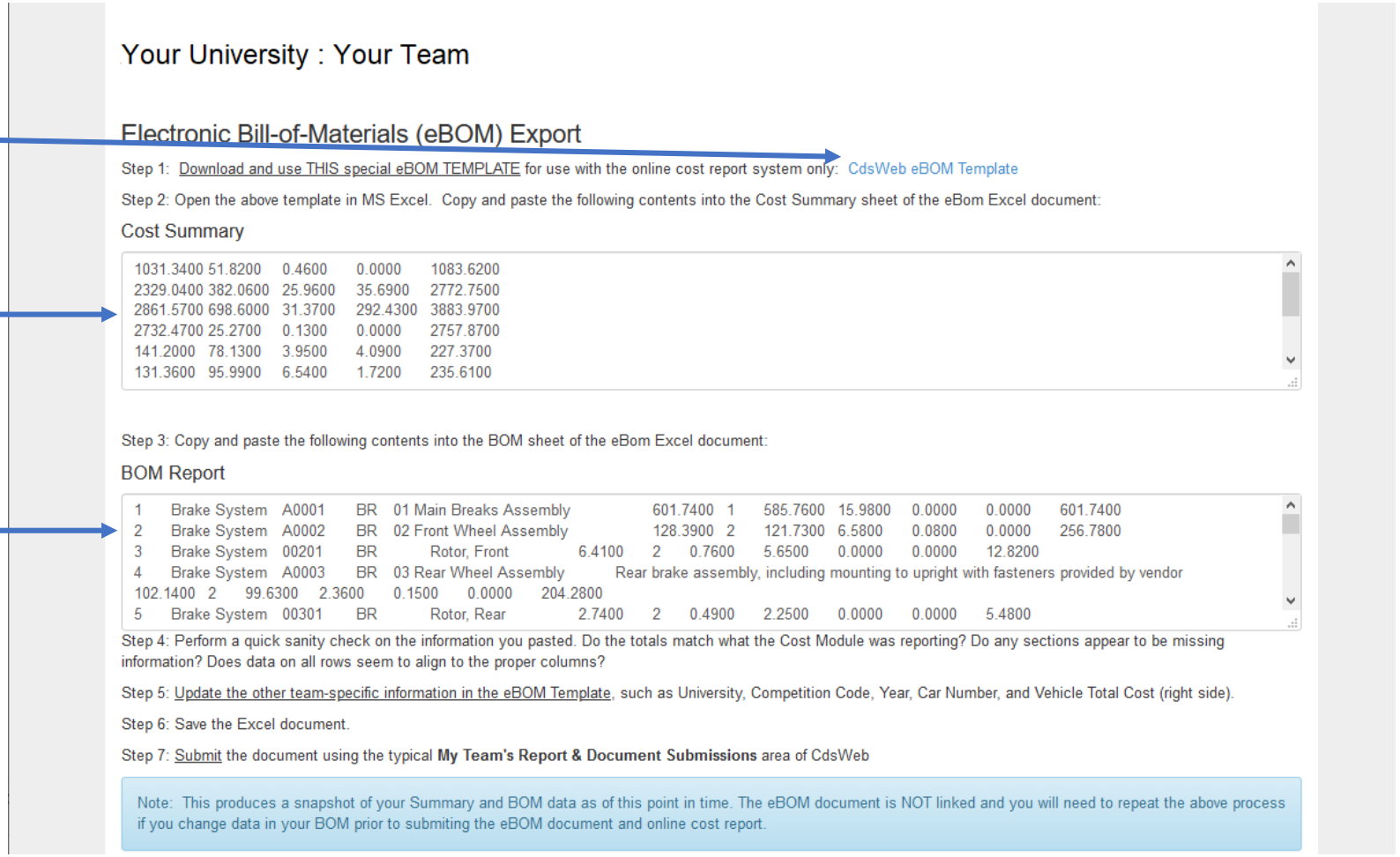
Next, export your eBOM data into the eBOM template.

Download the blank template file

Click here to select all this data, copy it, then paste it into page 1 of the template

Click here to select all this data, copy it, then paste it into page 2 of the template

Quickly sanity-check the data, Update your team information (University, etc.) in the eBOM, then save it



Your University : Your Team

Electronic Bill-of-Materials (eBOM) Export

Step 1: Download and use THIS special eBOM TEMPLATE for use with the online cost report system only: CdsWeb eBOM Template

Step 2: Open the above template in MS Excel. Copy and paste the following contents into the Cost Summary sheet of the eBom Excel document:

Cost Summary

```
1031.3400 51.8200   0.4600    0.0000    1083.6200
2329.0400 382.0600  25.9600   35.6900   2772.7500
2861.5700 698.6000  31.3700   292.4300  3883.9700
2732.4700 25.2700   0.1300    0.0000    2757.8700
141.2000  78.1300   3.9500    4.0900    227.3700
131.3600  95.9900   6.5400    1.7200    235.6100
```

Step 3: Copy and paste the following contents into the BOM sheet of the eBom Excel document:

BOM Report

```
1  Brake System  A0001  BR  01 Main Breaks Assembly                601.7400  1  585.7600  15.9800  0.0000  0.0000  601.7400
2  Brake System  A0002  BR  02 Front Wheel Assembly                128.3900  2  121.7300  6.5800   0.0800  0.0000  256.7800
3  Brake System  00201  BR  Rotor, Front  6.4100  2  0.7600  5.6500  0.0000  0.0000  12.8200
4  Brake System  A0003  BR  03 Rear Wheel Assembly  Rear brake assembly, including mounting to upright with fasteners provided by vendor
102.1400  2  99.6300  2.3600  0.1500  0.0000  204.2800
5  Brake System  00301  BR  Rotor, Rear  2.7400  2  0.4900  2.2500  0.0000  0.0000  5.4800
```

Step 4: Perform a quick sanity check on the information you pasted. Do the totals match what the Cost Module was reporting? Do any sections appear to be missing information? Does data on all rows seem to align to the proper columns?

Step 5: Update the other team-specific information in the eBOM Template, such as University, Competition Code, Year, Car Number, and Vehicle Total Cost (right side).

Step 6: Save the Excel document.

Step 7: Submit the document using the typical **My Team's Report & Document Submissions** area of CdsWeb

Note: This produces a snapshot of your Summary and BOM data as of this point in time. The eBOM document is NOT linked and you will need to repeat the above process if you change data in your BOM prior to submiting the eBOM document and online cost report.

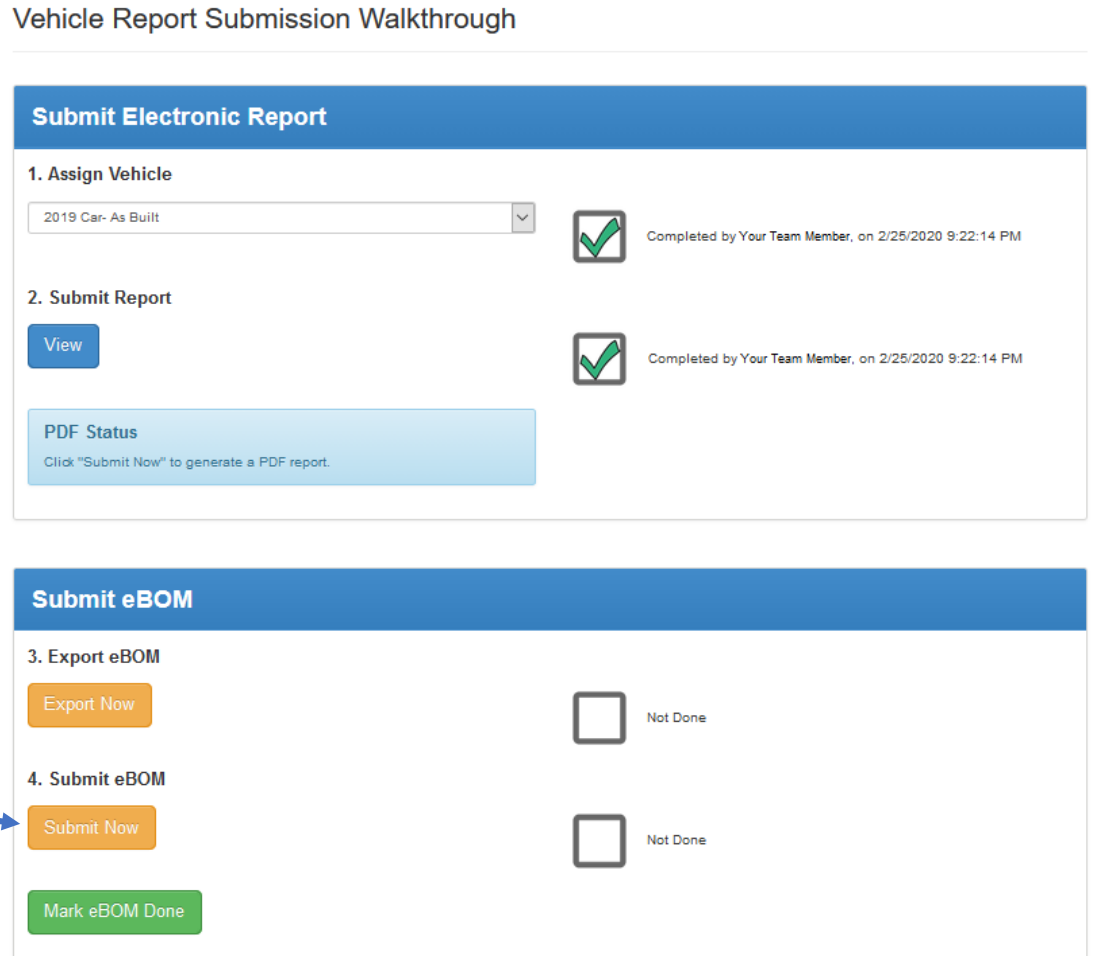
Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

Return to the Submission Workflow page.

Next, upload your eBOM data in the My Team Submissions area.

Click Submit Now to open the My Team Submissions page



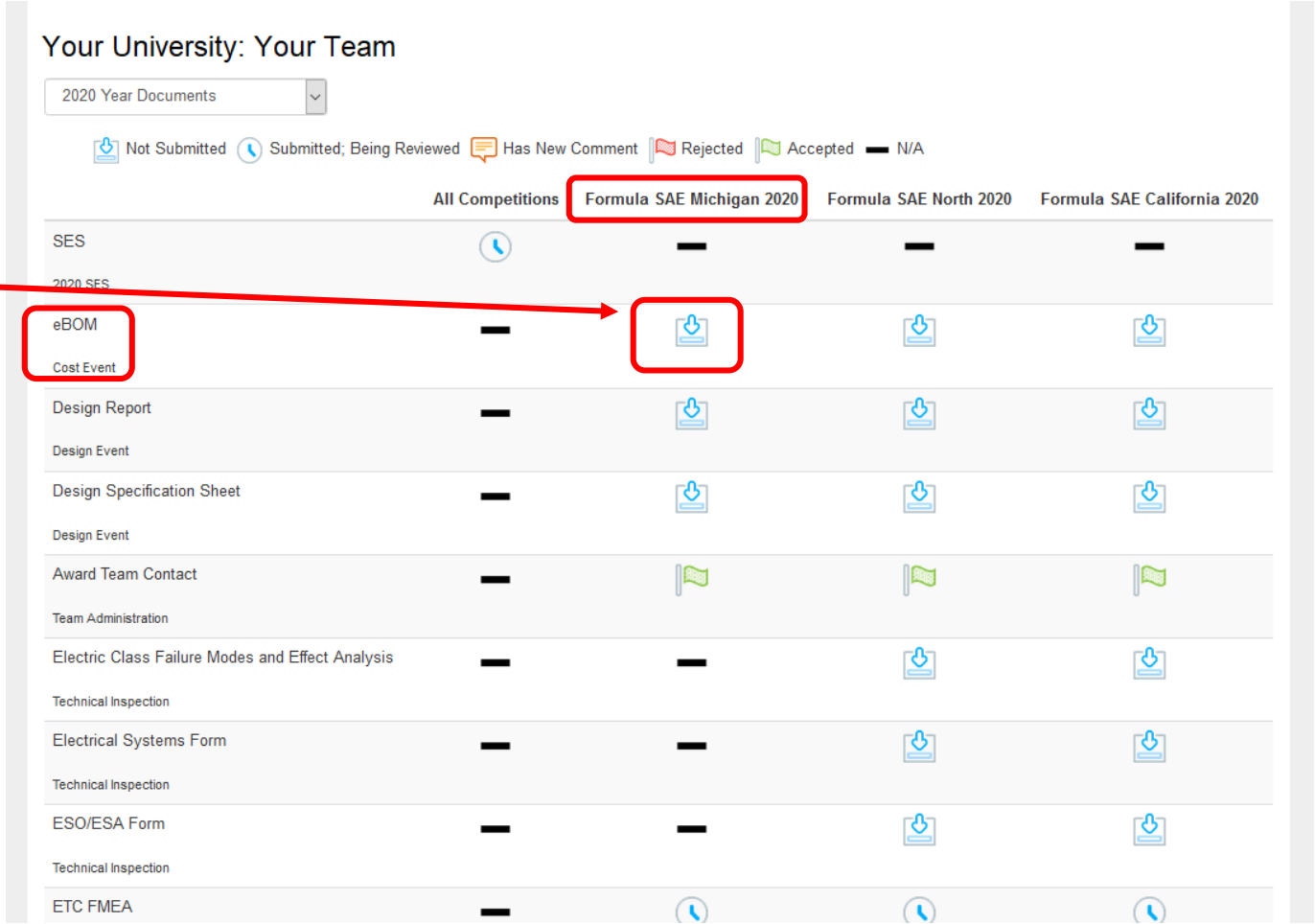
Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

Next, upload your eBOM data in the My Team Submissions area.

Locate the correct submission slot for the Competition that you previously selected

Click on the icon to submit a document for that submission



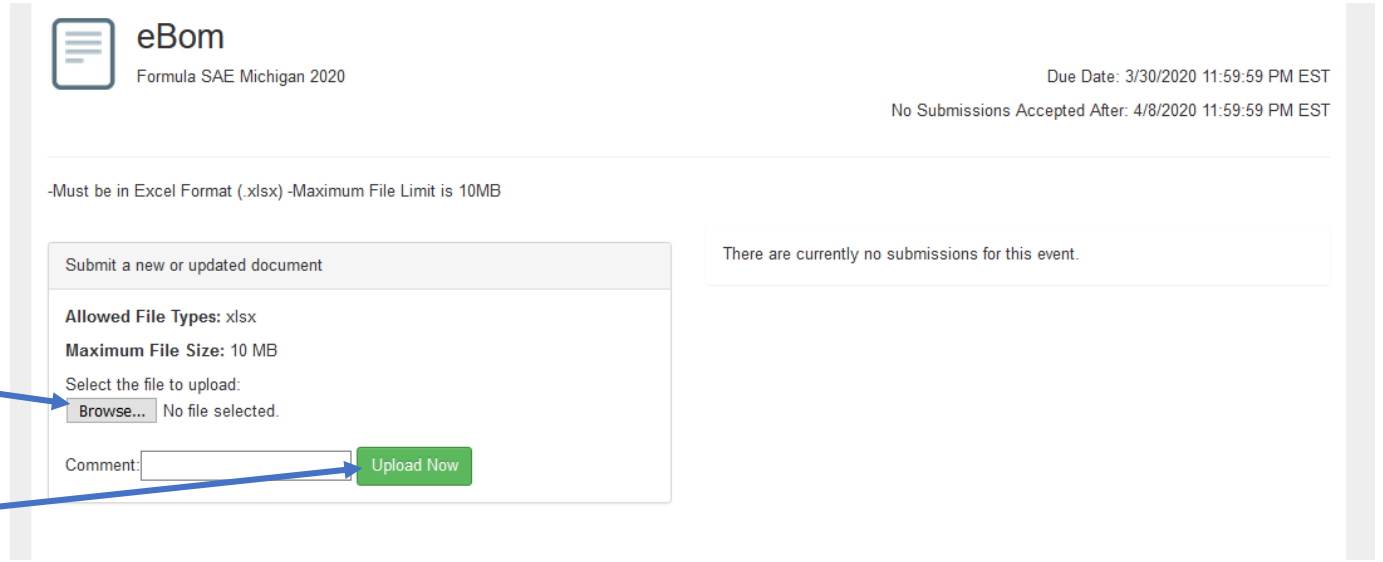
Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

Next, upload your eBOM data in the My Team Submissions area.

Browse to select the eBOM Excel file you previously saved that contains the exported eBOM data

After selecting the appropriate file, click Upload Now.

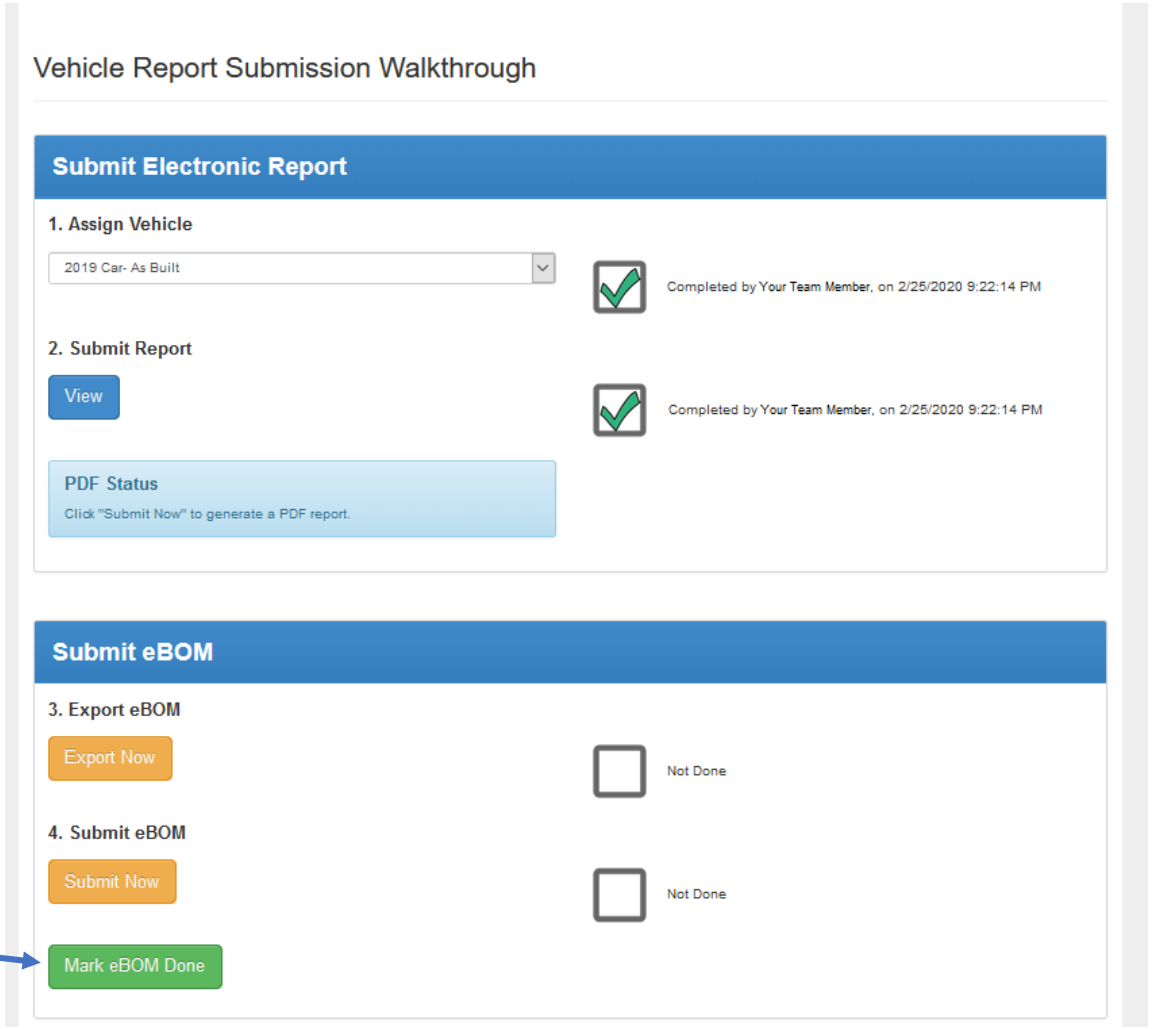


Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

Return to the Submission Workflow page.

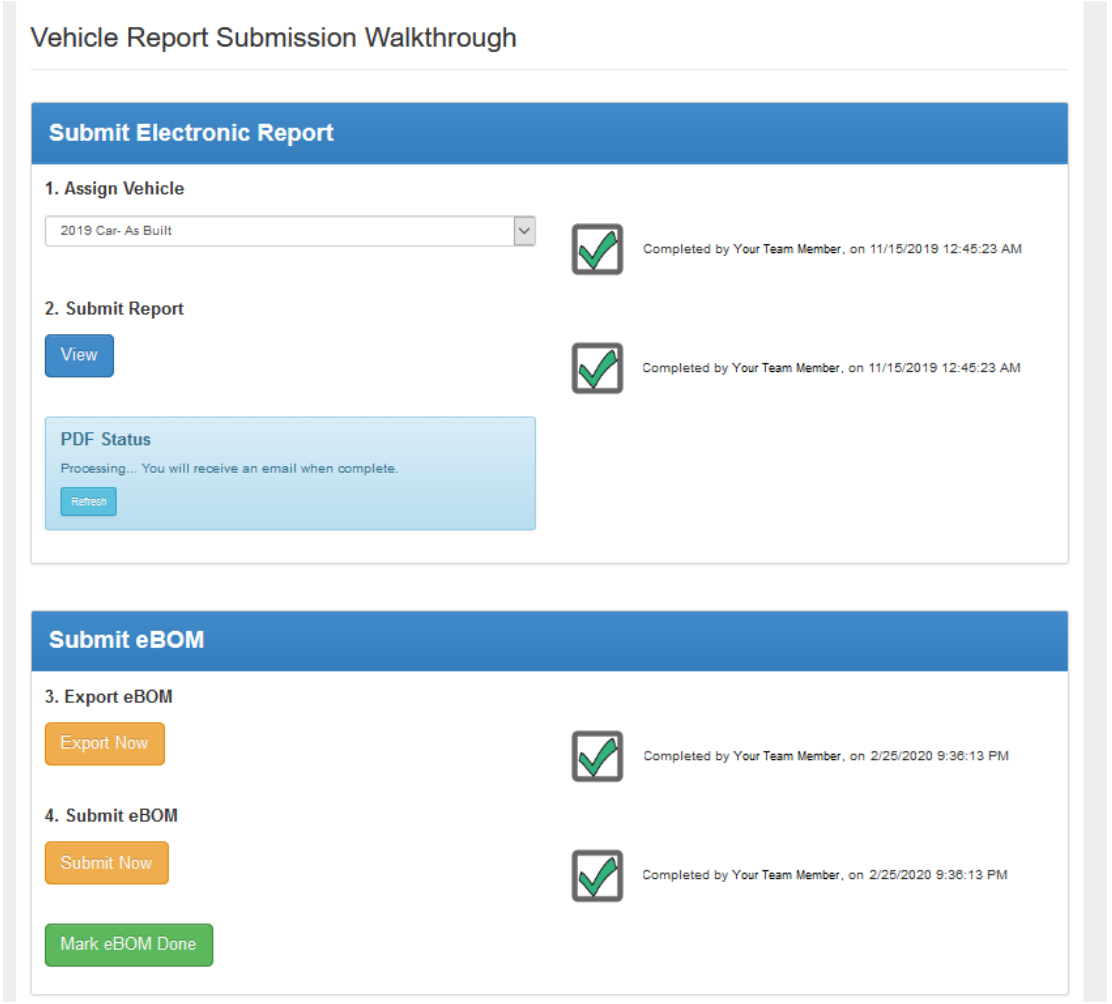
Click the Mark eBOM Done button to record (for your team) that you have submitted the eBOM for the competition you selected.



Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

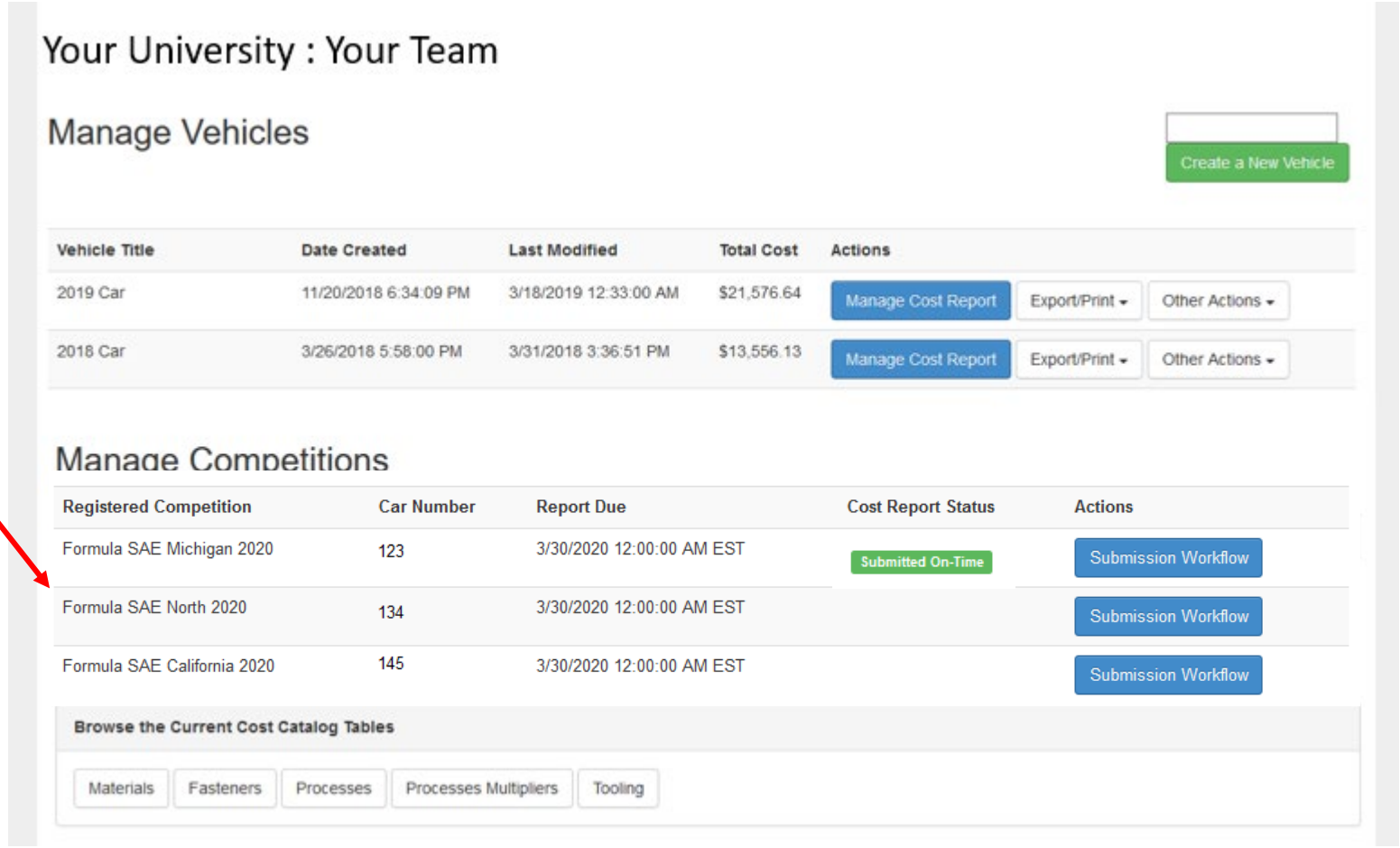
You have now completed the Submission Workflow **for the selected competition**.



Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

IF ATTENDING MULTIPLE NORTH AMERICAN COMPETITIONS, your team must repeat this Submission Workflow process for each competition listed in the Manage Competitions section!



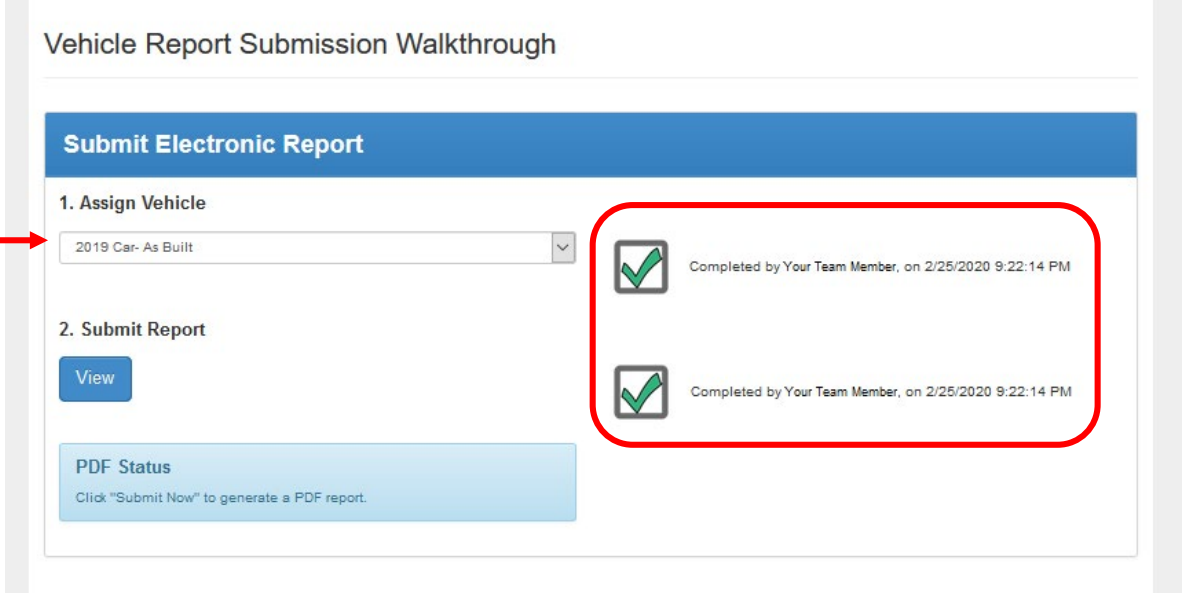
Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

HOW TO TURN IN YOUR COST REPORT

When following the Submission Workflow for a second or third competition for the season,

IF you select a vehicle that has already been “Submitted” for another competition, steps 1 and 2 will already show as completed. This is normal.

Proceed to step 3 to export the eBOM data and continue the remainder of the process as done before.



Copyright © SAE International. Further use or distribution is not permitted without permission from SAE

SAE CONTACT

With all other inquiries you may email collegiatecompetitions@sae.org.

Be sure to include the following in your email:

1. Full university name
2. Team Name and Car Number
3. Competition registered for
4. Purpose of email

Copyright © SAE International. Further use or distribution is not permitted without permission from SAE