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Tesla Model Y Benchmark Reports

\$1,000,000 Analysis for \$89,000 USD

Purchasers of this 2000+ page report will receive:

- a. Vehicle and Zone Executive Summaries
- b. Zone Eye-Catching Features
- c. Zone Quick Cost Estimate Report
- d. Zone Quick-Costed Bill of Material in PDF format
 - Weights and most materials and suppliers identified
- e. Electrical Topology
- f. **Cooling Topology** *(full details available for purchase in separate Thermal Systems Report)*
- g. **Vehicle Fit, Finish & Quality report (FFQ™)**

**Individual Reports are Available for Those
Only Interested in Specific Vehicle Areas**

- | | |
|---|---------------------|
| ○ Zone 1 Body and Chassis | \$32,000 USD |
| ○ Zone 2 Controlling Electronics | \$38,000 USD |
| ○ Zone 3 Interiors and Safety | \$30,000 USD |
| ○ Zone 4 Powertrain and Battery Pack | \$45,000 USD |
| ○ Electrical Topology | \$ 5,000 USD |
| ○ Thermal Systems Report | \$15,000 USD |

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Tesla Model 3 to Model Y Side-by-Side Report

\$400,000 Analysis for \$35,000 USD



Description of the Analyzed Tesla Model Y

Premium Package

- ❖ The Tesla Model Y vehicle which Munro analyzed is the Dual Motor All-Wheel Drive Performance model with Performance Upgrade.
- ❖ It is a Premium Package with Autopilot, Carbon Fiber Spoiler, Performance Pedals, and Performance Brakes.
- ❖ Prior to Munro purchase, the car was never driven.
- ❖ Munro documented findings related to eye-catching features, weights, number of parts, materials and suppliers where possible, and conducted a complete Munro Vehicle Quick Cost Analysis.

Report Delivery

- ❖ All reports and accompanying deliverables will be made available for easy access through a secure File Transfer Protocol (FTP) site.
- ❖ A user-friendly PDF format will help ensure that subscribers can easily locate a wide range of materials in addition to the reports.
- ❖ The large reports utilize hyperlinks within a table of contents to facilitate the ability to easily navigate throughout the contents and quickly find specific data and information to meet user needs.



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Model Y Benchmark Report

- ❖ The Benchmark Report is highly advantageous for OEMs or Tier Suppliers looking to effectively compete and expand share in new EV markets.
- ❖ The report is a comprehensive analysis of all four Zones of the vehicle.
- ❖ This report contains descriptive and pictorial detail on every facet of the vehicle.
- ❖ Those who choose to purchase the report will receive:
 - a. Vehicle Executive and Zone Summaries
 - b. Zone Eye-Catching Features and Quick Cost Estimate Report with Zone Summary Costed Bill of Material.
 - c. Complete Vehicle Summary Costed Bill of Materials (CBOM) in PDF format with associated weights.
 - d. The Vehicle Summary and Zone Summaries consolidate Munro's technical findings as related to features, performance and technology implementation.

- OR -

Individual Zone Reports

- ❖ Zone Reports are designed to accommodate Tier Suppliers or non-automotive companies looking to enter the EV market.
- ❖ Zone Reports are similar to the full report and contain descriptive and pictorial detail on every facet of the Zone from manufacturing through assembly, including cost analysis.
- ❖ Individually purchased Zone Reports include:
 - a. Zone related component weights, materials and suppliers (as possible) and Munro Quick Cost estimates.
 - b. Summary Zone Quick Costed Bill of Materials (CBOM)



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Vehicle or Zone Summary Costed Bill of Material

- ❖ The costed bill of material is a consolidated view of the information presented in the Vehicle reports or an individually purchased Zone report.
- ❖ The bill of material is in an indented format and includes:
 - Part name
 - Material
 - Supplier (as available)
 - Total Cost
 - Weight
 - Quantity
 - Total Weight

2020 Tesla Model Y							
Symbol Name	Material Name	Supplier Name	Total Cost*	Weight (kg)	Item Qty	Total Cost* (Total)	Weight (kg) (Total)
Rear Shock Assembly	Multiple						
Rear Coil Spring Assembly	Commodity Item						
Rear Spring Bottom Pad	NBR						
Rear Coil Spring	Commodity Item						
Rear Spring Top Pad	NBR						
Bolt Lwr Control Arm to Rear Cradle Assy	Commodity Item	-	\$0.93	0.1180	1	\$0.93	0.11
Nut Lower Control Arm to Rear Cradle Assy	Commodity Item	-	\$0.60	0.1492	2	\$1.20	0.29
Bolt Suspension Link Toe to Rear Cradle Assy	Commodity Item	-	\$0.10	0.0322	2	\$0.20	0.06
Bolt Suspension Link Toe to RR Cradle	Commodity Item	-	\$0.44	0.1055	2	\$0.88	0.21
Washer Suspension Link Toe to RR Cradle	Commodity Item	-	\$0.11	0.0278	2	\$0.22	0.06
Nut Suspension Link Toe to RR Cradle Assy	Commodity Item	-	\$0.06	0.0189	2	\$0.12	0.03
Bolt Upper Top Control Arm to RR Cradle Assy	Commodity Item	-	\$0.45	0.1142	2	\$0.90	0.22
Nut Upper Top Control Arm to Cradle	Commodity Item	-	\$0.10	0.0322	2	\$0.20	0.06
Bolt M12 Lower Suspension Link Rear to RR Cradle	Commodity Item	-	\$0.31	0.0863	2	\$0.62	0.17
Bolt Upper Control Arm Link to RR Cradle	Commodity Item	-	\$0.32	0.0863	2	\$0.64	0.17
Nut Upper Control Arm Link to RR Cradle Assy	Commodity Item	-	\$0.07	0.0212	2	\$0.14	0.04
Nut M10 Swaybar Link to Swaybar	Commodity Item	-	\$0.05	0.0147	2	\$0.10	0.02
Bolt M6x1x15 ABS Sensor Wire Brkt to RR Knuckle	Commodity Item	-	\$0.02	0.0071	2	\$0.04	0.01
Mounting Bracket, RR Sups. Assy, RH	Steel 1018 - Coil	-	\$0.88	0.2724	1	\$0.88	0.27
Mounting Bracket, RR Sups. Assy, LH	Steel 1018 - Coil	-	\$1.03	0.2735	1	\$1.03	0.27

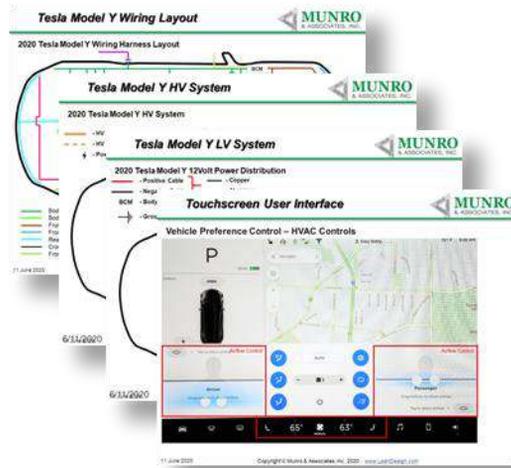
Side by Side Summary Example



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Electrical Topology

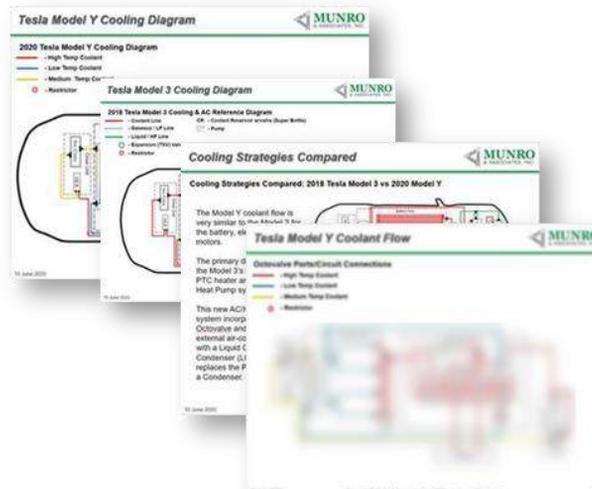
- ❖ This report includes electrical and electronic component location, major HV and LV wire harness layouts, connection points, touchscreen user interface screen shots and hydraulic brake system topology.



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Cooling Topology

- ❖ This report outlines the cooling lines and connections for coolant and refrigeration fluids. Both the heating and cooling circuits are illustrated.





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Fit, Finish & Quality report (FFQ™)

- ❖ The Fit, Finish & Quality Audit (FFQ™) is a thorough yet non-intrusive evaluation of the Tesla Model Y.
- ❖ The purpose is to analytically document a new buyer’s “first time” experience - what they may see, hear and feel.
- ❖ The FFQ™ contains gap and flushness dimensions, 4-corner weights, and operating forces.

Functional Efforts

2020 Tesla Model Y

Location	1st Readings (N)	2nd Readings (N)	3rd Readings (N)	Average (N)	Notes:
External Handles					
Front Door Driver (Open/Unloc)					
Front Door Driver Fully Open (C)					
Front Door Driver 1/2 Open (C)					
Front Door Driver 1/3 Open (C)					
Front Door Passenger (Open)					
Front Door Passenger Fully Op					
Front Door Passenger 1/2 Ope					
Front Door Passenger 1/3 Ope					
Left Rear Door (Open/Unlock)					
Left Rear Door Fully Open (Clo					
Left Rear Door 1/2 Open (Close					
Right Rear Door (Open/Unlock)					
Right Rear Door Full Open(Clos					
Right Rear Door 1/2 Open(Clos					
Liftgate (Unlock Button)					
Liftgate (Close Button)					

Vehicle Weight and Dimensions

2020 Tesla Model Y

Vehicle Weight

Left Rear
481.71 kg
1062 lbs.
23.84%

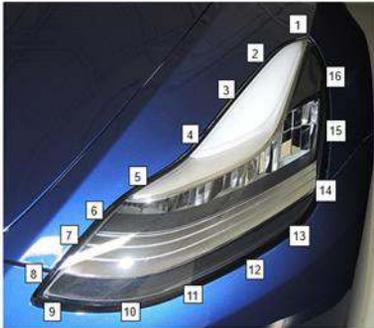
Rear
1018.31 kg
2245 lbs.
50.39%

Right Rear
536.60 kg
1183 lbs.
26.55%

Exterior Fit and Finish: Lighting

2020 Tesla Model Y

Left Head Lamp



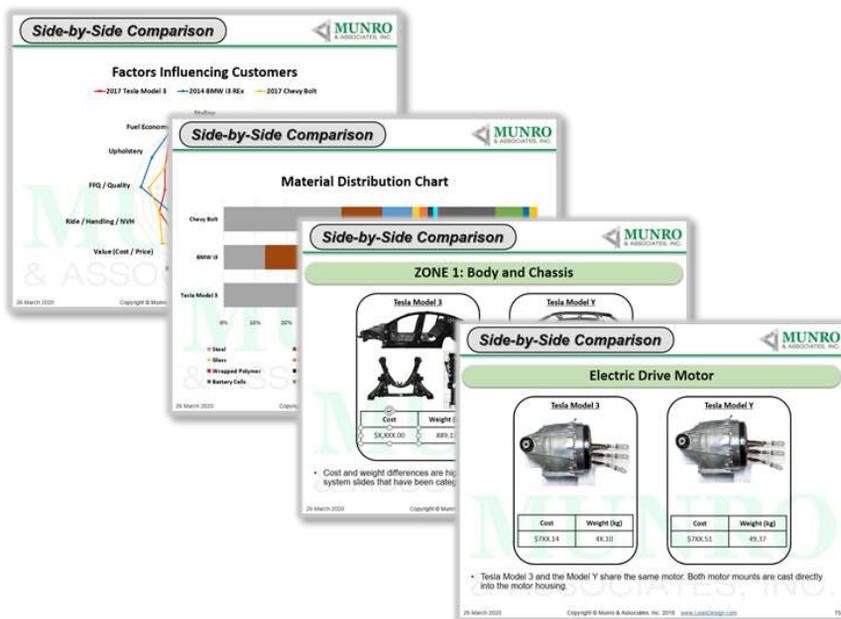
Location	Gap	Flush
1	2.5	+1
2	2.5	0
3	2.5	0
4	2.5	0
5	1	+1
6	0.5	+2
7	1	+2
8	2.5	+2
9	3	+4
10	2.5	+4
11	2.5	+3
12	2	+2
13	2.5	+2
14	2	0
15	2	+1
16	1.5	+1



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Side by Side Analysis

- ❖ The Side by Side Report is a description and cost comparison of the differences between the Tesla Model Y and Model 3. Items of comparison are generally cost, weight and part count.
- ❖ Included is a spider diagram comparing many functions that are related to Fit and Finish, Ergonomics and weight distribution. The spider diagram evaluates the vehicle on multiple dimensions, such as styling, reliability, price, safety, weight, configuration, NVH, handling & riding, maintenance, etc..
- ❖ Munro will also compare materials and their usage. The Material Distribution chart provides information related to usage and proportional distribution in the compared vehicles.





FAQ (Frequently Asked Questions)

- ❖ Was Tesla involved in the study?
No. Neither Tesla proprietary costs nor any Tesla Model Y supplier's quoted costs were used in this study.
- ❖ Is there any Tesla Model Y proprietary (stolen) IP in this report?
No. All data was developed through Munro's proven methodologies, analyzing Munro's purchased production Tesla Model Y vehicles
- ❖ Are the components costed using USMCA costing centers?
Yes, Munro includes labor, factory floor cost, taxes and SG&A for OEM or Tier Suppliers.
- ❖ Is this a Costing or Pricing report?
This is a Costing Report. Pricing has too many variables.

Legal Disclaimers & Sales Condition

- ❖ How can I see the sample report before purchasing?
Please contact your regional Munro salesperson. They can provide sample information in digital PDF format NOTE: critical data will be hidden in the sample.
- ❖ Is Purchaser allowed to Reproduce, Distribute, Disseminate, Photocopy, Fax, or Transmit report content internally within the Purchaser's organization?
Yes, ONLY INTERNAL Company correspondence is authorized.
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- ❖ If questions arise, is a Munro expert able to visit and explain the report's details?
It is not included in the price of report.
Munro will visit if the customer pays for the travel and a daily fee.
- ❖ If there are limited specific questions on the content of report, is it possible for a Munro representative to support phone or e-mail communication?
Yes, please contact the local area salesperson and we will respond with our answers.