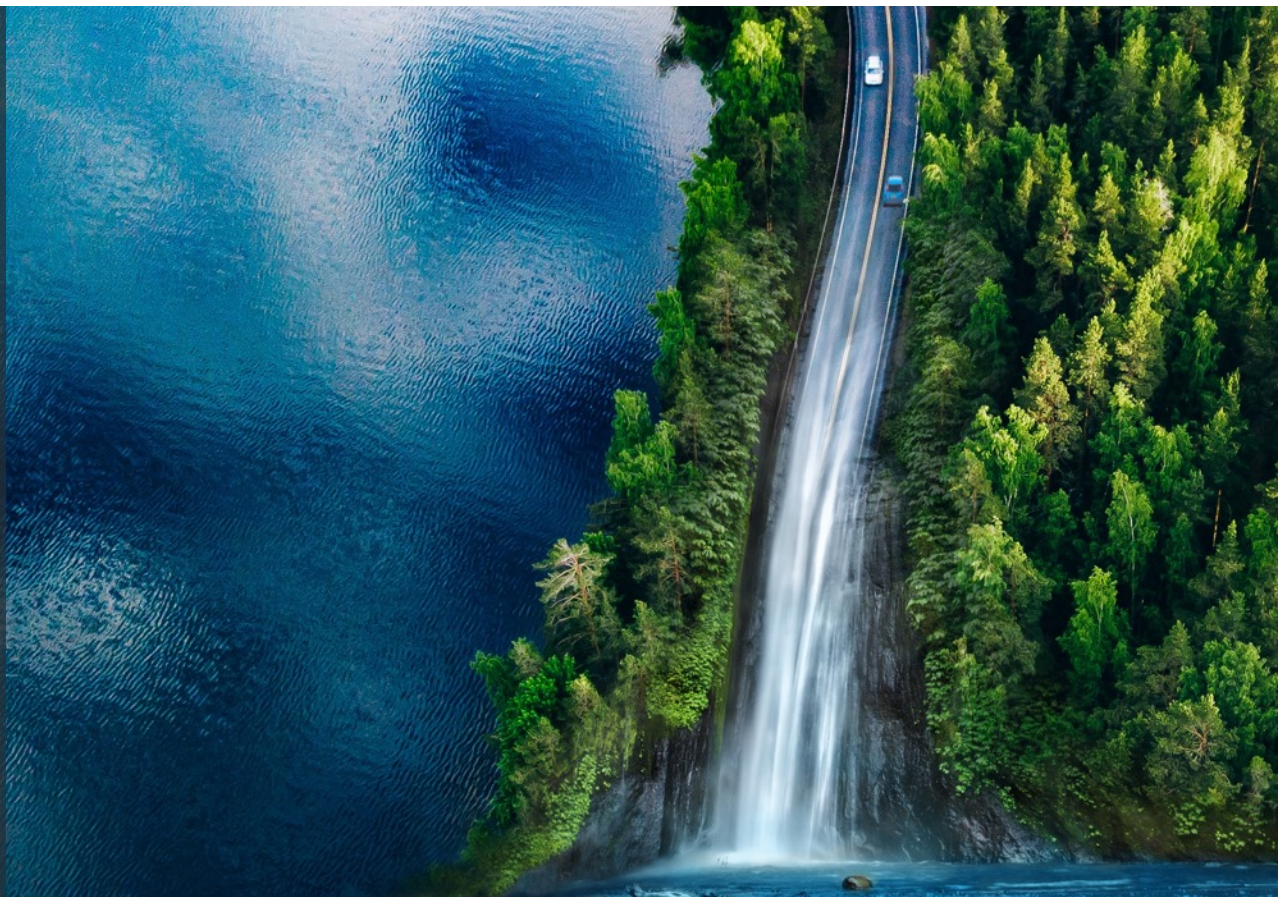


SAE Overview



An aerial, black and white photograph of a complex highway interchange. The image is heavily blurred, creating a sense of motion and speed. Light trails from cars are visible, forming a dense network of lines that crisscross the frame. The overall composition is circular and symmetrical, with the interchange's design elements repeating in a radial pattern.

Mobility, Advanced

SAE is a trusted partner when the right advice matters most, the gateway to life-changing connections, and a mountain of collected knowledge. Through it, our contributors make the lives of billions safer, more affordable, and more sustainable, exemplifying the impact that future engineers aspire to.

Meet SAE

Mobility, Advanced™



Our History

Mobility, Advanced™



1905

SAE® is founded
in New York City



1906

First SAE technical
meeting



1912

First SAE Standard
published

Wright Aeronautical Laboratory
ORVILLE WRIGHT, DIRECTOR
Dayton, Ohio

1916

Orville Wright
becomes a member
of SAE



1917

First SAE
aerospace
standard
published



1936

First SAE National
Aircraft Production
Meeting



1974

SAE moves
headquarters
to Warrendale, PA

Our History

Mobility, Advanced™



1976

Collegiate Design Series established with Mini Baja event

1986

SAE Foundation™ formed



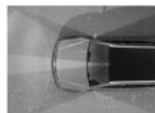
1990

A World in Motion® is established as science program for 4th-6th grade students



2009

SAE J1772™ Standard released defining charging connector for electric vehicles



2014

SAE J3016™ Standard released defining levels of automated driving

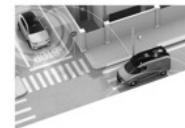
2018

SAE partners with industry to advance hybrid/electric aircraft propulsion



2019

SAE and industry partners form AVSC™ to address autonomous vehicle safety



SAE International Roles & Functions

Mobility, Advanced™

- **ROLES IN INDUSTRY:** Professional Association, SDO, Publisher, STEM Educator, Professional Workforce Development, Knowledge & Networking Resource



NEUTRAL FORUMS

Address society's mobility needs



RESOURCES

Engineering resources to advance mobility



EDUCATION

STEM programs and professional courses, building the workforce



COMMUNITY

Global community pulling from each other's collective wisdom



STANDARDS

Consensus-based standards that advance quality, safety and innovation



Standards Development



Standards Development Process & Timeline

Mobility, Advanced™

Average time to publication – 18 months

Need Established
Industry/Authority



Governance
Council Oversight
Ballot 28 Days



Technical Development
Committee Expertise
Ballot 28/14 Days



Publication
Entrance into
Marketplace

Global Industry Drivers & Influencers

Mobility, Advanced™



Industry Focus:

- **Environment – Decarbonization**
 - EV / Hybrid Technology
 - Battery Tech / Traceability – “Battery Passport”
 - Alternative Propulsion i.e., Hydrogen
 - infrastructure
- **Safety**
 - ADAS / Automated / Connected Car / V2X
 - Infrastructure
 - Micromobility

SAE Ground Vehicle Standards

Mobility, Advanced™

Advanced Technology Focus Areas



Mobility for Elderly and Persons with Disabilities



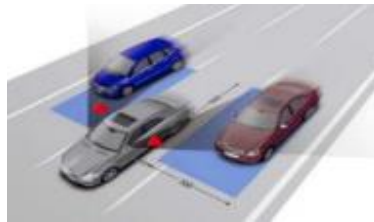
Driver-Vehicle Interface



Driving Automation Systems



EV/Hybrid/FC Vehicle & Battery



Active & Passive Safety



Functional Safety

GV Standards – Focus Areas (cont'd)

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Wireless Charging



Electronics System Reliability



Vehicle Electronics Cyber Security



Connected Vehicles



Micro & Shared Mobility

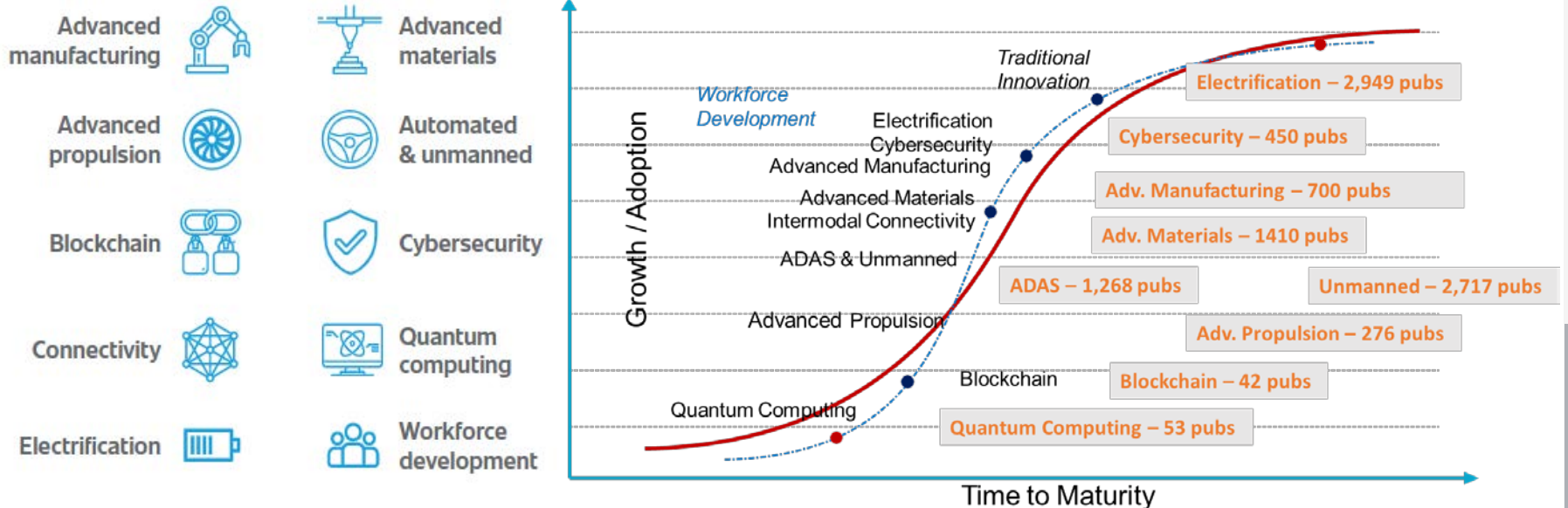


Intelligent Transport Systems

Aerospace & GV Technology - Centricity

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SAE's Elite 10 Topics – technology-centric, not sector-centric



Note: Total publication count is over 232,500. Includes standards, papers, journals, EDGE, eBooks and magazine content. Numbers are approximations based on searches for the specific term above.

SAE Aerospace Standards by the numbers

Mobility, Advanced™



11,000+
participants

Technical Committees

180

105

Years of SAE aerospace standards



59

countries

25

New committees & steering
groups since 2017

7,800+
Active documents

1,300+
Works in Progress

5

Steering Groups

SAE Aerospace Standards

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SAE in the Aerospace Industry

Among its most important and well-recognized aerospace consensus works are SAE's internationally adopted AS (Aerospace Standards), AMS® (Aerospace Material Specifications), ARP (Aerospace Recommended Practices), and AIR (Aerospace Information Reports) documents.

A small sampling of SAE International's standards that can be found on today's typical aircraft.

Approximately 1800 SAE International standards are used in the development of a typical aircraft





Information Products & Digital Innovation



Digital Products & Innovation

Mobility, Advanced™

Exists to provide stakeholders with

- high-quality technical content that enhances its customers' abilities to deliver their products efficiently to market,
- conduct effective research and
- meet emerging challenges directly.

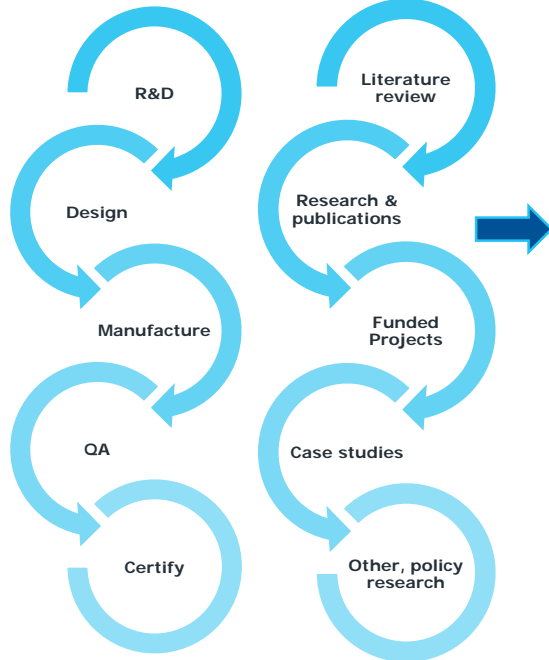
We supply essential information and insight that advances our customers' missions and goals. We deliver the world's most reliable and comprehensive collection of mobility engineering resources.

Customers, Content & Value

Mobility, Advanced™

Corporate

Academia



Content

Standards
(47,000+)

Journals
(9,500+)

Technical papers
(150,000+)

Books (900+)

EDGE
reports (90+)

Other products
(20,000+)

Features

Intuitive
search

Alerts

Project
Folders

Redlining

Citations

Formats



Value

Reduced time
to research

Stay current
with cutting-
edge research

Copyright
compliance

Standards they
can "trust"

Increased
productivity

Expense
Management

Standards Features & Tools

Mobility, Advanced™

▼ Summary & Details

Scope & Rationale

Topic(s)

2D3D

Data Sets

Issuing Committee

References

Revisions

Provide Feedback

Export
Print
Share
Add To
View/Annotate
Download

Newer Version Available

BOLT, MACHINE - DOUBLE HEXAGON EXTENDED WASHER HEAD, CLOSE TOLERANCE SHANK, UNS S66286, 130 KSI MIN, .1900-32 UNJF-3A

Revised
Published January 04, 2017 by [SAE International](#) in United States

Aerospace Standard
AS91101C

Sector: Aerospace

Issuing Committee: E-25 General Standards for Aerospace and Propulsion Systems

Language: English

Rationale

DELETE .015 MINIMUM RADIUS AT TRANSITION OF WRENCH PAD TO BASE FLANGE, DELETE CIRCLED S SYMBOL (REGARDLESS OF FEATURE SIZE) FROM STRAIGHTNESS FCF, AND ADD NEW NOTE FOR USE OF EXISTING INVENTORY.

Recommended Content

BOLT, MACHINE - DOUBLE HEXAGON EXTENDED WASHER HEAD, CLOSE TOLERANCE SHANK, UNS

Part Number: MS9110-02

Thread Size - UNJF-3A MOD

1900-32

L Length

.521-.541

INCH

AutoCAD, >=V14

BeckerCAD

Caddy+, SAT-V4.2

Catia, >=V5

Catia, (Macro) >=V5

CoCreate Modeling, >=2007

Creo Elements/Direct Modeling, >=17.0

Creo Parametric, 9

Creo Parametric, 8

Creo Parametric, 7

Creo Parametric, 6

Creo Parametric, 5

Creo Parametric, 10

PC2x3, mesh attributes

NX, >=12

NX, 2306

NX, 1990

NX, 1953

NX, 1926

NX, 1999

NX, 1872

NX, 1847

One Space Modeling, >=2007

Solid Edge, 2023

Solid Edge, 2022

Solid Edge, 2021

Solid Edge, 2020

Solid Edge, 2019

SolidWorks, >=2015

SolidWorks, (Macro) >=2001+

powered by PARTsolutions

Product Dimensional Data

Part Number	Material	K	Max	Approx mass - per unit	Approx ma
MS9110-02	Corrosion and Heat Res				

Document Comparison

Downloaded from SAE International by SAE International [Sales Team] at 15:31 GMT 2023-06-17

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Printable Version | Show Redline Key



AS9110-02
AEROSPACE STANDARD
Issued 1979-07
Reaffirmed 2004-02
Revised 2020-01-10-06

BOLT, MACHINE - HEXAGON HEAD, DRILLED 6 HOLES, PD SHANK, AMS5731, UNS S66286, .5625-18 UNJF-3A

TEAE25E-25 General Standards for Aerospace and Propulsion Systems

RATIONALE

FIGURE FIGURE 1 REDRAWN. THREAD SPECS UPDATED. OPTIONAL SHAPE FOR LIGHTENING HOLE ADDED. TABLE RETURNED TO

Part Number: MS9110-02

Thread Size - UNJF-3A MOD

1900-32

L Length

.521-.541

INCH

3D Preview Download Help

©2022 powered by CADENAS

powered by PARTsolutions

Product Dimensional Data

Part Number	Material	Procurement Specification	G Grip	K	Max	Approx mass - per unit	Approx ma
MS9110-02							

Getting Closer to Mobilus 4.0..

Mobilus 3.x

The screenshot shows the SAE Mobilus 3.x website. The header includes 'SAE Mobilus' and navigation links for 'Select Language', 'Help', and 'Login'. The main navigation bar contains 'SAE Mobilus Home', 'Search', 'Dashboard', 'Learning Center', 'Browse', and 'Standards'. The main content area features a large banner with the text 'Your Destination for Mobility Engineering Resources' and 'Over 207,000 Publications'. Below this is a search bar and a 'Standards' section with a gear icon and the text 'SAE International standards are internationally recognized as the best scientific data to globally optimize the processes, practices, and products that advance technology in the mobility industry.' At the bottom, there are sections for 'About SAE MOBILUS' and 'Browse SAE MOBILUS Resources' with a table of publications.

Publications by TOPIC	BOOK Publications	Publications by EVENT
Bodies and Structures	2009 Ultimate GD&T Pocket Guide 2nd Ed	International Conference on Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility
Cybersecurity	Fundamentals of Vehicle Dynamics	
Maintenance and Aftermarket	Reliability and	

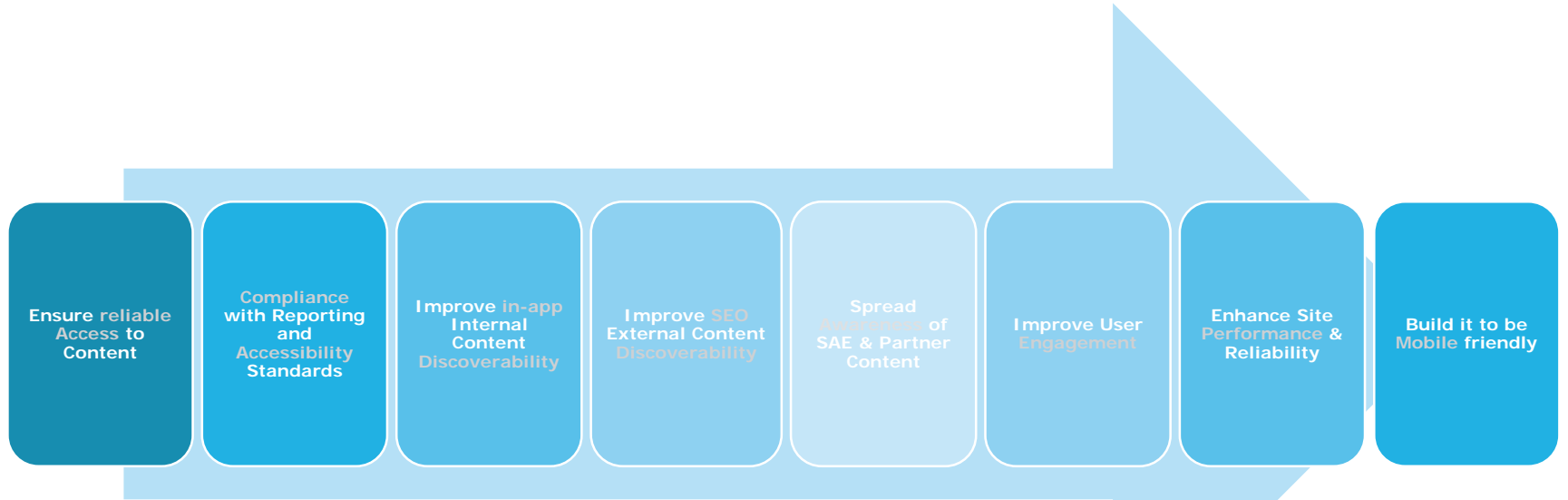


Mobilus 4.0

The screenshot shows the SAE Mobilus 4.0 website. The header includes 'SAE Mobilus' and navigation links for 'Overview', 'About Us', and 'Contact Us'. The main navigation bar contains 'Home', 'My Library', and 'My Library'. The main content area features a large banner with the text 'Your Destination for Mobility Engineering Resources' and a search bar. Below this are statistics: '207,181 Publications', '44,317 Standards', and '170,712 Peer Reviewed'. There are also sections for 'Announcements for SAE Mobilus', 'Quick Browse', and 'Industries'.

Industries			
Automotive 144,300 items	Aerospace 15,070 items	Commercial Vehicle 10,457 items	Medical 1,871 items
Government/Defense 142 items			

SAE Mobilus 4.0: Objectives



ACE D MAP



*Not only UI –
Ecosystem upgrade*

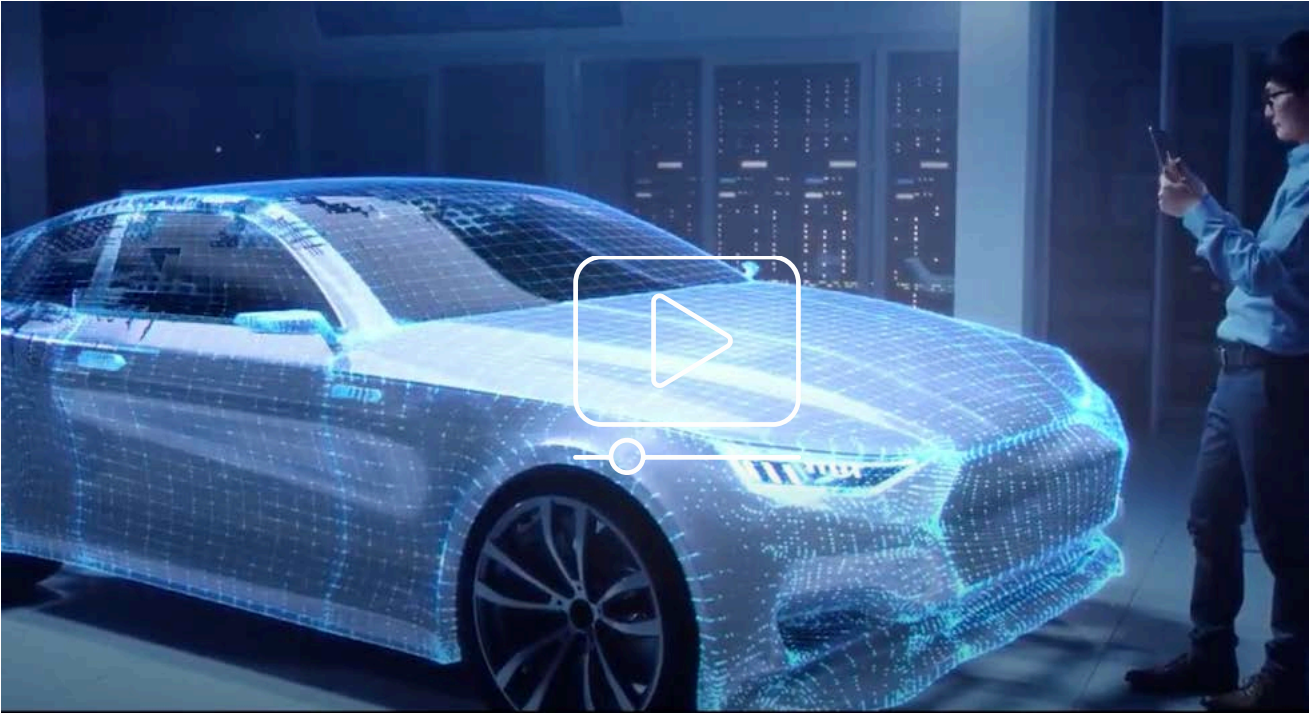
Aerospace

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Automotive

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Commercial Vehicle

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