

# VEHICLE INTEGRATIONS

# FOR AUTONOMOUS APPLICATIONS

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### **DATASPEED INTEGRATIONS** For Autonomous Vehicle Applications

Dataspeed engineers and business consultants are highly skilled in the ever-growing autonomous space and can guide your team in developing an action plan for building your automated vehicle. Whether your team is just entering the field of autonomy or are experienced technology experts looking to expand a fleet, Dataspeed's high-quality vehicle integrations are sure to accelerate your project.



#### **Integration Capabilities**

- Lidar
- Radar
- Camera
- Computer
- Instrumentation Mounting
- GPS/GNSS/IMU Navigation
- Sealed Cable Entry
- Communication and Networking
- Data Display and Visualization
- Power Solutions
- Software Solutions

#### Instrumentation Storage

Trunk 80/20 mounting racks are built to conveniently store computers, power distribution systems, and other hardware. Racks feature removable panels and optional fan-powered cooling systems.

#### **Cable Management**

Partner with Dataspeed to design custom cables for your unique sensor suite. Not only do our engineering capabilities encompass design, but the fabrication and installation as well. Select between easy-access exterior routing or hidden wiring through the vehicle paneling.



#### Magnetic Lidar Mount

Simply install your compatible Lidar to the pre-drilled mounting bracket, slide over the optional shroud, and place on any ferrous metal surface.





#### Instrumentation Bars

Both off-the-shelf and custom bumper bars and roof racks are available for quick sensor mounting. Bars can be modified to smoothly wrap around the vehicle and can be color-matched and powder coated.

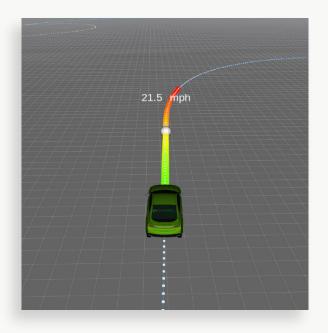
### **Fully Integrated**

Looking for a showroom-style vehicle? Our engineers are happy to discuss seamless integration options that include 3D CAD modeling and fabrication.



#### **Autonomous Software Solutions**

Dataspeed offers autonomous software development packages to simplify your AV project. Utilizing the requested or recommended suite of sensors and computing hardware, our team has the expertise to develop highly-engineered software to achieve the required autonomous functionality.



- **NavRoute<sup>™</sup>:** Path following system designed for easy control of processing pipeline and trajectory programming
- Object Detection and Avoidance: Inputs data from lidar sensors to detect objects in the vicinity of a vehicle in real time, and acts upon the object detections to slow down or stop for obstructions in the vehicle's path
- **Sensor Calibration Tool:** Aids users in setting up the extrinsics calibration of a suite of sensors on a vehicle
- Highway Driving: Provides out-of-the-box automated highway driving functionality including Lane Keeping, Adaptive Cruise Control, and Automated Lane Change

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## About Dataspeed

Dataspeed is a leading provider of autonomous vehicle (AV) solutions. Our innovative Drive-by-Wire Kit, intelligent Power Distribution System, and custom sensor suites are some of the key offerings that set us apart from the competition. With an extensive range of use-cases, Dataspeed's AV technology is suitable for a wide range of industries, including academia, government & defense, research institutions, startups, and more. Our vehicle systems engineers have extensive experience creating custom hardware and software solutions. Contact us today to discuss how Dataspeed can jump start your AV research and development.

