



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

- RADAR
- Lidar
- Camera
- Computer
- Instrumentation Mounting
- GPS/GNSS/IMU Navigation
- Sealed Cable Entry
- Communication and Networking
- Active Cooling Racks
- 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.

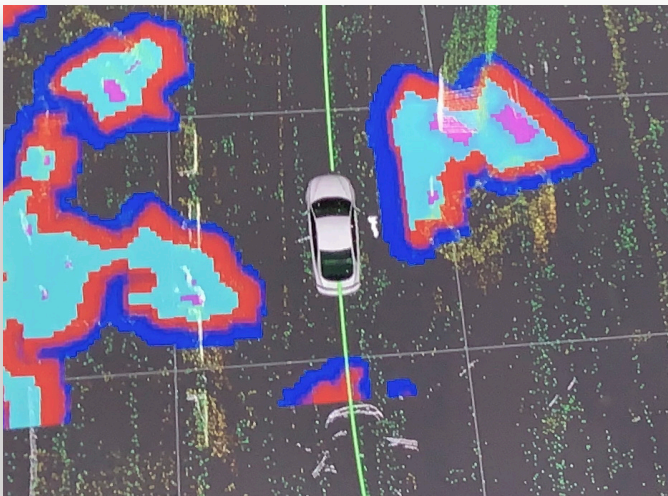
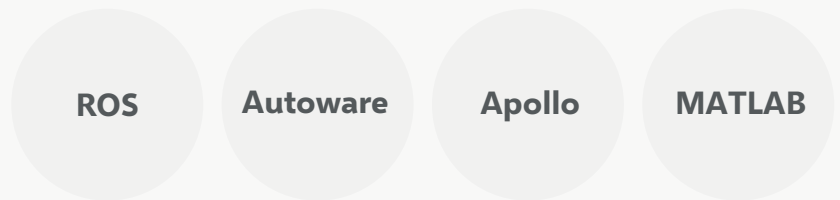
● Fully Integrated

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 can engineer the full circle autonomous solution for 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.



- **Camera Intrinsic and Extrinsic Calibration:** Estimating the distortion of the lens and calculating the mounting position relative to the vehicle
- **GPS Calibration:** Measurement of offsets
- **Lidar Calibration:** Detect orientation of ground plane and use point cloud landmarks to calculate position and yaw angle relative to the vehicle
- **Object Detection and Avoidance**
- **Breadcrumb Path Following**

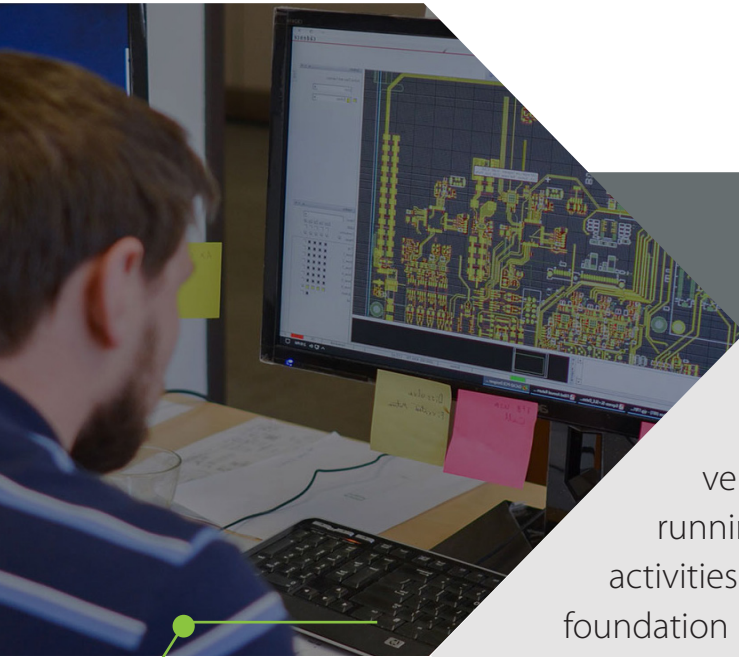




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About Dataspeed

Dataspeed Inc., located in Metro Detroit, provides complete autonomous research and development vehicle integrations that enable engineers to get up and running quickly on their algorithm, sensor, or data research activities. Dataspeed's industrial-grade by-wire solutions form the foundation of these platforms. Hundreds of customers have trusted Dataspeed's team of expert software and hardware engineers with their driverless car projects, including sensor developers, mobility-as-a-service providers, teleoperators, research institutions, and government agencies. Dataspeed is dedicated to building innovative driverless solutions that are safe, reliable, and cost-effective.

