

Detroit Engineered products (DEP), is an engineering services, product development, software development, consulting and talent acquisition company. Since its inception in 1998 in Troy, USA, DEP is now a global company with footprints in Europe, China, Korea, Japan, and India. DEP uses the accelerated and transformed product development process, accomplished by utilizing our proprietary platform, DEP MeshWorks, which rapidly reduces the development time of products for all segments.

With the rapid overhaul in the mobility industry, technology evolution is favoring key trends including automation, electrification, connectivity, shared mobility, and 360° engineering enhancements. Innovations in mobility segment are geared towards both better experiences for the consumer and societal good. DEP solutions are aimed to both revolutionize existing technologies and create new & exciting concepts. In turn, to optimize automation and automotive connectivity. We aim to provide the customers & consumers a future driving experience that is lighter, smarter, faster and safer.

As a forerunner in technology & engineering services, DEP with our specialized connected & autonomous vehicles solutions, cater the needs of the different categories of connected car technology including: infotainment, telematics and infrastructure. We have focused services packages on Infotainment with heads-up displays, audio, in-car entertainment, etc., telematics to connect the car allowing it to gather and share data, and infrastructure to bridge the car and the environment.

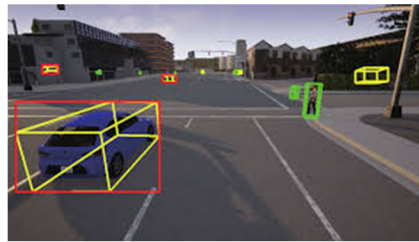


## CONNECTIVITY & ADAS SOLUTIONS



## ADAS Modeling & Simulation

- Carla environment modeling & simulation
- Developing environment testing maps
- Development of test models
- Co-simulation (Carla/Simulink/ROS)
- Integration of different simulation models



## Vehicle Drive Testing

- Scenario based testing following NCAP
- Vehicle Drive Strategy and Implementation
- Vehicle Instrumentation (Drive-by-wire, GNSS, LiDar, NVIDIA AGX)
- Traffic Data Collection
- Video and Test Data creation & validation



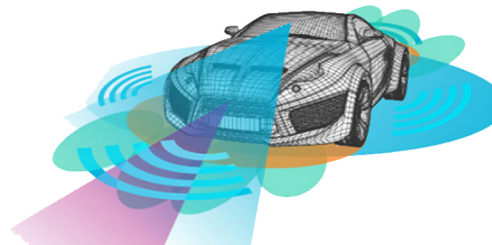
## Validation

- Desktop Level
- System Level



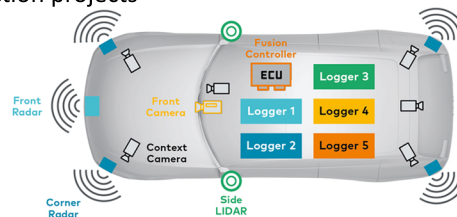
## System Integration

- Electrics, Electronics & Software Integration Testing
- ECU Integration Testing
- Prototype to production
- Feature level Functional Test performance
- Integrated Feature vehicle level performance testing



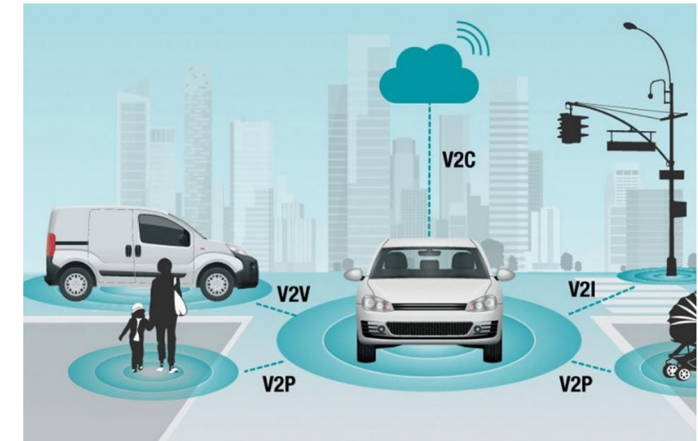
## ADAS Controller Integration and System level testing

- Development of Custom ADAS circuits for research and production projects
- Signal conditioner and signal processing unit
- Camera Systems support for testing and data collection
- LRF processing support
- Master ADAS control unit development which can interface with multiple sensor and perform sensor fusion



## Vehicle Connectivity

Intelligent range of customer-centric and manufacturer-beneficial solutions



• **Vehicle to Vehicle (V2V)** – Exchange of real-time data done in wireless mode. This data would include speed, location, direction of travel, braking, and loss of stability. Comparatively, information transmitted via V2V technology can come from other cars ahead in the path or even visually hidden one in the vicinity. V2V communication has a longer capability range (300 meters) than ultrasonic sensors, cameras, and radars, therefore alert drivers of dangerous situations earlier and more effectively.

• **Vehicle to Everything (V2X)** – V2X connectivity is essential in helping the vehicle make critical decisions. This includes vehicles communication with other vehicles (V2V), infrastructure (V2I), pedestrians (V2P), and networks (V2N). The infrastructure data typically broadcasts traffic conditions and emergency information to drivers. This data can quickly be processed to provide quicker response times for better traffic management and road safety. In turn, these data which are uploaded in cloud is utilized and act as backend for smart cities to power their intelligent transportation systems, or by countless use cases that improve the customer experience.

As a trusted technology partner in mobility sector, DEP provides connected vehicle services to growing connected car ecosystem and infrastructure. Additionally we do supports various design & development projects to optimize vehicle functions.



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