VALUE PROPOSITION

DORLECO
INNOVATIONS FOR SUSTAINABLE MOBILITY

VEHICLE BUILD FACILITY
Build fully integrated vehicle systems including Mechanical, Electrical, Thermal, Controls and Software under one roof

MODULAR PRODUCTS
Plug & play solutions for body controls, EV propulsion, Autonomous driving scenarios and CANbus display

SMART VCU
Easily integrable automotive-grade VCU for electric vehicle supervisory controls with extended engineering support

BESPOKE CONTROLS & SOFTWARE
Customized hardware and software solutions for development and production vehicles

STRATEGIC LOCATIONS
Strategic locations in the USA, Canada, Germany and India to cater to customers around the clock with easy onsite, nearshore and offshore facilities

VIRTUAL & IN-VEHICLE ENGINEERING
Equipped to engineer vehicle systems in virtual/simulated environments and to perform validation engineering on physical systems/vehicles

LIVE TRAINING
Approved provider of IEEE certificates for our live hands-on training programs globally on eMobility & Autonomous vehicle controls & software

DIVERSE APPLICATIONS
Commercial, passenger, farm, defense, marine 2/3 wheeler, low-speed, micromobility and more

Rahul Ram
+1 248-987-2781 | rrahul@dorleco.com | +91 9606765965

Delivery Models
- ✓ Delivered Projects
- ⌛ T&M Engineering
- Consulting Services
- EV/AV Training
- MSP Services

Turnkey Products
- SmartCase (EVCU + ASW)
- ToughCase (EVCU + ASW)
- BodyCase+BodyCode (BCM+ASW)
- RapidBench (Portable HIL Bench)
- SmartView (CANbus/LVDS Display)
- SimEV (Full EV Sizing Simulator)
- ADAS Driving Scenario Designer

IEEE Training Programs
- Computer Vision & Sensor Fusion
- AI / ML / RL / DL
- Python, Matlab, Simulink, Stateflow
- 2-speed Transmission Controls
- RCP on Raptor/Bosch ECU
- Vehicle Network Architecture-CAN
- EV Torque & Thermal Controls
- Drive by Wire Systems & Controls
- Systems Engineering & SYSML

Data Engineering
- CAN Reverse Engineering
- Data Logging
- Data Processing
- Data Analysis
- Algorithm design

Vehicle Integration
- Transmission system design
- Fuse box & PDU design
- Wiring harness & connectors
- Thermal systems integration
- High volt system integration
- Prototype build

Locations
- 🇺🇸 USA
- 🇨🇦 CANADA
- 🇩🇪 GERMANY
- 🇮🇳 INDIA

ABOUT
We develop intelligent eMobility & Autonomous solutions by seamlessly integrating bespoke controls, software, mechanical & E/E systems for sustainable transportation.

SOLUTIONS

Systems & Software
- Systems Engineering
- Requirements Engineering
- Modeling and Simulation
- Control System Design
- Algorithm development
- Autocode / Hand Code
- ASW & BSW development
- AUTOSAR architecture
- Driver Software Development

Controls Integration
- Feature Software Integration
- Application Software Integration
- Complex Device Drivers Integration
- CAN/LIN/ETHERNET Stack Integration
- ASW & BSW Integration
- Controller Architecture Integration VCU, MCU, BMS, ADCU, BCM

Verification & Validation
- Model in Loop (MIL)
- Software in Loop (SIL)
- Processor in Loop (PIL)
- Hardware in Loop (HIL)
- In-vehicle Validation
- Test Automation
- FMEA, RCA, FTA, Pareto
- Code Debugging
- Unit/Regression/Integration/ Acceptance Testing
- Rapid Control Prototyping

Standards & Compliances
- Functional Safety (ISO 26262)
- Cybersecurity (ISO 21434)
- ASPICE
- SOTIF
- MISRA
- AUTOSAR 4.X

DORLECO
INNOVATIONS FOR SUSTAINABLE MOBILITY

PRODUCTS

ADAS DRIVING SCENARIO DESIGNER

The ADAS driving scenario designer provides flexibility to test as many real-world scenarios as required in a simulated environment and calibrate control models for ADAS features. This can include urban as well as highway-based scenarios. Simulate a number of features in the driving scenario designer and convert scenarios to Simulink models for easier analysis. Monitor parameters real-time, work with multiple sensors, and write control algorithms inside the model - all at one place!

VEHICLE SIMULATOR

Full vehicle plug-and-play simulation for performance and energy estimation, management and controls development in Simulink. Provides lateral and longitudinal behavior of all 4-wheel vehicles for system sizing, performance estimation, control design and analysis. Simulates sensors and actuators for drive-by-wire vehicles. Great for MIL and real time driver-in-loop simulation and testing.

SMARTVIEW DISPLAY

The Dorleco SmartView is a fully programmable automotive CANbus/LVDS display.
Developed for multiple applications, it can be hooked up to any VCU and stream real-time data, plots, and/or graphics. Get a customized display with your specific display theme, colors, and infographics.

EVCU & evCODE

The SmartCase and ToughCase are plug-and-play hardware for electric and hybrid vehicle supervisory function.
It comes with full master level controller software - evCode that supports torque estimation, arbitration and actuation, provides optimal control logic for energy management and performance, communication stack for exchange between BMS, MCU, HVAC, ABS and HMI functions.
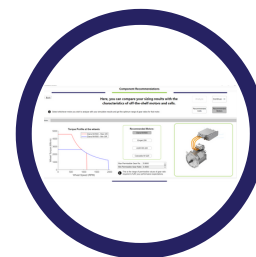
BODYCASE & BODYCODE

The BodyCase is a plug-and-play BCM hardware for monitoring and controlling various electronic accessories in a vehicle's body.
It comes with a fully built body controls software - BodyCode that is ready to be calibrated, flashed and run on a production grade or prototype vehicle. It includes controls logic for exterior and interior lights, windshield wipers, power door locks, anti-theft systems, and other accessories.

RAPIDBENCH

The RapidBench is a versatile and portable HIL bench for light applications.
Take advantage of highly standardized and supported platforms, like MATLAB Simulink and Raspberry Pi for the fastest and easiest setup. Connect the RapidBench to the computer out of the box and flash your first program in minutes.
The RapidBench hardware quickly integrates with the existing workflow. Simply plug-and-play to get started!

SIMEV

The Dorleco SimEV is a plug-and-play full-vehicle simulator for powertrain sizing, component selection, and controls design for battery electric vehicles.
Get assistance with automating various phases for powertrain design, be it selecting the appropriate parameters for the selected vehicle category, simulating the vehicle on multiple drive cycles, and analyzing results with off-the-shelf parts for quick and easy component selection.

Rahul Ram
+1 248-987-2781 | rrahul@dorleco.com | +91 9606765965