



FUTURE-PROOFING CONNECTED VEHICLES



DETECT



FIX



UPDATE

WE ADDRESS ALL THREE STAGES OF VEHICLE SOFTWARE HEALTH

Continuous user-centric development processes create a plethora of opportunities and risks for OEMs that never existed before. Our revolutionary software health solution detects line-of-code faults to predict downtime events, fixes errors on-the-go and enables post-production rollout of new software features with secure, OTA and cost-effective hot updates. Enabling continuous user-centric automotive software rollouts, Aurora Labs' proactive car diagnostics and analytics monitors the software health, detects and identifies software vulnerabilities and collects data regarding lines of code behavior for diagnostics departments. Our Self-Healing Software™ seamlessly guarantees product function-ability even in the event of a software failure and guarantees that all car software will be updated anytime in the future, including software fixes, new functionality and security updates.

LINE-OF-CODE MAINTENANCE™ TECHNOLOGY

In an era where software platforms are driving growth and line-of-code errors are causing major recalls and downtime to vehicles, Aurora Labs' researchers have developed a machine learning based technology for embedded software, a Line-of-Code Maintenance™ technology which introduces three products to the market:

AUTO DETECT

Auto Detect proactively analyses the health and performance of lines-of-code deployed on Automotive ECUs. Auto Detect runs in the background of the operational ECU, analyzing the code behavior and health to identify faults at the code level and predict the probability for a downtime event - enabling the OEM to be proactive.



- Machine learning based
- SW ECU drifting catcher
- SW ECU deviation catcher
- SW ECU downtime probability alert
- Supports AutoSAR, Linux, Android and RTOS
- Less than 3% ECU overhead
- Cloud based management and reporting

AUTO FIX

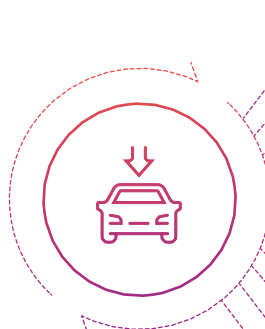
Auto Fix rolls back software to the last known secure and functional line-of-code safe point without requiring dual memory. When a downtime event is recognized, Auto Fix enables rollback in real time to the last safe version, ensuring the car continues to run smoothly



- Instant rollback
- Zero downtime
- No reprogramming required
- Doesn't require dual memory banking
- Doesn't require additional OTA update campaign

AUTO UPDATE

OTA Updating software to close the loop with a clientless hot update solution for zero downtime. Auto Update is a revolutionary DIFF OTA Update - providing a clientless solution for updating any and all ECUs using standard protocols with zero-downtime and without dual memory. Our 3D-Diff™ algorithm creates the industry's smallest update files and the clientless solution uses standard programming protocols to remove the need for integration on the target ECU.



- Clientless
- No changes to bootloader
- No changes to current software distribution channel
- Diff files are standard bin, Intel-Hex or S-record
- Industry smallest Diff update files
- Supports AutoSAR, Linux and RTOS
- Zero downtime
- No reprogramming required
- Doesn't require dual memory banking
- Supports all ECUs from 8bit to high-performance ECUs
- Less than 3% ECU and 1% memory overheads