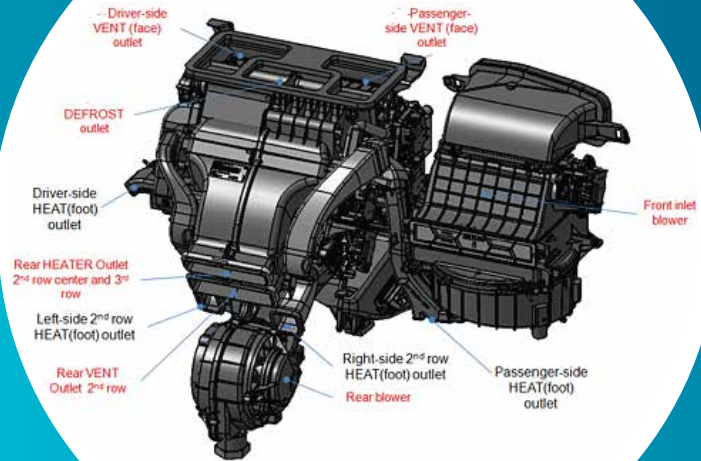


# HVAC ECU

## S/W

# DEVELOPMENT



### ABOUT THE PROJECT

The customer wanted to develop a control software for HVAC systems catering solely to the Automotive markets for PSA, Pininfarina vehicles.



### BUSINESS CONTEXT

The aim of the project was to develop a control software agnostic across different automotive HVAC systems.



## SOLUTIONS/APPROACH

*This project required software expertise to develop the control software of an automotive HVAC system, from the driver to the application. EMA's capabilities also extend to the ECU with or without RTOS.*

- The key deliverables were blower control, flap actuation for intake, hot/cool air mixer, air distribution, fragrance diffusion, diagnosis, UDS, PWM and linear sensor management for temperature, air quality, fragrance diffusion, light detection, system configuration to adopt software to different HVAC systems, high/low CAN, modelling of the logic and algorithms for the fragrance diffusion and comfort management as function of different statuses, example: car speed.

- EMA developed an easy testbench for ECU testing, in order to connect the ECU to an emulated HVAC system, with the possibility of hardware configuration, fault simulation, providing portability.



## WHY EMA?

*EMA has demonstrated depth of experience in its:*


- Software development for Automotive ECU.
- Knowledge of HVAC systems and control.
- Knowledge in control and algorithm simulation in Mat/Simulink.
- Hardware skills in the team during integration activities like system validation.





## VALUE AND BENEFITS


*The offerings that come with EMA extend beyond the boundaries of initial development, including:*

- Support for HVAC EOM in any integration or additional activity.
- Integrated Automotive Spice project management.
- Development and validation of software.
- Support all along the software development process.

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