



BUSINESS PRESENTATION

www.innoval.biz



Innoval was born from the synergy of thirty years of experience acquired by its technical and operational staff in the field of "Automotive" electronic Systems for industrial mobile vehicles.

We design all our products by ourselves, **hardware** and **software**, for this reason our strong points are the customization and flexibility.





What WE DO

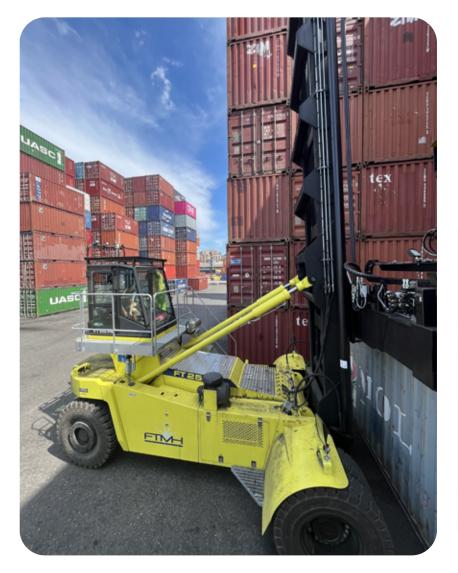


We supply our electronic systems to manufacturers of industrial mobile vehicles to have global control of the vehicle in real time, with Windows CE operating system, CAN-bus c o m m u n i c a t i o n , CANopen, J1939, FMS protocols.

We offer our electronic systems to end customers to be able to remotely monitor all the industrial mobile vehicles in their fleet with only ONE system that is the same for all brands. REVAMPING

To ensure that the vehicles are efficient and functional even after several years, we carry out a complete electronic revamping of port mobile cranes and stackers of different brands.



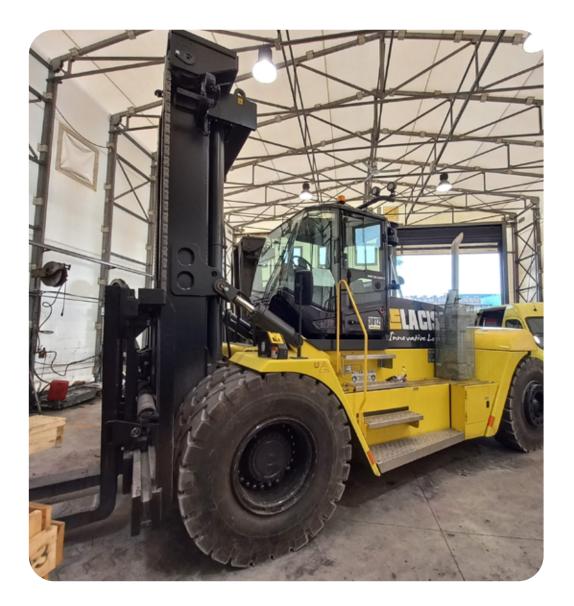


Here you see an example of our **Global Control** + Remote Monitoring System installed on a **FTMH forklift** working at the Port of Genoa.









La Cisa Trasporti Industriali has been our customer for years, monitoring more than 140 vehicles worldwide with our Remote Monitoring Systems.



REVAMPING

Cranes and Stackers



Our aim is to modernize Mobile Harbor Cranes and Stackers by replacing the outdated electrical system with our new faster and more efficient one.





Our Products

DCU-C

Master Control Unit

The DCU-C V2 is a fully programmable automotive grade controller designed to be used as high performance master controller and Man-Machine-Interface (combined with an external VGA) in industrial vehicles.

The system is based on WINDOWS EMBEDDED COMPACT 7 to guarantee a real-time response. The DCU-C V2 has a wide range of communication interfaces: USB 2.0, Ethernet, RS232/RS485, CAN-FD, CAN-Bus 2.0 and the following internal sensors: 3 axis accelerometer and 3 axis gyroscope. Furthermore the unit is equipped with an internal GPS and 4G/LTE Module

DCU-A Slave Control Unit

The DCU-A unit is a programmable controller designed to be used on industrial vehicles and suitable to operate in harsh conditions (wide temperature range, water, dust, vibrations, etc.). The unit is able to read a wide range of analog and digital sensors and can drive the actuators directly. All outputs are Puls Wide Modulated (PWM), 4 High-side and 3 Low-side Outputs have an integrated current feedback. The DCU-A is equipped with an standard slave software to be used as I/O Controller on a CANOpen network. On request the DCU-A can be programmed in C/C++ for stand-alone application.

Our Products

MMI

Master Display

The MMI unit is a programmable controller built to be both the master unit of a master-slave control system and the Man-Machine-Interface for industrial mobile machines. The aluminium front panel and the stainlesssteel case ensure very good EMC compatibility, mechanical strength and environmental protection. Main characteristics are: • Compact design, customizable front panel • Multiple communication interfaces (LTE, Ethernet) • full IP67 case (not the front panel only), AMP-Seal connectors SIOC

Slave Control Unit PL-d

The SIOC control unit (Secure IO Controller) is a programmable controller designed to operate as slave unit with a high degree of reliability and safety. It offers the possibility to realize, together with a master unit, a master/slave control system with PL-d (ISO EN 13849, this matches to SIL-3 of IEC ISO 61508) safety level without the need of certifying the application software on the master unit.



CONTACT US

Address

Via Reanata Bianchi, 38 Genova, 16152 hone:

+39 010 6044220

Mail: info@innoval.biz

llh

-

Web: www.innoval.biz