elreg

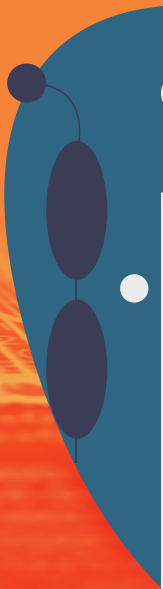# Embedded System Design & Consulting Services

ABOUT COMPANY

ELREG d.o.o. is an embedded software and hardware development and prototyping company based in Sarajevo, Bosnia and Herzegovina. The company consists of a development department and a small production unit.

Elreg d.o.o. has a core staff of experienced software and hardware engineers, aided by a network of external consultants in Norway, Germany and Bosnia and Herzegovina, which enables us to provide high quality solutions. The services we offer include hardware and software development for embedded systems and encompass all for schematic and PCB design, prototyping, firmware development, to creating system documentation and testing.

RANGE OF SKILLS

Operating Systems:

› Bare-metal MCU programming
› Linux
› Embedded Linux
› Windows
› RTOS

Embedded Software:
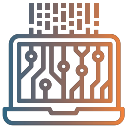
› Buildroot and Yocto, RFS/Kernel compilation, U-boot
› Linux services, drivers
› Multithreaded and task-based programming
› Object-oriented and procedural programming
› Signal acquisition
› Advanced debugging
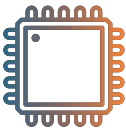› Real time processing
› UI design

Languages and Frameworks:

› Qt5 (widgets, QML)
› Embedded C (MISRA)
› C++ (C++11)
› C#/Visual Studio
› FPGA/Quartus
› Matlab
› Angular
› OpenGL

Electronic design:

› Schematic design
› PCB design
› DFM (Design for Manufacturing) Electronic power design
› EMI, EC compliance design Microcontroller based design Microprocessor based design (ARM, Cortex)
› Sensor design
› Communications (RS422, RS232, Ethernet,SPI, I2C, CAN, USB, etc.)
› ADAS evaluation board development (power imaging sensor)
› 24-bits ADC (LVDS)

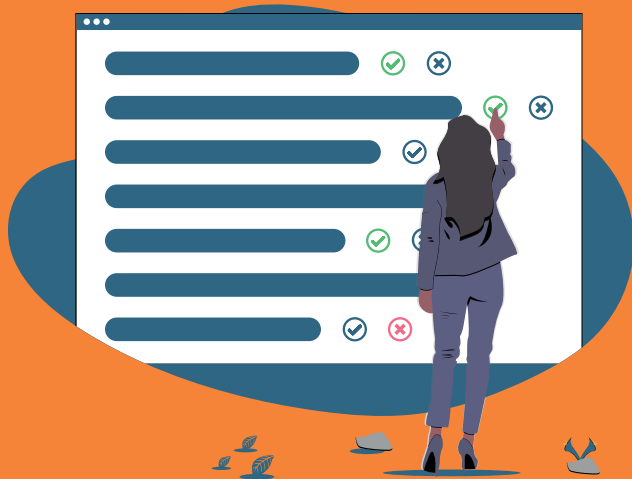## Hardware (tools):

› Altium designer
› Orcad
› CAM 360
› MultiSim
› Eagle

Maritime

Experience in software development with compliance of the following protocols and regulations:

› NavatorSDK
› IEC61162-1/2/450 Serial communications
› IEC60945 Environmental testing
› IEC61162-1/2/450 Serial communications
› IEC62288 Display standards
› IEC61924 Integrated navigation systems
› SOLAS/IMO, MED
› Preparation for certification of navigational instruments (such as Echo Sounders, Speed Logs, EMLs and GPS devices)
› System calibration procedures
› Alarm display control
› Alert handling (ALF, ALC ...)
› NMEA format message handling
› UDP multicast

WHY CHOOSE ELREG D.O.O

Elreg's core staff is comprised of experienced and highly motivated professionals who are very passionate about their work and take personal pride in delivering high quality solutions.

Their goal and mission is to help transform your dreams and ideas into realistic, fully approved, mass producible products. Elreg d.o.o. has built up a reputation in Sarajevo district as a dynamic, exciting company involved in complex projects and as such has little problem in expanding to meet customer requirements both short and long term. Bosnia's geographical location, in a European time zone, is ideal for good communication and transport connections, with competitive pricing.

Our engineers work and think in a way most European companies are used to, and our results and customer satisfaction over the years prove this.

COOPERATION

We prefer long term cooperation with our clients, based on high quality products and mutual trust. Allowing the project owner full overview of project development stages, we tend to offer full insight in time and resources usage. Therefore, project owner has the ability to steer the project development in desired direction. Project tracking is done via Atlassian's Jira, while GIT is used as version control system.

RECENT CUSTOMERS

Raymarine (UK)
Skipper Electronics AS (Norway)
Sperry Marine (UK)
OnSemi (Germany)
Norwegian Electric Systems (Norway)
Hensoldt Kelvin Hughes (UK)
Elreg AS (Norway)
InApril (Norway)

"Working with Elreg was a fantastic experience, we produced software specifications that were analyzed by the Elreg team, and they suggested improvements, which were included. The software itself was well documented and produced to an excellent standard.

The team asked important questions to make sure they understood our requirements and even produced demonstration applications as prototypes to show us what they expected to achieve. The team kept in regular contact to report progress and were a pleasure to work with.

We are very pleased with the components produced by the Elreg team for our product and would strongly recommend them to anyone wishing to outsource software development – particularly C++ based products using the Qt framework and QML."

Hensoldt UK

CONTACT

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