



Success Story Embedded Systems

Embedded system as training partner: Fitness according to your personal plan

What counts in effective fitness training is not only the repetition, but also the precision of the movements. With innovative systems, the function of the trainer is taken over by a computer. For a provider of intelligent training software, Elektrosil has developed a hardware solution which is used in fitness studios, medical rehab units and by Bundesliga football clubs.

► The challenge

For his training programme based on sporting science the customer required a touch panel PC to be mounted on high-end fitness machines. The systems were intended to control exercises and document their progress – on an individual basis with identification by means of RFID card readers. The requirement was for a computer with customised carrier board, display driver, interfaces for USB and special sensors, and a suitable operating system. The objective was to implement the project until ready for the market while following a rigid time plan.

► The solution

Elektrosil's developers designed a completely new, densely packed hardware solution consisting of display, resistive touch screen and carrier board with separate CPU module. The force and laser sensors for the trainee's movement parameters were connected to the rear of the PC by means of a special module.

The Elektrosil team developed the operating system together with partner organisation MCS Micronic GmbH and adapted it to suit the unit. The electromagnetic compatibility was also optimised in accordance with the medical directives.

► Advantages and benefits

The new embedded system provided the customer with a quality solution for his end product by the planned market launch date. The system impresses against the competition with its innovative features and offers ideal training conditions for the end user. A close exchange of information took place between the engineering team and the client throughout the project. With its stockholding service, Elektrosil was able to provide the customer with effective logistics and cost advantages.

Project information

- Client: aktivKONZEPTE GmbH
- Sector: General industries
- Ongoing project. Period over three years.

Elektrosil's services

- Application advice, development supervision, design-in support
- Quality Assurance
- Engineering and production
- Completely customised applications





“We needed an embedded system solution for long-term use in the fitness studio. That’s when I called Elektrosil.”

With a wealth of experience, the developers combined selected components and newly designed modules to produce a customised embedded system solution which enabled the client to present himself as an innovator and, at the same time, is a key to better competitiveness – in the market as well as in support.

Are you looking for the right product for your application and need a development partner? Then give us a call.

+ Elektrosil’s strengths

The team made use of comprehensive know-how in the development of embedded systems in order to design the hardware solution, programme the operating system and to adapt the system to the customer’s requirements. The engineers used high-quality system components obtained from Elektrosil’s partner network to ensure that the touch panel PCs achieved a long service life.



Touch-panel-PC to be mounted on high-end fitness devices

