



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

In innovative systems the function of the trainer is taken over by a computer. Elektrosil developed a hardware solution which is used in fitness studios and medical rehab units.

THE CHALLENGE

The customer needed a touch panel PC for mounting on high-end fitness equipment for his sports science training programme. The systems were to control exercises and document their progress – individually via identification using RFID card readers. A computer with a customised carrier board, display control, interfaces for USB and special sensors as well as a suitable operating system was required. The objective was to implement the system until it was ready for the market while adhering to a tight schedule.

THE SOLUTION

The developers at Elektrosil designed a new, densely packed hardware solution consisting of a display, resistive touch and carrier board with a 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 a partner company and adapted it to the device. In addition, the electromagnetic compatibility was optimised in accordance with medical guidelines.

With a great deal of experience, the developers combined selected components and newly designed parts to create a customised embedded system solution. This innovation convinces in the competitive environment and offers optimal training conditions for end users. This solution is even used by national football leagues.

OUR STRENGTHS

- Extensive know-how in the development of embedded systems
- Customer focus with daily coordination, updates and simulations
- One-stop shop: From consulting to development and simulation to production and delivery

Are you also looking for a custom-fit solution for your system and a competent partner? Then give us a call: +49 40 840001-0.

Project information

- Client: A provider of intelligent training software
- Project size: > 2,000 units per year, duration > 5 years
- Sector: Industry
- Product area: Embedded Systems, System Solutions
- Services: Carrier board development, display control and interfaces, operating system development, development consulting, assembly production embedded PC incl. touch panel, just-in-time storage.

Elektrosil’s services

- Application consultation, development assistance, design-in support
- Quality assurance
- Engineering and production
- Completely customised applications