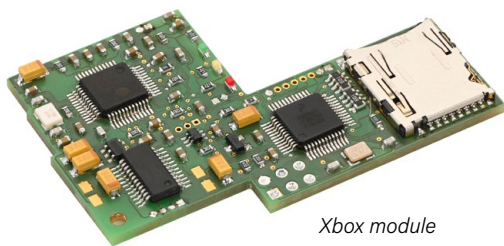# Specialists for *Embedded MP3 Modules, Embedded Technologies,* and the *Development of Customized Electronics*

FACTS
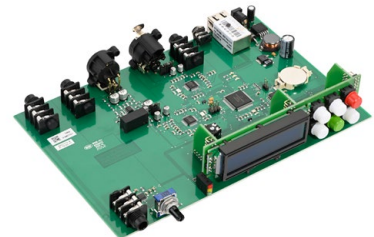> Founded in 2005
> 500 customers worldwide
> 25,000 delivered audio modules
> 50,000 electronic devices in use

Xbox module

ULTRA 2 Player

Custom MP3 recorder board

Contributed by Loetronic

Starting in 2005 as a small engineering office in Aachen, Germany, Loetronic has made a name for itself with its own audio modules (keyword: "Embedded MP3"). In recent years, the company has grown steadily, has hired new employees and expanded its fields of activity. In addition to the well-known Fallguy MP3 modules, increasingly customer-specific control systems have been developed and built in smaller and larger series.

The focus of Loetronic's activities is the development of hardware and software, mostly on a microcontroller basis. The know-how ranges from electronic circuit and layout creation to microcontroller programming in assembler, C and Python. In addition, more and more Linux-based single-board computers (e.g., the well-known Raspberry Pis) and Android-based devices (e.g., smart phones, smart watches and tablets) came to it and were also programmed. Last but not least, the programming activities also extend to Windows-based programs, mostly for controlling their own hardware.

The experience of networking various electronic controls and audio modules has also led Loetronic to intensively investigate the development of interface electronics, adapters and a large number of so-called black boxes. These are often used where two different systems need to be interconnected, which in the first place do not share a common interface. These black boxes often contain a multitude of different interface technologies. Whether there are interfaces on the board level (I2C, UART, SPI, 1-Wire, …), wired interfaces between devices (RS-232, RS-485 /

-422, CAN, USB, LAN, …) or wireless interfaces (WLAN, Bluetooth, proprietary wireless standards), Loetronic has already implemented them. Of course, this also applies to specific protocols that have to be implemented at the software level.

In addition to the intellectual abilities around the development of electronics and electronic devices, Loetronic also offers its own manufacturing facilities for printed circuit board assembly (SMD + THT) in small series. For larger series, Loetronic can fall back on a pool of experienced EMS companies. In addition to "Developed in Germany," Loetronic stands also for Made in "Germany"!

About the Company

Loetronic offers this know-how to every interested company that wants to bring new and innovative electronic products to the market but does not has its own development department. Speed, precision and, of course, discretion characterizes Loetronic! Contact us!

LOETRONIC
Krantzstraße 7 | 52070 Aachen | Germany
Tel: +49. 241. 44 64 78 40
www.loetronic.com

Moritz Schwarz
(Owner and Founder)