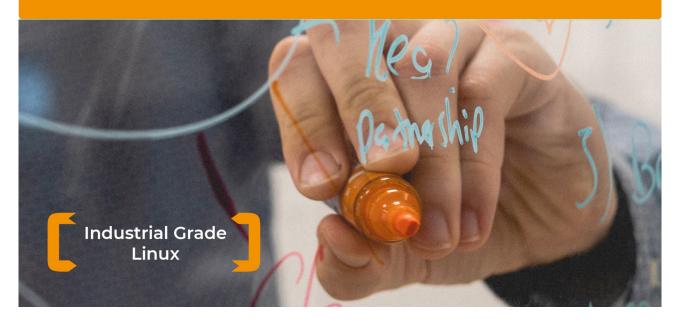
## LINUTRONIX



# Training Debian & E.L.B.E. - best for Embedded Systems

**Caveats:** This is not an introduction in the development process of Linux for embedded devices. It definitely presumes basic knowledge of Linux and C.

### Day 1

- Components of a distribution Bootloader, Kernel, Open Source Software packages and your applications. How to find the right bootloader and kernel? How to find the right components?
- Yocto, Debian, and so on- what should I choose? And why?

Short overview about Pros and Cons How the distribution does help you to fulfil the licence constraints?

Linux toolchain – what is needed for?

Minimum requirements, requirements for bigger groups, central or de-central approach,

- Why Debian for Embedded Systems? Does it really work?
- How Debian does works? A deep look inside Debian packages and dependencies, quality management, build process
- **What is E.L.B.E. (Embedded Linux Build System)? And why is E.L.B.E. different?**
- Build your own Root File System with E.L.B.E. (theoretical)
- **Generate your own Embedded Image:**

debootstrap E.L.B.E. (Embedded Linux Build Environment)



- Bootloader and Kernel how to work with inside of E.L.B.E.?
- Develop your own application with E.L.B.E. (simulation)
- Hands-On: build your own Debian package
- Updates and Debian and E.L.B.E. how it works together
- Security and Debian how to use for Embedded Systems

#### **Requirement:**

Nothing on Hardware; Programming knowledge with Linux and C

#### Software:

Linutronix provides an USB HDD with an x86 64-bit based Debian system for the host system, a Debian toolchain and for the target system an ARM Linux, running on a running on an embedded device. The HDD is a gift for the participant and can be taken home for further studies.

#### Number of participants:

Due to our experience we know that a single instructor could coach a maximum of 6 persons. Our courses are therefore limited to this number of individuals.

