

# Linux Plumbers Conference 2025



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## Initialization in Rust with pin-init

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Rust in the Linux kernel uses the pin-init library for initialization. This library handles ergonomic and safe initialization of address-sensitive types such as `Mutex<T>` (the abstraction of `struct mutex`).

Since address sensitivity is an inherited property (a type containing an address-sensitive type also becomes one), lots of types require using the pin-init API to initialize them. Thus knowing how to use pin-init is required in order to write Rust code in the kernel.

The talk is based on a chapter in the upcoming “Rust in the Linux Kernel” book and feedback is greatly appreciated.

**Primary author:** LOSSIN, Benno

**Presenter:** LOSSIN, Benno

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