

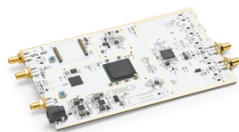
Intro to the Software Defined Radio Developer's Room

Phil Balister, Martin Braun, Sylvain Munaut

FOSDEM 2014

Software Defined Radio

- ▶ **SDR: Using programmable devices to access RF hardware**
- ▶ EM spectrum is now open for hacking! (Well, has been for a while)
- ▶ Affordable hardware for doing all kinds of stuff available for everyone
- ▶ Free software available for everyone, too!
- ▶ Communications, Security Research, Radar, Radio Astronomy, Radio Location & Tracking, . . . you name it



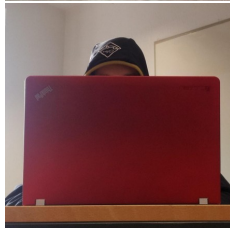
Projects Today

- ▶ GNU Radio (www.gnuradio.org)
- ▶ Iris
- ▶ libLTE
- ▶ OsmoCom



Who are we?

- ▶ Philip – Embedded guru
- ▶ Martin – GNU Radio community manager
- ▶ Sylvain – OsmoGuy



Schedule

Intro to the SDR devroom	Philip Balister, Martin Braun, Sylvain Munaut	09:45	10:00
Working with GNU Radio	Tom Rondeau	10:00	10:45
Building Link-Layer Protocols in a Lego-like Fashion	Andre Puschmann	10:45	11:30
osmocom: Overview of our SDR projects <i>rtl-sdr, gr-osmosdr, osmo-tetra, osmo-gmr, gr-fosphor and more !</i>	Sylvain Munaut	11:30	12:15
Tutorial: OFDM Packet Transceivers <i>Intro on how to write an OFDM-based PHY/MAC/App</i>	Martin Braun	12:15	13:15
Towards an Open Source IEEE 802.11p Stack <i>An SDR-based Transceiver in GNURadio</i>	Bastian Bloessl	13:15	13:45
GNURadio as a general purpose DSP environment <i>application to software defined radio and low-cost physics experiments</i>	Jean-Michel Friedt	13:45	14:15
Wireless Networks In-the-Loop <i>gr-wine10 - A GNU Radio Network Emulator</i>	Nico Otterbach, Gerald Baier	14:15	14:45
libLTE <i>An Open Source LTE Library</i>	Ismael Gomez	14:45	15:15
GNU Radio Hardware Acceleration on Xilinx Zynq	Moritz Fischer	15:15	15:35
SDR devroom closing session		15:45	17:00

- ▶ Closing Session: Maybe the most important session!