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World Domination and Control, over USB

October Meeting: World Domination and Control, over USB

Date: October 5, 2010 at 7 p.m.
Location: Algonquin College (Woodroffe Campus), room P211A

World Domination and Control, over USB

Speaker: Mark Lord

This session demonstrates simple ways that anyone (with a soldering iron) can use to control / dominate the Real World from their Linux PC, using a $16 off-the-shelf USB breakout board. This session is for software geeks who want to control other devices from a PC, without having to first earn an electronics degree.

The tutorial covers use of preassembled FT232RL breakout boards to control and switch external devices from any Linux PC. This hardware is cheap, interfaces to other devices with a minimum of fuss, and is easily controlled from userspace. No kernel programming required!

We cover the simple circuits, component selection, basic electrical theory, safety, and software programming.

A small number of FTDI breakout boards, breadboards, buffer chips, solid-state and mechanical relays will be provided for participants to experiment with. There will also be some completed examples of neat/useful stuff controlled from Linux using the same methods. If you can program in C and do a little basic wire soldering, then this session is for you!

Participants should bring a Linux-powered notebook computer to the session if possible. We will be using the libusb-dev and libftdi-dev packages along with gcc for building the software control portions.

About the Speaker

Mark has been hacking the Linux kernel for fun and food since 1992. He is the original author of the Linux

IDE subsystem, the hdparm drive tuning utility, and other assorted open source goodies. His consultancy, Real-Time Remedies Inc, has provided Linux development, mentoring, and support to companies around the world since 1996. When not rock-climbing or globe-trotting, he is often found working with SATA controllers in the new libata subsystem, or hacking USB devices to manage the world's most complex MythTV installation.

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