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Hardware Hacking Workshops
Participant and Presenter Supplies
August, 2009

Participants should bring the following supplies:

- A portable, battery-powered radio or boombox, with appropriate batteries. Make sure it works! It should be cheap enough that you won't be too angry if it never works again. The AM band is more important than FM, but it doesn't matter if the radio picks up both. It should have analog tuning (i.e., a dial) rather than digital presets or scan buttons. Larger radios are easier to work with than tiny ones, and older ones always sound better than new ones. It should have a built-in speaker, not just a headphone jack. And most importantly: **IT MUST BE BATTERY POWERED!** Beware: an alarm clock radio with a built-in "backup battery" is not suitable, since it requires AC power to function as a radio.
- **Two** or more battery powered, sound-producing toys, with appropriate batteries. As with the radio, select a toy that is expendable, not too tiny, and has a built-in speaker. A toy that makes sound is preferable to a mute one, and sampled sounds (like voices, animal sounds or instruments) are more useful than simple beeps. The more buttons and switches the better, generally speaking, although musical keyboards often have limited potential for interesting modification. And, of course: **IT MUST BE BATTERY POWERED!**
- One or more raw loudspeakers of any size (just the speaker, not enclosed in a cabinet/box).
- Three nine-volt batteries.
- A small piece of corroded or rough-surfaced scrap metal.
- A soldering iron (lightweight, fine point).
- Hand tools (diagonal cutters, wire strippers, a knife, etc.).
- Optional: a battery-powered amplifier for use as a personal sound monitor:
Radio Shack 277-1008; or a miniature battery powered guitar amp (such as Fender Mini Tone Master or Mini Deluxe, Marshall MS-2, etc.); or a pair of powered speakers such as those sold for use with computers, iPods, etc.; these can be run off batteries (preferred) or a "wall wart" AC adaptor.

The Venue should provide:

- 1 roll of electrical solder.
- 1 set of small screwdrivers (sometimes called "jeweler's screwdrivers"), flat and Phillips tips, suitable for opening electronic toys, portable radios, etc.
- 1 roll of insulating electrical tape.
- 1 flashlight.
- A few different sizes and shapes of files.
- 1 cordless electric drill with set of bits.
- 1 pair scissors.
- 1 utility knife.
- 1 roll 22awg solid wire, minimum 2 meters per student.
- 1 roll 22-24awg stranded wire, min. 2 meters per student.
- Small PA (mixer & speakers.)
- Whiteboard/blackboard/large paper pad, with markers and eraser (as needed.)
- Internet access, via WiFi or Ethernet.
- Tables and chairs for participants.
- AC power distribution to each table, with power strips for soldering irons.
- Good lighting and ventilation.