2012 ARRL "DIY" Stage
at Dayton Hamvention®

ARRL's newest Amateur Radio recruitment campaign shows how "makers" and "hackers" are using Amateur Radio as a tool in "Do It Yourself" projects. Hear from hams who are doing-it-themselves! A variety of creative projects and cool technology will be demonstrated by today's Amateur Radio innovators.

Short presentations on the ARRL Stage (ARRL EXPO area in the Ballarena Exhibit Hall)…

Friday May 18, 2012

11:00 AM	**Making a Linksys Router into a HSMM-MESH Node** **Kipton Moravec, AE5IB** How to install the HSMM-MESH software into a router, how to set it up and configure it, and where to go next. This is what you need to get started with HSMM-MESH, an Amateur Radio, self-configuring, self-healing, 2.4 GHz Network.
12:00 PM	**Launching Radios and Other Cool Stuff into the Stratosphere** **Erin King, AK4JG** Have you ever wondered how to plan, prepare, and execute a high-altitude balloon mission? High-school senior and future MIT student Erin King (AK4JG) will give details on the process and experience of putting together and launching a balloon payload, as well as predicting the flight path, tracking it using APRS, and recovering it once it lands.
1:00 PM	**Kit Building Essentials plus Assembling Coax Connectors** **Joe Eisenberg, KØNEB** Learn some quick tips for building kits, including what tools to use, how to sort and identify parts, and give yourself the best chance for success. Also, how easily to put on a PL-259 connector.
2:00 PM	**Using Microcontrollers in Ham Radio Projects** **George Zafiropoulos, KJ6VU** This presentation will provide an introduction to microcontroller hardware, software development tools and feature several ham radio project examples. Getting started is easier than you think!
4:00 PM	**The AMSAT VP for Educational Relations** **Mark Hammond, N8MH** This presentation will describe the different roles that Technical Mentors and Ground Station Operators play in an ARISS (Amateur Radio on the International Space Station) contact. Current opportunities for licensed Amateur Radio operators to become involved as Technical Mentors or Ground Station Operators will be discussed.

Saturday May 19, 2012

10:00 AM	**EME on a Shoestring – Almost**
	Bill Ockert, NDØB
	This talk will discuss the minimal station with which you can reasonably expect to have some success with EME. Topics covered will include what is the best band, what equipment is required, who can you expect to work and how do you get started.
11:00 AM	**Station Automation? Yes, You Can**
	Bruce Jewett, W1GQ
	This presentation will provide insight to microcontrollers for station automation. What does Contesting and DX'ing have to do with Microcontrollers? A lot, as Bruce will explain in this session.
12:00 PM	**The Wireless Antenna, Communication Using a Broken Antenna Structure**
	Rhett Spencer, N7DGL
	Most of today's antennas are still constructed using the same techniques Tesla and Marconi used to concentrate the signal and increase the transmission range. What if there as was a way to increase the antenna performance using the most simple of antenna designs by just eliminating the wire…..
1:00 PM	**Building Your Next Project with Software**
	John Best, KJ6K
	Learn to design and build your own projects using the HamStack microcontroller platform and the C programming language. Examples include an iambic keyer, and a timer to perform CW ID, control your sprinklers, or just tell the time.
2:00 PM	**Hacking with Radios and Arduinos**
	Bernard Van Haecke KI6TSF
	How you can do keyboard-to-keyboard chat over digital radio, portable telemetry with APRS, or APRN (SSTV + APRS).
3:00 PM	**UHFSDR - 1.5 MHz to 700 MHz Software Defined Transceiver**
	Dave Brainerd, WB6DHW
	Design and development of a Software Defined Transceiver for 1.5 to 700 MHz. Discussion will include free development tools and free software.
4:00 PM	**The AMSAT VP for Educational Relations**
	Mark Hammond, N8MH
	This presentation will describe the different roles that Technical Mentors and Ground Station Operators play in an ARISS (Amateur Radio on the International Space Station) contact. Current opportunities for licensed Amateur Radio operators to become involved as Technical Mentors or Ground Station Operators will be discussed.

Sunday May 20, 2012

10:00 AM	**Using Microcontrollers in Ham Radio Projects**
	George Zafiropoulos, KJ6VU
	This presentation will provide an introduction to microcontroller hardware, software development tools and feature several ham radio project examples. Getting started is easier than you think!