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Local News

Holiday lights

UA computer tech's Christmas light display a real show stopper

By Marilyn Miller
Beacon Journal staff writer



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A computer lab specialist at the University of Akron's Wayne campus has come up with a way to share his home holiday lights with people all over the world.

"Anyone from anywhere can use it. All they need is access to the internet," said Tom Hammond, 45, of Doylestown.

With just one click on the website, iTwinkle.org, anyone can change the lights' effects and watch those changes on the house. There are nine options, including pinwheel, snow,



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confetti and twinkle effects.

"I've always been captivated by holiday light displays, and living in a rural area I never got to participate in the urban holiday light extravaganza," Hammond said. "I knew it would cost thousands of dollars to set up those lights, so I started looking on the internet to find different ways to do it."

What Hammond ended up with was a computerized home light display that's connected to his website.

Maker faire

Tom Hammond manages UA-Wayne College

Hammond uses three components to make it all come together: a microcomputer (Raspberry

Makerspace where ideas like his are shared. It's an open-to-the-public lab with free access to 3-D design and digital fabrication via 3-D printing and scanning technology. The lab is in Room A-120 in the main building at 1901 Smucker Road in Orrville.

Wayne will host a mini maker faire where tech enthusiasts, crafters, educators, hobbyists, artists, commercial exhibitors and others can meet to share their creations and knowledge.

The faire will be 10 a.m. to 5 p.m. May 20. 330-684-8722 or wayne.uakron.edu/faire.

Pi), a microcontroller (Arduino) — which he said most things, like microwaves and thermostats, have — and light animation software (xLights) he found for free on the internet.

He creates a sequence of animations on a home computer, saves the animation file to the Raspberry Pi, and plays it back.

The Raspberry Pi connects to the Arduino, which controls the off-the-shelf, store-bought lights. Everything is connected via Ethernet cables that allow various types of lights to all speak the same language.

The system plays the animation, stopping when someone clicks on and tells it to do something else. It changes each time someone else tells it what to do. When there are no requests, it goes back to its original program.

The people who drive by Hammond's house to look at the lights will also see a 16-foot marquee board that scrolls the name of the city and state or region and country controlling the light display at that time.

So far this holiday season, people in Colorado, Germany, China and Australia have controlled the lights on his home. The first evening the lights were on, he had more than 800 changes to his display. The only advertising Hammond used was a single Facebook post.

He has been working on the light display for four years, but this year he came up with the idea of letting others control it through the internet.

"There are a handful of homes with internet-controlled lighting displays, but they only turn the lights on and off," he said. "This system can mix different lights to become one big show. It's very flexible."

'People helping people'

But Hammond only takes credit for the idea. He said others have helped him get the system working, including electrical engineer Barry Romich; Rod Steinbach, who helps present lights at area maker faires; and Keith Westley, an inventor from Australia who is also a holiday lights enthusiast and has been Hammond's pen pal throughout the project.

"I could not have done this project without their help," Hammond said. "It's about people helping people. It became a community effort."

When Westley and his family visited Disney World last year, he flew to Ohio for a few days

and drove around with Hammond, looking at light displays throughout the area.

Hammond said he would be happy to share how his system was put together so others can do it themselves.

Spreading joy

Beth DiGiuseppe, 48, of Flagstaff, Ariz., shared her excitement about the light display after seeing Hammond on *Good Morning America* this week. She sent Hammond an email.

“Like you, I’m a big kid at heart, but for the past nine years I have been disabled and homebound ... I had to tell you thank you!” she wrote. “Not only are people able to look but they can personalize it for themselves, making them feel like they have actually spread a little Christmas cheer. I have a granddaughter who lives on the East Coast that has never seen Christmas lights on her grandma’s house. Now I can share your Christmas display with her and feel like we are actually decorating together for the first time in seven years (she turned 7 this year).”

Hammond’s light display runs from 5 p.m. to midnight every night until Jan. 7. The lights can be viewed and controlled at www.iTwinkle.org.

Marilyn Miller can be reached at 330-996-3098 or mmiller@thebeaconjournal.com.

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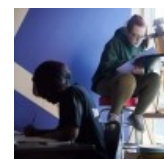


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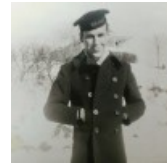
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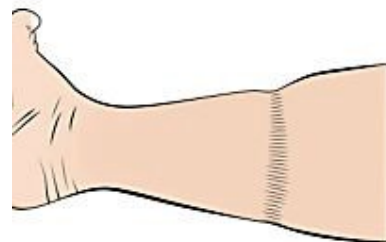
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