

The Press Democrat

WINNER OF THE 2018 PULITZER PRIZE

WEDNESDAY, AUGUST 17, 2022 • SANTA ROSA, CALIFORNIA • PRESSDEMOCRAT.COM

Locals work to give batteries a little more life

Larry Udell knows a good idea when he sees one. That's his job.

Udell, 91, of Santa Rosa, has spent his entire working life mentoring inventors and generally encouraging wild (yet practical) creativity.

"Everybody is an inventor," he said. "Everything is the result of an invention; the creative mind of the individual."



Larry Udell, left, and Bill Seidel demonstrate how the BatterySavers device extends the life of otherwise dying or dead batteries, in Santa Rosa on Tuesday, August 16, 2022. They hope the device will help curb the number of batteries thrown away each year or can be used to extend the charge of cellphone batteries. (Christopher Chung/The Press Democrat)

Here is the Press Democrat interview: <https://www.youtube.com/watch?v=5DnsXH3zZoY>

For decades Udell has made his living fostering the work of inventors. He teaches, sponsors and hosts conventions and began, decades ago, with an inventors' newsletter.

His professional bio has this hilarious line: "Left his last employer in March of 1964."

"I have no degrees whatsoever," he said. "Yet when I was asked to start teaching inventors and entrepreneurship, I said, you realize I have no degree? And they said, 'You have a life of practical, hands-on experience.'"

But it was at a university where Udell came across one of his latest finds — a device he and inventor Andrew Miller believe could extend the life of batteries by something like 30%.

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Miller, now 26, came up with the idea as he prepared for a high school science fair.

Needless to say, he won. And then he began tearing through local, regional and state science fairs in his native New Mexico. His device — an electronic solution to a chemical problem — then won top prize at a "Shark Tank" like competition sponsored by New Mexico Tech where he was a student.

"Dead batteries aren't quite dead, there's still energy left in it, it's just difficult to extract that energy," Miller said.

It was a notion that caught Udell's attention at the same New Mexico Tech event. Today, Miller's circuit is at the heart of Battery Savers, a company that Miller, Udell and Sebastopol-based marketing expert Bill Seidel of America Invents, are trying to sell to investors.

"The novelty came from the realization we could both optimize it to work with dying or dead batteries, as well as making it autonomous in that it only turns on when you need it," Miller said.

Seidel, the words guy, described Miller's device this way: "It takes the remaining life in a battery and boosts it," he said.

He likened it to a supposedly dead car battery. "The car makes that 'rrrrr' noise and the lights work, the radio works, it's trying to turn over," he said. "There is life left in the battery but there is not enough to kick over the starter."

"This takes that little bit of energy, then repeats it 1,000 times a second which is enough to boost it and to give it more life," Seidel said.

And that new life means not only longer life for flashlights, or smoke detectors or things like pacemakers, but also a reduction in the number of batteries that are tossed out or recycled annually.

An estimated 3 billion batteries are tossed out each year in the United States.

Miller said the technology can be embedded with products, added by the consumer after purchase, or added to batteries.

The options are multiple — which, by Udell’s way of thinking, may be part of the problem in getting investors to visualize the potential.

“Most inventions, and I can speak from great experience, most inventions apply to a single product use,” Udell said.

With this technology, Udell believes they could potentially license it and have it manufactured directly into devices. They could also sell it as an auxiliary component.

Miller said being first has its drawbacks.

Inventors thrive at wanting to be first. Financial investors? Maybe not so much.

Miller, now in his final year of a computer engineering Ph.D. program at Texas A& M, has two patents on the technology and works regularly with Udell and Seidel in their efforts to bring the technology to market. Years after Miller conceived of the technology, and years after Udell got excited by what he saw, that is where Battery Savers stands today.

A recent piece in Popular Mechanics incorrectly called Udell the “inventor” of Miller’s battery-saving device.

“I did not invent it,” Udell said. “I can’t take credit for inventing it.”

“I’m the guy that takes the invention, takes that brainchild, and makes a company,” he said.

Far from being insulted a magazine gave someone else credit for his idea, Miller lavishes praise on Udell for recognizing the circuit’s potential and guiding a young scientist through the business side of his idea.

“I’ve been bitten by the entrepreneurial bug and that’s thanks to Larry,” Miller said.



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