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# As attention on Vinduino grows, so does its market



In April this year, the city of Temecula announced Vinduino, LLC as its choice for "Innovator of the Year." Vinduino, LLC — the Reinier van der Lee-owned company based in Temecula — focuses on affordable water-saving technology serving agricultural communities. (Photo courtesy of Jimmy Fu)

By **Nicole Miller-Coleman**

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**R**einier van der Lee had a problem.

In rainy, verdant 2010, Van der Lee and his wife, Monique, purchased a distressed vineyard in Temecula. Their plan was to nurse the neglected vines back to health with time, TLC and the aid of a management company experienced in vineyard irrigation.

But nature had other ideas. 2011 ushered in a drought of epic proportions and the Van der Lee's water consumption soared to nearly two million gallons per year. The annual expense — roughly \$7,700 for water,

on top of the \$4,300 billed by the management company — was unsustainable.

Rather than relying on existing practice and products, van der Lee solved his problem by developing Vinduino (pronounced vin-doo-ee-noh), a soil moisture monitoring system that delivers precision irrigation.

The results were extraordinary. According to Van der Lee, in 2015, the sensors saved him 430,000 gallons — or 25 percent — in irrigation water. Over the past two years, the average has been closer to 50 percent.

“We developed our own sensors because the sensors that were available in the market were just too expensive,” said Van der Lee, whose background includes degrees in electronics and avionics engineering. “As I learned more and more about irrigation, it became an interesting problem to solve with the help of technology.”

The technology employed to create Vinduino, LLC is Arduino — an open-source platform used for building electronics projects.

While Vinduino’s basic technology is open-source, or free, Van der Lee notes that most farmers want full out-of-the-box solutions to include a combination of equipment, installation and software.

“We are farmer focused,” said Van der Lee. “We help solve farming problems. Labor shortage, drought, pest management are all things that keep farmers awake at night. We bring in technology to help.”

While his savings in 2011 were substantial, Van der Lee emphasizes that it’s not simply about saving water, but optimizing irrigation for the best results. “Farmers who have been irrigating too much will indeed see savings. In the case of under irrigated fields, a farmer may need to irrigate more, but will still improve the bottom line by having more and healthier fruit.”

Today, Van der Lee Vineyard is a test site, with business operations located in the Temecula Valley Entrepreneur’s Exchange (TVE2), a local incubator and resource for tech business start-ups.

In April, the city of Temecula named Vinduino, LLC its first-ever Innovator of the Year. “We believe in Vinduino,” said Charles Walker, a city economic development analyst who manages the TVE2 program. “Reinier is hardworking and industrious. He mentors others, and he has a product that his peers and the market find valuable.”

Appreciation for Van der Lee’s work, and Vinduino’s potential, is not limited to the city of Temecula.

Earlier this year, Vinduino, LLC was tapped for participation in the UC Irvine EPIC Small Business Development Center program. In 2017, Riverside County awarded Vinduino, LLC first place in its Innovation Month Fast Pitch competition. Vinduino was selected as the "Editors Choice Winner" at the

2016/2017 IoT (internet of Things) Awards and, in 2015, what was then known as the Vinduino Project earned the Hackaday.com “Best Product” award, which included \$100,000 in prize money.

As recognition for Vinduino grows, so does its market. “We’re building a free-to-use agricultural community network, covering most of Temecula Wine Country and some parts of Central California,” said Van der Lee.

And while the company is currently addressing vineyards and orchards in the California market, there are opportunities for Vinduino in South America, Europe and beyond. Van der Lee said that in Brazil, Vinduino is currently used in sweet potato fields.

With this kind of growth potential, and a product that could be fabricated anywhere, one wonders whether the Temecula Valley will be able to hold on to this hot property?

For now, the Van der Lees have no plans to move. “With 40+ wineries, and over 200 growers,” says Reinier, “there is a great sense of community and drive to further improve the quality of our grapes and wines. There are great tasting wines made in Temecula. I’m a trained sommelier, so I know. We’re not planning to go anywhere else soon.”

To learn more, visit [vinduino.com](http://vinduino.com)

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