

Body Electric

April 28 2016, by Sarah Tuff Dunn



Environmental studies major Deke Ludwig at the age of 16 turning his Chevy S-10 into an electric car. Credit: Ludwig

Ever played with K'nex? If so, you know how the construction set, a classic for any child growing up in the '90s, can create more than just toys. It can build rollercoasters, architectural grandeurs worthy of Frank Gehry—and for Deitrich "Deke" Ludwig '17, an electric truck.

Granted, a big imagination and a passion for environmental sustainability also went into the cherry-red Chevy S-10 pickup, which made history in 2010 as Ludwig became the youngest person ever to build an electric

car. Now an environmental studies major at UVM, he has his eyes on even more profound connectivity in the greater world. "I'm good at making sustainability appealing to people," says Ludwig, whose YouTube videos on the topic are the stuff of presidential campaigns (but good ones). "For people who might never have had a previous introduction, I can say, 'This is going to be an awesome future, and here's why.'"

Ludwig's past is deeply rooted in a hands-on connection with the land. He grew up in Toledo, Ohio, one of seven children—a boy fascinated by fixing up tractors and dismantling remote control cars. The K'nex grew into go-karts and a Tesla adoration until Ludwig watched Al Gore's "An Inconvenient Truth" and then stumbled upon "Scientific American Frontiers," a PBS show that revealed the so-called Future Car.

Suddenly, Ludwig's present troubles with learning begin to reassemble themselves into a picture of what he would do: build his own electric car.

"I'm dyslexic, so reading and spelling come incredibly difficult to me," says Ludwig, who was homeschooled through high school, "but I was always very good with visual thinking—building, designing and taking on projects."

And so, at age 16, he took the first steps toward building the Little Red Engine that Could, or rather, the Little Red Battery-Powered Pickup that Could. Ludwig began searching eBay and Craigslist for old cars and tracks, finally finding a Chevy S-10 in Michigan. He and his father road-tripped to bring the truck home to the barn of Glen Torrance, an electrician and old family friend who lived four miles away from Ludwig.

"A couple of days later, I literally started taking it apart," says Ludwig, who would load a blue baby-buggy filled with the necessary tools and

ride it behind his bicycle to Torrance's barn, where a dog named Bee kept him company.

Out with the old, greasy gasoline parts, in with the shiny new electric motor: day after day and night after night, for 10 months. (Today, Ludwig clicks through a slideshow of the process; it's a longer-haired, teenage version of the UVM student, occasionally barefoot, but wearing the same smile he sports on a blustery spring day in Burlington.)

It was 11 p.m. when the truck was finally ready to drive for the first time, Ludwig scrambling to get the final connections in place and reading over the final details. He was a bit nervous for his safety. "But I took one last look, closed the hood and said, 'OK, let's do it!'" he recalls.

Bingo. The truck drove like a dream. Perfection, but for the sad fact that Torrance, his close friend, could only watch from the heavens above, as he died of cancer during the building process. "I was thinking, 'He would be so happy right now,'" says Ludwig. "I wish he could have been there to see it."

Otherwise, the truck took off, not only on the road, but also on the web, as he landed on WorldRecordAcademy.com for the feat, which paved the way for Ludwig's YouTube series today. Though Ludwig eventually donated that red Chevy S-10 (after taking it apart and improving the batteries and electronics board), the truck has stayed with him as a touchstone of future possibilities.

"It solidified my interest in alternative energy and the future of transportation," says Ludwig, who has studied abroad in India and is now working on obtaining an internship at a solar company; he shrugs off the 15 minutes of fame that building it provided. "The accomplishment was in the process of doing the work, completing it, finding success. I had put all my blood, sweat and tears into it already, and didn't need any

other affirmation."

And so the truck, able to reach speeds of 80 miles per hour is also a reminder of past triumphs over feeling slow. "I credit my dyslexia for taking me on a different path, and I'm so glad it did," says Ludwig. "As a kid I was frustrated about it, but because of the good and the diverse aspects that have come from dyslexia, and because of where dyslexia has taken me, I wouldn't trade it for the world now."

Provided by University of Vermont

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