INNOVATION

Road Ready

Simulated driver's training prepares teens for real wheels. Our writer takes a crash course.

BY LEEANNE JONES

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In 27 years of driving, I've never received a traffic ticket. I am proud of this. Technically, I *have* been pulled over—for expired tags. So while I am not great at paying bills, I am confident calling myself a "good driver."

I put that notion to the test at Greenlight Simulation. The Danville company offers driver's training in a virtual world. Aimed at teens, the six-session courses are a bridge between classroom-based driver's ed and behind-the-wheel instruction, providing experience and confidence before hitting the road.

Inside Greenlight's storefront in the Rose Garden shopping center, Jason Zimmerman leads me to the "cockpit" inside one of two simulator stations. Built using real Volkswagen parts, there's a seat, dashboard, gearshift, and seat belt. "It's a great analog to real-world driving," he says. "When people who have driven a lot get into the simulator, they just start driving."

It's true. Sitting down, I feel like I'm in a car—albeit one without doors or windows. In place of the windshield is a 4K monitor with another angled off each side, providing a 180-degree field of vision. Zimmerman calibrates the simulator to detect my eyes (for an eye-tracking camera), but the right eye won't connect. He brushes it off as glitchy tech they are improving. I am reminded that this is essentially a start-up.

Zimmerman launches the sim program, and the screens brighten with a street scene. It's residential and lined with trees—and seems oddly familiar. "That's Danville!" he says cheerily, explaining how Greenlight layered local maps onto the base software, which is the same robust technology used by Ford and BMW.

I tentatively accelerate to the speed limit, then stop at a red light, marveling at how real it all seems: As the passing trees slow in my peripheral, I can *feel* the sensation of braking and my

head spins slightly. The first roads are empty—a beginner zone—but soon, I'm in a bustling downtown with more cars and hazards.

Suddenly, a pedestrian steps out in front of me. I push the brake—but not hard enough. The man disappears, the screen blinks, and my car moves automatically to the side of the road. "I didn't hit him, did I!?" I ask bewildered. "You ... did," says Zimmerman. With the sim restarted, I try to pull back out onto the road but have to wait for the same pedestrian, resurrected and crossing stoically back and forth.

We end with more advanced scenarios: a multilane freeway, nighttime driving, and pouring rain and the affected brake response. Zimmerman discusses the possibilities on the horizon: corporate training, left-side driving for international travelers,

From top: A student with Greenlight Simulation cofounder Jason Zimmerman; Zimmerman and cofounder Josh Hurley.

and custom maps, from DMV test routes to Oakland's MacArthur Maze interchange. "Things that are hard to practice, or scary things, we can do that work here in a safe way," he says.

With the demo over, I look over my scorecard. It includes video playback and scores in various categories. There's a B in speed and a C in safety. Hmpf. Perhaps I have more to learn.