Wireless electric car charging tested for in-motion vehicles

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A university in Utah has broken ground on the country's first electric vehicle test track fitted for in-motion, wireless electrical charging.

"We'll be investigating the unique challenges of charging vehicles while they're in motion," Dr. Zane said, in the facility's quarter-mile loop - one leg of which will go indoors for up-close study. "We'll do testing at very slow speeds, and we'll be able to evaluate charging at speeds up to 35mph."

One result of in-motion, wireless charging, Dr. Zane, would be the reduction of size and weight of the batteries required to power electric vehicles. "If we want to push toward a vehicle that has a 300-plus mile range, the battery size and vehicle weight goes up prohibitively," he said. "But if we had a vehicle that could receive charge in motion, we could get that range with a smaller, lighter battery that might have only a 30-mile range."

This work isn't only going on in Utah. Dr. Zane said South Korea is already running public buses on a similar wireless charging system. And the car companies BMW and Daimler are in partnership to jointly develop a shared wireless charging system for BMW's i3 and i8 electric vehicles.

The 4,800-square-foot facility will be built near the USU campus in North Logan, Utah, north of Salt Lake City, with a budget of $2 million to $3 million, Dr. Zane said. The test track will be operational as early as spring of 2015. Follow me on Twitter: @misterfleming