

A Hamster Takes The Wheel

Hamster's miles tracked for HamsterAcrossAmerica.com blog

By Angela Pham

October 8, 2008, 5 a.m. EDT

Here is Lizzie standing in front of her wheel with the counter attached.

Courtesy of HamstersAcrossAmerica

Here is Lizzie checking to make sure the connection is hooked up properly.

Lizzie the banded Syrian hamster is like most typical domestic hamsters. She likes to nap during the day and be active at night. She thinks raisins are a fine treat, and she loves a vigorous run in her exercise wheel.

One characteristic about Lizzie, however, does set her apart from the average hamster: At just over 1 year old, she is making a hypothetical expedition across America.

Her wheel is fully equipped with a magnet-powered switch that sends data directly to a computer through a serial port. Every revolution of her exercise wheel is recorded on her website. Merchandise featuring Lizzie's logo is sold on the site. Lizzie even has a corporate sponsor for her long-distance run: Brawndo energy drink, known as "The Thirst Mutilator."

While Lizzie the hamster is not literally traveling across the country, (the entire journey will take place in the comfort of her own cage) her mileage has so far taken her from San Francisco to central Arizona, a distance of just under 700 miles. Lizzie does not follow a direct path through the states, but takes a more scenic route that allows her to hypothetically run across landmarks and cities throughout the country.

To make it across the 2,907 miles of the United States, Lizzie needs to sprint about 2,207 miles more, a feat that her owner, Stephanie Lee, thinks is definitely plausible, though the hamster measures just 6 inches long.

And Lee would know - when she spontaneously purchased Lizzie in November 2007, the hamster's aptitude for running was immediately apparent.

A Natural Born Runner

"For the first two to three weeks that I had her, I pretty much got no sleep at all because of her running," Lee said.

Lee and her housemate Thomas Nourse began an effort to stifle the squeaking noise that the hamster wheel made each time it rotated. With the experiments on the wheel came a novel idea: What if there was a way to measure how far Lizzie could run? And if there was, could she theoretically make it across the nation?

And so HamsterAcrossAmerica.com was born.

The creation was a team effort. Nourse and Lee's other housemate, Max Etchemendy, registered the domain name, and Nourse worked on formatting the website and blog. Lee designed the art for the logo. By January 2008, the site had launched, and so had a system for measuring Lizzie the hamster's mileage.

Nourse said the initial problem was trying to configure a device that could accurately measure the wheel's revolutions without using wires that Lizzie could chew through. Though they began with a bicycle speedometer, Lizzie quickly chewed it to pieces.

"Never underestimate how much time a hamster really has on their hands in the cage," Nourse said.

The problem was solved with a low-voltage, low-current house-grade wire with insulation and copper construction that wouldn't harm the hamster if she managed to chew her way through it.

A New Invention

A reed switch, much like those used on security systems in windows, was fitted onto the wheel next to a magnet, enabling it to be turned on and off each time the wheel turned. From there, the wire sends the data to a computer through a serial port, which is sent live onto the website as Lizzie runs.



Nourse outlined a step-by-step process for others interested in doing the same for their hamster's wheel on Instructables.com titled "Track How Fast Your Hamster Runs."

The site is proving to be a hit, especially among hamster lovers, pet owners and, to put it bluntly, "geeks," Nourse said.

After the how-to was posted to Instructables and featured on its front page, the site gained 561 hits in one day, though Nourse said the site typically averages 20 to 30 hits per day. A link from Stumble Upon, a website that personally recommends sites for its users, also boosted the number of hits.

A Four-Legged Legacy

The project continues to expand. Merchandise is now sold through the site, including shirts, a baseball cap and a mug emblazoned with Lizzie's Hamster Across America logo. All of the royalties are donated to the Humane Society of the United States.

"A lot of people do marathons and walks for charities," Lee said. "We thought, maybe we should have a run for a cause, too. So that was the whole idea behind the store."

Running for charity is an easy task for Lizzie the hamster to accomplish. She covers an average of 2 to 3 miles per night, with a record of almost 8 miles achieved in one night. Nourse calculated that Lizzie's top sustained speed was 2.5 miles per hour, with an average speed of 1.8 miles per hour.

"She is quite the runner," Nourse said.

Conditions do affect Lizzie's penchants for running more or less. Weekdays, when Lizzie's owner is at work, Lizzie runs "way more," Lee said. During the weekends, the pace slows down.

"Either she's bored or is afraid of me," Lee joked.

Noise level and light activity can also affect Lizzie's running pace, making her progress sometimes erratic, so projecting when Lizzie the hamster's journey across America will end can be difficult to measure, Lee said.

But progress does not go unrewarded. At the 400-mile mark, Lizzie was gifted with some chewy hamster treats; at 500 miles, fresh blueberries. Lee said the 1,000-mile mark will be a definite cause for celebration.

"I definitely want to do something to celebrate when she hits 1,000 miles," Lee said. "What exactly that is, I don't know."

Nourse said he has an idea, though.

"I think it will involve treats of some sort," he said. "She particularly likes raisins."