A robot dog under development in California is vying to be a best friend to people with Alzheimer's disease and other forms of dementia, offering comfort by responding to human touch with life-like motions.

Entrepreneur Tom Stevens recently presented a test version of the robotic yellow Labrador puppy to residents of a nursing home in Thousand Oaks, California.

Stevens said his company Tombot, in the northern Los Angeles suburb of Santa Clarita, partnered with Jim Henson's Creature Shop, a firm founded
by the late Muppets creator, to give the robot realistic movements.

"It didn't just have to look real and feel realistic but it had to behave realistically as well," Stevens said.

Stevens believes the Tombot dog, which moves its head from side to side, grunts and wags its tail, is lifelike enough to help people with dementia. It also is easier to look after than a real dog, he said.

The robot has 16 motors to control its movements and is loaded with sensors to respond to voice commands and detect how people are touching it, such as the difference between a slow caress and a vigorous pet.

Stevens said he came up with the concept for the robot after his mother was diagnosed with Alzheimer's in 2011.

"Of the many bad days that we had early on, by far the worst was when I had to take away her dog," Stevens said. His mother had "a beautiful two-year-old Goldendoodle" but Stevens said the dog ended up being aggressive towards her caregiver.

Japan's Sony Corp pioneered the use of robot dogs in 1999 with the AIBO, billed as a pet that behaves like a real dog using artificial intelligence.

Unlike the AIBO, which looks robotic, the Tombots closely resemble real dogs.

Stevens had a background in investing in robotics and he wondered whether the technology could help in providing companionship to people like his mother.

His test version has the name "Jenny." The puppy cannot walk and is carried on a small bed.
At the Sage Mountain nursing home in Thousand Oaks, where many residents suffer from dementia and other memory-related illnesses, petting the robot put smiles on people's faces during a visit last month.

Jenny has stopped by the facility a number of times.

"The dog is very interactive, the tail wagging, responding to them calling her name," said Caroline Gibson, a spokeswoman for the nursing home. "It's really amazing to watch them have a lot of ease and reduce anxiety."

Tombot plans to have its first commercial deliveries of its robot dogs in 2020.

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