



ABSTRACT

Avia Vestigo is the safety net technical solution that allows vulnerable family members to live independently and safely as long as possible at home. Engaging Artificial Intelligence, machine learning, and a notification system, Avia Vestigo is the smart solution for families concerned about the safety and wellbeing of their loved ones. By monitoring and noticing a change in routine, Avia Vestigo reaches out to the designated caregiver when there is a concern. Avia Vestigo supports independent living and peace of mind for family members and caregivers.

PROBLEM

With an increasing aging population, over the age of 65 years old is only increasing. In 2016 there Americans are living longer. The elderly population has grown substantially. The number of Americans 65 and older is expected to double by 2060, from 52 million to over 95 million.¹ Age related health challenges are increasing, with Alzheimer's cases expected to hit 13.8 million in 2050.² More and more families are becoming direct care givers. The ability of working families to care for elderly loved ones will be strained, as many ask, "how do I take care of mom or dad at home?" A technology-based solution is needed to support families as they care for their loved ones.

SOLUTION

Avia Vestigo allows individuals to live at home as safely and as independently as possible. As a technical solution, Avia Vestigo gives individuals and their guardians peace of mind to know that there is a safety net that will notify the designated guardian if there is a problem. The system consists of a BLE beacon that is worn 24/7 by the individual.

Currently, the system is being designed to extend the options available for those who subscribe to Project Lifesaver. Avia Vestigo will be an extension to the current Project Lifesaver device using a beacon that emits a BLE signal that is received by a group of sensors inside the home. The signal strength is recorded. A comparison of the signal strength by the sensors determines a relative position of the beacon. As the individual moves about the home over the course of their day, a normalized trend pattern of movement is found. An example of daily activities could include wake-up times, movements between the kitchen and living room, or leaving for appointments.

When Avia Vestigo is fully developed, any deviation from the normal trend can be set as an instant alert to the guardian that a potential problem exists. The alert parameters can also be customized to include time or area space in the home. A web dashboard is available that allows guardians to discreetly glean meaningful insight into the normal activities of their elderly loved ones, while supporting their independence.

Avia Vestigo is a patent pending innovation product of MI Technical Solutions, Inc., a Woman-Owned Small Business founded in 2004 in Chesapeake, Virginia.



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