

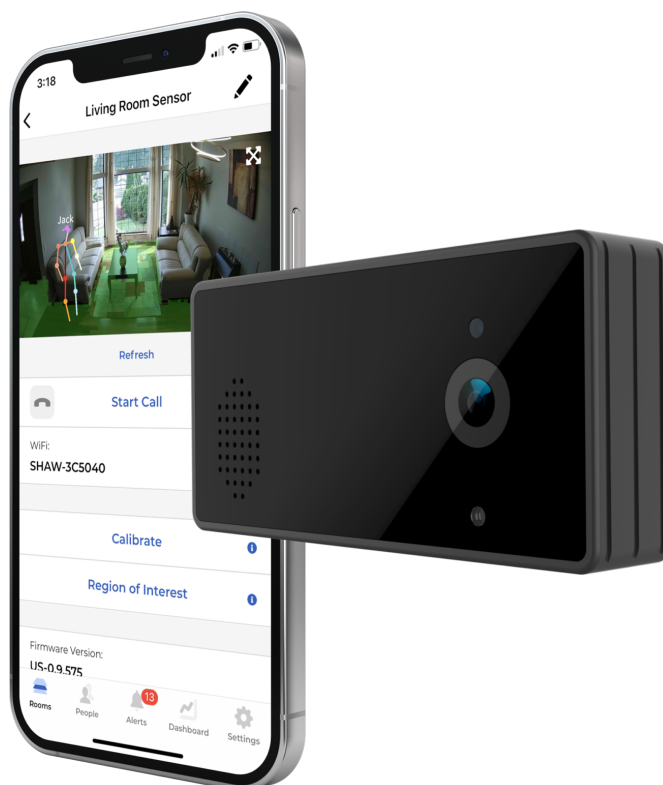
## Product Test Review

### FX – Functional eXperience

*AltumView Sentinare 3*

Video camera/sensor, single camera package.

The vendor website can be found [here](#).



### Product Review Summary

The Sentinare 3 is an updated version of the Sentinare 2, in a lightweight plastic housing. The biggest product evolution has been in the hardware, which is completely rethought. The prior version looked like an Arlo camera, whereas this version is rectangular, somewhat larger than a deck of playing cards. We suspect the innards are also new, along with the chipset driving the AI/machine learning.

Functionally is the same as the Sentinare 2. See our review [here](#).

This is a camera-based activity and fall detection sensor. It's primary functionality is to detect when an individual has fallen, and to alert a caregiver via a mobile app, in near-real time. It does so by using artificial intelligence (AI) to detect that the fall has occurred.

The camera has gesture (hand waiving) recognition to enable the older adult to generate an alert without having a fall take place.

Other functionality includes observing the activity pattern of the individual. These movements are categorized into sitting, standing, lying, and bending. Categories of individuals can be custom created or the default of Senior, Staff, Visitor can be used.

The camera can be set up to detect entry and exit from rooms, or to send alerts when entry, exit or elopement occurs.

A mobile app is used to set up the camera and view alerts, activities, etc. A web app is also available to view alerts, activities, and history, though clearly more development effort has gone into the mobile version.

The subject is represented as a stick figure in the app, as a privacy feature. Multiple individuals can be distinguished if the face recognition feature is set up.

## **Target Market**

The product targets 3 markets:

- 1) The Consumer market - intended for use by the adult child or designated caregiver to monitor the older adult for falls and activity.
- 2) The Long Term Care and Retirement Home market - operators can deploy this selectively or community-wide as a technological complement to the care they provide.
- 3) The Home Care market - operators can use this as a technological aid that complements care being provided to older adults in their homes.

## **Test Results**

Overall, the look and feel of the Sentinare 3 is very approachable and impressive in its compact size and surprising light weight. Pricing is similar to the Sentinare 2, around CAD \$250-\$300.

Installation challenges from the previous version have been mostly addressed. The device can be mounted using screws as before, but now also comes with velcro (Gorilla) tape that can be used instead. The power cable is now a pliable, longer, USB-C cable which is much better. The camera has a tripod thread on 2 sides of the body for added options for orientation.

## **Fall Detection & Commercial Readiness**

Based on our analysis, the product demonstrates an 80% level of accuracy in detecting falls within its main detection area, indicating a degree of commercial readiness, particularly for environments where the older adults are located within the main detection area. However, there are opportunities for improvement that we have identified, that potential buyers should be aware of:

- **Edge Detection Limitations:** The product shows reduced accuracy in detecting falls that occur at the edges of its detection range. Buyers should consider the layout and usage patterns of the environment where the sensor will be deployed to assess the potential impact of this limitation.
- **False Positives and Negatives:** The system has been observed to generate false positives, including random alerts without any correlated input, and false negatives, where some falls, especially softer or slower ones like sliding off furniture, may not be detected.

### Potential Product Roadmap

Besides the already mentioned hardware performance issues that warrant improvement, there are other items that should be addressed over time.

The associated mobile and web apps could be (re)built in a modular fashion to enable toggling of features associated with specific market segments, or tiered paid functionality. In this way the vendor would have to maintain only one software stack while supporting the development of various hardware versions. Optimizing the UI/UX is a required exercise in continuous improvement. We would expect that the AI functionality would evolve to make fall detection and activity categorization increasingly accurate, on a stable hardware platform

Fleet management in an enterprise operator environment would need to be robust and easy to use, which is not the case today for multi-location installations. We would also recommend pre-built integrations with the most common target platforms (e.g. nurse call systems like Notify, Sara, etc) for easy connectivity and data flow. This can all come with time as the product matures.