

# Non-Invasive Device for Early Detection Of Alzheimer's

## DELAYS IN DEVELOPMENT PUT CLINICAL TRIALS MILESTONE AT RISK

### SITUATION

- Small start-up company looking to develop a non-invasive laser scanning device for the early-detection and diagnosis of Alzheimer's disease
- Developing a camera-like device to produce high quality images capable of detecting the amount of beta-amyloid in a patient's eye

### CHALLENGES

- Lack of proven expertise internally in developing complex software that is safe, secure and reliable while also meeting stringent FDA regulations
- Identify the root causes contributing to poor image quality and uncover required features to improve image quality

### SOLUTION

- Comprehensive experiments on various camera features resulted in implementing new brightness and contrast features to the device's settings library
- MedAcuity engineers completed hazard analysis, refined architecture and design, performed software implementation and system verification

### RESULTS

- MedTech company went to clinical trials and collected usable images on which to conduct scans
- From the scans, data could be collected and analyzed in order to detect the beta-amyloid measurements in patients who have signs and symptoms consistent with Alzheimer's disease
- To date, the beginning stages of the project have been successful, and development is ongoing to further improve the promise of this new device for the early detection of Alzheimer's

### ABOUT MEDACUITY

MedAcuity is a specialized engineering firm that focuses on medical technology software development. The trusted and experienced firm was founded in 2007 by a team of seasoned software engineers who identified opportunities to fill gaps in the engineering expertise and efficiency facing the medical technology industry. MedAcuity offers extensive experience across the MedTech industry with full life-cycle software development and subspecialties in other areas including tool validation, algorithm development, and cybersecurity.

Accelerating the pace of innovation while reducing development time and risk.

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