- Mobile application / Brain—diseases / Alzheimer's Disease

A Phone App to Detect Alzheimer's

The Freeman · 23 May 2022 · 13 · By Yasunari Ramon Suarez Taguchi

A team of researchers affiliated with the University of California San Diego have developed a smartphone app that's portended to be capable of detecting neurological conditions like Alzheimer's disease based on "eye scans".

The app works on smartphones that are equipped with an infrared selfie camera to detect a pupil's size to assess a person's cognitive condition. It is designed to measure pupil sizes to millimeter units, and comes with imagebased instructions on how to use it, voice command features and a companion plastic scope to direct users on how to properly position an "eye scan." The overall operation is based on a test known as pupil response test, and is an affordable and readily-accessible alternative to the aforementioned test, which requires specialized equipment and trained personnel to conduct.

Previous studies and research on the matter has shown that pupil size can provide information on a person's neurological functions, like how pupil size tends to increase when a person is doing a challenging task that requires higher cognitive function.

The app was designed to work with phones that come with an infrared camera made for security-oriented facial recognition functions like the OnePlus 8 Pro, the iPhone X and later models and the Samsung Galaxy S8 and later models.

The team responsible for the app is planning to conduct tests with it with older adults with mild cognitive conditions, in a bid to assess how effective it is as a pre-screening option for detecting cognitive/ neurological conditions.

Though still at its early stages, the app has garnered positive reactions from various experts, who generally see it as a welcome development in the field of neurological diagnostics.