Soter Technologies introduces rapid walk-through health detection scanner to reduce the spread of illness

June 05, 2020 - Owners Developers & Managers

Boston, MA Soter Technologies' team of engineers and medical advisors have been working around

the clock since December 2019 to create, design and build technology to help reduce the spread of the COVID-19 pandemic, other illnesses and to aid with the re-opening of the economy. The company is best known for the international headlines it has generated as the inventors of the world's first K-12 school vape detection sensor and alert system, FlySense.

Soter presented SymptomSense Medical Evaluation Gateway, a non-invasive walk-through electronic full-body symptom scanner for providing detection of symptoms of known illness in less than 10 seconds, is now moving into the production phase.

SymptomSense is a revolutionary electronic walk-through full-body health scanner that looks similar to metal detectors used at security checkpoints. Similar to the rapid evaluation that an individual would receive at a hospital emergency room SymptomSense gathers critical vitals including blood oxygen level, which is more important than body temperature, when assessing if an individual is ill.

SymptomSense uses an array of sensors to provide a rapid, non-invasive, hands-free approach for gaining important real-time vital signs, including detecting: blood oxygen levels, external body temperature within 0.2 degrees of accuracy (Celsius), elevated heart rate, respiration rate, shortness of breath, lung congestion, height, weight and, in the future, non-contact blood pressure. Within seconds the SymptomSense device provides health status with clear messaging and indicators for screening staff, and, in the future, data mapping of alerts to an electronic system-of-records that can be shared with authorities as may be required per local laws and ordinances.

"To get the economy going, open schools and allow for people to safely work and gather we need to use sensor technology and continue to follow recommended safety protocols. At Soter we identified months ago, with our medical advisors, that it is critical to check body temperature. However, to get a better idea if an individual is ill, we also determined that we would need to know blood oxygen level, check heart and respiration rates and identify if there is lung congestion. Our technology combines all this data to make a more effective identification of potential illness," said Derek Peterson, CEO of Soter Technologies.

The development and beta testing of prototypes started in late 2019 in response to the COVID-19 outbreak in China. Fortune 100 companies, major league professional sports teams, entertainment parks, Broadway theater management companies, real estate development and management companies, U.S. federal government departments and governments around the globe have all expressed interest and are reviewing SymptomSense for potential use.

SymptomSense allows on-site security personnel to rapidly screen and use the Soter's AI (Artificial Intelligence) technology to identify individuals with known symptoms prior to entry into hospitals, schools, airports, train stations, government buildings, military bases, stadiums, malls, and other such facilities that must remain open. Soter has accepted orders from clients in the United States, Europe and countries around the world with delivery of the first units set for June 2020. The company formed an Advisory Board of doctors, scientists and engineers that continues to work with the medical and research community to enhance the systems' technology and capabilities. For example, SymptomSense now includes a module for weapons detection to provide property

managers with an all-in-one access reassurance solution.

"We have learned from the COVID-19 pandemic that we must be much more vigilant and leverage technology to keep the public safe and stop the rapid spread of disease. SymptomSense creates an early warning system that will aid in reducing the community spread of viruses including the flu as well as other illnesses," said PK Carlton, Jr, Lt Gen (Ret) USAF MD, FACS, and former Surgeon General of the U.S. Airforce.

"The rapid spread of the COVID-19 virus and the serious threat it poses to lives requires us to act now. Based on my discussions with the engineers at Soter Technologies and other medical advisors involved with development, I believe that the SymptomSense device is an effective screening and critical information sharing tool which could reduce the spread of COVID-19 disease and future biological threats," said Cardiologist, Mordecai N. Klein, MD, FACC.

SymptomSense can scan approximately 1,500 people per hour and is capable of processing over 10,000 people over an 8-hour period, with zero downtime. For airlines and other transportation systems, an optional built-in facial recognition technology is available for data-mapping to the government registry. In doing so, SymptomSense platform enables building/site security personnel to track the movement of potential carriers of a virus, while protecting their privacy. This data capture and mapping capability is critical for understanding the current and predictive patterns, and trends for the spread of disease, and then help trace back to most-current disease geo-location clustering and origin. As needed, the platform can be linked to mobile phone "contact tracing" data, local weather data, and demographic data as may be required by government agencies.

"The world is in the midst of an existential international health and economic crisis. However, it is now clear that we need to use technology to create a healthier and safer world. Since December 2019 we brought a team together that is using best-in-class technology, which includes internal and external environmental sensors, artificial intelligence software, the Internet-of-Things data sharing, agnostic wireless connectivity to rapidly collect, process and share data that will help reduce the short and long term impact of the COVID-19 pandemic. This technology has been incorporated into SymptomSense™ to identify individuals who present symptoms. In doing so, these individuals will receive care more rapidly. This process will also limit the exposure of healthy and at-risk populations to illness," added Peterson.

The company accepting United States and international orders for SymptomSense Scanners. This health and safety technology platform can be deployed rapidly and is easy to use.