One way to help reduce the spread of the coronavirus during the COVID-19 pandemic is screening people for fever as they enter factories, offices, and other crowded places. This can be a slow and even dangerous process for those doing the fever screening if they must come in close contact with large numbers of potentially infected people.

To help increase the access to effective and safe rapid fever screening devices during the pandemic crisis, special emergency clearance and guidance was given by the US FDA and other agencies. These agencies specifically addressed using high-accuracy infrared surface temperature sensors and other telethermographic systems for rapid, socially-distanced triage fever screening. As long as these devices met very strict accuracy specifications, they could be used without needing to go through the standard medical device approval process.

Despite their marketing claims, most commonly available infrared surface temperature sensors and temperature-gun style fever devices do not come close to the required accuracy listed in the government’s guidance for non-touch fever screening. For this reason, Aridea Solutions reached out to Apogee Instruments, a leading manufacturer of scientific-grade infrared surface temperature sensors typically used for specialized environmental research purposes.

As an innovative IoT provider, Aridea Solutions was looking for a high-accuracy, cost-effective infrared sensor to integrate into their new Aridea Solutions Fever Screening Kit and Apogee sensors fit the bill. For their application, Aridea Solutions requested Apogee create a custom infrared radiometer, the model SI-4B1-SS, with a tighter calibration range focused around human skin temperatures and with an SDI-12 digital output. After this was delivered by Apogee, Aridea created an easy-to-use system built around the Apogee sensor and soon launched this new rapid human febrile temperature screening system that has since been deployed at several factories and venues around the world.