

The COVID-19 pandemic has fundamentally altered the day-to-day operating procedures of faculty, students, and the community of the University of California, Irvine to ensure campus health and safety. To aid the transition back into the workforce and mitigate the spread of COVID-19, our project aims to adhere to safe return-to-work protocols by providing university personnel with a continuous temperature monitoring system. This system consists of a temperature sensor integrated with a printed circuit board (PCB) that collects and wirelessly transmits an individual's temperature data from their chest or forehead to a mobile application for storage and visualization. Our device would provide users with the ability to determine what point of the day or week they had a fever, a common symptom of COVID-19, based on CDC guidelines and whether their condition matches the criteria needed to return to work. Currently, the app is programmed on Android Studio to establish Bluetooth connections and process incoming temperature data to plot as user-intuitive graphs and communicate consequential temperature patterns. The PCB has been created on EAGLE to integrate the temperature sensor with a Bluetooth module and power supply. A housing unit for the PCB has been designed using SolidWorks as a top and bottom part with a snap-fit mechanism that adhesively attaches to the point of application. In collaboration with TIPPERS, an online platform that implements contact tracing and alerting at UCI, the collection of temperature data from our device can help assess potential exposure risks as the campus reopens.