

CMEI Telemedicine Internet of Things (IoT) Technology Challenge

Background: The Coronavirus Pandemic has pulled back the curtain on certain deficiencies in medicine not caused by, but exposed by the pandemic. One example is the extreme limitation of technical capabilities of telemedicine visits, during which patient examination and physician acquisition of information for diagnostic purposes is restricted. Simple vital signs measurement or monitoring cannot even be performed.

Challenge: This online maker challenge is a pilot test of an IoT kit innovation activity for technology that helps advance medical diagnostic assessment outside a typical clinical setting (doctor's office, urgent care center, hospital, etc.) using communication and distribution networks. Challenge prizes: \$250 gift card (each) first place, \$100 gift card (each) second place

Guidelines and Tips

Explore the OSU Center for Medicine and Engineering Innovation (CMEI) website [here](#).

Explore content regarding telemedicine [here](#).

Explore example content at IoT Kit development environments at [this website](#).

Develop a couple of lists:

- A. List of medical diagnostic sensor modalities.
- B. List of routinely accessible scenarios where remote diagnostics could be acquired and/or utilized in non-emergency situations (e.g., not an ambulance, emergency room, or other established healthcare setting).
 1. Select items from List A and List B and describe their use/application to address shortcomings or gaps in reducing access to healthcare.
 2. Develop an innovation that includes a software technology demo that decreases the shortcomings or gaps in remote/telemedicine diagnostic applications.
 3. Describe a plan to get a Minimally Viable Product (MVP). MVPs are described online. Consider your hackathon demo as a first step toward developing a MVP.

Required Hardware

LPSTK-CC1352R Development Kit

