

## Virtual Arduino Mini Project

EF 230

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A common problem facing UT students today is whether or not they should get testing for COVID. Since the spread of COVID is fast and sometimes unnoticeable, it is extremely helpful to have a device that can help determine whether you may have contracted it and are a risk to others that doesn't involve another person or touching surfaces possibly exposed to COVID-19. While TinkerCad only has the ability to use an ambient temperature sensor, an infrared temperature sensor could be used for the true application

The Arduino utilizes an ultrasonic distance sensor, LCD display, and a TMP 36 (temperature sensor). The distance sensor determines when the person is close enough to get a temperature reading from the TMP by sending out waves and calculating the distance with the time these take to come back. The temperature sensor picks up temperatures within 18 cm (7.1 in) of range from the sensor. The LCD display shows the temperature read and shows a range of outputs that are determined by the temperature input from the TMP. The arduino will then determine whether this temperature is at risk for a fever and should potentially schedule an appointment for a COVID test. The screen clears itself when the distance goes over 18cm to get ready for the next person.

