



# MiFINGER

- ✓ **Protect American Airlines' investment in IFE touch screens.**
- ✓ **Restore passenger confidence by providing them with a protective shield from harmful bacteria and disease.**
- ✓ **Use the only disposable finger pad with an antimicrobial hard coat.**

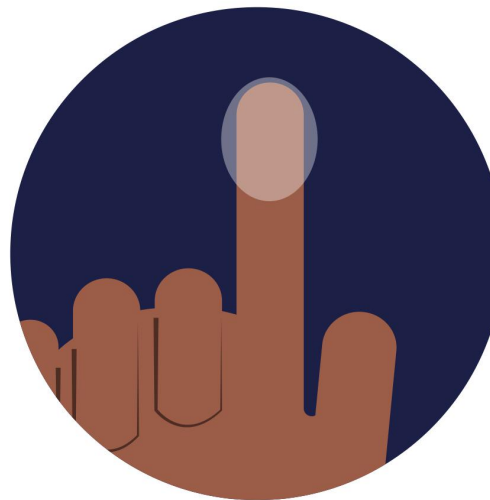
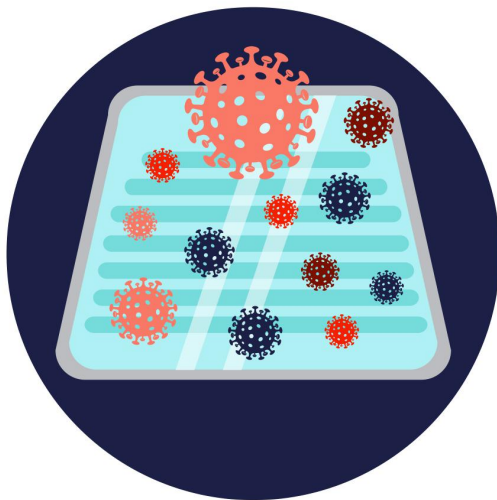


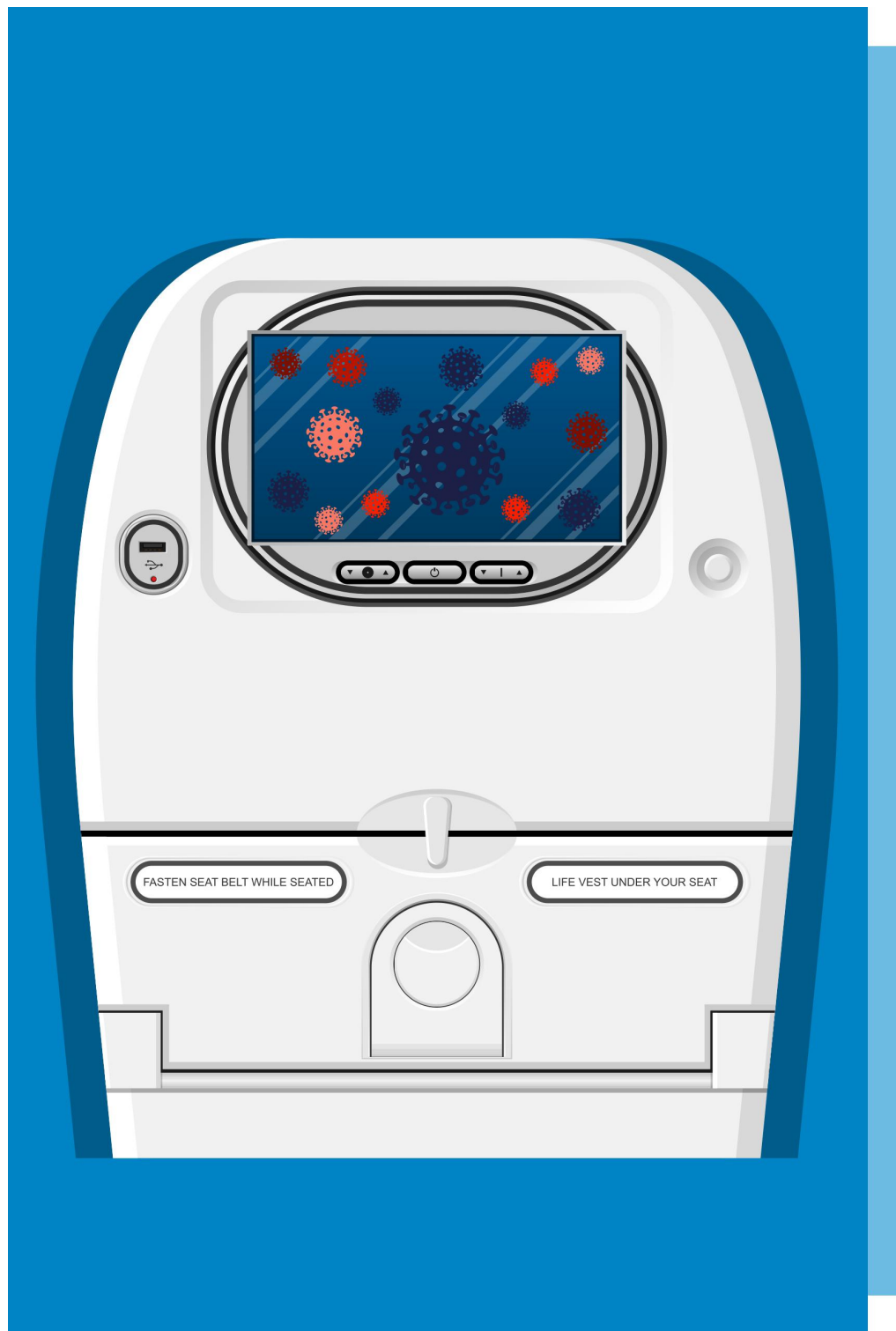
## EXECUTIVE SUMMARY

The **Novel Coronavirus Pandemic** has dramatically shifted our everyday lives. It has changed how we think and handle just about everything; where we go, who we interact with, how we do business, and **what we touch**. In today's modern and technology driven world, there is an ever increasing multitude of devices which operate using an entirely touch screen user interface. The coronavirus has made us all hyperaware of these surfaces and has many airlines and passengers **pondering the future of in-flight entertainment (IFE) screens**. What was once a source of relaxation and enjoyment has now become a **breeding ground for germs and a potential hazard to passengers' health**.

**MiFinger™** aims to provide **American Airlines** with a **low-cost solution** to bring back the use of IFE touch screens and **restore passenger confidence**, without the use of harsh cleaners that may damage the screens. MiFinger™ creates a **physical barrier** between the skin of the finger and the surface of the touch screen on interactive devices. In addition to limiting the transfer of oils and dirt to the screen, MiFinger™ also serves to **prevent the transfer of pathogens to users' fingers**, and vice versa, when touching public interactive devices.

MiFinger™ is the only disposable antimicrobial finger pad available on the market today.





## THE NOVEL CORONAVIRUS (COVID-19) SURFACE TRANSMISSION

The primary method of infection spread is believed to be from person to person. However, **coronavirus can also spread from contact with infected surfaces** or objects. A person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes.

A recent study found that the COVID-19 coronavirus can survive up to three days on plastics and up to **five days on glass**.<sup>1</sup> The researchers also found that this virus can hang out as droplets in the air for up to three hours before they fall. But, most often, they fall more quickly.<sup>2</sup>

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<sup>1</sup><https://health.clevelandclinic.org/how-long-will-coronavirus-survive-on-surfaces/>

<sup>2</sup><https://www.health.harvard.edu/diseases-and-conditions/covid-19-basics>



# TOUCH SCREENS – HOT SPOTS FOR INFECTIOUS BACTERIA

According to a study conducted at the London Metropolitan University in the U.K., **infection-causing bacteria** from **human and animal feces** can be found on most **public touch screens**. Much of these bacteria originate from people's intestines, gut, nose, mouth, throat, and feces.<sup>3</sup> On average, there are about **253,857 colony-forming units per square inch** on **airport check-in screens**.<sup>4</sup> Other studies have found **potentially dangerous bacteria** on touch screens in hospitals and grocery stores.<sup>5</sup>

Two types of bacteria commonly found on touch screens are **Enterococcus faecalis (E. faecalis)** and **staphylococcus (“staph”)**. E. faecalis is a bacteria that comes from the flora in our gastrointestinal tracts and **may cause fever, fatigue, headache, chills, vomiting, and diarrhea**.

And in more severe cases, it can lead to meningitis or urinary tract infections. Staph is a bacteria found on the skin and noses of 25 percent of the population and typically does not cause disease in the person who carries it. However, **if it gets into an open wound or is ingested, staph can cause blood poisoning, pneumonia, toxic shock syndrome, skin infections, and food poisoning**.<sup>6</sup>

The **vast majority of bacteria** found on **public touch screens** are **contagious**. And while anyone can develop an infection, **those with weakened immune systems are most at risk**.<sup>7</sup>

<sup>3</sup><https://www.londonmet.ac.uk/news/articles/tests-find-traces-of-faeces-on-popular-restaurant-touchscreens/>

<sup>4</sup><https://www.insurancequotes.com/health/germs-at-the-airport>

<sup>5</sup>[https://www.ajicjournal.org/article/S0196-6553\(18\)30896-4/fulltext](https://www.ajicjournal.org/article/S0196-6553(18)30896-4/fulltext)

<sup>6</sup><https://www.healthline.com/health-news/want-to-avoid-dangerous-bacteria-dont-use-touch-screens#What-kind-of-bacteria-is-on-our-touch-screens?>

<sup>7</sup><https://www.cdc.gov/hai/organisms/staph.html>





## MIFINGER™ ADDING A TOUCH OF PROTECTION

**MiFinger™ is a finger apparatus** designed to be worn on one or more fingers, and **serves as a physical barrier between the finger and the screen** of any modern interactive touch screen device. The purpose of having this physical barrier is to **limit the transfer of germs and diseases** from the touch screen which can result in illnesses.

MiFinger™ uses a **durable protective film that is armed with an antimicrobial**, scratch, abrasion and chemical resistant hard coat **providing users with a strong shield of security from contact with harmful viruses or bacteria**. The top clear hard coat layer has been treated with an EPA-registered silver ion antimicrobial agent to protect the film from a broad spectrum of bacteria, mold, and mildew. The silver ion antimicrobial control mechanism within the hard coat utilizes an active silver zeolite carrier that interrupts metabolism of cells and prevents cell reproduction within the film itself. This added layer of protection helps limit the surface transmission of germs that may occur when being handled by the user to either apply or remove the finger apparatus.

# PEEL IT! STICK IT! SWIPE IT! TOSS IT!

MiFinger™ is a flexible disk that can be molded to fit a variety of finger and thumb shapes. When the user is ready to apply MiFinger™, they simply peel off the sticker and adhere it to their finger(s) of choice. The user will then proceed to interact with the touch screen as they normally would. Upon completion, MiFinger™ can be disposed of in the nearest trash receptacle. Unlike its competitors, MiFinger™ is not a glove or a stylus and is intended to be discarded and not reused.





## ADD MIFINGER™ TO AMERICAN AIRLINES' CLEAN COMMITMENT

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