UVC Solutions

PROJECT SAFEGUARD

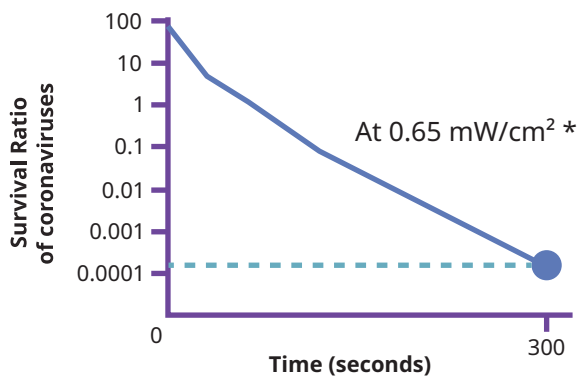**Ultraviolet-C (UVC) light rays inactivate coronaviruses with adequate exposure time and intensity from the UVC source**

Survival Ratio of coronaviruses

100
10
1
0.1
0.01
0.001
0.0001

At 0.65 mW/cm^2 *

0 — 300

Time (seconds)

✓ Inactivates viruses by damaging their DNA

✓ Can disinfect air, surfaces and water[1]

[1]Reed, Nicholas G. "The history of ultraviolet germicidal irradiation for air disinfection." (2010)
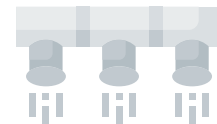* Tests performed by SBIC, A*STAR using 277nm LED

How is UVC used?

Disinfects Hospital Rooms

Disinfects the air in buses and trains

Installed in air ducts to provide clean air

Uses Robots and Automation

✓ Reduce the need for manual cleaning

✓ Limit workers' exposure to virus hotspots

✓ Clean hard-to-reach areas

Take Safety Precautions

! Not eye safe or skin safe

! Some models of UVC lamps may emit ozone[2], which is a safety hazard

! Those operating UVC devices should wear appropriate PPE and UV-resistant eye goggles

! Not advised to be used in homes

[2]It should be noted that UVC rays at 254nm, are not eye safe and produces ozone, which is harmful to humans

Scan to read NEA's guidelines on UVC Devices

Scan for more information on A*STAR's research