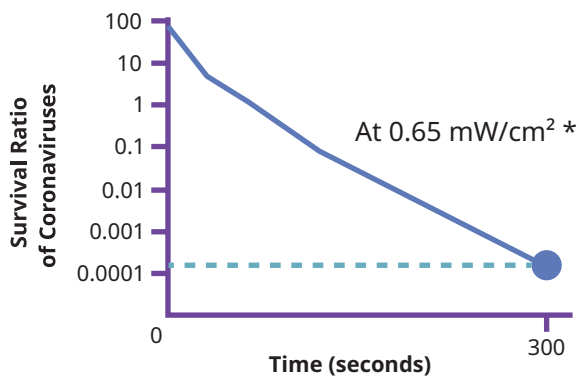


## Ultraviolet-C (UVC) light rays inactivate coronaviruses with adequate exposure time and intensity from the UVC source



- ✓ Inactivates viruses by damaging their DNA
- ✓ Can disinfect air, surfaces and water<sup>1</sup>

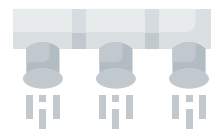
<sup>1</sup>Reed, Nicholas G. "The history of ultraviolet germicidal irradiation for air disinfection." (2010)

\* Tests performed by SBIC, A\*STAR using 277nm LED

## Robots and Automation for UVC Sterilisation



Disinfects Hospital Rooms



Installed in air ducts to provide clean air

### Why Robots and Automation?

- ✓ Reduce the need for manual cleaning
- ✓ Limit workers' exposure to virus hotspots
- ✓ Clean hard-to-reach areas

### Safety Guidelines<sup>2</sup>

- ! Not eye safe or skin safe
- ! Some models of UVC lamps may emit ozone<sup>3</sup>, 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

<sup>2</sup>Advisory on Surface Cleaning and Disinfection for COVID-19, taken from National Environment Agency (2020)

<sup>3</sup>It should be noted that the typical UV lamps (254 - 280nm) are not eye or skin safe, and additional precautions are needed to prevent direct exposure to people

