
High-Touch Surface Solutions

— Refining the Ideas —

Reducing risk of Covid Contraction

Cleaning Solutions

- UV-C cleaning and manual wiping are the most effective cleaning solutions
- Useful for surfaces where contactless solutions are not Ideal.

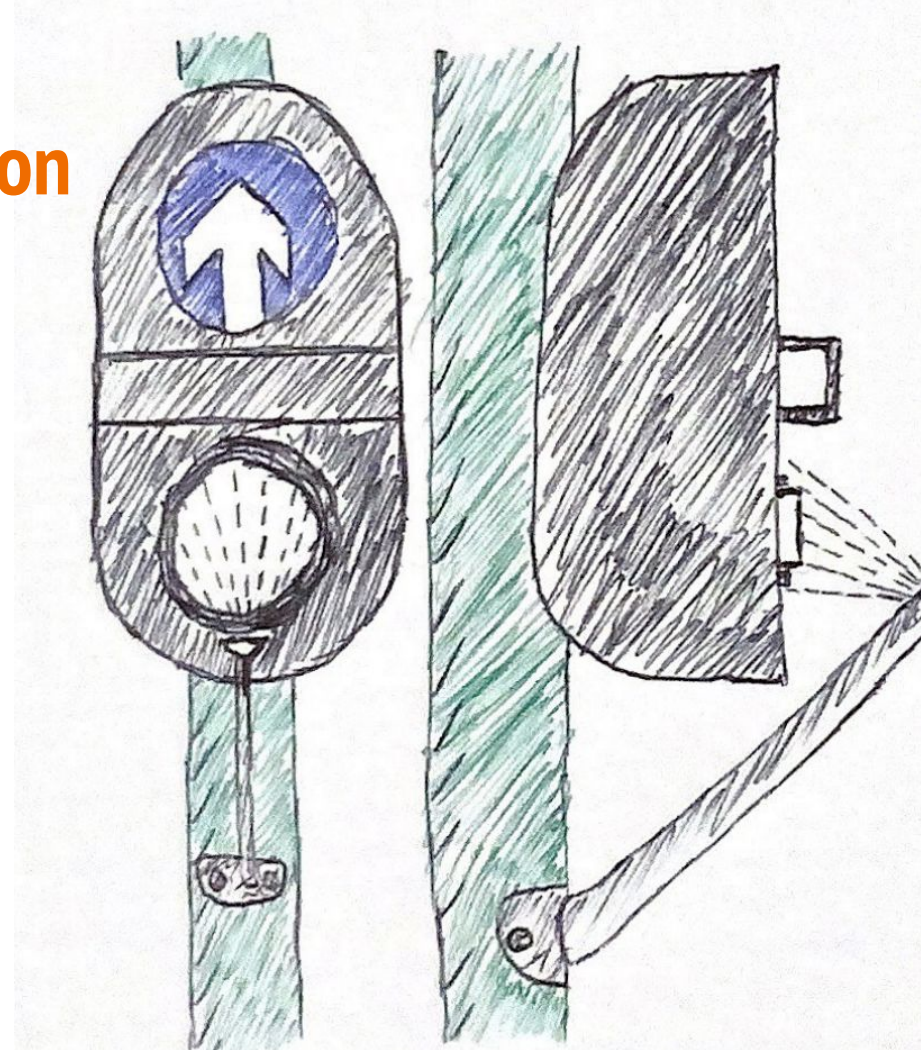
Contactless Solution

- Smaller and more cost effective to implement than physical cleaners.
- Restricted to simple single button applications.



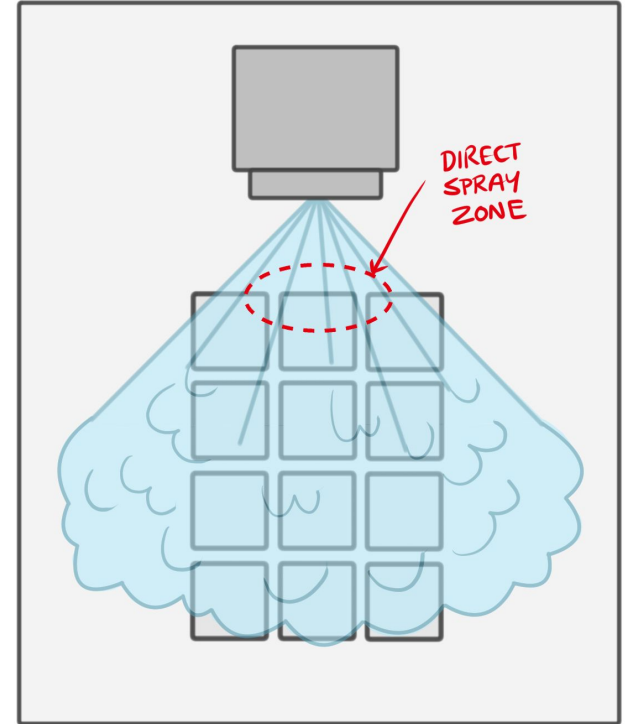
Self Cleaning Traffic light button

- A atomising sanister solution would be bulky and cumbersome.
- An aerosol solution would be easy to implement, requiring simple electronics to depress it and a mounted chassis for the container.



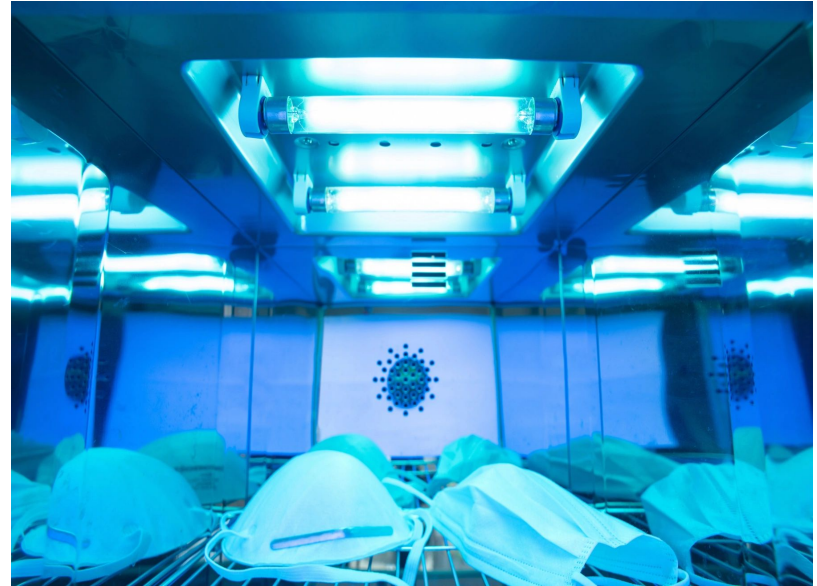
Self Cleaning Buttons - Spray Cleaning

- According to W.H.O, spraying or fogging is not recommended for removing COVID-19 as the disinfectants will only be effective in the central spray zone (high concentration required).
- Additionally, spraying and fogging is not recommended in confined public spaces as it leads to inhalation of the disinfectants.



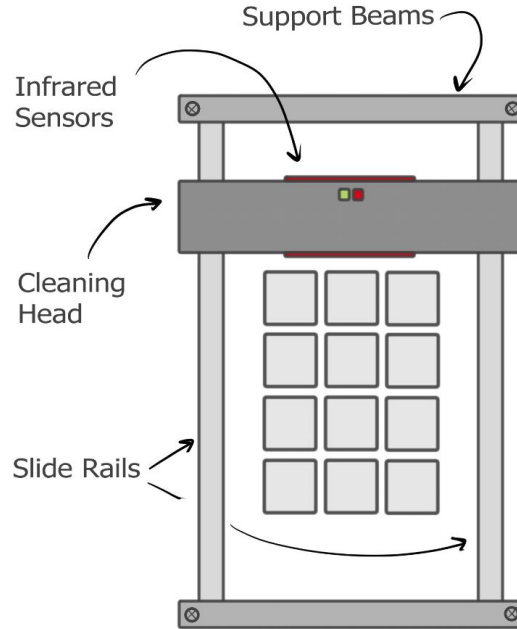
UV-C Cleaning

- UV-C can kill up to 99.7% of live Coronavirus on a surface.
- It is ideal for confined public spaces (such as elevators) as it does not produce any fumes.
- Does not leave residue on surfaces.
- Does not require refilling with disinfectant.

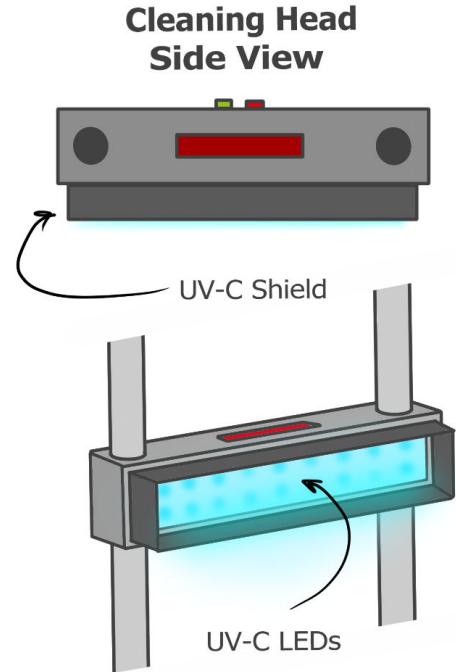


UV-C Cleaning - Elevator Buttons

- Support Beams: Hold slide rails in place and bolt device to surface.
- Cleaning Head: Slides across surface.
- Infrared Sensors: Only allow cleaning process when hands are clear of buttons.
- UV-C shield: Confines UV-C within device.

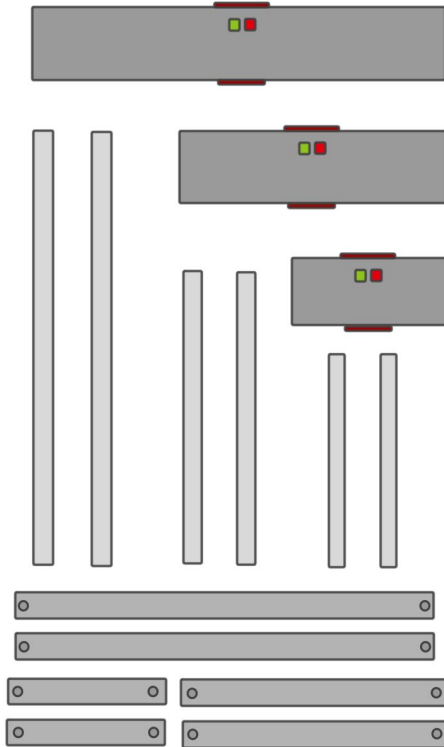


**Surface Cleaner
Full View**

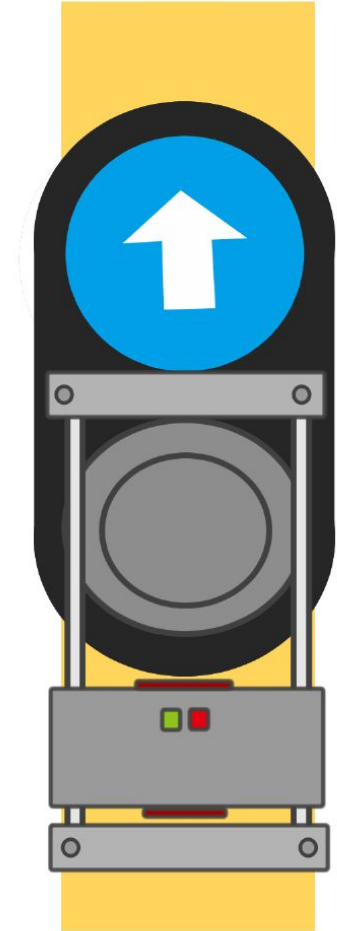


**Cleaning Head
Lower View**

UV-C Cleaning - Versatility

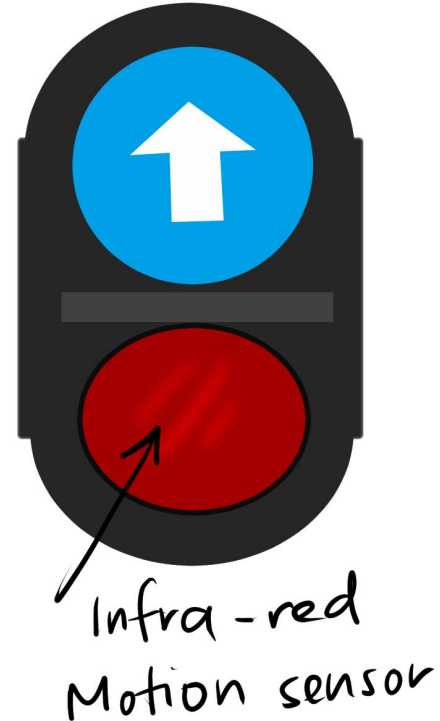


- Modular design allows the cleaner to be sized to suit a range of applications.
- Three cleaning head sizes and three slide rail lengths can offer 9 sizing solutions.



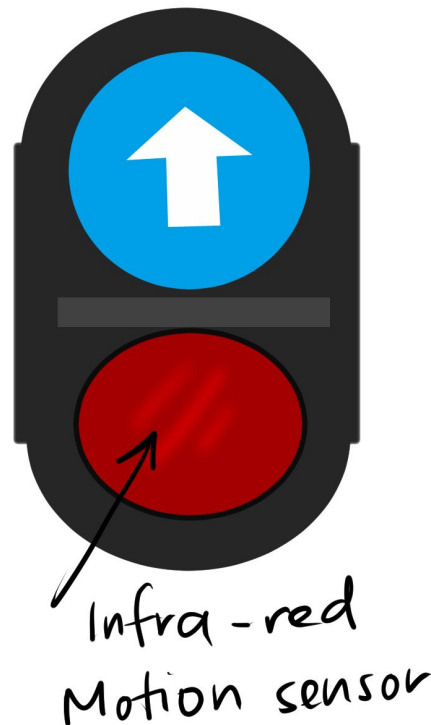
Contactless Traffic Light Button

- Contactless solutions eliminate the need for cleaning.
- However, touch surface braille is still required to assist the visually impaired.

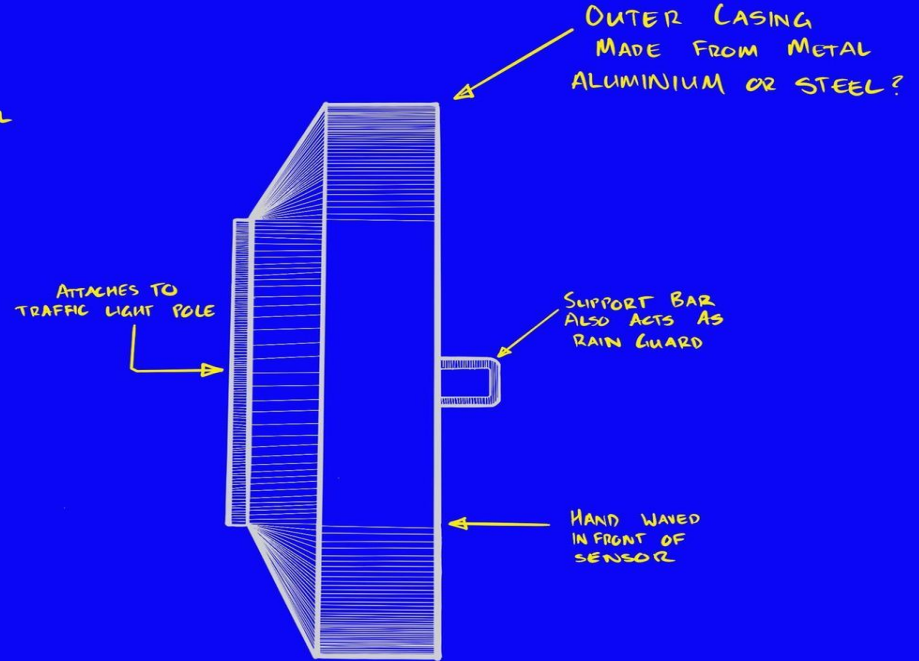
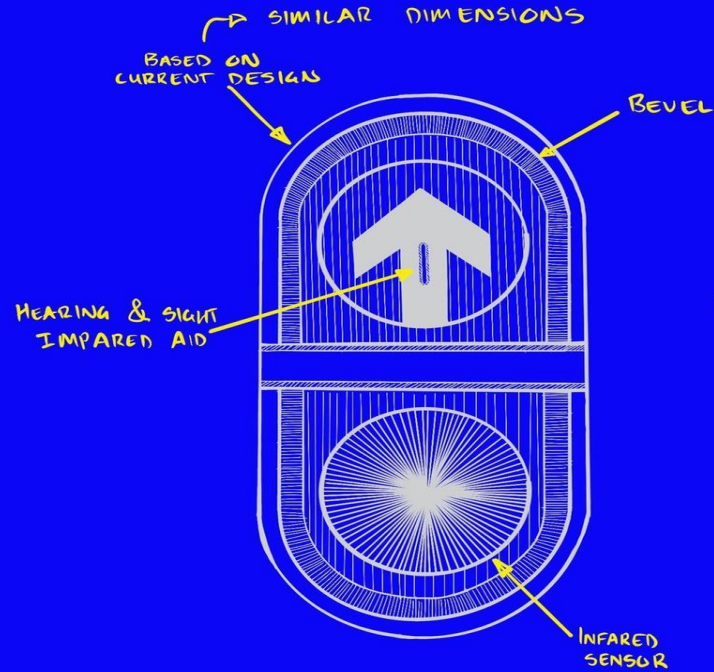


Contactless Traffic Light Button Selection Choice

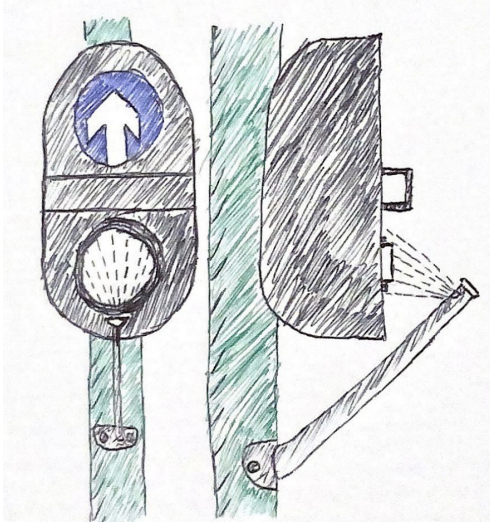
- Lidar is not cost effective.
- Photodiode comes with complication during night time use.
- Settled on Infrared as it is effective for human triggered contactless buttons.



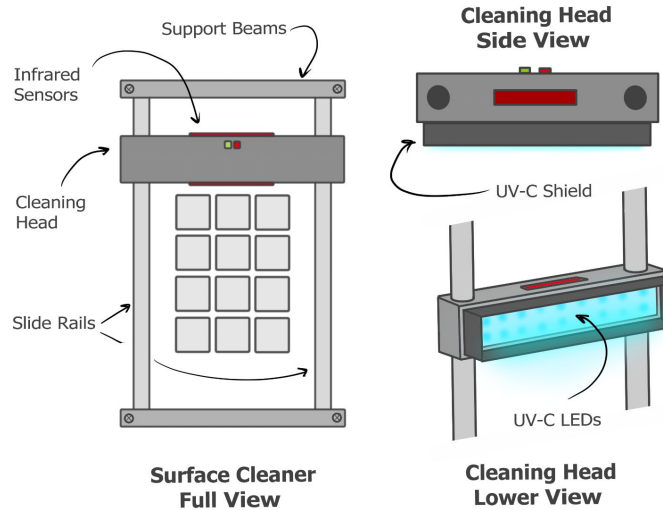
Touchless Traffic Light



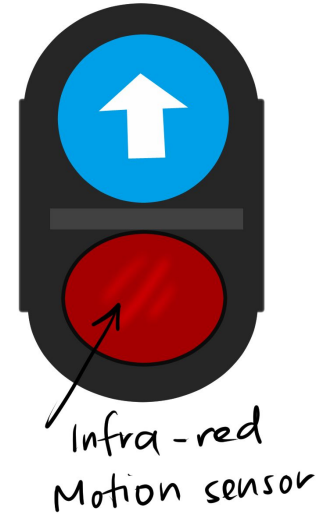
Thank You for Your Time



Spray Cleaner



UV-C Cleaner



**Contactless
Traffic Button**

Misting Nozzle for an Elevator

