**Automatic Mask Dispenser**

An automatic mask dispenser would be an useful invention during this time of COVID pandemic. Masks have been very important in protecting our communities from the spread of the virus during this pandemic and will continue to protect us from respiratory diseases. Wearing a mask prevents the spread of germs in public places like hospitals, offices, schools, and public transportation where people cannot maintain social distance. Although the Center for Disease Control does not require masks for fully vaccinated people1, more than 50% of the population in the US and 90% of the world population are still not vaccinated2. Without wearing a mask the virus can still spread among these unvaccinated people which can cause the virus to develop stronger variants like the Delta variant that is currently dominant in the US3. Even though masks are commonly available in stores , people either forget them when they go outside or might have masks that are not clean due to improper use. Thus, it is important to make masks easily available for people in public places. One way of doing this is to have an automatic mask dispenser in places like hospitals, schools, and airports where CDC still requires masks so they can go to the dispenser close by and get a mask. This is similar to automatic toilet flushing, automatic hand sanitizer dispensers, and tissue dispensers that we find in many public bathrooms. Currently masks are kept in boxes outside stores and can get contaminated when one person touches the mask manually and can spread the germs to the next person. This can be avoided by using an automatic mask dispenser where one mask will be delivered when a person brings his hand below the machine. The masks have to be arranged such that the outside of the mask falls on the hands of the people to avoid contaminating the inside of the masks. You can also have an automatic sanitizer dispenser next to the mask dispenser so people can clean their hands before touching the mask. CDC has guidelines on proper mask wearing4 which can be posted next to the mask dispenser to educate people. These dispensers should be placed at the entrance of every classroom, bus stop and public buildings. The mask dispenser should be able to hold at least 100 masks and be refilled every two weeks. Having a mask dispenser will make it very convenient for people to use masks and reduce the spread of germs. Therefore, an automatic mask dispenser would be a very useful invention for the year 2021 and will improve the health of our community and keep everyone safe.

**Bibliography**

l) <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html>

2) <https://ourworldindata.org/covid-vaccinations?country=USA>

3)<https://www.sciencealert.com/the-delta-variant-has-experts-worried-here-s-what-you-should-know-about-it>

4)<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wear-cloth-face-coverings.html>