The AirShield works by creating a curtain of air around each passenger that sends air directly into the plane’s filter system | Photo source Teague

'TAIR CURTAIN' DESIGNED TO PROTECT PLANE PASSENGERS FROM COVID-19

The AirShield manages cabin airflow to create a barrier around each seat that disrupts the normal circulation of air

Spotted: Epidemiologists tell us that social distancing, in addition to wearing masks and washing our hands frequently, is key to helping reduce the spread of COVID-19. However, it is difficult to socially distance in enclosed spaces, such as trains and aeroplanes. This is important because giving people the confidence to get back on a plane is necessary to boost the global tourism industry. Now, design and innovation firm Teague has developed a way to create an “air curtain” around each passenger.

Teague’s innovation, the AirShield, manages cabin airflow to create a barrier around each seat that disrupts the normal circulation of air. The effect is similar to walking into an air-conditioned building in the summer and being blasted with a rush of air. Any time a passenger breathes, coughs or sneezes, the AirShield will keep the droplets contained within that passenger’s space and redirected downwards and out of the cabin towards the planes filtration units – all before they have the opportunity to enter the personal space of a neighbouring passenger.

The AirShield is currently in the prototype stage of development, but the finished product will be a single 3D-printed component that fits directly on top of the existing system, making it cheap and easy to install. The company has said the system for an entire narrow-body aircraft could be fitted overnight.

Anthony Harcup, who helped develop the AirShield, has explained that controlling airflow, rather than adjusting the distance between passengers, is the key to reducing the risk of infection in the air. “By engineering the cabin airflow to manage each individual’s exhalations, passengers can have far
greater peace of mind when seated nearby. For many airlines, it is simply not commercially viable to reconfigure entire cabins to adhere to social distancing measures – especially in economy class where passenger density is at its highest,” Harcup said.

The AirShield could fulfil the hopes of many to be able to fly again, safely. At Springwise, we have seen other innovations that aim to help people return to travel with peace of mind. These have included aeroplane seats designed to protect from coronavirus and flexible train interiors that create more space for social distancing.

Written By: Lisa Magloff

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Takeaway:

Although Teague is initially working to solve the problems of virus transmission in a densely populated aircraft cabin, the AirShield may also present a solution in other areas. The company claims the air blade technology can also be applied to spaces such as gyms, offices, retail and restaurants. If successful, it could allow a more or less version of normal life to return to a wide variety of spaces.