BILLBOARD THAT BREATHES

Lung installation to demonstrate the impact of air pollution

HOW-TO TOOLKIT

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Background

An installation depicting human lungs retrofitted with Hepa filters and a fan that mimics breathing has been conceptualized by Jhatkaa.org to demonstrate the impact of air pollution. It was installed in a public space first in Bangalore in January 2018 and then in two locations in Delhi in November 2018. At the beginning of the installation the color of the lungs are white (symbolizing healthy lungs) which then over few days starts to change color to grey and then eventually black.

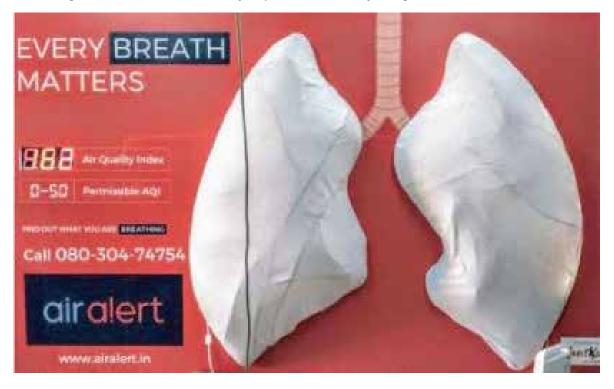
While there is enough noise on deteriorating air quality and medical research on how dangerous air pollution is, people still don't think too actively about this. Even if they do, they don't know how it is affecting their lungs. The aim of the installation is to bring focus on the health impacts of air pollution.

The impact of this process was documented through photographs, videos, media stories and getting the public to witness the transformation of our lungs when we breathe dirty air in our cities. An important component of the installation is planning public engagement activities around the installation to raise awareness and mobilise citizens.



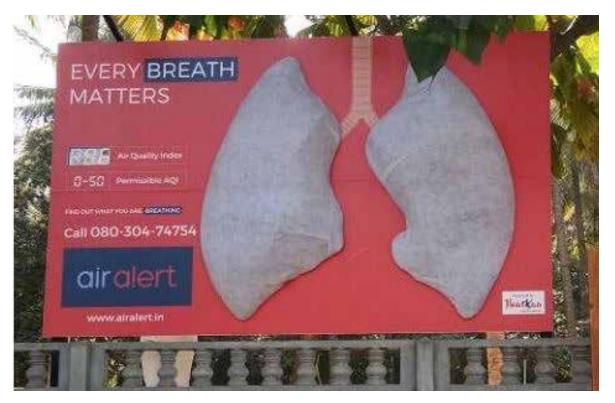
Day 1 of Installation

The lungs are clean, white - they represent healthy lungs



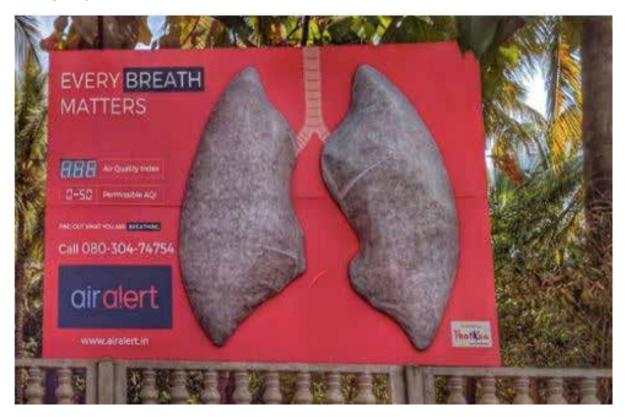
Day 10 of Installation

The lungs start to change color - they are grey representing the initial impact of air pollution on our health

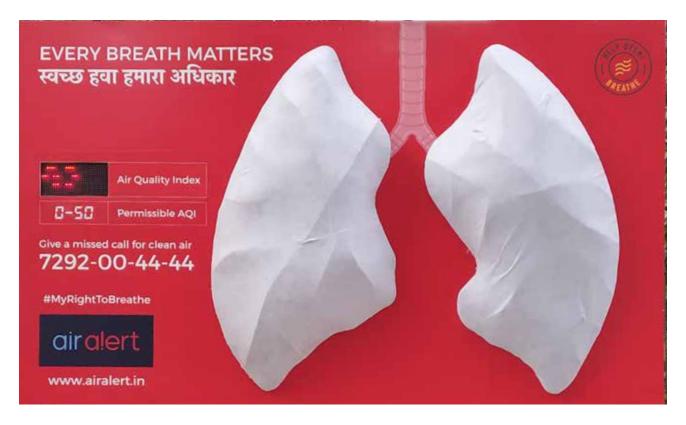


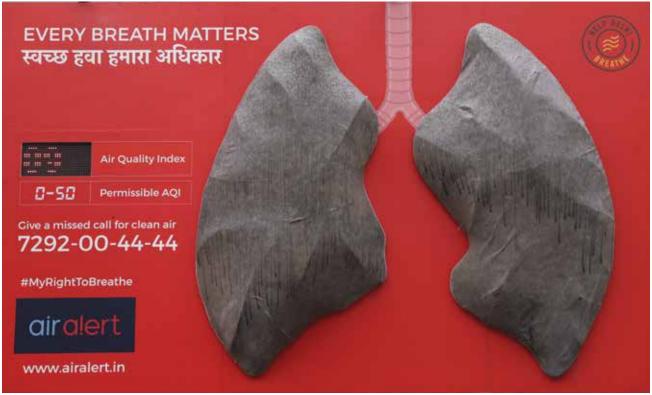
Day 25 of Installation

The lungs are black - they look like smokers' lungs - creating a sense of health emergency

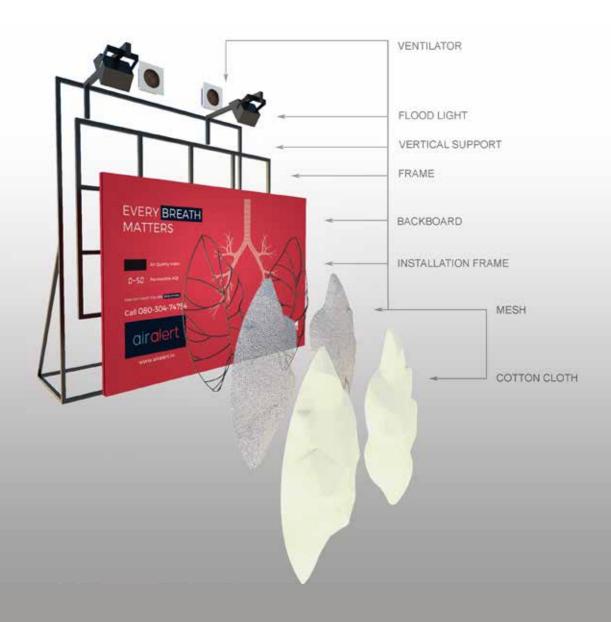


Delhi: The lungs took less than 6 days to turn dark grey and were black on day 10 when we removed the installation.





Creation of the Installation

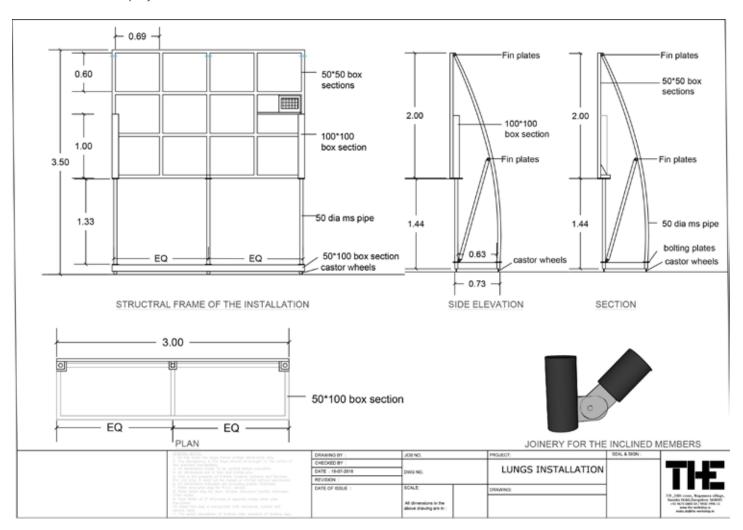


FABRICATION

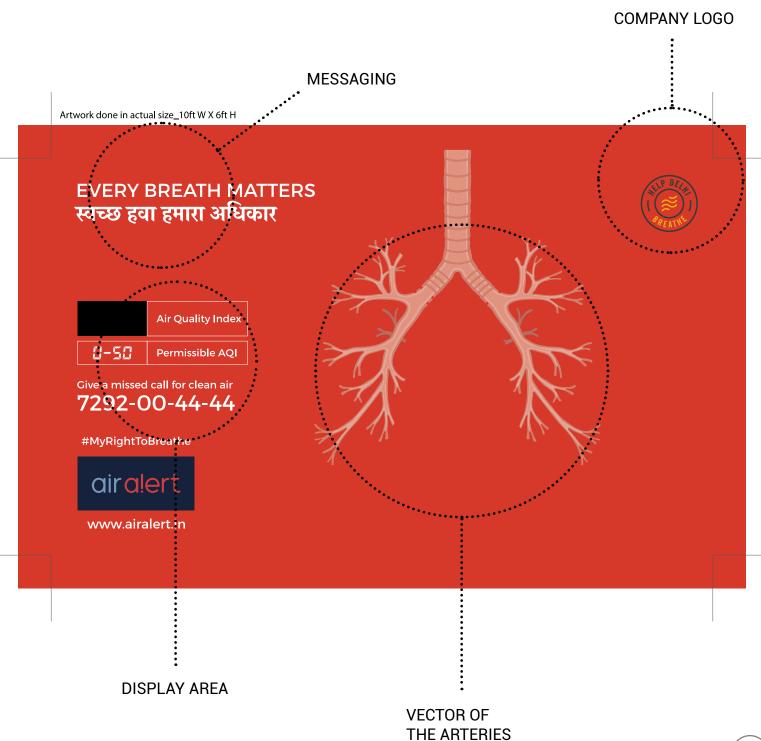
- Metal sections are used to create the back support and hoisting structure. The size and scale is relative to the lungs created.
- The whole installation can be dismantled for easy handling
- Vinyl stickering on sun board is mounted onto the front display
- 12" heavy duty exhaust fans ae mounted behind each lung
- Water proff covering around the fans is mandatory
- Flood lightS of IP 68+ are used to light up the installation at night
- Metal rods are sculpted to form the lungs
- Metal mesh is fitted to the lung form
- HEPA filter covers are stiched to fit

Technology:

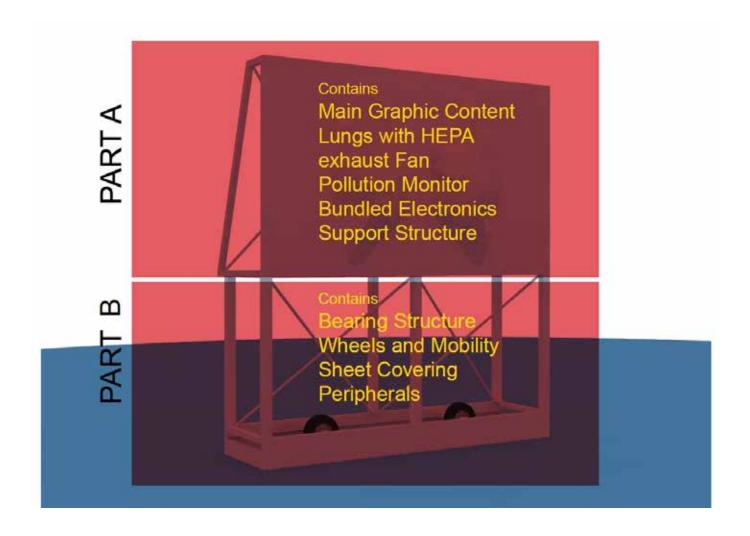
- pm 2.5 Sensor is used
- The sensitivity is 0/1mg/m3
- Minimum detection level of particles is 0.8 micron
- The high peak and lower peak is detected and the average is shown at a particular interval
- LED display board



Artwork of the Installation



Transportation of the Installation



The installation is design such that it may be transported in parts and assembled on site.

- All precaution should be taken while transporting the electronic components of the installation.
- The hoarding / supports are made in 3 parts the base/ the back/the vertical supports
- The lungs are trasnported seperatly and without the HEPA filters attached

Engagement and Mobilisation:

The lungs billboard is a very power example of show and tell about how dirty and dangerous air pollution is. You can use the installation as a background to media interactions, press conferences, public consultations or engagement activities such as street plays, music performances etc. Make sure you have a simple and effective action that people who see the installation can take on the spot. It is the best moment to recruit them to join your campaign while they are intrigued.

The installation should be outdoors, ideally in a public location where a large number of people will see it and there are vehicles present.

The installation is a great opportunity to engage directly with audiences on the ground and mobilise them to support and join your campaign. For simplicity we have categorised the location to 2 types and listed the different types of engagement activities.



Type 1: Enclosed/gated area

Eg: Schools, colleges, hospitals, shopping malls, public parks etc.

These venues have an advantage of footfalls, especially malls and parks so bringing people to the venue won't be a challenge. You can organise any of the following:

- Awareness trips by school/college kids to the installation
- Leafletting under the installation
- Signing petitions/ Missed calls near the installation
- Flash mobs, Street theatre, poetry slams etc
- Musical concerts if you want to ambitious

Note- You will also need permission from the police if you are organising large events for loud speakers etc.

Type 2: Open Area

Eg: Busy roads, traffic signals, footpaths, junctions in industrial hubs etc...

While these may be a prime spot for enough footfall to see the installation, there won't be too much scope to implement engagement activities. One should avoid any engagement activities at these venues that end up creating a traffic obstruction. Some engagement tactics which might work here could be

- Getting petitions signed at the venue
- Distributing leaflets to passers by

Permission Process:

Permissions are crucial for placement of the installation. Make sure you start conversations with the venue well in time to ensure that things like co-branding, logistics, security are covered. Here are some tips to keep in mind:

- It is easier to get permission from a private venue compared to a public spot
- If you chose to go with a public place, apply at least a month in advance because bureaucracy is slow and there could be 3-5 different departments involved
- Clearly highlight the type of activities, people involved, timings, need for electricity, audio visual equipment etc.
- Always follow the permission process through in writing with requests/agreements clearly mentioned to prevent confusion later
- If you are getting the permission from a government authority, these will most likely be a letter. Please make multiple copies and have it handy with volunteers at the venue. This is in case questions come up at the time of the setting up, activity etc.





Media:

Pre installation:

A brief needs to be sent to the media with the details of the launch day along with a press invitation. Tip: Target press photographers

Prepare a press release that should be emailed to the media on the day of the launch.

On the day: there should a media liaison and a couple of dedicated spokespeople who can give interviews and bytes to the media.

Tip: Have 3-4 top line messages in English, Hindi and other relevant regional languages ready with you and keep repeating those messages so that your objective for the activity and demand clearly gets translated in the media coverage.

IMP. Most media outlets will ask for the press release at the time of the installation so have this signed off and prepared in time for the launch day and keep physical copies handy during the activity.

Few days later:

Once the lungs have changed color and turned black, reach out with all the media who showed up for the launch for a follow up story

Documenting the progress of the installation:

Once the installation goes live, make sure you have a photographer and videographer available to capture the daily changes in the colour of the filters. This content is the media hook and it is better to capture the same angle every single day. This can also be done by volunteers to reduce costs. Ensure that the frame of the photo/video is the same everyday so it would be ideal if the photo is taken by the same person using the same equipment from the same vantage point around the same time everyday.

While talking to the media (via press releases or on TV, digital and print media) every organisation should mention that the lung installation was originally conceptualised by Jhatkaa.org and Think Happy Everyday in Bangalore.

Next steps:

In Bangalore and Delhi, the black hepa filters were cut to small squares and handed over to important decision makers in central and state governments and other policy makers including Dr. Harsh Vardhan, India's Environment Minister.

About Jhatkaa.org:

Jhatkaa.org is a campaigning organisation committed to building grassroots citizen power across India in effective and innovative ways. Jhatkaa.org helps people take action collectively on issues that interest or affect them, and create change that would not be possible if they acted alone.

Jhatkaa.org also collaborates with civil society to engage citizens to hold corporate, cultural and government leaders accountable in real time at key decision moments

through various digital communication platforms

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About THE:

Think Happy Everyday (THE) is an ideology that works for people, places and products. A new era design, communication and education specialist agency with capabilities from architectural installations to immersive experiences. THE engages architects, creative technologists, coders, and communication experts collaborating with specialists across the world to make ideas possible. A bridge between computational design and real-world testing, THE Workshop is a design research initiative focused on digital fabrication, material experimentation and new design methodologies. Here, designers, innovators, makers, and the curious can explore and pursue their interest in the made world, develop personal projects, conduct academic research and start collaborative projects. THE Workshop aims to collaborate with academics from world leading universities, cutting-edge industry experts, innovative thinkers, makers and doers, to develop and sustain a cross-disciplinary design community built from the ground up.

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