FLEXI UNIT

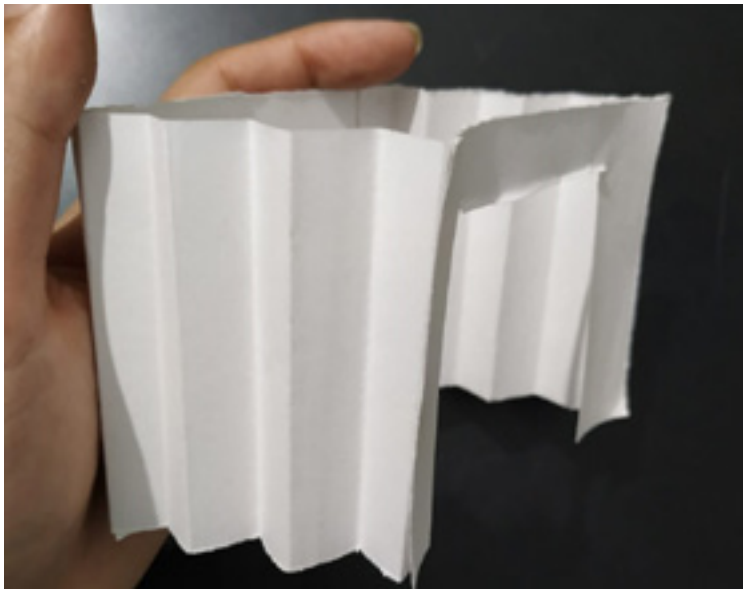
Portable Isolation Facility For COVID-19

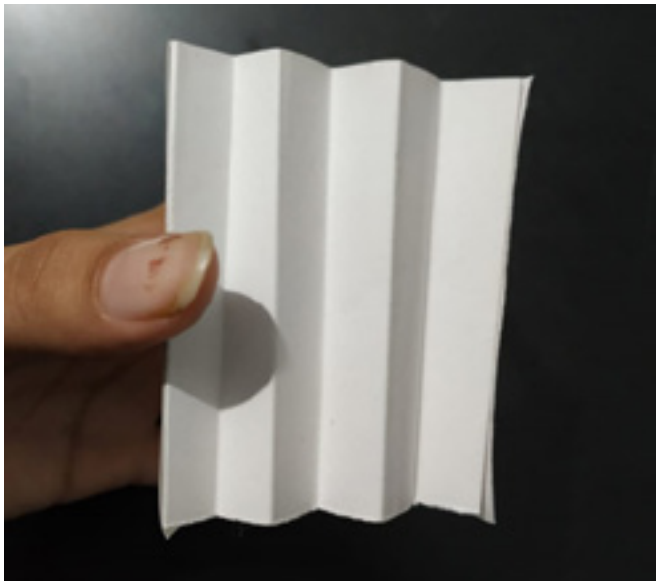
by Nikita Nair

RESEARCH

Inspiration from paper origami.

Researched some of the fold and made a quick prototype with paper.





Fold Types

Half Fold
1 fold, upright

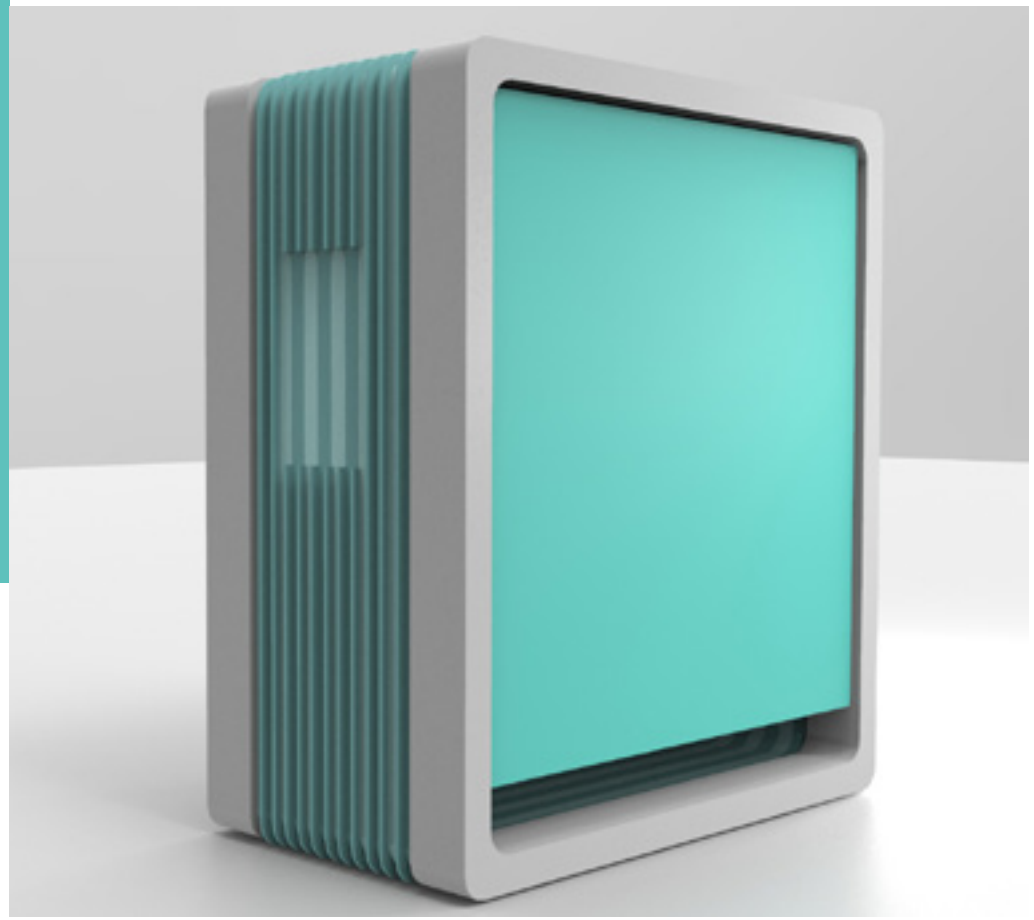
Z Fold:
2 folds, accordian

Letter Fold:
2 parallel folds

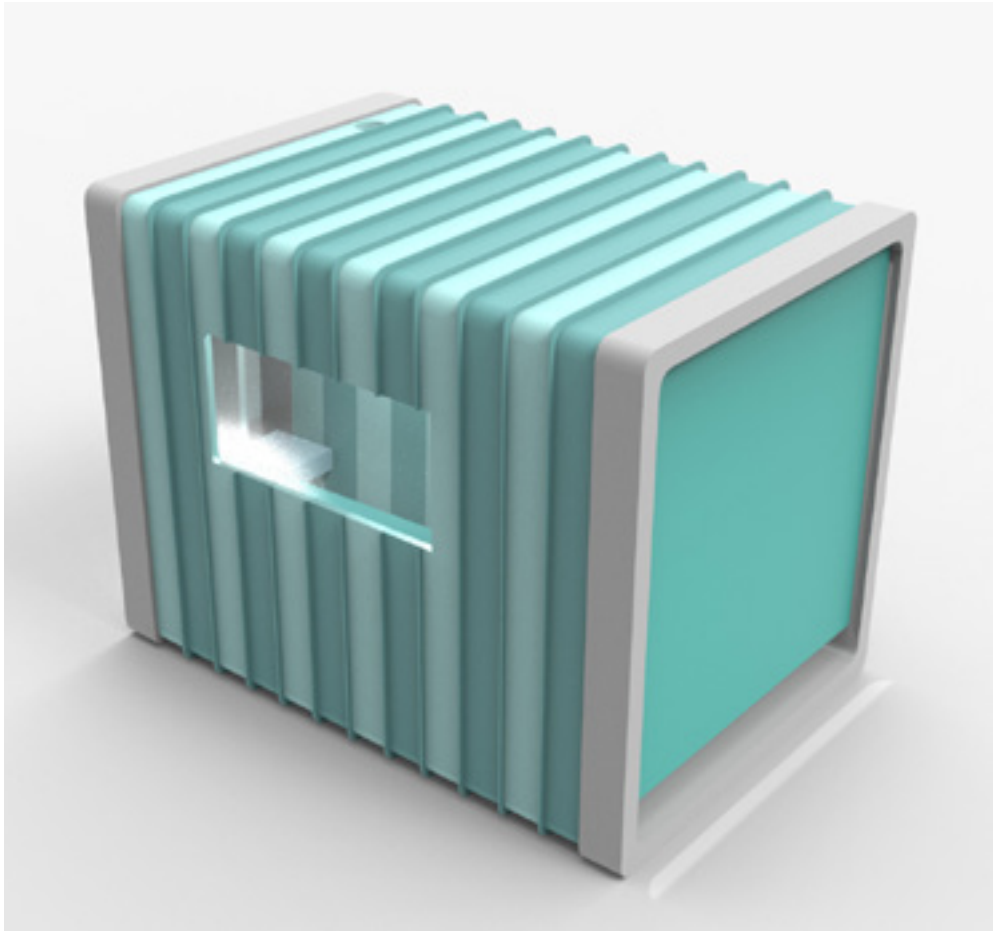
Right Angle:
2 folds, Half fold
vertical and horizontal

Double Parallel:
2 parallel folds

RENDERS

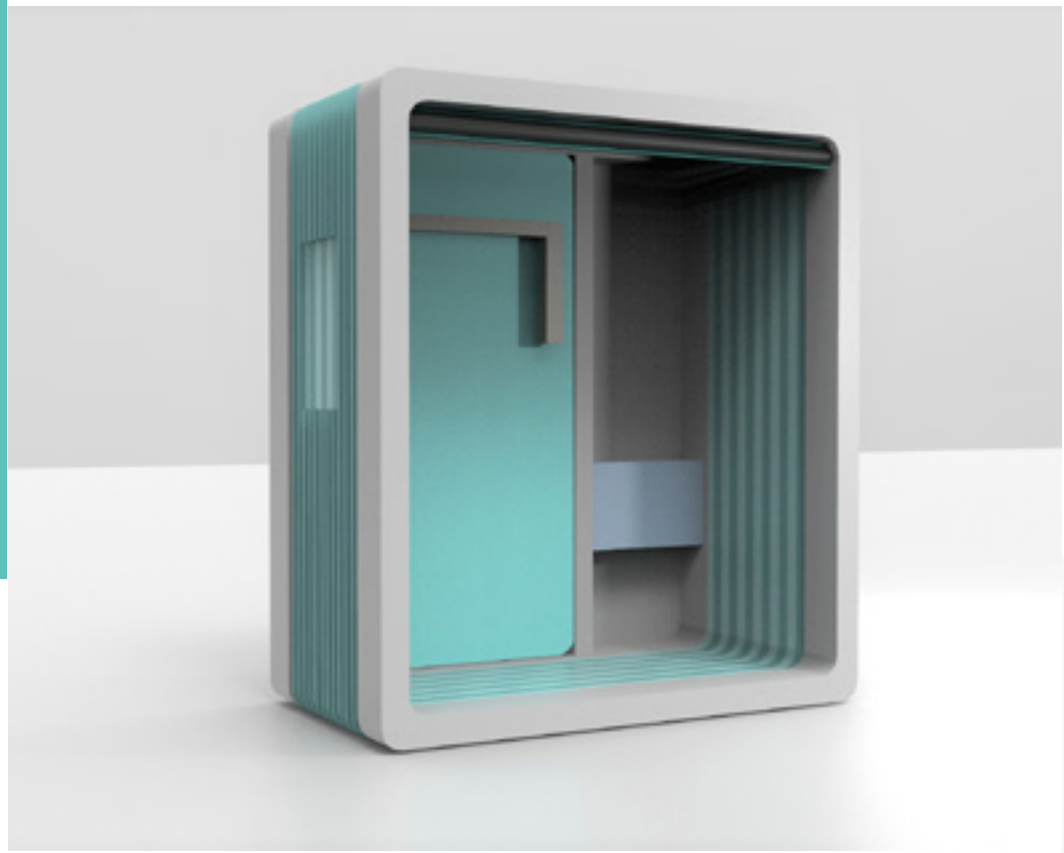


Closed Unit

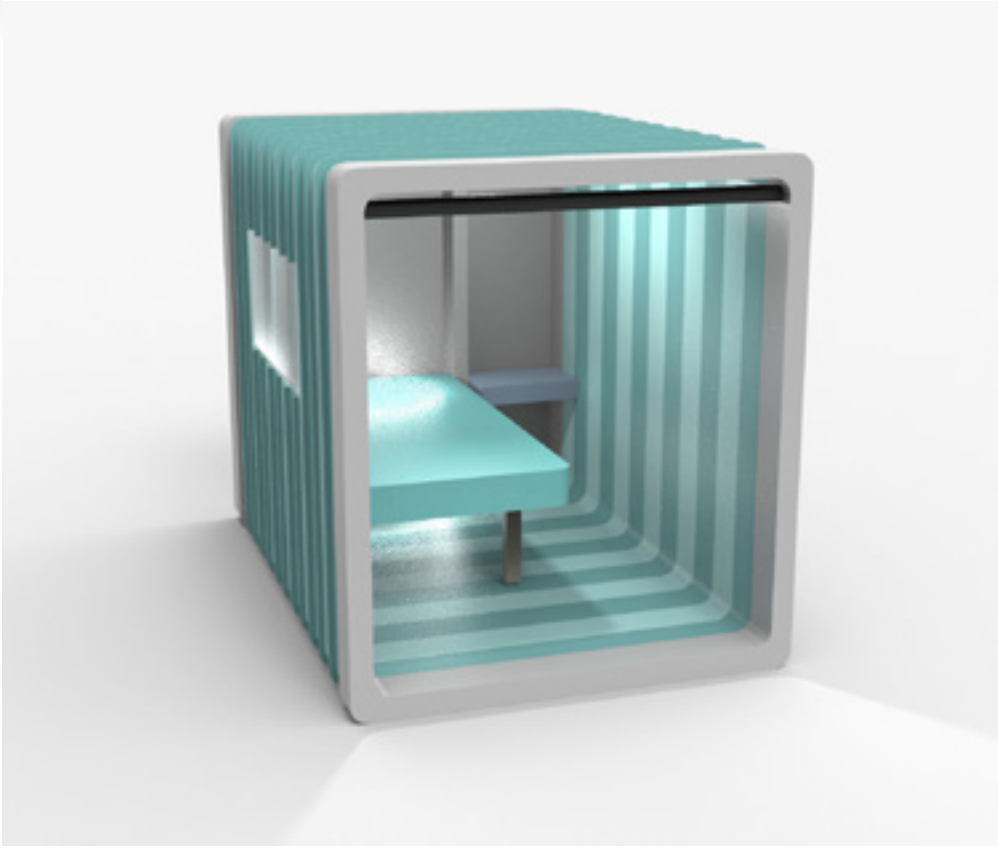


Opened Unit

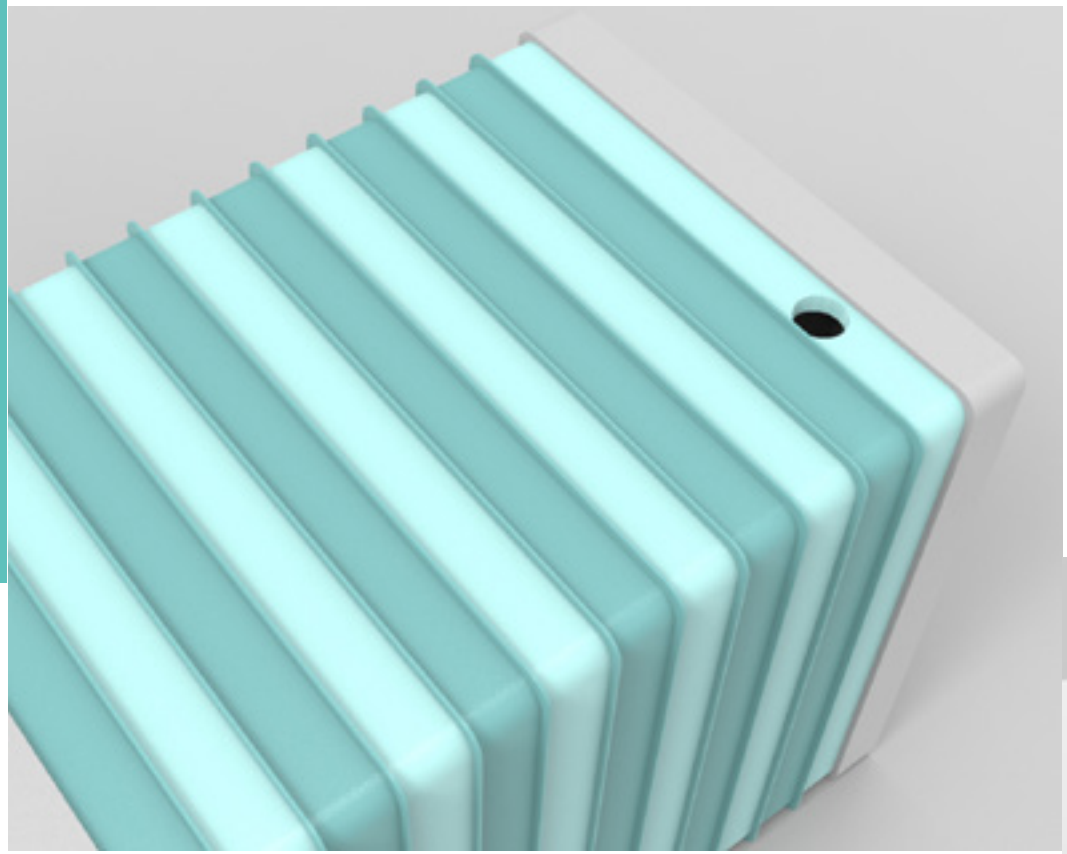
ASSEMBLY



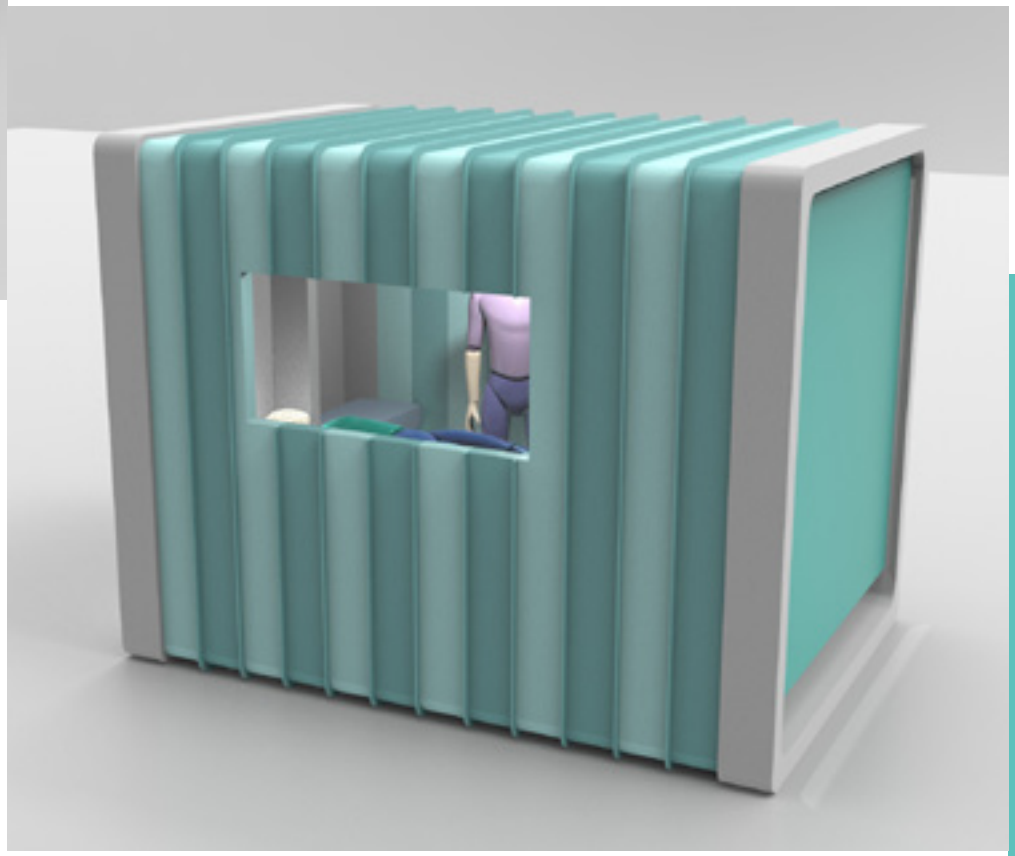
STEP 1: To place the unit on a flat surface and stretch open the unit completely.



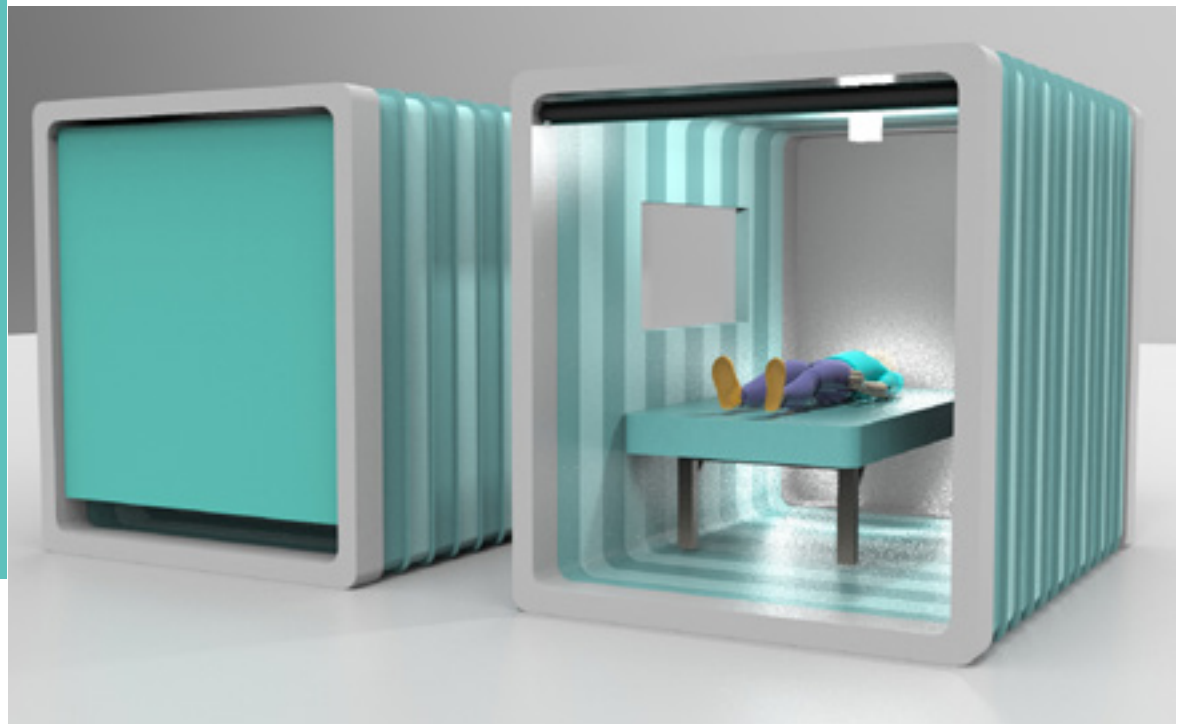
STEP 2: To fold open the bed and the side table for the patient.

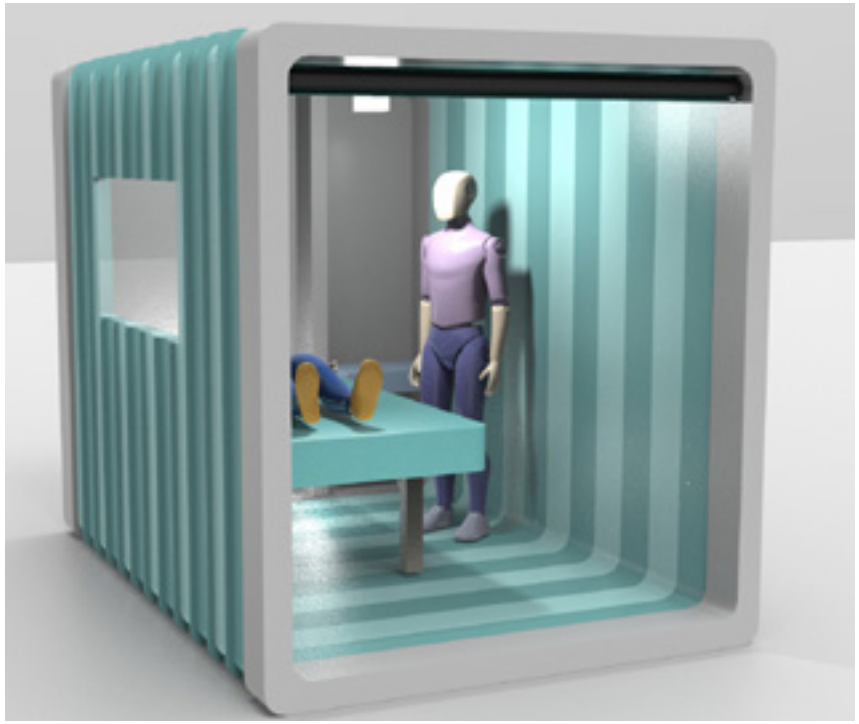


STEP 3: To connect the air filter with the unit, through the upper hole of the unit.

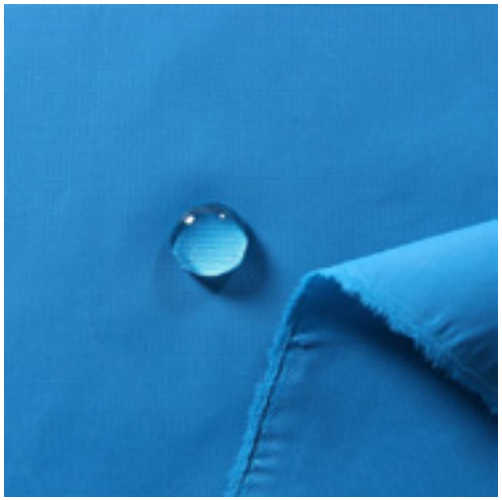


STEP 4: Add the curtain to the unit. Unit is ready to use.

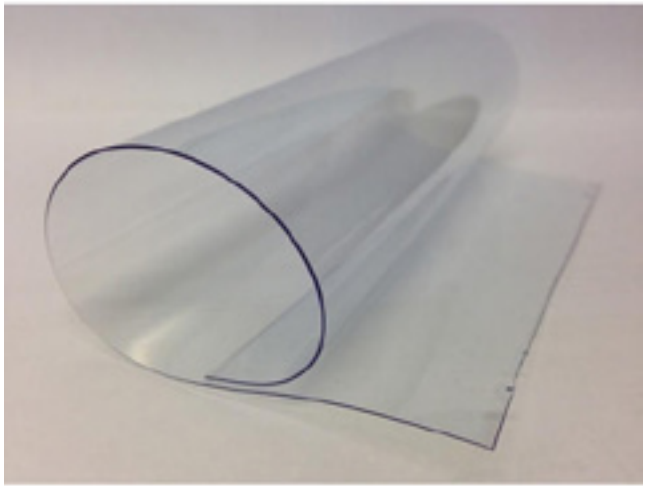




MATERIAL



NYLON: Nylon fibers are strong, waterproof and elastic. The fibers have excellent toughness, abrasion resistance, and are easy to wash. Therefore we can use it as the foldable outer part.



CLEAR PLASTIC: The material is thin, it will lie flat and not cause a bump in the fabric. However, it is still quite strong, making this a great stretchable stabiliser. So this can be used at the window.

TIME

Will take 10-15 minutes to assemble.

ASSEMBLY

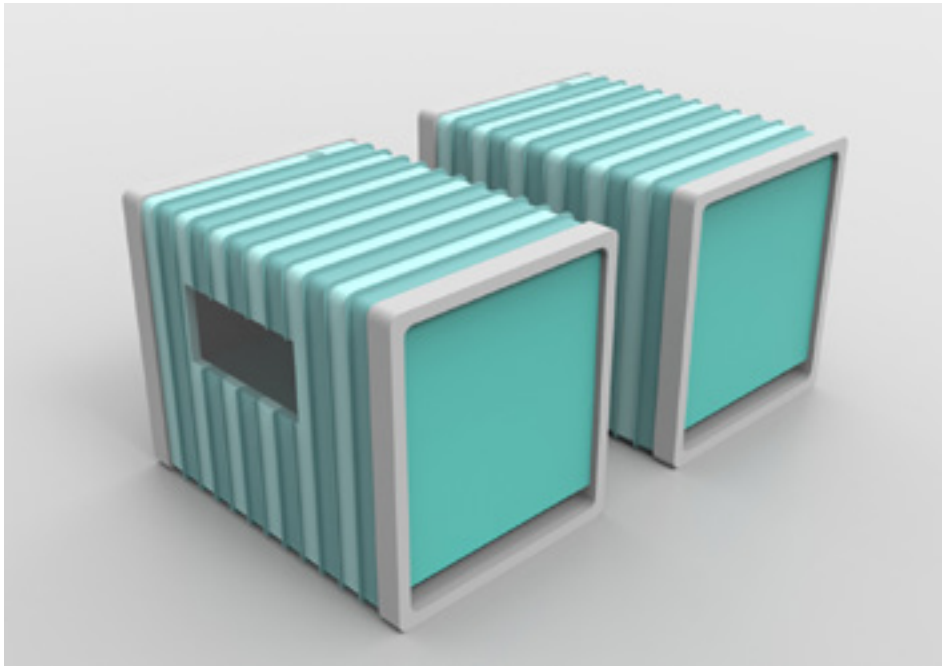
1-2 person is enough to assemble.

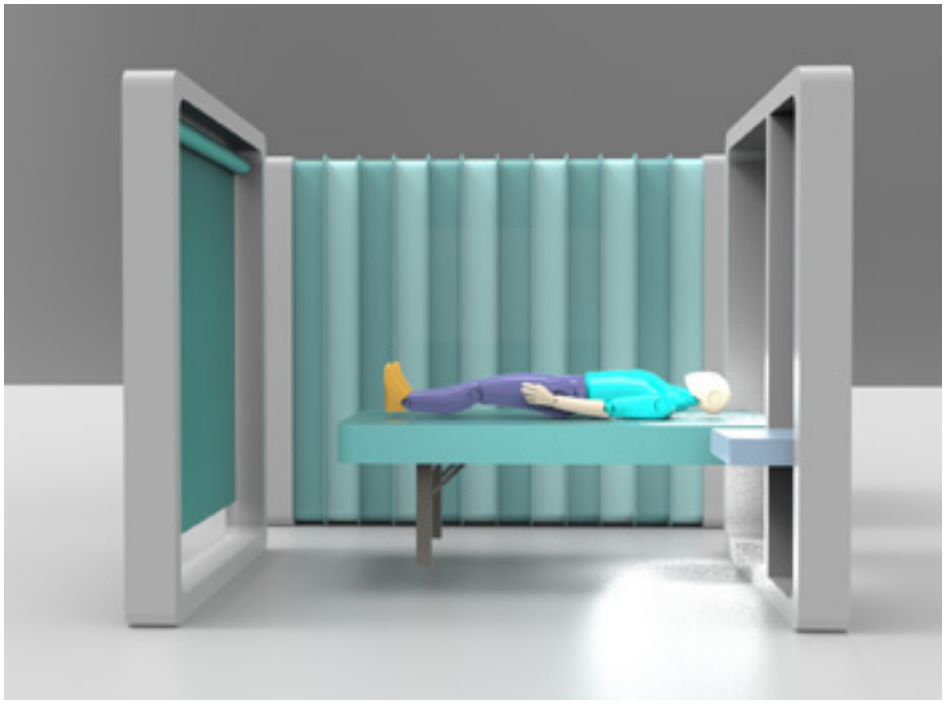
LOCATION

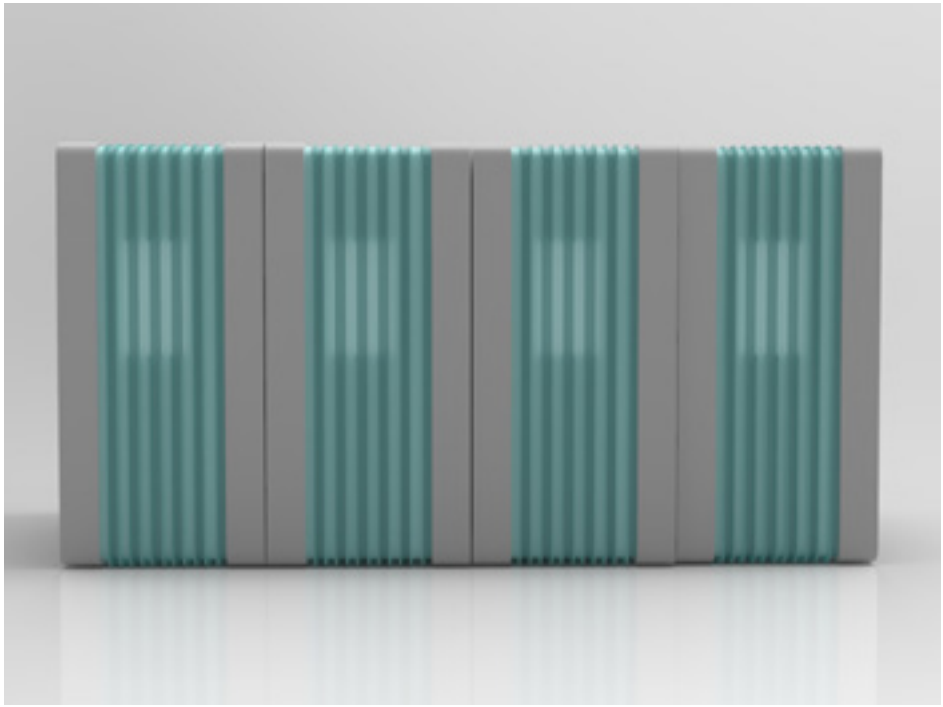
Stadium

Home

Hospital







THANK YOU