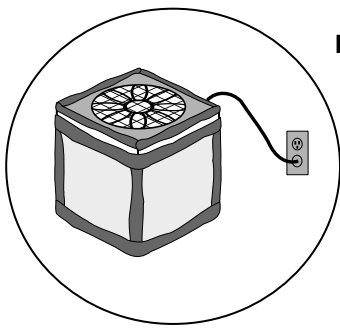


DIY AIR CLEANING: MAKING A 'CORSI AIR BOX' / 'COMPARETTO CUBE'



COST: < \$175 USD

IMPACT: CAN ADD THE EQUIVALENT OF ~ + 3 AIR CHANGES PER HOUR TO A TYPICAL CLASSROOM

MERV 13
AIR FILTERS
(20"x20")

+

BOX FAN
(20"x20")

+

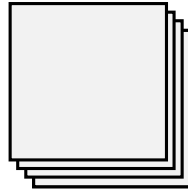
CARDBOARD
SHEETS
(20"x20")

+

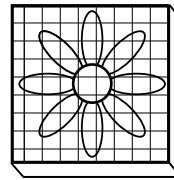
DUCT
TAPE

**GATHER
MATERIALS**

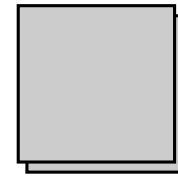
1



X 4



(NOTE: MAKE SURE
FAN HAS A FUSE*)

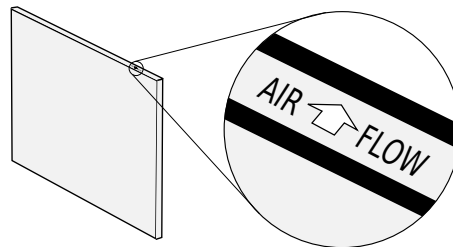


X 2



**NOTE
FILTER
FLOW
DIRECTION**

2



MERV 13 FILTERS HAVE A
**PREFERRED AIRFLOW
DIRECTION,**
INDICATED ON
FILTER FRAME

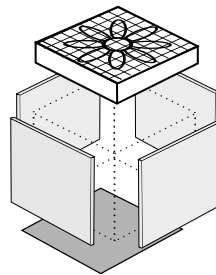
**ARRANGE
'BOX'
PARTS**

3

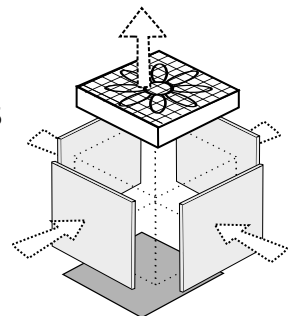
TOP: FAN

SIDES:
FILTERS

BOTTOM:
CARDBOARD

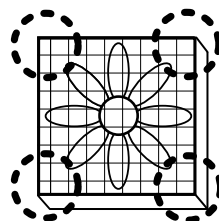


**ORIENT FILTERS
& FAN SO THAT
AIR FLOWS
INTO SIDES
& OUT TOP**

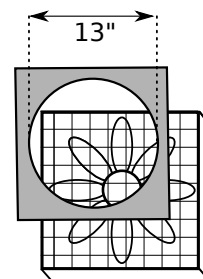


**PREPARE
FAN
SHROUD**

4



CORNERS OF
BOX FAN CREATE
'BACK FLOW'
CAN REDUCE
PERFORMANCE...

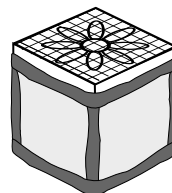


... WHICH CAN BE
PREVENTED BY
MAKING A
CIRCULAR SHROUD
OUT OF CARDBOARD
(HOLE DIAMETER: 13")

**ASSEMBLE
AND
SEAL**

5

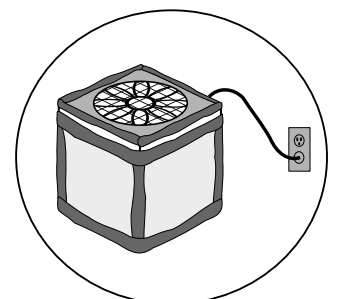
USE **DUCT TAPE**
TO CONNECT
PARTS AND
MAKE AN
**AIR-TIGHT
SEAL...**



+



... AND ADD
**SHROUD TO
TOP OF FAN**



TYPICAL ESTIMATED **CADR** (CLEAN-AIR DELIVERY RATE): ~ 600 CFM

EQUIVALENT ACH (AIR CHANGES PER HOUR) = **CADR * 60 / ROOM_VOLUME**

E.G.: FOR 30 FT x 30 FT x 10 FT ROOM, TYPICAL ESTIMATED **EQUIVALENT ACH** ~ + 3 ACH

(FOR COMPARISON: TYPICAL CLASSROOM ACH < 3 ACH; IDEAL ACH: 6+)

FOR MORE BACKGROUND & REFERENCES, VISIT edgecollective.io/airbox

* Most 20" box fans -- including all those sold in CA after 2012 -- are sold with a (built-in) fuse.