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

1. **GATHER MATERIALS**
   - MERV 13 AIR FILTERS (20”x20”)
   - BOX FAN (20”x20”)
   - CARDBOARD SHEETS (20”x20”)
   - DUCT TAPE

2. **NOTE FILTER FLOW DIRECTION**
   - MERV 13 FILTERS HAVE A PREFERRED AIRFLOW DIRECTION, INDICATED ON FILTER FRAME

3. **ARRANGE 'BOX' PARTS**
   - TOP: FAN
   - SIDES: FILTERS
   - BOTTOM: CARDBOARD

4. **PREPARE FAN SHROUD**
   - CORNERS OF BOX FAN CREATE 'BACK FLOW' CAN REDUCE PERFORMANCE...
   - ... WHICH CAN BE BE PREVENTED BY MAKING A CIRCULAR SHROUD FROM CARDBOARD SHEET (USING FAN DIAMETER)

5. **ASSEMBLE AND SEAL**
   - 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