



OZPATIC

"Cleans the air you breathe"

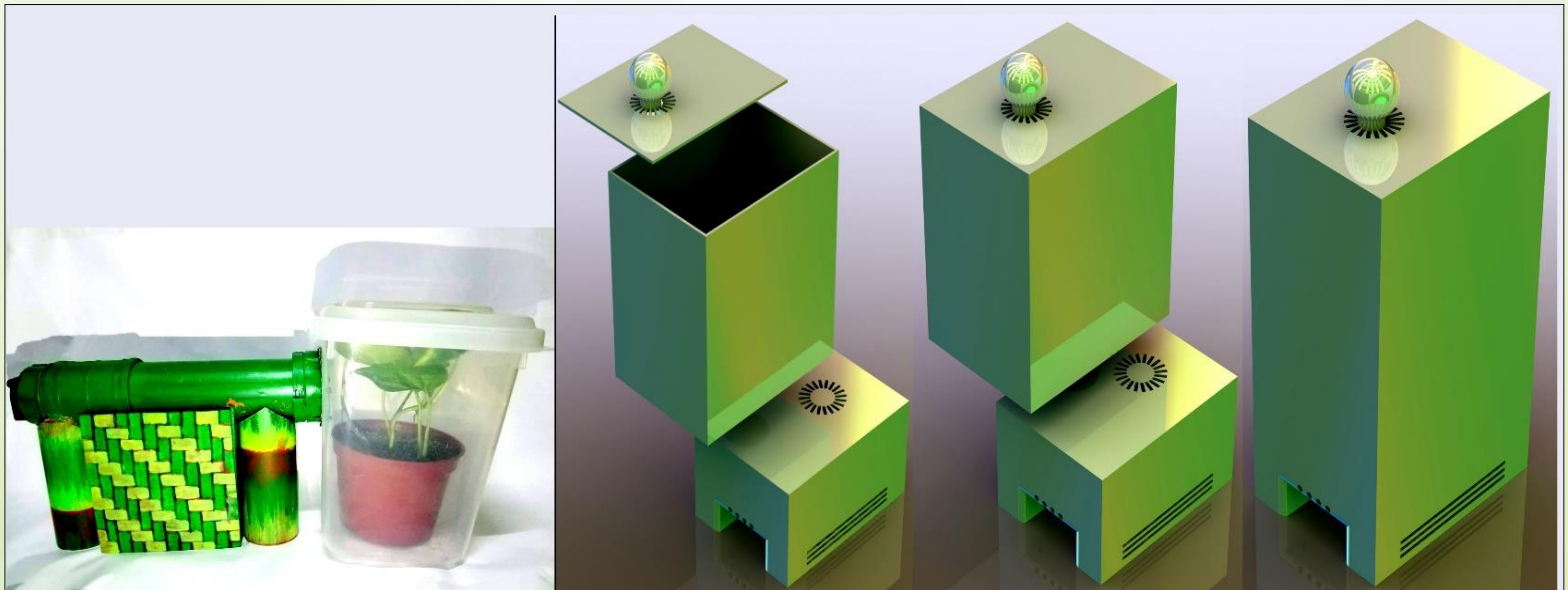


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ABSTRACT

Air pollution has been considered a hazard to human health—specifically suspended particulate matter (SPM). According to the World Health Organization (WHO), exposure to SPM causes respiratory and cardiovascular morbidity, such as aggravation of asthma, respiratory symptoms, mortality from cardiovascular diseases and from lung cancer. The objective of this study is to be able to create an effective air filter for treating SPM concentration in indoor air from a Cockcroft-Walton voltage multiplier and Golden Pothos (*Epipremnum aureum*). A low-energy consuming fan and a grounded metal mesh were also installed in the filter. The initial SPM concentrations in a room were measured with a portable air quality monitor then recorded. Every 24 hours, for four days, the SPM concentration was measured and recorded. Results show that the number of days the filter was left in the room and the SPM concentration are inversely proportional; less SPM concentration is present as time progresses. In conclusion, the usage of a Cockcroft-Walton voltage multiplier and utilization of a Golden Pothos (*Epipremnum aureum*) in creating an electrostatic air filter proved to be effective in reducing suspended particulate matter (PM 2.5 and PM 10) in the indoor ozone of a conventional household room improving indoor air quality as a result.

VISUALS



AWARDS



iCan 2019: The 4th International Invention Competition in Canada



INNOVA 2019: 44th International Invention Show



International Innovation Fair 2019



National Inventors Week 2019



Gold Medal and Diploma For Invention from University POLITEHNICA of Bucharest



Innovation Week in Africa 2019



Manila Young Inventors Association (MYIA)
Ramon Magsaysay High School
in cooperation with
FARIN Technologies

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