Ionic Wind: A Novel Approach for Generating Thrust Utilizing Electric-Powered Propulsion

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The purpose of my project is to engineer a type of thruster that utilizes ionic thrust. My engineering goal is to utilize this ionic propulsion most effectively. This will provide data and studies on the subject as well as shedding some light onto it. This project is important because ionic thrusters are the most efficient type of thruster to ever be engineered. This specifically is a valid solution to the energy crisis the world is facing today, these thrusters provide us with more efficient usage of our energy. I built this project by placing 4 terminals, 2 positive and 2 negative inside 2 different couplets. Then I wired the appropriate terminals to a high voltage step-up DC-DC transformer. I then powered this with 12 batteries, 3 in series, 4 in parallel, for the first tests. Then with 16 batteries 4 in series, 4 in parallel for the other tests. I then used the anemometer glued to the front of the thrusters to compare the output wind velocity. I found the best usage of this device is with the most possible power and with the terminal spacing at 15mm or 0.015m. My project concluded with significant results and datapoints correlating power input, and voltage to wind velocity.

Awards Won: