

SINUSOIDAL SURFACE SERRATIONS ON A BIO-INSPIRED PROPELLER

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PATENT STATUS

Country	Type	Number	Dated	Case
Patent Cooperation Treaty	Published Application	WO 2024/097669	05/10/2024	2022-134

BRIEF DESCRIPTION

Currently in the United States, alone there are over 1.6 million drones used for leisure and professional purposes with those number expected to increase greatly by 2024. However, the increase in noise pollution associated with these drones may be detrimental to the environment. Drone associated noise pollution and disturbance may limit the adoption of drones in different applications. One possible solution is to reduce noise from the propeller through new propeller designs.

UCB researchers have developed a propeller design that can be used in drone propellers that can increase the thrust, improve the power efficiency, and reduce the associated noise emissions in comparison to conventional propeller designs. By extending two-dimensional serrations to a three-dimensional geometry the researchers strengthened the flow distortion and provided more powerful control over the high-frequency noise band in a rotating propeller.

SUGGESTED USES

» Drone rotating propellers

ADVANTAGES

» Reduced noise emissions

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

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INVENTORS

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