

# SINUSOIDAL SURFACE SERRATIONS ON A BIO-INSPIRED PROPELLER

Tech ID: 32839 / UC Case 2022-134-0

## PATENT STATUS

Country	Type	Number	Dated	Case
Patent Cooperation Treaty	Published Application	<a href="#">WO 2024/097669</a>	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 noice emissions

## ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

► [Deep Learning Techniques For In Vivo Elasticity Imaging](#)

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## INVENTORS

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## OTHER INFORMATION

### CATEGORIZED AS

- » [Transportation](#)
- » [Alternative Propulsion](#)
- » [Engineering](#)
- » [Other](#)

### RELATED CASES

2022-134-0

