

On Sat, Apr 12, 2025 at 4:59 PM Jenny Kopach wrote:

Hi Michael - yes, we reviewed your work & agree that you may be granted copyright permission.

Thank you!

Jenny Kopach

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On Wed, Mar 26, 2025 at 7:25 AM Michael Shi <michaelshi2026@gmail.com> wrote:

Dear Mrs. Kopach,

My name is Michael Shi, and I am a junior from New York. First, I want to thank you for leading the Science Olympiad event, which I have been actively part of for the last six years. I have had a great experience with Scioly!

I am writing this email to check the possibility of obtaining a written permission of copyright from Scioly for my manuscript submitted to the Journal of High School Science (JHSS). My manuscript title is Blade Assembly Design and Optimization for the 2025 Science Olympiad Division C Wind Power Event.

I have competed for the Wind Power Event in the last two years, and I did great in both regional and state tournaments. I put hundreds of hours on designing and making the blade assembly. In the end, I decided to put everything into a paper, and I submitted it to JHSS.

My intention to draft this paper is solely from my passion and interest. Again, thanks for leading such a great program and letting me find my passion. After this message, please find the abstract of my manuscript. Attached is the PDF for my manuscript.

Do you think I am eligible to obtain a written permission of copyright from Scioly for my manuscript? I appreciate your positive consideration and let me know if you have any questions.

Best,

Michael

Abstract

A wind power device converts the wind's kinetic energy to electricity. Wind Power has been a frequent event for the Science Olympiad in the last 15 years (2009, 2010, 2011, 2016, 2017, 2024 and 2025). It is a great event to inspire middle and high school students to explore green energy and physics. However, few documents or research articles provide technical guidance for students on making an efficient blade assembly under the event rules. Thus, all the teams are challenged to make their own devices at the most fundamental level. This paper discusses basic steps, including blade shape design, 3D printing, and experiments to construct a high-performance assembly for the 2025 Science Olympiad Wind Power Event, Division C (9-12

grades). In this study, it was found that, in compliance with the construction rules, (1) a tip speed ratio of 4.2 be used for blade shape design, (2) the two-blade assembly device should be adopted, and (3) during testing, the blade assembly should be positioned about 10 cm off the 20" box fan's center to achieve the maximum voltage output.