

2025 STANSW Young Scientist Awards

Echo Xu James Ruse Agricultural High School

Project Title: Efficiency Of Stirling Engines - Investigating A Method To Determine The Mechanical Efficiency Of A Beta Stirling Engine

Year 11 to 12 Scientific Investigations - Physics

Dear Echo,

Congratulations on being part of this year's Young Scientist Awards and for the thought, care, and originality you brought to your project. You've demonstrated genuine initiative in designing and carrying out your own ideas – an achievement that reflects both curiosity and persistence.

Our judges reviewed your project in detail, considering how clearly you explored your question, how well you supported your conclusions, and how effectively you communicated your process. Their feedback below highlights the aspects that were particularly strong and offers suggestions to help you extend your thinking even further – much like the peer review process used in professional research.

The strengths of your project include:

- demonstrating an understanding of the science concepts related to the investigation
- using thorough scientific methodology including the control of variables

Next time, you could make your project even better by:

- correctly using scientific vocabulary

Thank you for sharing your work with us, it is a testament to your growing capability as an investigator, communicator, and creative thinker. We hope this experience strengthens your confidence and inspires you to keep pursuing questions that matter to you..

A handwritten signature in black ink, reading 'Philippa Miller'.

Philippa Miller

Young Scientist Coordinator