

## **Analysis of an Olympic Scale of a Recurve Bow Riser on the Basis of Malaysian Under 15 and Under 17 Archers**

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### **ABSTRACT**

Recurve bow is the only type of bow that used in Olympic Games. To date, none of this bow that suits to Malaysian junior archers. This paper aims to analyze a recurve bow riser on the basis of Malaysian anthropometry. Anthropometric data of Malaysian population was gathered to analyze the loads during drawn bow. A static structural analysis of the Matrix riser was executed on a final design of recurve bow riser. The finding from this study shows that the maximum displacement of recurve riser is correspondence to the established previous study. It can be concluded that the design of recurve bow riser can sustain the force applied by Malaysian junior athletes when they aim the target board at a full drawn bow position. The developed bow riser can be very beneficial for both athletes and coaches during training.

### **Keywords**

Recurve bow; Malaysian anthropometry; Static structural analysis

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