Adjustable Flexure Test Frame for Snowboards and Snowboard Material Quantification

Project Description:
There is a need for the design and construction of a test frame that can perform both longitudinal flexure (3 and 4 point loading) and torsional testing of snowboards and snowboard sized flat test panels. The frame will be used to quantify flexural characteristics of commercially available snowboards and to quantify flexural characteristics of lightweight veil reinforcements. The snowboard data will be used in the development of a quantitative-qualitative correlation study, and the veil data will be used in the development of veils for use in board sport applications.

Project Requirements:
- Test frame is robust; it has limited and known compliance for the testing envelope magnitude
- Test frame is versatile; it can test both high aspect ratio products and test panels
- Test frame is versatile; it can quantify both longitudinal and torsional characteristics
- Test frame is adjustable; it can accommodate different length specimens
- Test frame is adjustable; it can isolate testing to specific sections of the specimens
- Test frame is modular but complete; it is integrated with data acquisition and logging

Project Specifications:
The project specifications and limitations including the budget will be available shortly.

Ideal Team Members:
Ideal team members are avid snowboarders with one or more of the following skill sets or interests: composite material fabrication, composite material analysis, metal fabrication, Labview.