UM 8310: 3-D Vector Teaching Aid

THE TECHNOLOGY
While teaching 3D vectors to students, it became apparent that a hands-on tool was needed to help students understand vectors in a three-dimensional space. While there are some online tools available, they are not hands on and can be difficult for students to fully grasp. The University of Mississippi created a collapsible teaching aid that allows students to observe how vectors change in a three-dimensional space while their coordinates are manipulated. This teaching aid works with both Cartesian and Polar coordinates and can also be used to introduce fundamental trigonometric concepts.

This teaching aid is scalable to incorporate both large classroom and individual student usage. A small version could be packaged with the textbook or sold as a standalone product for the students. A large version could be used in front of the classroom for all the students to see. Since it folds flat, and is constructed of rigid lightweight plastics, it is easy to transport to and from class.

COMPETITIVE ADVANTAGE
There are currently online tools for viewing 3D and 2D vectors, but these lack the hands-on tactile and visual experience provided by our tool.

DEVELOPMENT POTENTIAL
A prototype has been constructed. We are seeking a commercial partner.

PATENT STATUS

PRINCIPAL INVESTIGATOR(S)
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