Overview

An earthquake simulation table will be designed and built for eighth grade students at Providence Middle School in order to reinforce the current curriculum regarding how tectonic motion and earthquakes are related, as well as introduce them to the concept of engineering.

Key Findings

Via the use of NASA's Systems Engineering (SE) design process the design team efforts have resulted in a process that will provide a high quality, durable, reliable and safe product that will be used as a STEM tool by middle school students. The SE process has ensured that all requirements are properly addressed and that the top-level requirement - safety - is met by assessing the hazards and risks. Previous STEM tools designed by MAE students have resulted in a greater interest in STEM subject areas and, as a result, the efforts are continuing with the current project.

Explanation

This project will be stimulating interest in STEM, allowing more motivation for young minds to pursue technical degrees.

Impact

The short term impact on the students is a better understanding of how an earthquake works; however, the long term is that they will better understand the concept of engineering in hopes that they will pursue a career in STEM.

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