

Available

Dr. Farid Golnaraghi, PhD, PEng, Professor, Mechatronic Systems Engineering;
Adrian Wikarna, MSc, Engineering Manager, Shield-X Technology Inc.

Shield-X Technology Inc. is looking to design and build a pendulum impactor (Figure 1) for our helmet impact test rig. With the sliding table component already constructed, this project focuses on the development of a specialized pendulum impactor to further enhance our testing capabilities.

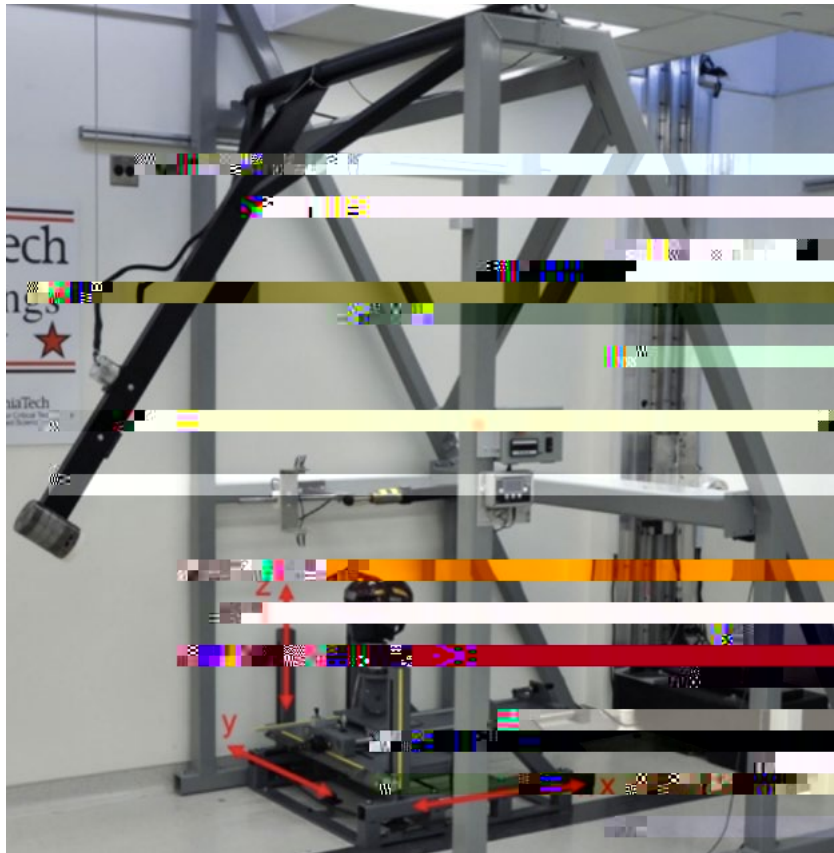


Figure 1: Pendulum impact test rig

The successful completion of this project is expected to yield several advantages:

- **Increased Testing Precision:** The pendulum impactor will enhance the precision and repeatability of helmet impact tests, providing more accurate data for analysis.
- **Expanded Testing Capabilities:** The adjustable impact energy and orientation flexibility will enable a broader range of testing scenarios, allowing for a more comprehensive evaluation of helmet performance.
- **Efficient and Coordinated Testing Procedures:** The integrated design with the sliding table will streamline testing procedures, improving overall efficiency and reducing the time required for assessments.