AI AND THERMODYNAMICS

SCHOOL: LAWRENCE E. ELKINS H.S.

LOCATION: MISSOURI CITY, TX

FLIGHT PROVIDER: ASTROBOTIC

GRADES: HIGH SCHOOL

STUDENT EXPERIMENT DESCRIPTION

Our experiment measures temperature and vibration of materials such as aerogel, carbon fibers, aluminum, and polyimide tape. Then we use AI to model that data to further understand thermodynamics. If we conduct tests on these various materials, then we predict that carbon fiber will demonstrate superior performance. Our project was driven by a strong interest in understanding material properties, especially in how they relate to aerospace, and how AI could be used in future material testing.