



## EXPLORING THE EFFECTIVENESS OF PHOTO ANALYSIS THREAT IDENTIFICATION IN MICROGRAVITY



**SCHOOL:** WORCESTER ACADEMY

**LOCATION:** WORCESTER, MA

**FLIGHT PROVIDER:** UP AEROSPACE

**GRADES:** HIGH SCHOOL

### STUDENT EXPERIMENT DESCRIPTION

Our experiment aims to gain insight into the effectiveness of several photo-analysis algorithms on objects in microgravity. Six 3D printed objects representing debris, will be inputted into the box, one at a time with a linear and angular velocity. This experiment serves a secondary purpose: to measure the rate at which the Dzhanibekov Effect results from collisions in one or both objects organically. Once the Flight Box and the data are shipped back, the second part of the experiment begins.