

Ashley Haraguchi

Aerospace Engineering Masters Thesis Seminar

February 15 | 11:10 am | 192-322

A Hardware-in-the-Loop Star Tracker Testbed

Star trackers are advanced spacecraft attitude sensors that require extensive testing of both their hardware and software. Common methods allow for testing of only parts of the star tracker system, or depend heavily on testing circumstances. This seminar will describe the system design and work in progress for a hardware-in-the-loop star tracker testbed that will allow for comprehensive ground-based testing of both in-house and commercial star trackers. The system consists of a small screen to display a star field, a simple in-house camera star tracker, and a microprocessor. This testbed allows any star field image to be simulated, including moving star fields such as those seen during a slew.

