Towards Modular Attitude Determination and Control System (ADCS)

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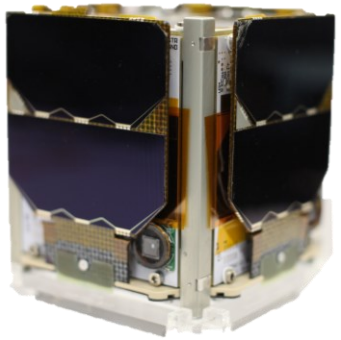


Objectives:

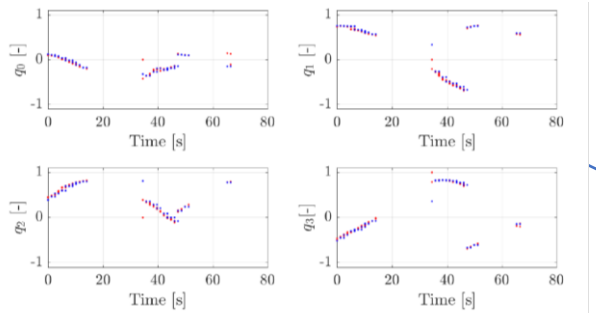
Modular ADCS based on CubeSat flight experience, space heritage hardware and rad hard components for small satellites

Project goal:

Integration of independent modules based on electronic data sheets (EDS) configuration system

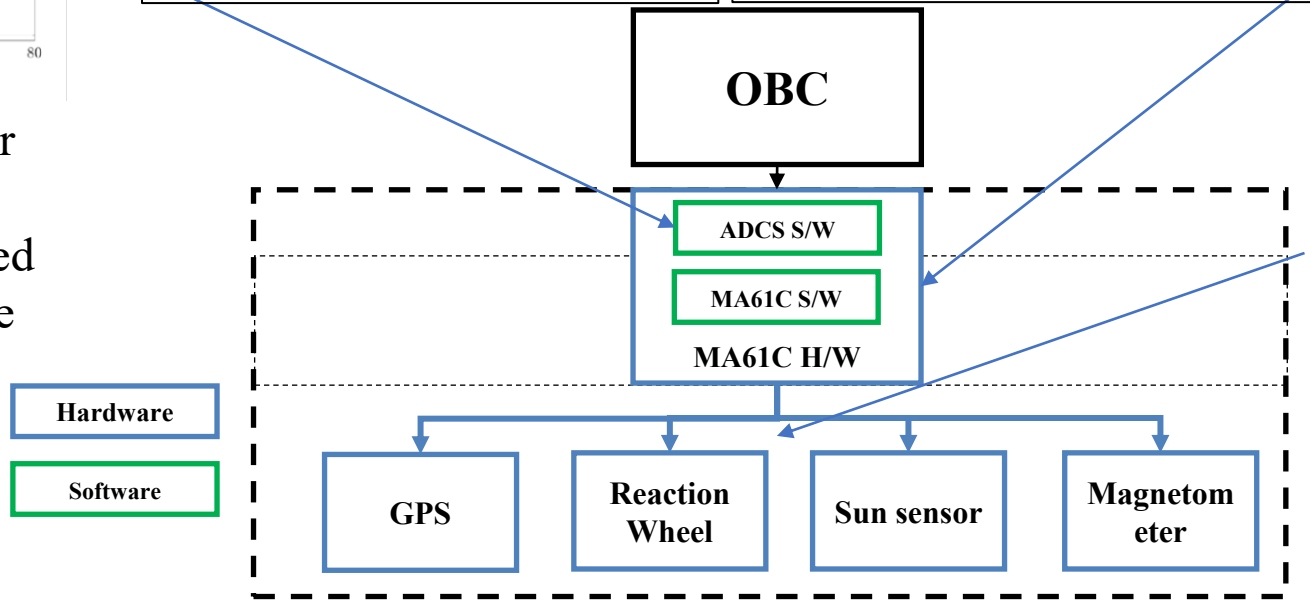
Capabilities:

- Attitude determination and control
- Boot and self-recovery
- Plug and play interface to sensor and actuators
- Fault Detection, Isolation & Recovery (FDIR)
- Data management and storage
- External control interface



TU Munich software for attitude estimation and control algorithms derived from in-orbit experience

SPiN's MA61C plug-and-play adapter for modular systems with rad-hard LEON-3FT GR712RC processor



NewSpace ADCS sensors and actuators with space heritage