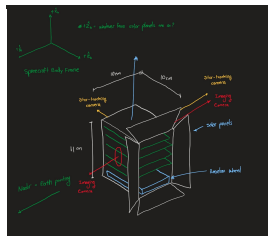
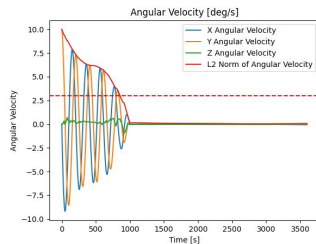


GNC Quad Chart

October 23 2024



External Tools Needed:

Blockers:

Progress:

Plan for the Upcoming Week:

Interfaces:

Kanban

The Kanban board is organized into five columns, each representing a different stage of the workflow. The columns are: Backlog, Ready, In progress, In review, and Done. Each column has a header with a status icon, a count of items, an estimate, and a description. The tasks are represented as cards with titles, progress indicators, and assignees.

Column	Status	Count	Estimate	Description
Backlog	Green circle	12	100	This item hasn't been started
Ready	Blue circle	2	0	This is ready to be picked up
In progress	Yellow circle	10 / 6	200	This is actively being worked on
In review	Purple circle	4 / 5	20	This item is in review
Done	Orange circle	3	20	This has been completed

Backlog (12 items, Estimate: 100):

- GNC-Simulation #14: Pointing Error Budget
- Draft: Enumerate mission scenarios and modes
- GNC-Simulation #11: Magnetorquer sizing (100)
- GNC-Simulation #22: Compute geodetic coordinates from ECI
- Draft: Test OpenMV startracker camera in schenley park
- Draft: Evaluate NASA COTS Startracker software
- GNC-Simulation #23: Sim ground track plot convert position from ECI to ECEF
- GNC-Simulation #25: Sim plotting: account for earth's eccentricity when computing lat/lon
- GNC-Simulation #26: Disperse initial orbit/position/velocity
- GNC-Simulation #27: Sim C++ bindings: look into pass-by-reference to avoid eigen copies
- GNC-Simulation #28: Sim SRP: Shadow function for SRP acceleration
- + Add item

Ready (2 items, Estimate: 0):

- Draft: Multiplicative EKF for Attitude Implementation
- Draft: Spin Stabilized Lyapunov Attitude Controller
- + Add item

In progress (10 / 6 items, Estimate: 200):

- GNC-Simulation #17: Star Tracker Camera Spec-ing Analysis (P0, 100)
- GNC-Simulation #10: PNP-Based Orbit Determination Implementation (P1, 100, M)
- GNC-Simulation #9: RW Sizing (P1, M)
- Draft: Study Pixel Truncation Error's Impact on Orbit Determination
- Draft: System architecture diagram created
- GNC-Simulation #16: Orbit Determination Debugging
- GNC-Simulation #12: Core Sim Performance
- GNC-Simulation #13: Python Sim Validation
- Draft: RW Sizing: implement more complex model in sim
- Draft: Implement Sun-pointing scenario
- + Add item

In review (4 / 5 items, Estimate: 20):

- GNC-Simulation #18: Solar Power Generation Model (P1, S)
- Draft: Solar Array Study (20)
- GNC-Simulation #31: C++ Core simulation integration
- Draft: Implement Spin-stabilized scenario
- + Add item

Done (3 items, Estimate: 20):

- GNC-Simulation #15: Orbit Determination
- Draft: Integrate detumbling controllers in sim (10)
- Draft: Debug sim detumbling scenario (10)
- + Add item