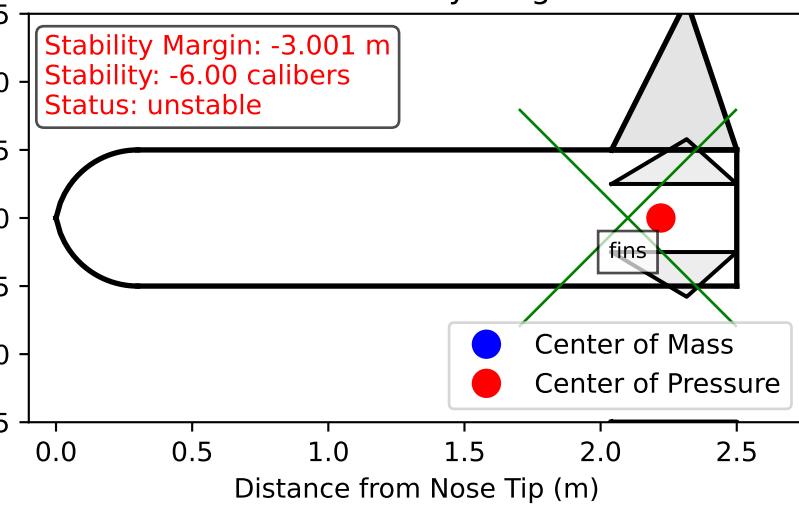


Rocket Stability Diagram



3.001 m
-6.00 cal

nozzle

INITIAL CONDITIONS AND PARAMETERS

STABILITY SIMULATION

Generated: 2025-11-15 00:26:58

STABILITY ANALYSIS PARAMETERS

Flight Stage Analyzed: burnout
Min Caliber Stability: 1.5
Max Caliber Stability: 4.0
Show Component CGs: True
Show Stability Margin: True

ROCKET CONFIGURATION

Rocket Length: 2.5 m
Rocket Diameter: 0.5 m
Nose Cone Length: 0.3 m
Nose Cone Shape: ogive

COMPONENT MASSES AND CG POSITIONS

| Component | Mass (kg) | CG Position (m) |
|--------------------|-----------|-----------------|
| nose cone | 10.230 | 0.450 |
| fuselage_oxi | 55.330 | 4.500 |
| propellant | 244.080 | 3.000 |
| helium_tank | 43.500 | 1.400 |
| fuselage_shell | 60.250 | 4.000 |
| combustion_chamber | 12.830 | 5.500 |
| nozzle | 7.993 | 7.349 |

FLIGHT CONDITIONS FOR BURNOUT STAGE

Mach Number: 2.0
Propellant Load: 0%