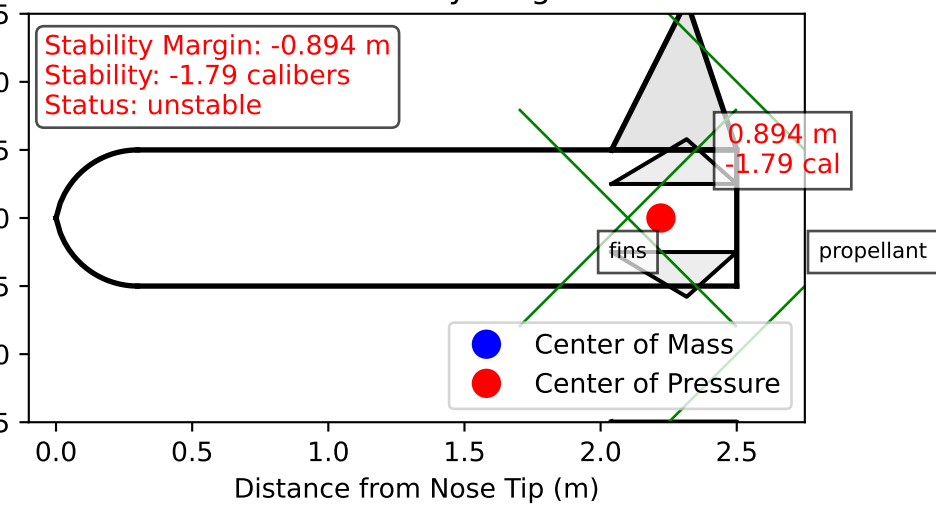


Rocket Stability Diagram



# INITIAL CONDITIONS AND PARAMETERS

## STABILITY SIMULATION

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### STABILITY ANALYSIS PARAMETERS

Flight Stage Analyzed: launch  
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 LAUNCH STAGE

Mach Number: 0.1  
Propellant Load: 100%