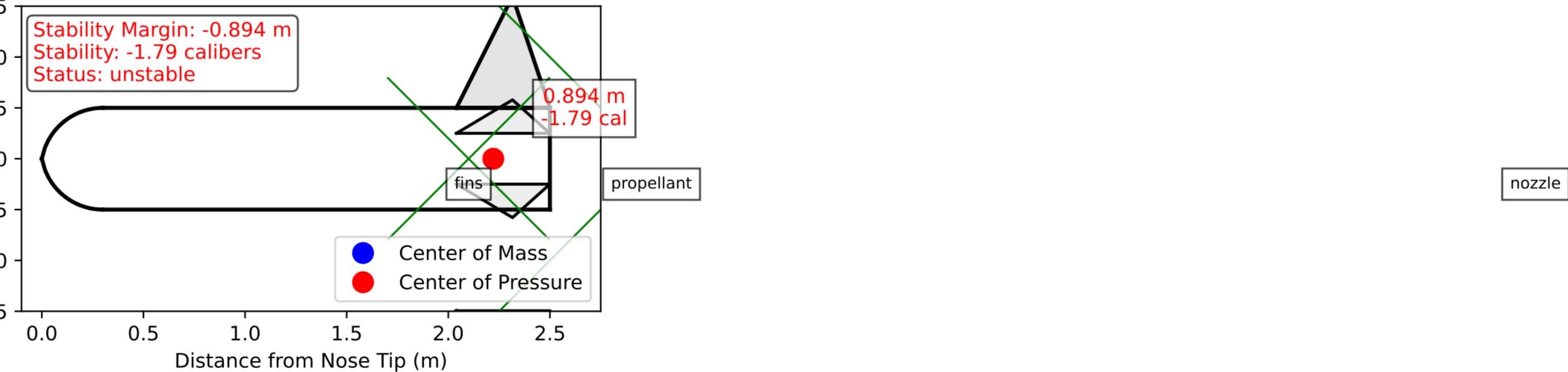


Rocket Stability Diagram



INITIAL CONDITIONS AND PARAMETERS

STABILITY SIMULATION

Generated: 2023-11-12 08:41:57

STABILITY ANALYSIS PARAMETERS

```
=====
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 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 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

```
=====
FLIGHT CONDITIONS FOR LAUNCH STAGE
=====
Mach Number:          0.1
Propellant Load:     100%
```