

Prompt to AI model:

User: I am a systems Engineer looking to design an autonomous vehicle and if it can perform under these specific conditions: A stability constraint where the vehicle must maintain a balance during high-speed maneuvers (e.g., tilt and centrifugal force must remain within certain thresholds), A performance constraint where the vehicle should have an acceleration time of 0 to 60 mph in less than 8 seconds. I also need a verification model where: The system converts the Autonomous Vehicle Model into its underlying mathematical representation (e.g., as a state machine or set of differential equations) and compares it to the defined problem space constraints.

GRAPH VISUAL (work in progress):

