Introduction to Rocket Science: How high will It go?
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I can't think of a more exciting way to come to grips with forces, mass, acceleration, velocity, and Newton's second law of motion (F=ma) than by building a model rocket, figuring out how high it will go with different engines, delays, and payloads, and then shooting it off and checking the results against your calculations. That's where this pamphlet comes in. It is pretty straight forward to get started with the caclulations and even refine them to the point of accurately predicting results. We'll start off with a simple calculation and see what it has to say. Once we get this under our belts, we'll add in corrections for air resistance (drag), non-constant thrust profiles, decreasing mass due to spent propellant, and even touch on multi-stage calculations.

  - Web Page
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  - Paper (8.5 x 11) (.pdf 5.9 Mb) or (.ps 512.1 Mb)