Senior Design Deliverables:

Design Report – 55%

Design Notebook – 20%

Individual Contribution – 15%

Weekly Updates/Preparedness – 5%

Team Assessment – 5%

Phase I

Define need - Objectives and constraints (should vs hard limit)

Problem Statement

Literary Review (background information, how to, capabilities)

Specifications – assign values to objectives and constraints

Feasibility Study – validate specifications

Creative design synthesis – create design solutions

Pick a final design by the end of Q1

Advantages of Pneumatics vs electrical/hydraulic actuators

Needs – weight, speed, size, cost, # of legs, maintainable

This week – literature search, problem statement synthesis, get design notebook, team binder

Locomotion dynamics

Pneumatic benefits

Stability

Sensors required

Team meeting rules – rules & consequences