

Project 2 D5: Final Report Rubric

Points

Total	25
Abstract or Executive Summary	4
A brief discussion of project goals, dispensing and leg mechanism design, theme, and summary of performance results	
Main Body	12
<p>Covers project goals and design specifications.</p> <p>Summarizes final design, important features on different sub-systems, and addresses goals and design specifications</p> <p>Discusses dispensing mechanism design, leg/movement mechanism design, the gait pattern, coordination between legs, and velocity estimate, gear ratios and coordination of motion between different elements</p> <p>Includes numbered figures including photos or CAD schematics of the whole design with colored and labeled parts, and views of critical sub-systems. Label overall dimensions. Leg/mechanism motion. Gait pattern.</p> <p>Explains iterations that were performed during the design process or problems found and addressed</p> <p>Discusses creative theme and how designed to thrill, amaze, and amuse the viewer</p> <p>Reviews walker performance at the final event on Friday December 12. Final size dimensions, dispensing consistency, straightness of motion, and average speed? Did it have problems?</p> <p>Discusses how the performance of robot differed from the expected dispensing behavior and predicted speed you computed for the robot. What may have caused these differences, and how could have generated more accurate predictions?</p> <p>Reflection on machine's performance, challenges it faced, and suggest ways to overcome them if iterated the design again. Reflection on team dynamics – discuss some pointers to offer future teams to help with good team dynamics such as what went well and what could be done differently</p>	
Appendices	6
<p>Drawings: Includes exploded assembly engineering drawing view(s) with BOM for final design. Include multiple images on same page.</p> <p>Expense Report: Discussion of the materials, manufacturing costs and purchased components that were used for fabrication. Brief overview of the final expenses per category. Full tabulated expenses that include both Project 1 and Project 2 expenses.</p> <p>Team contributions: Description of each team members contribution to the design process. Signed academic integrity statements from each team member.</p>	
Formatting	3
<p>Filename includes team #. Title page: Project title, team number, team member names, lab section number. Include a picture of the final project walker with theme decorations. 11-point font or larger (ideally 12 point), 1" margins, single spaced, and page numbers. Report is correct length (body 6-9 pgs, appendices ≤ 10).</p> <p>Report is logically organized and formatted. Writing in all sections is grammatically correct, substantive and of sufficient detail. It should not be a "figure dump".</p> <p>All figures and tables are captioned. Figures use good plotting and presentation practices, including large font size, thick lines, axis titles, units, and labeling with meaningful caption or label. Hand sketches are easy to read and see all parts, with clear, dark lines and labels. All images are easy to read and not pixelated or blurry or otherwise illegible, handwriting is not small or illegible.</p>	
Scoring	Weight
Exceptional: Exemplary achievement. Provides novel insights into mechanical design	1.1
Satisfactory: Meets expectations, is well considered, contains no problems	1
Intermediate: Evidence of achievement. Missed minor requirements.	0.9
Marginal: Limited evidence of achievement. Missed major requirement or many minor problems	0.8
Deficient: Minimal evidence of achievement. Demonstrates multiple severe design deficiencies	0.5
Missing: Not demonstrated/observed	0