

Project #: \_\_\_\_\_ Semester: \_\_\_\_\_ Reviewer: \_\_\_\_\_

# Design Document Evaluation Sheet

<b>Introduction: 5 pts</b>	<b>Max Score----- Min Score</b>		
Problem and Solution	<b>(2)</b> - clearly defined problem and solution	<b>(1)</b> - one of prob./sol. unclear or missing	<b>(0)</b> - prob. + sol. both unclear or missing
Visual Aid	<b>(1)</b> - pictorial representation of how the final solution is used in the context of the problem		<b>(0)</b> - visual aid unclear or missing
High-level Requirements	<b>(2)</b> - three clear, comprehensive, and quantitative (where applicable) reqs.	<b>(1)</b> - at most one req. unclear or missing	<b>(0)</b> - more than one req. unclear or missing

<b>Design: 24 pts</b>			
Block diagram (+ optional physical design)	<b>(2)</b> - complete, modular design with all important details	<b>(1)</b> - design incomplete or lacks important detail	<b>(0)</b> - lacking multiple important details or missing
Subsystem Descriptions	<b>(5)</b> - complete description of all subsystem functions and interaction with other subsystems	<b>(3)</b> - more than one subsystem description lacking detail	<b>(0)</b> - all subsystem descriptions lacking detail or missing
Subsystem Requirements	<b>(5)</b> - reqs. are for student design - not for off-the-shelf parts - comprehensive, detailed, quantitative (with tolerances), and relevant	<b>(2)</b> - half of reqs. are off-the-shelf parts, missing, lacking detail, irrelevant, or non quantitative	<b>(0)</b> - most of reqs. are for off-the-shelf parts, missing, lacking detail, irrelevant, or non quantitative
Subsystem Verifications	<b>(5)</b> - test procedure and success criterion are unambiguously presented	<b>(2)</b> - half of verification procedures are lacking detail or missing	<b>(0)</b> - majority of verification procedures are lacking detail or missing
Supporting Material	<b>(3)</b> - supporting figures and data effectively communicate technical details of design	<b>(1)</b> - supporting material occasionally omitted or ineffective	<b>(0)</b> - supporting material often omitted or ineffective
Tolerance Analysis	<b>(4)</b> - feasibility of a critical subsystem function proven through mathematical analysis or numerical simulation	<b>(2)</b> - analysis is unsound or fails to demonstrate the feasibility of the subsystem function	<b>(0)</b> - missing tolerance analysis

<b>Cost &amp; Schedule: 4 pts</b>			
Bill of Materials	<b>(2)</b> - all parts, their required information (eg. Part #, specs, etc.), and purchase link included	<b>(1)</b> - some parts or required information missing	<b>(0)</b> - most parts or required information missing
Schedule	<b>(2)</b> - specific, with one task assigned per week/member	<b>(1)</b> - schedule is unsound or some information missing: division of labor, specificity	<b>(0)</b> - missing information: division of labor, specificity

<b>Ethics &amp; Safety: 4 pts</b>				
Considers all ethical & safety issues of project	<b>(4)</b> - includes all elements where applicable	<b>(2)</b> - one incomplete or missing element where applicable	<b>(1)</b> - two incomplete or missing elements where applicable	<b>(0)</b> - more than three incomplete or missing elements where applicable
Explains how to address these issues (eg. danger mitigation procedures)				
References appropriate ethics code				
References to relevant safety or regulator standards (e.g. OSHA, FCC)				
Justifies design decisions for project safety & ethics				

<b>Writing: 3 pts</b>				
Final report formatting guidelines	<b>(3)</b> - at most one invalid element	<b>(2)</b> - two invalid elements	<b>(1)</b> - three invalid elements	<b>(0)</b> - more than three invalid elements
Title page: title + group members				
Figures + tables labeled and captioned.				
Equations explained in accompanying text.				
IEEE formatted references; Citations throughout document				
No typos or grammatical errors				
<b><u>Text is consistent and flows logically from one paragraph to the next</u></b>				

**Total: \_\_\_\_\_ / 40**