	Advanced	**Competent**	**Developing**
Genre			
Problem Statement			
Establishes the Solution	Clearly states the purposes and goals of the system as a response to the Design Project.	States the purpose and goals of system but may not relate it to prioritized issues from Design Project. May offer too many facts from Design Project.	Purpose and/or goals of system is unclear. Description of solution is essentially a restatement of the Design Project.
Explains the Key Merits of Solution	Connects solution to design properties. Explains how design properties serve the primary system outcomes.	States the design properties that the system prioritizes, but does not fully explain how properties connect to system objectives.	Lists too many design properties (3 or more) instead of focusing on the system's main priorities; or doesn't identify any properties as focus.
Defining the System			
Presents a Layered Definition of System	Introduces a system, from overview to modules to components and communications.	System is introduced but overview stage or module stage may be incomplete or combined.	One or more stages is missing in introducing the system.
Clearly Defines Key Elements	Uses defined naming conventions to connect components/modules/messages of system. Effective visuals explore and explain relationships within system.	Naming conventions may have some lapses. Figures may lack sufficient labeling and explanation in text.	Naming conventions are overly vague. Figures are missing or uninformative.
System Concepts			
Relates System Components to Design Properties and Objectives	Design properties are well-scoped and defined. They are attached to relevant information (prioritized facts) that justify the selection of design properties.	Properties definitions are too vague at times. Choice of properties is not clearly explained with facts from Design Project or system details.	Properties are stated but not defined and unjustified.
Places System and Users in Context of Use Cases	Use cases are clearly stated and defined. Use cases explore the full operation of the system in a way that justifies design priorities; connect to design properties; and explore system trade offs. Impact of system on people and communities is considered.	Use cases explain operation of system, but relationship to design properties is unclear. Use cases may not make trade offs clear, or may not consider impact of system.	Use cases lacks discussion of design properties and trade offs.
Argument			
Reasoning			
Applies systems reasoning to design	Arguments arise from systems concepts: design properties, use cases, impact, techniques, and measurements. Focus demonstrates how systems serves users or researchers.	Uses system concepts sporadically. Body of paper largely lacks systems concepts in its reasoning.	Paper neglects system concepts. May only mention system concepts as design properties in introduction.
Articulates choices that were made and why	Sections lead with a clearly articulated design choice. This choice is then explained and justified with systems concepts and rationale.	Design choices may be buried within sections. "How" consistently precedes "why." Choices are mostly stated, but some may be missing.	Design choices are left implicit. Reasons for choices are absent.
Justification			
Uses Systems Topics for Justification	Justifications are based in design properties, techniques, methods, measurements or impact appropriate to the design choice and level of specificity.	Justifications do not consistently connect back to systems concepts.	Justifications rarely or never connect back to system concepts.

Justifications fit proper sections	Justifications matches the level of detail and specificity appropriate to the section of paper and level of design.	Some justifications may go into too much detail for section or leave important choices unexplained.	Justifications are consistently underexplained.
Evidence			
Evidence is appropriate to stage of the paper	Evidence matches the appeal used. Design property appeal explains value of property to solution. Metric appeal explains how metric is appropriate to evaluate function. Etc.	Occasionally evidence is missing or inappropriate to section, such as a lack of design property justification in introduction.	Evidence is consistently missing or off-target, such as a lack of design property discussion or complete reliance upon metrics.
Evidence is clearly explained as part of a design choice	Evidence is related directly to the choice it supports. Metatextually and structurally, the evidence is explained as part of the choice.	Evidence is stated, but text does not connect evidence to the actual design choice and why it was made.	Evidence is lacking or completely isolated from discussion of design choices.

Discourse

Structure			
Contains Appropriate Sections	Paper has distinct sections for Problem Statement, System Overview, System Description, Use Cases, and Summary.	Paper has required sections, but organizations may not make these easy to scan and thus quickly find core sections.	One or more sections is absent.
Sections Meet Audience and Genre Conventions	Each section builds its argument for systems' concepts and explains choices clearly, while acknowledging audience knowledge from the Design Project and discipline.	Most sections connect to one another, but transitions may be absent and a section or two may largely operate in isolation without reference to previous sections.	Sections do not refer to one another nor share internal logic. Sections might read like independent papers.

Organization			
Prioritization	Paper prioritizes design choices and justifications within the body of the paper.	Some sections may lapse in highlighting design choices and justifications	Design choices and justifications are regularly throughout the paper.
Transitions	Transitions explain how sections relate to one another and connect design and justifications in a compelling manner.	Transitions may be superficial or imprecise at times, but sections still connect to one another.	Transitions are missing throughout or consist wholly of imprecise or cliché transitions that do not signal appropriate meanings.
Syntactic and Grammatical Clarity	Sentences and paragraphs use appropriate subjects, informative verbs, and syntax appropriate to the explanation.	Choice of subject may not always match the needs of the sentence. The paper may over rely upon first person or passive voice rather than using them in a rhetorically informed manner.	Sentences are hard to understand. Fail to relate concepts from one sentence to the next.
References (if needed)	Outside references (if they exist) are cited and use a formal method for works cited. References are smoothly integrated into text.	Citations and references exist (if needed) but lack proper formatting.	References (if needed) are insufficiently notated. May e

Audience

Evidence Selection	Evidence is sufficient to inform reader about the design choices made and what makes the solution innovative. Evidence does not unnecessarily duplicate knowledge the audience already possesses.	Evidence at times spends too much time duplicating obvious information for the audience. One or two section may be missing key details.	Evidence is consistently either redundant for the audience (largely summation of the Design Project) or consistently too thin in supporting the proposed system.
Topics	Rationale utilizes reasoning topics appropriate to the audience. This includes appeals/claims to innovation, design properties, technique, metrics, and use cases.	Claims may appeal to system concepts only implicitly or occasionally fail to connect to design concepts.	Claims fail to connect to design concepts making it hard for audience to understand the rationale.