

ECCS Department – Realistic Constraints Rubric

Course: _____

Date: _____

Student(s): _____

	3 - Expert	2 - Practitioner	1 - Apprentice	0 - Novice
For All Realistic Constraints:	<ul style="list-style-type: none"> Analysis correctly reasons how the design is constrained and provides sufficient, in-depth discussion in a clear and easy to follow manner. 	<ul style="list-style-type: none"> Analysis correctly reasons how the design is constrained but provides only a cursory discussion. 	<ul style="list-style-type: none"> Analysis contains a mixture of correct and incorrect reasoning as to how the design is constrained. 	<ul style="list-style-type: none"> Analysis incorrectly reasons how the design is constrained.

Constraint	Pertinent Questions	Applicable?	Score
Economic	<ul style="list-style-type: none"> What are the development costs? What are the production costs? What are the operational costs? 	Yes No	3 2 1 0
Environmental	<ul style="list-style-type: none"> What valuable resources are being used? Is pollution being produced as a result of production and/or use of the product? 	Yes No	3 2 1 0
Sustainability	<ul style="list-style-type: none"> To what degree over time will the product be useful and viable? Can the resources associated with the product be used effectively in a sustainable economy? 	Yes No	3 2 1 0
Manufacturability	<ul style="list-style-type: none"> Can the product be built? How can the product be designed to eliminate manufacturing errors? How can the product be designed to minimize manufacturing costs? 	Yes No	3 2 1 0
Ethical	<ul style="list-style-type: none"> Are there any foreseen potential conflicts with a profession's Code of Ethics arising from the development or use of the product? 	Yes No	3 2 1 0
Health and Safety	<ul style="list-style-type: none"> Are there any laws that determine how safe this product has to be? Are there related ethical issues? Are there relevant health effects that are affected by this product? 	Yes No	3 2 1 0
Social	<ul style="list-style-type: none"> What anticipated impacts will the product have within a community? 	Yes No	3 2 1 0
Political	<ul style="list-style-type: none"> Is the project being conducted for a governmental entity? Is the project being regulated, or being proposed for regulation, by a governmental entity? 	Yes No	3 2 1 0

Comments:

Evaluator Signature: _____