

ECE4810

PRACTICE PROBLEM 3.5

For this problem refer to the “Floating Challenge” article in the November 1998 issue of the *Scientific American* by S. Carlson. As always, be sure to follow proper citation guidelines, particularly if using direct quotes. Be sure to review the partial checklist for homework given in the syllabus before submission.

1. Describe in one sentence the described need.
2. Identify and list design specifications for the Floating Challenge. Use complete sentences and number each specification.
3. Categorize each of the specifications as to its: a) source; b) level (requirement, goal, or preference); c) type (prescriptive or performance); d) life cycle stage pertinence, and e) indicate whether the specification is qualitative or quantitative. Use a table to summarize this information. Justify at least one example of each categorization.
4. Identify and list the design parameters for the Floating Challenge that are given/indicated in the article.

Reference

W. H. Middendorf and R. H. Engelmann, Design of Devices and Systems, Marcel Dekker, 3rd ed., 1998.