# 2013 Project Engineering Notebook Scoring Rubric

This is a suggested rubric for scoring the engineering notebooks. It is OK to use your own judgment in scoring and to adjust these suggestions up or down for factors that are not covered.

## Design Process

**Implementation of the Engineering Design Process**

25 - process is explicitly identified, steps are obvious and explanation is thorough

20 - process is identified, steps are discernible and there is some explanation

15 - process is not identified, there is some discussion of a design process

10 - discussion of process is minimal

5 - you can tell there was design of some sort

0 - no discernible design

**Brainstorming approaches**

25 - approach is explicitly identified, organization and productivity are obvious, explanation is thorough

20 - approach is identified, organization and productivity are discernible, there is some explanation

15 - approach is not identified, there is some discussion of brainstorming

10 - discussion of approach is minimal

5 - you can tell there were ideas generated

0 - no discernible brainstorming

**Analytical evaluation of design alternatives**

25 - evaluation is explicitly identified, analytic/mathematical approach is obvious, alternative designs are explained

20 - evaluation is identified, analytic/mathematical approach is discernible, alternative designs are identified

15 - evaluation is not identified, alternative designs are identified

10 - discussion of alternative designs is minimal

5 - you can tell there were alternatives

0 - no discernible evaluation

**Offensive and defensive evaluation**

25 - evaluation of offensive/defensive strategies is explicitly identified, goals of this team are clearly identified, discussion shows a deep knowledge of the game

20 - evaluation is identified, goals are discernible, discussion shows a knowledge of the game

15 - evaluation is not identified, there is some notion of goals and game knowledge

10 - discussion of goals and game knowledge are minimal

5 - there is some slight mention of strategy

0 - no discernible evaluation

**Safety**

25 - clear evidence that safety training occurred, clear evidence that the team verified safety procedures were followed

20 - clear evidence that safety training occurred, some evidence that procedures were verified

15 - some evidence that training occurred, some evidence procedures were verified

10 - some evidence that training occurred, no evidence on verifying procedures

5 - it seems like safety was mentioned

0 - no mention of safety

**Support Documentation**

25 - clearly identifies and includes design drawings, photos, team organization chart, meeting minutes and test results

20 - identifies items from the list above but is missing one or two categories

15 - identifies items from the list above but is missing three categories

10 - includes items from several categories but they are not identified

5 - items from at least one category are included

0 - none of the listed items are included

## Research Paper

**Correlation between game and ...**

10 - in-depth discussion of how game theme technology relates to industry in this region

7 - general discussion of how game theme technology relates to industry in this regions

3 - general discussion of game theme, but no ties to the region

0 - no discussion of game theme

**Any related information of game theme ...**

10 - in-depth discussion of history and people related to game theme

7 - general discussion of history and people related to game theme

3 - some mention of history or people

0 - no discussion of game theme

**Creativity in linking game theme to ...**

10 - very creative in linking game theme to other science/technology

7 - attempted to link game theme to other science/technology

3 - mentioned other science/technology

0 - no discussion of other science/technology

**Proper use of grammar and composition ...**

10 - very few grammar mistakes/misspellings, included citations, 2-5 pages

7 - noticeable grammar mistakes/misspellings or did not include citations, 2-5 pages

3 - many grammar mistakes/misspellings, no citations, not within 2-5 pages

0 - incomprehensible or missing

## Overall Quality and Completeness of Notebook

**Submission of completed Team Demographics Form**

20 - turned in completed Team Demographics (Mike Bright will supply list if they submitted separate from Engineering Notebook)

10 - turned in partially complete form

0 - did not submit

**Organization and Appearance**

30 - well organized, looks good, includes Table of Contents, summary, page numbers, discussion of evaluation points (e.g. items on the score sheet), linkage to appendices

25 - well organized but missing one item from list above

20 - organized, looks good, missing multiple items

15 - some organization, appearance is lacking, missing multiple items

10 - poorly organized, missing multiple items

5 - poorly organized, missing almost everything

0 - no discernible organization

**Adherence to specifications**

30 - professional font at least 12pt, double-spaced, max. 30 pages in main section and max. 40 pages in appendices, 1" margins, cover identifies team and team number

25 - missing one item from list above

20 - missing two items

15 - missing three items

10 - only adhered to two specifications

5- only adhered to one specification

0 - specifications ignored

**Quality of content**

30 - everything is well written/clear/logical, everything is clearly labeled, no excess material

25 - everything is well written/clear/logical, missing some labels or some excess material

20 - good writing but not great, missing some labels or some excess material

15 - writing is OK, missing some labels and excess material

10 - writing is poor, missing labels and excess material

5 - hard to understand in places, missing labels, lots of excess material

0 - very difficult to follow, lots of unnecessary material