



GSU ENGINEERING DESIGN CHALLENGE 2018



ENGINEERING JOURNAL RUBRIC

This rubric is designed to help teams prepare the Engineering Journal for the GSU Engineering Design Challenge.

An **engineer's journal** (or notebook) is a book in which an engineer will formally document, in chronological order, all work that is associated with a specific design project. Typically each engineer has an engineer's journal. Engineers record all related project work by hand. Each **team** will have a single journal.

The journal should:

- Include written ideas
- Include sketches (preferably annotated)
- Include work session summaries
- Include research findings
- Include interview information: who was contacted, when, and what was discussed or learned
- be submitted in a composition book as shown in Fig. 1
- provide a description of the process the team used to design

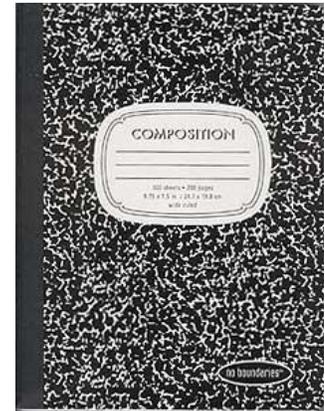


Figure 1: Composition Book

Additionally,

- The cover must identify the school, team name, student coach and project mentor.
- Write everything in non-erasable ink.
- Pages should be sequentially numbered in ink on the top outside edge.
- Do not erase, white-out, or otherwise obliterate anything written in your journal. To eliminate something that is unwanted or incorrect, strike it through with a single neatly-drawn horizontal line through the middle of the text.
- If a correction is warranted, strike through the portion in need of correction as described above and insert a small, dated reference to the page containing the corrected entry.
- Start your entries at the top of the first page and leave no significant blank space between adjacent entries.
- Although significant whitespace (more than 1/4 page) should not occur, on those rare occasions when it does, X it out with a neatly drawn X spanning all four corners.
- Clearly and consistently date each entry where it begins and **sign it** where it ends. Maintain a strict chronological arrangement.
- Use only one side of each page for clarity, be sure you place page numbers only on the side you intend to use and X-out the unused side with a single, neatly drawn X spanning all four corners.
- No pages are removed from the Engineer's journal for any reason.
- Teams may include support documentation such as photos, organization charts, minutes of team meetings, test results, etc. Photos may be glued to blank pages in the journal. *This material should directly support the design process and NOT reflect activities related to community or promotional efforts, spirit development, or team-building.*

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Examples

Fig. 2 provides examples of sketches in an engineering journal, Fig. 3 shows written journal entries; an internet search of “engineer’s notebook” will yield many more examples.

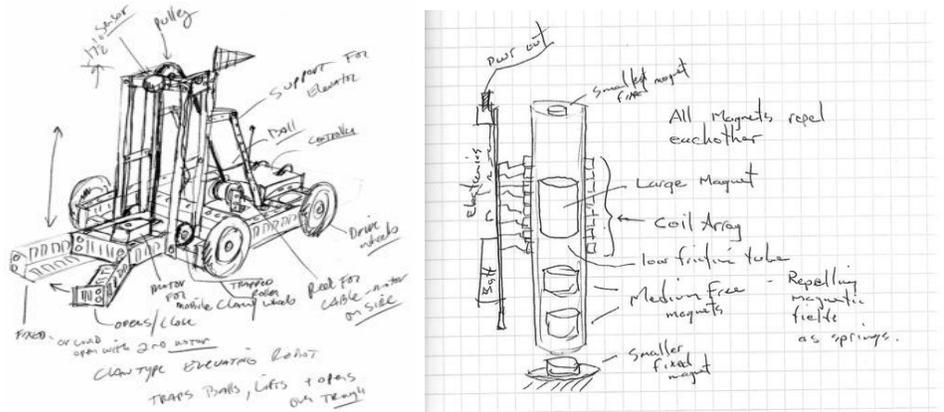


Figure 2: Journal Drawing Examples

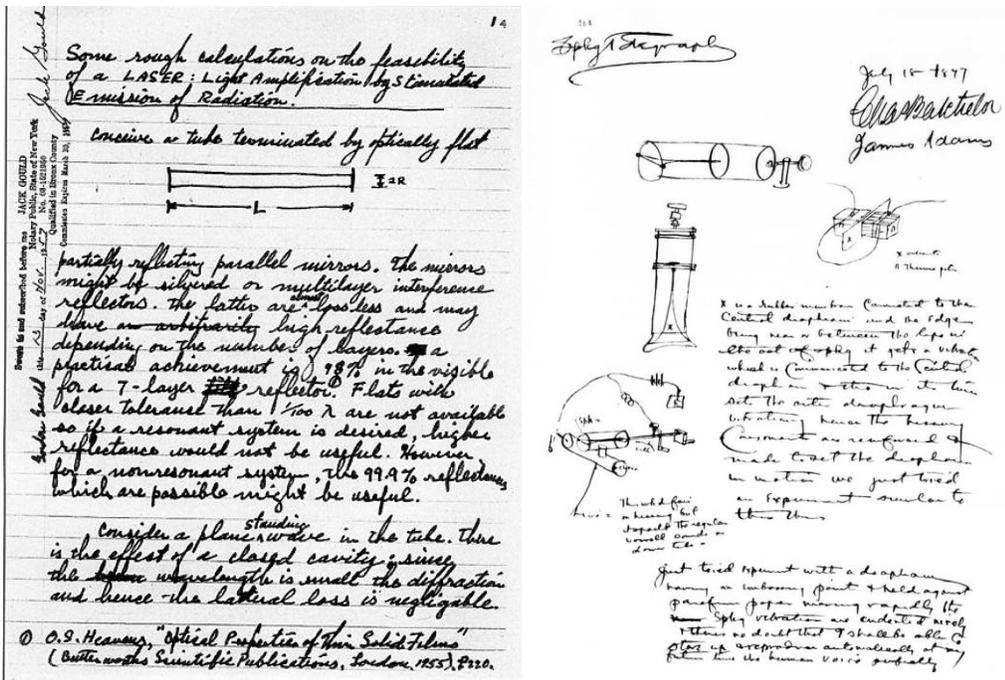


Figure 3: Journal Written Entries



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Engineering Journal Evaluation

The engineering journal will be evaluated on the documentation of the team's implementation of the following:

Engineering Design Process (10 %)

Evidence that the engineering process was effectively used.

Brainstorming Approaches (10%)

How well organized and productive was the brainstorming approach used and documented?

Evaluation of Design Alternatives (10%)

Use of research findings in deciding upon and implementing design alternatives

Safety (10%)

Evidence that safety training occurred and safe practices were followed to prevent students' misuse of tools and other devices/equipment that may result in personal injury or damage to property.

Support Documentation (10%)

Drawings, photos, organization, team minutes, test results, etc. that support the main document.

Overall Quality and Completeness of Journal (15%)

Organization, appearance, adherence to specifications, quality of content.

Progress Reports (40%)

Details in the rules.

Last updated on February 2, 2018