



Students for the Exploration  
and Development of Space

Alexander B. Thornton  
[alex.thornton@seds.org](mailto:alex.thornton@seds.org)  
417.231.3848

## SEDS 2019 University Student Rocketry Challenge Technical Manufacturing Report Deliverables and Guidelines

The following document has been provided to give an overview of the deliverables guidelines for the manufacturing report to be submitted as part of the 2019 University Student Rocketry Challenge. Technical manufacturing reports should address all the following:

1. Complete technical description of vehicle analysis including flight performance details. Why did you choose a certain fin shape/size type? What are the benefits/downsides of using the materials you chose throughout the rocket? Where are some potential failure points in your build and how can/did you mitigate those risk?
2. Build Process Validation. Recap the build/integration process of the **entire** vehicle and its components. This includes but is not limited to detailed descriptions of the propulsion systems, couplers, fins, payloads, recovery systems, and airframes. Pictures of the build process of individual components and the system as a whole help illustrate the techniques used to the judges.
3. Photographs of current completion status of the rocket and expected completion schedule.
4. Electronics documentation. Please include a **test plan** and **results** for: recovery charges, staging operations, and any other electronics (tracking, etc...) that are used.
5. Description of issues encountered during the manufacturing process, and how these issues were resolved.
6. **Safety** and **launch** procedure checklist.
7. Launch failure mitigation reports/procedures.
8. Updated launch dates, if applicable.

**\*\* Late reports will be accepted with a penalty. \*\***

*This list is **NOT** necessarily in the order that the technical manufacturing report should follow, but the report **MUST** contain all these elements. Contact me with any questions, comments, or concerns.*