

REQUIREMENTS FOR THE WRITTEN REPORT

9-20-11

A written report is a key component of any successful engineering project. The purpose of the written report we require you to submit is primarily to give you experience in documenting your activities, and also to give the judges an idea of what you have gone through in creating your robot. This information includes (but isn't limited to) what decisions were required, what sketches you prepared to develop your ideas, what problems you encountered, and more.

An appropriate written report is a requirement of the Challenge. ***Failure to provide a suitable report will cost you 25 points!***

As guidance in preparation of this important document, we offer the following guidelines:

1. Provide the names of team participants, the team name and number, the School name and teacher name, the name of the Robot, a description of the Robot (including colors), and a picture or sketch of the Robot and team logo.
2. Remember you have three main tasks, and we want to read about all three:
 - A. Construct Power Unit and Control Unit
 - B. Create, design, and build the Robot body
 - C. Learn to walk the Robot.
3. Typically start with a Table of Contents, which should list all the topics you wish to include. You might add an Appendix at the end for reference or less critical items, such as Safety precautions, Bibliography and Certification, Sketches and Logs.
4. Tell us a little about your team members, describe your work in part A, and be sure to include what happened when you "created, designed, and built the Robot body" in part B, and why you made these decisions. You may not get to part C at the time you write the report, so you can tell us about that during the Oral presentation.
5. In the written report we want to read about what you tried and rejected, as well as what worked and why. *Include sketches* of the ideas you rejected, and the final ideas that you all agreed to. Why did you select your particular approach? Was it easier to do, would it take less time, cost less, or would it be more reliable, fit better, be more attractive, striking, or just because you liked it, or felt better about it?
6. Include an agenda of what you had planned to do, and a summary of what actually happened. Explain the problems encountered and how you resolved them. Include a log of your daily activities in case we want to examine them in more detail. Do not include copies of any of the pictures that are in the Manual
7. Show costs and trade-offs, i.e., how you made decisions (what factors were taken into account, such as cost, size, availability, time, etc.).
8. Provide a Bibliography page listing your research and any guidance from parents and friends (but not from members of other teams as this is not allowed), followed by a certification that: *The majority of the ideas, design, and work was originated and performed by the students, with limited assistance by adults, as described above.* This page should be signed by team members and their teacher.

Written Report Check List

We recommend that you review your written report against the following Check List to be sure that you have not left out anything vital that the judges will be looking for:

Did you define the Project Objectives clearly?

Will the judges be able to evaluate all the problems you encountered and how you overcame them?

Did you provide the data that led you to identify and resolve problems?

Have you listed the parts used that were not part of the kit?

Is the report neat? (It doesn't have to look like a glossy magazine but it should be typed, no scribbles, and sketches and photos should be labeled). Has your teacher reviewed it and signed the Bibliography page?

Does the Robot body show evidence of your creativity? Is there a picture of the finished Robot?

Did you provide the early sketches of the ideas leading to the Robot body and how you attached it to the Power Unit?

Did you label the sketches so that they tie in with the text? If you made formal drawings, are they attached? (Early sketches do not have to be neat.)

Did you provide a log of your activities, and compare it with your original estimate and timetable? Did you account for the differences?

Will the judges be able to determine how efficient you were with your time and money?

If you opted to automate the Robot, did you provide details of your design, and the problems and costs you encountered here?

Did you list the safety precautions taken, and include this as an appendix?

Did you list the sources of your research and assistance on the Bibliography page, and signed the certification?