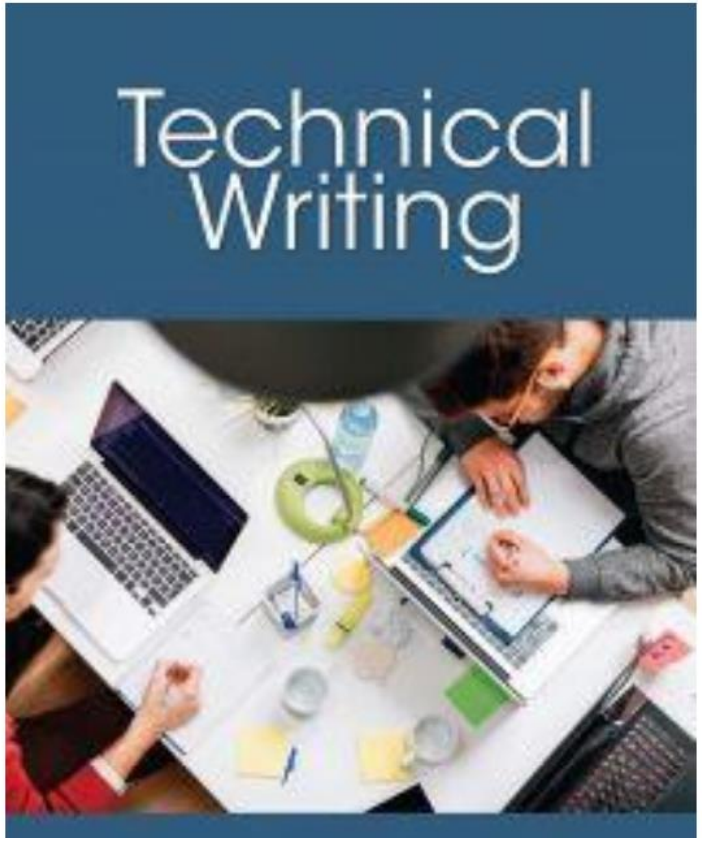
VG100 Lab 9

PHASE 2 REPORT

What is emphasized in Phase 2 report?

TC part

- Technical language
- Format



Tech part

- Detailed design
- Reasonable design

Writing Sequence (personal)

For reference only!

- ✓Project Management
- ✓System Design and Assembly
- ✓Measurement Results and Discussion
- ✓Conclusions
- ✓Introduction
- ✓Abstract

Project Management

- ✓**Figure: Gantt Chart**

  Pick some highlights and describe the timeline of the whole team.

- ✓**Table: budget**

  Explain why you have divided the budget into such categories, which part you are focusing on and why you focus on this part.

- ✓**Table: bill**

  Attach the links of the bill in Appendix respectively. Don't take up too many pages

- ✓**Table: personal responsibility**

  You can attach the details of labor distribution in Appendix

- ✓**Content: goal of the project**

  Explain briefly what you are going to complete in this whole project.

  E.g. bear a load, stop accurately

- ✓**Content: risk assessment**

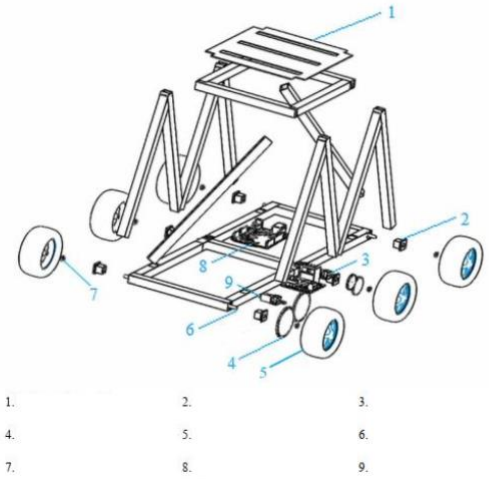
  According to the goals, explain the potential risks and how you are going to do alleviate risks.

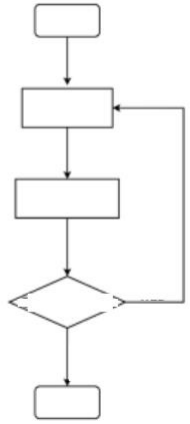
  E.g. stability, safety

System Design and Assembly

- ✓**Figure: overall design**
  - ✓Photo/Solidworks
  - ✓ Introduce briefly what the design is like
  - ✓Tell about the size (label the important onesin the figure)

- ✓**Content: functions & future plans**
  - ✓One paragraph is enough
  - ✓Remember, not the detailed design process
  - ✓(Appendix)
  - ✓You can use block diagram to help illustrating





Measurement Results and Discussion

- **Tests and comparison**

✓Probably the most confusing part

✓Easy to complete, as long as you have a reasonable design

✓Use data to verify your design

✓Ask yourselves questions: why do you design like this? Why is the design better than the others?

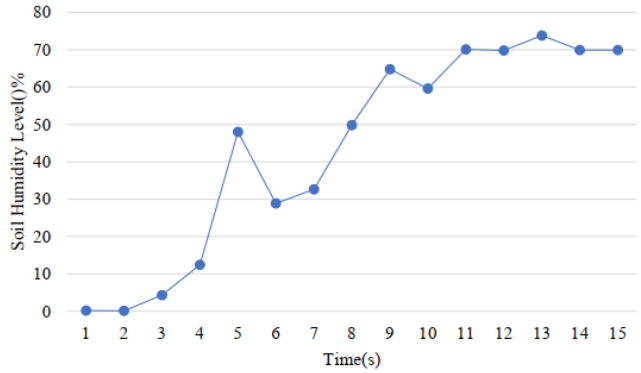


Fig. 9 Relationship between soil humidity level and time.

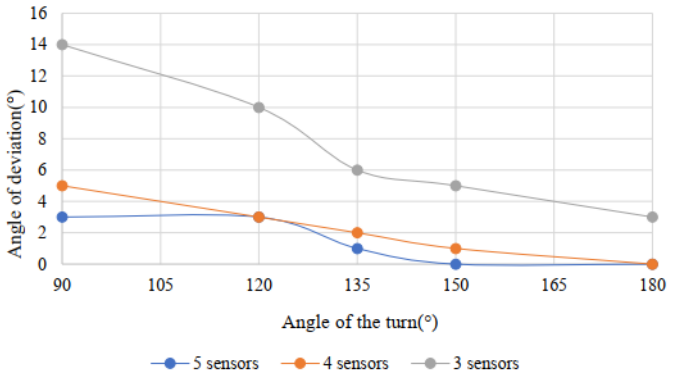


Fig. 7 Trolley's angle of deviation using different number of sensors.

Conclusions and Introduction

◆Conclusions: brief and concrete

- ✓Have your goals been successfully achieved?
- ✓What are the highlights of your prototype?
- ✓How do you achieve those highlights?
- ✓Are there any potential problems remained?
- ✓How will you fix those problems?
- ✓Tip 1: Focus on your design, not your future plans.
- ✓Tip 2: Limited to half a page at most.

◆Introduction

- ✓Problem, need and solution
- ✓Background & Problem: why are you designing this prototype? What are the advances and shortcomings of the existing design?
- ✓Need: what is needed to be done to solve the problems?
- ✓Solution: how did you complete your design? (corresponding to each solution and need)

Appendix and Supplementary

- **Appendix**
  - ✓Links for the bill of the materials
  - ✓Details of teamwork distribution
  - ✓Arduino code if applicable
  - ✓Any design detail, literature review that you find trivial for the main body part
  - ✓etc.8
- **Supplementary**
  - ✓No need to attach if there's no contents
  - ✓No clear border between appendix actually
  - ✓Priority: main part>>appendix>supplementary

Some tips for poster

- ✓**Please follow the template!**
- ✓**Do not change any lines & compose types in template**
- ✓**Left end justified**
- ✓Font
  - ✓Title: Calibri 66 **Bold**
  - ✓Instructor, team members: Calibri 34 **Bold title**
  - ✓Subtitle : Calibri 40 **Bold + underline**
  - ✓Content: Calibri 32
  - ✓Fig title: Calibri 28 **Bold for Fig.**
  - ✓Acknowledgement & Reference: Calibri 28

References

Bai, Xiaoyan, Sun, Haojia, TC lab4, 2022.

Q&A