

Aerial Robotics Kharagpur Documentation Template

Ashwary Anand, Other Author/ Contributor Names in Order of their contribution to the project *

Abstract—Should be half column long. Should be clear enough to explain your whole documentation. Similar to a TL;DR

Write in brief what you have done and give a small outline about the fields of application. Eg. for object detection , write about the fields where this can be scaled , for solidworks model write about the place where it will be used in ARK or in general it's uses.

I. INTRODUCTION

Describe the problem statement and your approach using which you have approached the problem. Describe all the things and methods you have tried which might have failed in brief.

II. PROBLEM STATEMENT

This should cover one full column of page.

Explain in details what your problem statement was with all the necessary images and equations required.

III. RELATED WORK

Write, in brief, about other approaches used and implemented to tackle the problem and reference them in references.

IV. INITIAL ATTEMPTS

Write about the initial solutions which you might have thought of for solving the problem. For eg. Detection of ground bots : initial attempt was simple hough circle based approach.

Write all the equations and results with pictures if applicable.

V. FINAL APPROACH

This should cover both columns (full page) excluding images

Write about the final algorithm used or developed which was able to finally solve the problem statement. Write all the assumptions and equations properly with images and result tables / comparison.

If report is about implementation, write all the steps of implementing the report with step-wise syntax and details about the errors faced and their solution.

*Write anyone who might have helped you accomplish this eg any senior or someone

VI. RESULTS AND OBSERVATION

Compare your results with all the available algorithms which you may have used to tackle the PS. If possible, present your and their results in tabular / graphical format.

Explain the trend of results in details. Mention the drawbacks (if any) of your algo compared to other algo and the reason of picking up the approach over the other if you have implemented any algo over the other.

VII. FUTURE WORK

Write about the problems in your algorithm / approach and limitations in testing (if any due to hardware or otherwise) and how to tackle them and any future work which can be done to improve the results further.

CONCLUSION

Write overall about what the problem was, how you solved it, difficulties faced and the net output with it's usefulness to ARK or in general.

REFERENCES

- [1] Khatib, O., "Real-time Obstacle Avoidance for Manipulators and Mobile Robots," International Journal of Robotics Research, Vol. 5, No. 1, pp 90-98, 1986.
- [2] Write all the papers and links you have referenced to complete your project. One example for format is given above, Format followed should be ::
- [3] Author Names, "Paper Name", Conference / Journal where the paper was published , Year of Publication