

Final Project Report

Warehouse and Task Planning

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Abstract—You should summarize your work here. A good intro with one sentence: e.g. This technology is needed due to . Then how you approached to the problem. What is your contribution/the most valuable part of the work emphasis that. What methodologies you used. How you demonstrated your results. How was the system performance. It should not be too short or too long

Keywords—*IEEEtran, journal, L^AT_EX, paper, template.*

I. INTRODUCTION

Here you can inspire from your SDS document. But I need more elaborated introduction with
Note that these points above should be a summary of everything. With 1-3 sentences each (can change of course), but normally Introduction part takes upto 1,5 pages in the paper format. The trick here is that, you can first write your introduction and copy-paste some parts to the abstract.

A. Motivation and Problem Definition

motivation, the clear problem

B. Related Literature

how literature approaches to it (very briefly as we have a related works section)

C. Approach

how was your approach how did you show your results and how was it resulted

II. RELATED WORKS

Please inspire from your SDS, but this time make it more elaborated. It should be clear that how the problems you stated was approached in general, and how you approached with a brief paragraph. Which studies were really inspiring to you and in what sense. You should mention those. Do not forget to cite the works, both in introduction and here [1].

III. METHODOLOGY

A. Overview

You should start with describing your project, how you approach the problems state under introduction (now in detail), overall architecture and briefly describing each part of the architecture. Your architecture drawing (with its last version) will be placed here. An example figure is shown in Fig. 1.

B. Main Components of the system

Now that you described the overall architecture, it is time to elaborate more the subparts you set out above. Answer the question of how you implemented each part. What this module involves and the clear methodology followed (e.g. POMDP model is used here inspired from [?] as the robots planner).

1) Path Planner: Short summary of I/O

Gets x from taskplanner

Generates a, b, c

In depth explanations of the component

2) Task Handler:

IV. RESULTS

Think about how you can show your projects performance. This is the most important section that will reflect your entire project, therefore it comes with the most weight on the grading of the Final Report. Therefore, analyze well what your project promises and how you can NUMERICALLY show this. Then, you discuss on the findings. Sub-sections can be created freely. Usually, the common metrics to be used are:

- overall accuracy in estimation (of whatever you are estimating: e.g. human belief, human activity, object type + shape, object pose, comparing the estimated time to store a pkg of a robot and the real time of realization etc). Of course for such analysis you need multiple runs of the system Dont forget to separate the training set from the test set (80
- overall success / precision (of the overall decisions your system makes: e.g. robotA is the most suitable for loading and storing pkg, comparison of the average time a task is realized with or without this component shows the impact of the component.)

If you can show your results on graphics it is a BONUS. If you can show on such graphs that how changing of some parameters of your methods/env. conditions/the context in the scenario etc. would affect your systems performance, then you will receive +10 points for your overall document.

As the first step, you start discussing on what sort of results you will show and we will definitely discuss them in the upcoming two weeks. Feel free to suggest and ask anything on that phase (be brave !).

Finally, you will conclude with the discussion of these results you showed/described. Basically answer this question, what these results tell you? Even though they are bad /not significant then you need to comment on why it is how it is. There HAS TO BE A DISCUSSION even though it is short.

You can also criticize your approach and offer better ones if it would lead to better performances. You can also briefly discuss

the points to be improved/extended in your system. You will get the GRADES FROM THE DISCUSSION more than the significance or the performance of your results. In the past some groups got the highest grades although their system didnt work well. Your goal is not to build an end product, but to be aware of what you build, a strong code base and discussion points for us to improve on your code. Positive results are of course a plus.

V. CONCLUSION

A brief summary of your system, what was the problem, how you achieved, your objectives, and your methodologies you used very very briefly. Then again very briefly share your finding (the discussion you made). Finally, you will conclude with the possible extensions / changes to improve the performance, basically the future works. You can find more about the templates of IEEE on the internet.

APPENDIX CLASS DIAGRAM

Here I would like to see your final class diagram. It doesnt require any description (unless it is complicated). It will be sufficient and necessary to mention at least once inside the methodology part that your class diagram is attached as an appendix. Also give figure caption to it.

ACKNOWLEDGMENT

The authors would like to thank...

REFERENCES

- [1] H. Kopka and P. W. Daly, *A Guide to L^AT_EX*, 3rd ed. Harlow, England: Addison-Wesley, 1999.