

MSE110

Final Report

Submission Date:
 / / 2016

Group

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members

| First name | Last name | Student Number | | | | | | | | | | |
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Project Report Guidelines

Due Date:

The report is to be submitted by
10.30 am August 9th 2016

1. **HARDCOPY** in the assignment drop box located in the hallway by the stairs on the 4th floor by the Mechatronics Systems Engineering office.
2. **SOFTCOPY** through Canvas online submission

Introduction:

Each group is required to submit written documentation of all activities relating to the final project challenge. Creating the report should not pose too much difficulty if all group members maintained reasonably accurate lab notes throughout the project. Please write concisely. Reports that span many pages and contain redundant or irrelevant statements only serve to annoy the reader.

There are no magic formulae for structuring reports. The structure that **you choose** is strongly dependent on the information that you wish to convey. In general, it is wise to structure the report in a "top down" fashion similar to the way that you write computer programs. The report should be broken into logical sections. These sections should also be logically broken into subsections. Whenever possible you should use diagrams to explain concepts. These diagrams should then be supported with explanatory paragraphs.

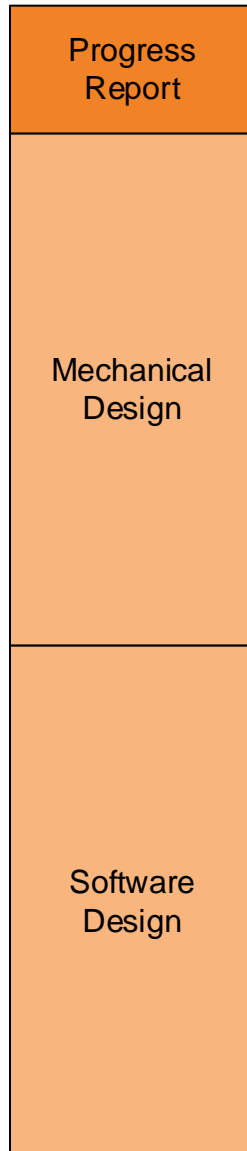
The following pages are to help you decide on **your own structure**. You should use the information from the previous Report Instructions Documents to guide your choice.

Rules:

- Your report should be single spaced and preferably printed on **BOTH** sides of paper.
- **PLEASE INCLUDE A LISTING OF THE PROGRAM**
- **PLEASE SUBMIT ALL YOUR PROJECT FILES ON CANVAS**
- Use the Cover Sheet included in this document.
- Include a link to the project demonstration video.

Structure:

The following structure is a guide to the organisation of your report. You decide whether you want to include or omit the recommended sections. You decide whether you want to include any extra sections.

**Progress Report:**

The progress report is intended for a non-technical audience. This section should summarise your activities throughout the project.

Mechanical Design:

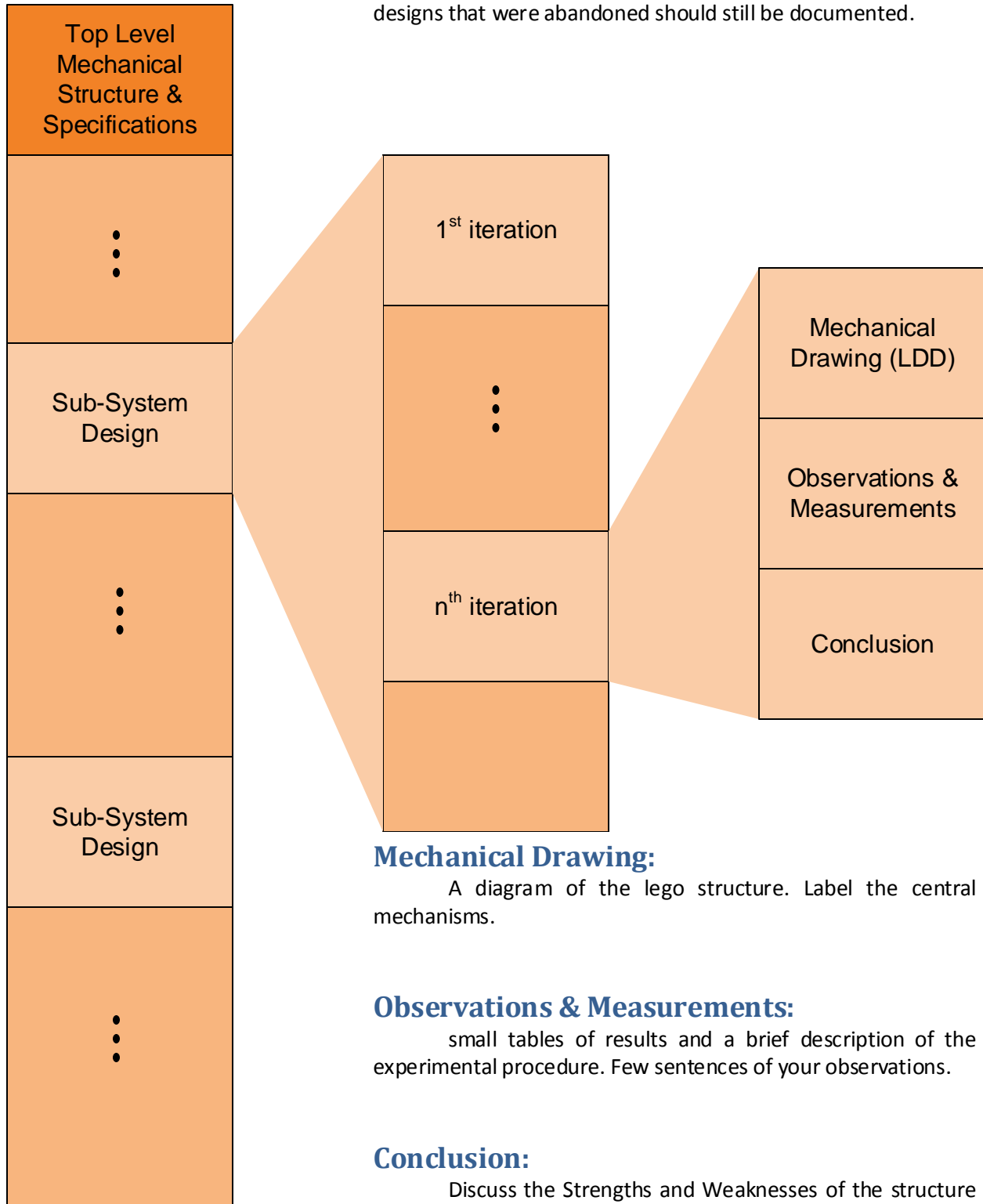
This section contains all the technical information about the mechanical system. The section should always begin with the target design objectives and then the theory underlying the design.

Software Design:

This section contains all the technical information about the mechanical system. The section should always begin with the target design objectives and then the theory underlying the design.

Iterations:

Document the evolution of the Sub-System. Earlier designs that were abandoned should still be documented.



Mechanical Drawing:

A diagram of the lego structure. Label the central mechanisms.

Observations & Measurements:

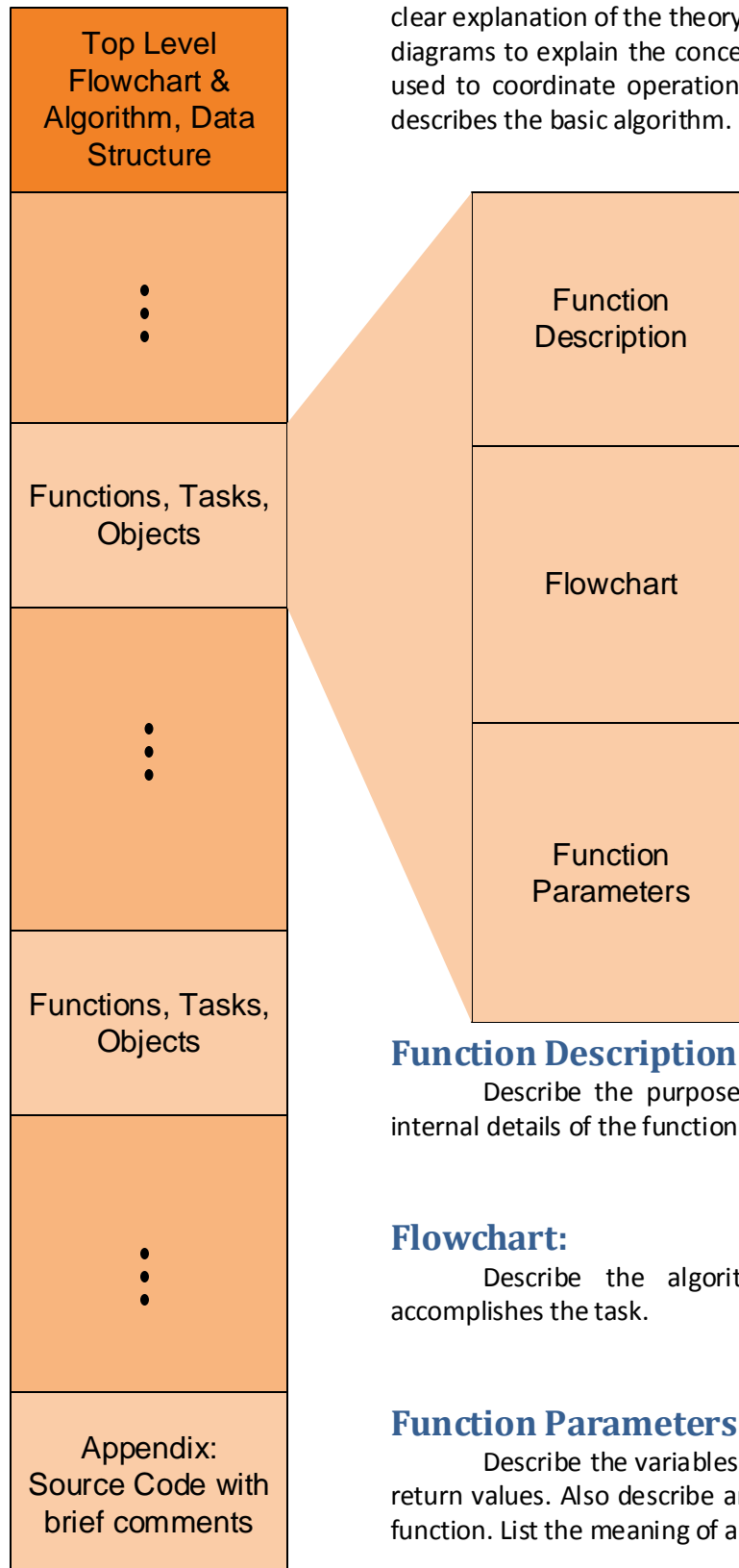
small tables of results and a brief description of the experimental procedure. Few sentences of your observations.

Conclusion:

Discuss the Strengths and Weaknesses of the structure in terms of the desired function.

Top Level:

Describe the structure of the whole program. Begin with a clear explanation of the theory behind the implementation. Use lots of diagrams to explain the concepts. Describe the main objects that are used to coordinate operation of the system. Show a flowchart that describes the basic algorithm.



Function Description:

Describe the purpose of the function. Do not describe the internal details of the function.

Flowchart:

Describe the algorithm used inside the function that accomplishes the task.

Function Parameters:

Describe the variables that are passed to the function and the return values. Also describe any global variables that are used by the function. List the meaning of any special values.