

Final Report

The reports may be submitted electronically by through Turnitin by the 2nd of April 2021

Reports should be produced on a word processor and not hand-written. Any word processor may be used. Word is provided on the University machines. Diagrams may be hand drawn or may be drawn using graphics software such as Windows draw or Visio and should be produced on A4 paper.

To ensure that reports provide sufficient information for system evaluation, testing, modification and future maintenance the information below should be provided in the report. The report should not be overly long just provide the things detailed below.

3rd Year Group Project Report Guidelines

The report should be produced electronically. Sections of the report are detailed below:

- Introduction and achievements

There should be a short introduction and summary of the key achievements of the team during the project.

- Mechanical design

This should include a brief description of how the mechanical elements of the system work with explanatory diagrams where appropriate. Mechanical drawings of the final system should be included. Where appropriate early stage mechanical drawings may also be included to explain the design process undertaken.

- Sensor systems and Software design

This section should detail how you set up the sensor systems and how the software in the microcontroller interacts with the sensors, the servos, and other output devices. You should present circuit diagrams of all of the sensor systems and describe any simulation tests that were done to characterize the sensors (include data). Give details of the layout of the sensor systems.

- Project management

This section should include your project plan including the final plan and your first plan to illustrate how the plan evolved. You should include other things you have done like memory maps and risk management. Copies of the meeting minutes should be included. A review of how the project management went and what lessons you learnt about project management should be given.

Third year marking guidelines

The third year project group is based on the design and implementation of a significant system to meet a specified project specification.

The following points are considered as part of the assessment:

1. the effort made by the group overall and the individual student effort
2. the quality of the system developed
3. the completeness and validity of the system in relation to the problem specification
4. explicit awareness of safety, marketing and ethical aspects (this will be quite limited this year)
5. the quality of presentation and organization of the report, including the quality of expression in written English

Guide for allocation of marks. Below is a broad indication of the factors leading to a given mark, but it should be recognized that the mark is obtained by combining the assessment of a number of these factors.

- 90% – 100%: Exceptional work. The project outcomes should be essentially faultless, well-structured and carefully tested and demonstrated. The group will have performed a detailed analysis of the problem specification leading to initial high-level designs for the system and a detailed feasible project plan. The team working will have been exemplary. The report should be excellently organised and presented and coherently written.
- 70% – 90%: Groups will show a thorough understanding and appreciation of the project material. The group will have performed a detailed analysis of the problem area and a feasible project plan. The team working will have been very good. The report should display excellent organisational and presentational skills.
- 60% – 69%: Groups will show a clear understanding of the technical and professional issues involved and have analysed the problem area. Some issues may have been overlooked but there should be a project plan which suggests the likely success of the project. The team working will have been good overall. The report should be organised and written to a reasonable standard.
- 50% – 59%: The project work should demonstrate that the group has some familiarity with the project area. The presentation and organization of the report should be reasonably clear. The team working will have been acceptable with potential issues. There may be some signs of weakness, but overall the grasp of the topic should be sound.
- 40% – 49%: The project work will indicate a basic understanding of the methods to be used and how to organize and present the work in the report, but will not have gone much beyond this. The team working may have had significant issues. There may well be signs of confusion about more complex material.
- 30% – 39%: There should be some work towards understanding the problem area, but significant issues are likely to be neglected. The team working will have been poor. There may be significant errors or misconceptions in the project.

- 15% – 29%: The project may contain some correct and relevant material, but most issues are neglected or are covered incorrectly. The team working will have been minimal. There should be some signs of appreciation of the project requirements.