PLACEHOLDER

Product: My Product
Team: My Group

PLACEHOLDER

Abstract

The abstract should consist of one sentence describing the intended functionality of your system, followed by a few sentences (100–200 words) summarising the key advances made for this demo. This should give the reader a clear expectation of what will be demonstrated.

Introduction

This document provides a template for the SDP demo report. This template structures the report into sections, which you are required to use. You can change the subsection headings if you wish. In this template the text in each section will include an outline of what you should include in each section, along with some practical LaTeX examples (for example figures, tables, algorithms). Your document should be no longer than **four pages**.

You should delete this introduction section (no introduction is required).

1. Project plan update

This section should start with your goals:

- List each of the goals you had set for this demo, appended with "achieved", "partly achieved" "not achieved"

Concisely summarise the reasons for any deviations from achievement of your intended goals.

Provide a one paragraph description of how your group organised the work towards the goals, including specific indication of which group member worked on which aspect(s). Highlight any methods used to ensure effective group work such as protocols for code integration, task tracking, automated testing, etc.

Provide a summary of how your budget has been spent so far.

Provide a clear statement of any modification (relative to your original plan) that you wish to make to your goals for the next demonstration.

2. Technical details

This section should describe in technical terms the current status of your system implementation. It should provide clear justification for any design decisions, with brief reference to any alternatives considered or explored. If your
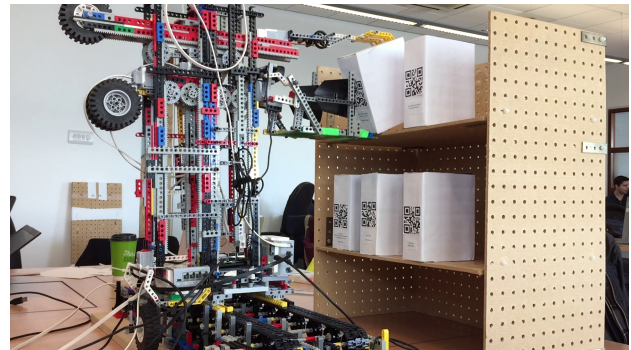

Figure 1. Lego construction: highlight any salient features in the caption

implementation is based on the work of others (e.g. you have found a specific vision processing algorithm) you should cite the source (e.g. (Newell & Rosenbloom, 1981)) and add the details to the example-refs.bib file so that the full reference appears in the bibliography section. Note you can also refer back to your own previous reports.

You can export references in the bibtex format from Google Scholar. Click the quotation marks underneath the study name, click 'Bibtex' in the new popup. You can then copy and paste this code into example-refs.bib.

The following are some suggested subsections. You might also want to include a system overview diagram showing how all the relevant parts connect.

2.1. Hardware

Explain any construction on the hardware parts of your system, including choice and placement of sensors and actuators. Pictures should be used if appropriate (for instance, figure 1), using the `\includegraphics` environment to include an image (pdf, png, or jpg formats), ideally with informative labels added.

To keep your folders clean, it is often a good idea to keep your images in a separate folder. In this example, we've put the figures in the `figs/` folder. To include images from different folders, give the relative path from this file. Example: `\includegraphics{figs/image_filename}`.

2.2. User interface

Depending on your system and its stage of development, it could be useful to include a section about the user interface design, and the usability decisions behind it. Note, however, that you will be asked to provide a separate 'user guide' for

the final demo.

2.3. Software

Explain the key details of the control and interface software developed for the project. Be clear about any packages used and the reason for choosing them.

If you present algorithms, you can use the `algorithm` and `algorithmic` environments to format pseudocode (for instance, Algorithm 1). These require the corresponding style files, `algorithm.sty` and `algorithmic.sty` which are supplied with this package.

Algorithm 1 Bubble Sort

  Input: data x_i, size m
  repeat
    Initialize *noChange = true*.
    for $i = 1$ **to** $m - 1$ **do**
      if $x_i > x_{i+1}$ **then**
        Swap x_i and x_{i+1}
        noChange = false
      end if
    end for
  until *noChange* is *true*

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3. Evaluation

This section should first outline any testing methods you used (e.g. repeated runs of subsystems, data-logging, naive user testing).

It should then present relevant quantitative results. If you are using graphs, please make sure they are properly labelled and logically illustrate the point you want to make (e.g. to compare two algorithms).

At an absolute minimum, this section should provide a table (for instance, table 1, using the `table` environment) of success rates for repeated runs of the whole system.

TEST	TIME(MINS)	ERRORS	SUCCESS
1	1:30	0	√
2	3:00	2	×
3	2:20	1	√
4	1:50	1	×
5	2:10	0	√

Table 1. Results for 5 tests of the system.

If you need a figure or table to stretch across two columns use the `figure*` or `table*` environment instead of the `figure` or `table` environment. Use the `subfigure` environment if you want to include multiple graphics in a single figure.

4. Budget

Each report should contain an actualization of the estimated total budget of your system.

5. Video

Your report should always contain a link to your demo video. We strongly encourage to share your video using the University SharePoint. If you choose to use a different storage system, it should be one that will allow us to check the time of upload of the video.

Submission

This section is to be deleted.

The document should be submitted on Learn by one group member. The filename must be `group-[g]-demoX.pdf` where `[g]` is the group number and again `X` is the demo number. This document should be submitted by a group member nominated for this purpose, and also emailed to the group mentor at the time of submission.

User guide

Along with the final demo report, you should submit a user guide for your system. There is no template for the user guide.

The document should be submitted on Learn by one designed group member.

The filename must be `group-[g]-userguide.pdf` where `[g]` is the group number.

References

Newell, A. and Rosenbloom, P. S. Mechanisms of skill acquisition and the law of practice. In Anderson, J. R. (ed.), *Cognitive Skills and Their Acquisition*, chapter 1, pp. 1–51. Lawrence Erlbaum Associates, Inc., Hillsdale, NJ, 1981.