

A large yellow triangle pointing to the right, located on the left side of the slide.

DESN2000 MECH Workshop

Assessment Brief – Final Presentation

Overview

Task

As a team, develop a 10-minute presentation to convince the audience that your team has created the best solution to the problem. How you structure the available time is up to you. However, you need to:

1. Motivate and define your design problem, including a consideration of your users' challenges.
2. Describe your proposed design solution and how it is exceptional.
3. Describe the technical validation of your design, convincing the audience that it will work.

You may assume the audience does not have an in-depth understanding of the project but has some basic engineering understanding. Ensure you frame the problem well enough for them to understand your task. The marking criteria provide further guidance.

- ❑ As highlighted, there is no specific structure. The core objective is to ensure your audience:
 - ✓ Is convinced that the **problem is significant**.
 - ✓ Believes your **design** is an **effective solution** to **address the key issues** of said problem.
 - ✓ Agrees that your idea **is feasible from a technical perspective**.
- ❑ Relevant for all parts of the pitch, but the biggest is the technical section.
 - You will need to present some analytical work but pages upon pages of equations is not an effective means to communicate your device's technical feasibility.

Marking Criteria

Table 2 Marking rubric – final mark is scaled to 20% of grade

Problem Motivate and define your problem, including a consideration of your users.					
Presentation missing, or little to no effort has been made.	Explanation of the problem was missing; or consideration of users when defining the problem was missing.	Explanation of the problem and its importance was confusing in parts; and consideration of users when defining the problem was superficial.	Explanation of the problem and its importance was reasonable; as was the consideration of users when defining the problem.	Explanation of the problem and its significance was clear and well-evidenced; and consideration of users when defining the problem was careful and added value.	Explanation of the problem and its significance was very compelling; and consideration of users when defining the problem was thorough, leading to unique and valuable insights.
0	2	4	6	8	10
Solution Describe your proposed design and how it excels at solving your problem.					
Little to no effort made.	Explanation of the design solution was confusing, and you do not think it will solve the problem.	Explanation of the design solution was okay, but you do not think it will solve the problem.	Explanation of the design solution was reasonable, and you think it will probably solve the problem.	Explanation of the design solution was clear, and you are convinced it will solve the problem well.	Explanation of the design solution was excellent, and you are convinced it will solve the problem. The design also stands out with unique value or novelty.
0	2	4	6	8	10
Technical Describe the technical validation of your design, to convince the engineering audience it works.					
Little to no effort made.	You think the design isn't technically feasible. The design has no validation with evidence. Most assumptions are unreasonable, and most decisions lack a justification.	You're unsure if the design is technically feasible. The design lacks validation with evidence, such as tests, models, calculations, standards or equivalent. Many assumptions are unreasonable, and many decisions are not justified.	You think the design is probably technically feasible. The design is validated with some evidence, such as tests, models, calculations, standards or equivalent. Most assumptions are reasonable, and decisions are mostly justified.	You are confident that the design is technically feasible. The design is validated with adequate evidence, such as tests, models, calculations, standards or equivalent. Most assumptions are reasonable, and most design decisions are justified.	You are convinced that the design is technically feasible and impressively innovative. The design is consistently validated with ample evidence, such as test, models, calculations, standards or equivalent. Assumptions are all reasonable, and decisions are all well-justified.
0	2	4	6	8	10
Communication Visual and verbal presentation quality. Give the audience a clear and convincing delivery					
Little to no effort made.	Rarely: 1) Logically ordered and easy to understand. 2) Spoken clearly and well-paced. 3) Interesting and engaging to listen to 4) Uses figures effectively to communicate ideas.	Sometimes: 1) Logically ordered and easy to understand. 2) Spoken clearly and well-paced. 3) Interesting and engaging to listen to 4) Uses figures effectively to communicate ideas.	Mostly: 1) Logically ordered and easy to understand. 2) Spoken clearly and well-paced. 3) Interesting and engaging to listen to 4) Uses figures effectively to communicate ideas.	Almost always: 1) Logically ordered and easy to understand. 2) Spoken clearly and well-paced. 3) Interesting and engaging to listen to 4) Uses figures effectively to communicate ideas.	Always: 1) Logically ordered and easy to understand. 2) Spoken clearly and well-paced. 3) Interesting and engaging to listen to 4) Uses figures effectively to communicate ideas.
0	2	4	6	8	10

❖ Aside from the communications tab, if you are not too sure where to start in terms of structuring your presentation, following the order of the marking criteria (**problem, solution and technical**) is a good sequence to start your draft with.

Marking Criteria - Problem

Motivate and define your problem, including a consideration of your users.

Explanation of the problem and its significance was very compelling; and consideration of users when defining the problem was thorough, leading to unique and valuable insights.

10

- ❖ The short 1-minute pitch you developed in Week 5 can be used as a great introduction to this section!
 - Use it to set the scene and proceed to define your problem in greater detail.

- ❑ One way to draft this section is to try presenting a highly concentrated version of the user research section of your interim presentation.
 - This time focus on the findings rather than the method, they can be mentioned as single phrase remarks (**e.g. survey of the population found that...**). The key focus is **why the problem is significant**, and providing **insight into who** is affected **and how** they are affected.
- ❑ Generally, it is a good idea to back up any claims with statistics. These can be extracted from your user research. Infographics help a lot with this section.

Marking Criteria - Solution

Describe your proposed design and how it excels at solving your problem.

Explanation of the design solution was excellent, and you are convinced it will solve the problem. The design also stands out with unique value or novelty.

10

- ❖ A strong UVP statement is a great opener to summarise the unique value/novelty of your design before going into detail!
-

- ❑ The key element to highlight in this section is **how your design connects to the problem as an effective solution**. Often a presentation will explain what the problem is and how the solution works, but there are not words to explain how the two are connected.

- ✓ Remember, don't assume your audience will automatically make the connection themselves.

- ❑ **More detailed** (and labelled! Labels are great 😊) **illustrations** of your final concept are expected. Another piece of content worth including here is illustrating how the device is intended to be used to solve the problem, in context of where you intend to install it, showing how people/environment will interact with it.

- ❑ In essence, show us **how it works** and **why is it the best** way to solve the problem.

Marking Criteria – Technical

Describe the technical validation of your design, to convince the engineering audience it works.

You are convinced that the design is technically feasible and impressively innovative. The design is consistently validated with ample evidence, such as test, models, calculations, standards or equivalent. Assumptions are all reasonable, and decisions are all well-justified.

10

- ❖ The goal here is to **demonstrate that your device is feasible from a technical perspective**. There are no specified topics to include. A general guide is to try to provide a **system wide analysis** of your device, describing the specific components you will use and **how they work together** to achieve the functions you intend them to perform. Use calculations engineering theory and external sources where fitting to back up your claims.
 - **For prototyping teams:** This is where you might present your testing goals and key findings (if your device is suitable for live demonstration that would be a great addition to this section too!)
 - **For technical analysis teams:** You may opt to include some of the key findings of your technical analysis. However, you should still focus on how your device is technically valid as a whole, rather than just focusing only a particular fastener, sensor etc.
- ❖ Overall, you should try to analyse your device as a whole from a technical perspective to demonstrate its feasibility.

Marking Criteria – Technical

Describe the technical validation of your design, to convince the engineering audience it works.

You are convinced that the design is technically feasible and impressively innovative. The design is consistently validated with ample evidence, such as test, models, calculations, standards or equivalent. Assumptions are all reasonable, and decisions are all well-justified.

10

- ❑ This is a section where **clear communication will separate good from great**. Arrange and phrase your content so that the audience is fed **just enough information** such that they can comprehend that your technical analysis is sound. **Avoid long derivation and reading equations**. Focus on:
 - ✓ **Identify what do we need to know** in order that the device is valid from a technical perspective.
 - ✓ **Identify** the **key principles** (analytical or theory) and explain how it can find what we need to know.
 - ✓ **Describe the parameters/assumptions** and **convey the key findings** of the analysis. **Explain and link back** to how this answers what we needed to know to **prove the devices validity** (first point).

Marking Criteria – Communication

Visual and verbal presentation quality. Give the audience a clear and convincing delivery

Always:

- 1) Logically ordered and easy to understand.
- 2) Spoken clearly and well-paced.
- 3) Interesting and engaging to listen to
- 4) Uses figures effectively to communicate ideas.

10

❖ Get this part right and the marks of everything else goes up! The easier we can understand your ideas, the more we can appreciate the depth of your work and thus the more marks we can give!

- ❑ **Everyone must speak!** Even for a group of 8 the timing would about 1 min 20 sec per member (accounting for 5 s transition). Practice, refine and practice more so you make the most of every second!
- ❑ **Less is more!** Saying **lots of content very fast will only make it harder for the audience to process all the information** you are trying to convey. Scan your script thoroughly for “filler words” and format to streamline sentences.
- ❑ **Balance the use of pictures and text.** If you must use pure text, use other techniques such as lines, shapes and colour to highlight important information for the audience.
- ❑ **Repeat important information onscreen!** If you feel a piece of content is something the audience must remember, include it on the slide. That way, if the audience missed the information in your speech, they could still catch up by reading it.

Marking Criteria – Communication

Visual and verbal presentation quality. Give the audience a clear and convincing delivery.

Always:

- 1) Logically ordered and easy to understand.
- 2) Spoken clearly and well-paced.
- 3) Interesting and engaging to listen to
- 4) Uses figures effectively to communicate ideas.

10

❖ Most importantly, practice, practice, practice!

- Rehearse right down to where everyone should stand and move as each person presents their section. If you are presenting right next to the screen, try to have the person speaking always closer to the centre so they can point to the slides.
- **Do your best to minimise the use of palm cards.** If you can already confidently present with minimal looking at them, consider trying presenting from memory. If you read from palm cards a lot, try to practice until you can just glance at them occasionally.
- **Use small palm cards;** avoid large A4 sheets of script/phones/tablets/laptops. Having large items in your hands can be a distraction.

Submission and Presentation

Format: PPT or PDF

2 Places to Submit

- ✓ Direct email to demonstrators
- ✓ On Moodle

Due date: 2100 Sunday Week 9

One submission on each platform, per team.

Ignore the due date on Moodle, submission on Moodle is purely to open the peer evaluation tool

❖ Presentation date: **During Week 10 workshops**

❖ We will present in one of the Makerspaces (and potentially livestreamed to the cohort!) Details will be provided at a later date.

- This is why we emphasise refining and polishing your presentation, you'll be presenting to a slightly larger audience!

A large yellow triangle pointing to the right, located on the left side of the slide.

DESN2000 MECH Workshop

Assessment Brief – Final Presentation