

How to present your mechanical design to the team

- This article details how to present your mechanical design to your colleagues in an engaging way.
- It's useful to learn public speaking skills and how to communicate clearly. We also offer tips on how to pitch your presentation to different audiences.
- Don't forget the importance of getting those fine details right beforehand!

Newbies to engineering often underestimate the 'soft skills' they will need to develop for the job. Being able to present your mechanical design effectively involves much more than just knowing the technical details inside out.

Tips to help you present your mechanical design

Whether you need to present your mechanical design to your peers, a boss, or a client to pitch for new business; there are certain skills and tips that can make things a little less daunting. Here are some ideas to help you on your way:

Public speaking skills

If you find speaking in front of groups intimidating or very difficult, it is imperative that you learn techniques that will help you gain confidence. Developing confidence in this area will help when the time comes for you to present your mechanical design.



The most comforting thing to realise is that almost everybody feels a certain degree of nervousness when making a presentation to others. When it's time to present your mechanical design to people within your team, just remind yourself of this fact, and expect to feel at least slightly uncomfortable.

If you find the anxiety is too much to bear, it is probably worth learning some relaxation techniques that you can practice before the presentation. If you can get this right and deliver a clear, relaxed and calm presentation, then that is half the battle won.

We will discuss some other ways to prepare for public speaking later on in this article.

Understand your audience

Gauging your audience's level of expertise is critical in delivering a successful mechanical design presentation. The technical information you are presenting may seem very straightforward or trivial to you, but it may not be so to members of the finance department, managers or even those with an engineering background that have been away from the design process for many years.

Generally, you will have to decide between presenting your mechanical design in broad strokes, without including detailed technical information or getting into the nitty-gritty of the engineering aspects. The last thing you want to do is overwhelm or intimidate those listening, as that will undo all the hard work you have put into the project.

Also, the objectives of your presentation will differ depending on the audience. For instance, if you are presenting to a group of your engineering peers, the emphasis may be on improving the design and sharing ideas, whereas if presenting it to the board of directors you may be more focused on things like the durability of the materials and the cost-effectiveness.

Getting the details nailed down

Any mechanical engineer worth their salt will have a very detailed understanding of the technical aspects of the design. Before presenting your design, however, you need to anticipate the kind of questions your audience will ask.

Again, this depends very much on your audience, but generally speaking, certain types of questions will arise more often than others. You may be asked about alternatives to your design, material choices and supplies, manufacturing processes, safety considerations, fabrication timescales, etc. If you don't have answers to these prepared in advance, they could trip you up, leaving you fumbling and floundering,

Having said that, there are always going to be questions that you won't have the answer to, at least without referring to other documentation, so how do you deal with those? Simply reply that you don't have the information to hand, but you will get back to the person as soon as possible after the meeting.

Presentation tips

You must have experienced it before, a speaker that relies too heavily on detailed slides, in other words 'death by PowerPoint'. If you are just standing up there reading from a PowerPoint displaying an occasional image of your design, with arrows pointing here, there and everywhere, the experience can quickly become either too confusing or excruciatingly boring for those listening.

That's not to say that slideshows can't be used, but don't be tempted to just read from them parrot fashion. It's much better to have a rough narrative mapped out with short bullet points or prompts that you have prepared in advance. One way to engage the audience is to project your computer screen to give a live demonstration, maybe showing active 3-D visualisations that you can rotate and pan around, giving them a real feel for your design concept.

The live display element also makes it far easier when fielding questions as you can zoom in on areas of interest and highlight unique design features when asked.



Rehearse, but don't over-rehearse

Our final tip is to make sure that you rehearse what you are going to say at least once, preferably twice. If you can find a willing person, present it to them to get some feedback. This is especially useful if it is your first design presentation, as you will gain confidence. You don't want to suffer the soul-destroying humiliation of not being well-prepared enough early on in your career. It's equally important not to over-rehearse, as there's a good chance you will come across as either too stilted or overly confident, i.e. arrogant.

Despite everything we've said, it's important to realise that most people will not be judging you entirely on your speaking skills. They are likely to be far more interested in the mechanical design. So, go easy on yourself and keep things in perspective.