

What is ergonomics?

Let's start with terminology...

Are ergonomics and human factors the same thing?

Essentially yes, they are different terms with the same meaning but one term may be more in favour in one country or in one industry than another. They can be used interchangeably but it's pretty cumbersome to read "ergonomics and human factors", so throughout this website we've used whichever of the two terms is more often used in that context.

So what is ergonomics (or human factors)?

Ergonomics is about designing for people, wherever they interact with products, systems or processes. We usually don't notice good design (unless perhaps, it's exceptional) because it gives us no cause to, but we do notice poor design. The emphasis within ergonomics is to ensure that designs complement the strengths and abilities of people and minimise the effects of their limitations, rather than forcing them to adapt. In achieving this aim, it becomes necessary to understand and design for the variability represented in the population, spanning such attributes as age, size, strength, cognitive ability, prior experience, cultural expectations and goals. Qualified ergonomists are the only recognised professionals to have competency in optimising performance, safety and comfort. The IEHF is the only body in the UK managing and representing this competency.

Researchers study the biomechanical, physiological and cognitive effects of work on people, or users' understanding of processes, or the efficiency of systems. See the lists of latest research papers in leading journals to appreciate the scope and depth of some of this research.

Practitioners study how people interact with products, processes and environments day to day in order to improve them, to make them easier to use, safer, more comfortable, more efficient. They take into account and apply relevant research to help with this and to suggest recommendations. But none of this can happen without a thorough knowledge and understanding of the users and their experiences. A look at some of the articles, events, careers information and jobs posted on this site will show you the variety of work that's carried out.

Applying good ergonomics will make a product easy to use, it will help make a manufacturing process efficient, it will make furniture comfortable, it will contribute to safety, it will add many of the dimensions a product, system or environment needs to make it fit for purpose.

See examples and more explanation in our information about careers in ergonomics and human factors.

We have posts on this site in a section called 'Design Challenge', a light hearted look at some of the more intriguing designs of products and places that we find around us.