



Increase productivity through 'Design for Assembly'

- ▶ Do you need to increase your output?
- ▶ Could you use fewer components?
- ▶ Are certain parts tricky to handle during assembly?
- ▶ Could some fastenings be avoided?
- ▶ Are some elements difficult to fix together?
- ▶ Could the number of materials used be reduced?
- ▶ Are there bottlenecks in the assembly process?
- ▶ Is operator fatigue a problem on the assembly line?

If the answer is 'yes' to any of these questions, the IfM's 'Design for Assembly' workshop could help you improve your productivity and increase your margins.

Are you ready to make a step change in the efficiency of your assembly line?

The University of Cambridge Institute for Manufacturing (IfM) has developed a proven approach to improving product design in order to make production line assembly as easy as possible – and hence dramatically increase the number of units you can make and the speed with which you can make them. Our workshops have resulted in assembly times being cut by more than half and generated significant increases in productivity.

IfM 'Design for Assembly' workshops

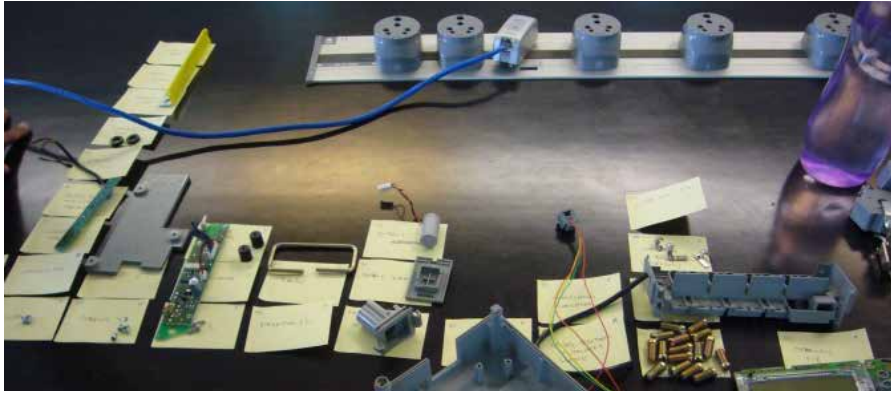
Good design can greatly simplify the process of manufacturing a product, resulting in significant reductions in cost and assembly time. To achieve this, however, it is essential that designers and engineers work together, so that products are developed with assembly in mind.

We can help by running hands-on, in-house workshops with your design and engineering teams. These typically last two days, during which time we review your product design and assembly processes and identify areas for improvement. Not only will you end up with a clear action plan, your designers and engineers will have acquired the knowledge and skills to use the same approach on any new products your company develops in the future.

Benefits

- ▶ Increased productivity
- ▶ Significant cost savings
- ▶ Better performance across a product's whole life-cycle, including repair and maintenance
- ▶ Greater return on plant investment





Find out more

To discuss how the IfM's 'Design for Assembly' workshop might help your company contact:

Colin Haden,
Senior Industrial Fellow,
IfM Education and
Consultancy Services
T: +44 (0)7833 494940
E: cdh35@cam.ac.uk

What does a 'Design for Assembly' workshop cover?

The workshops are extremely practical and tailored to suit your company's particular needs and circumstances. They are based on tried and tested principles and result in an objective appraisal of where you currently are and how you can get where you want to be. Whenever possible, we hold the workshops at your production site so we can fully review your current design and assembly practices. A typical workshop would include:

Day one

- ▶ We introduce the principles of design for assembly.
- ▶ You set targets for improvement: do you want to move from producing 1,000 to 10,000 units a year, for example? Or make 20% cost savings?
- ▶ As a group, we take apart one of your products and put it back together. We do the same with other companies' products to see what works and what doesn't.
- ▶ We help you identify design problems and potential improvements.
- ▶ Jointly, we summarise and capture the key design rules.

Day two

- ▶ Everyone observes your assembly line in action, looking at all the processes involved and how long each one takes, the rate at which products come off the assembly line and how much total work has gone into each product.
- ▶ Together we generate new design ideas to solve any problems we identified.
- ▶ We benchmark these ideas against other designs: your own and, where appropriate, your competitors'.
- ▶ As a group, we decide how to change your product design and assembly processes which often involves radical rethinking.
- ▶ You agree an action plan.

About Colin Haden

Colin joined IfM ECS in 2015 from the Linde Group where he was Head of the Centre of Excellence for Gases Packaging, the team which won two prestigious Red Dots Awards for its innovative gas valve design. Colin had more than 30 years' experience in technical, marketing and business development roles.



The Institute for Manufacturing: IfM

The IfM is part of the University of Cambridge Department of Engineering. It brings together expertise in management, technology and policy to address the full spectrum of issues which can help industry and governments create sustainable economic growth. Research findings are disseminated to industry by its dissemination arm, IfM Education and Consultancy Services Ltd.

IfM Education and Consultancy Services: IfM ECS

IfM ECS works with companies of all sizes to help them create and capture value, and with national and regional governments to support and help grow their industrial sectors. It does this by transferring the new ideas and approaches developed by researchers at the IfM through a programme of education and consultancy services. IfM ECS is owned by the University of Cambridge. Its profits are gifted to the University to fund future research activities.