

CASE STUDY | Prototype to production - realising a design

THE PROJECT.

Having won the 2013 "Hands Off My Bike" competition with their innovative new bicycle immobiliser BiKLOX sought assistance from Dean Group to refine and optimise the prototype design for volume production.

DESIGN ISSUE.

Productionise the concept idea in order to make it cost effective to manufacture on a larger scale.

DESIGN BRIEF.

The part needed to be intrinsically strong and secure but as light as possible to be attractive to the cycling fraternity.

STRATEGY.

Use the most cost effective production methods with design aesthetics in mind to produce a robust and attractive addition to the cycle security market.

Dean Group were able to fulfil the design brief by working closely with the inventor, using simulation software to identify and recommend product design adjustments that would ensure the parts could be consistently manufactured.

DESIGN CHALLENGES.

A small component with multiple parts, each process carrying its own design and tolerance constraints which have to assemble together without the addition of excessive, expensive machining.

“ Working closely with the team at Dean Group we were able to quickly make changes necessary to optimise the design as a commercial product. Dean Group's technical advice and expertise paid dividends as the first samples assembled perfectly the first time, enabling us to order a production batch without delay. ”

KEY CHALLENGES

- Multiple manufacturing methods
- Tight tolerances
- High strength to weight ratio

THE OUTCOME

- Part passes all destructive testing
- High repeatability and quality
- Simple, functional and desirable



Finished components of the lock



Find out more about BiKLOX at www.biklox.com

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